

MNCA Website [www.dcmicrominerals.org](http://www.dcmicrominerals.org)

# The Mineral Mite



Vol. 57 – No. 9 Washington D.C. – A Journal for Micromineralogists Nov 2024

**Meeting: Nov 25 3-5:30pm Kings Park Library, Burke**

## **Program: Chalk Mountain Mine, NC after Helene**

By Jeff Grueber, Vice President



David Fryauff will present a recent review of the high purity quartz from the Chalk Mountain Mine and Spruce Pine, North Carolina after the recent damage from hurricane Helene. Remember Nov 25 is on a Monday, and bring new giveaway material to study.

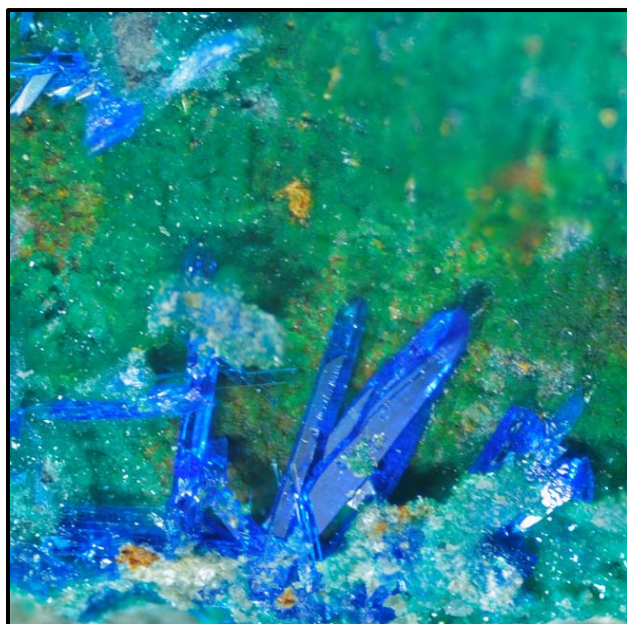
## **President's Message:**

By David Fryauff



I heard a very interesting program on NPR last week.... I'm guessing that you all know that NPR stands for National Public Radio and that it exists because of donations and contributions from listeners like YOU and ME. The Program was entitled "A tiny town just got slammed by Helene. It could massively disrupt the tech industry." This program aired on "All Things Considered" and believe it or not, I listened to it while I sat in slow beltway traffic on my way to our MNCA meeting on Wednesday, October 23rd.

## **Mystery Micro Mineral of the Month**



Clue: Blue crystals on matrix, Baccu Locci Mine, Villaputzu, Cagliari Province, Sardinia, Italy. FOV=3.75mm. By Aloha Peter Chin, Honolulu, Hawaii. Answer p 2.

The gist of the program dealt with QUARTZ....but not your average quartz. It dealt with the very, very, VERY, VERY special quartz that comes from the highly pure quartz that makes up the pegmatite deposit on the mountain near Spruce Pine, Mitchell Co., NC. This is the same little town that hosts one of the biggest little rock & mineral shows in eastern North America each year. Many of us also know Spruce Pine because of its Chalk Mountain Mine, which sits as a big, bright white gash on the side of the mountain just above the town. This poor town was practically washed away by more than two feet of rain brought on by hurricane Helene on Sept. 30th.

Some of us may have mineral specimens from this famous mine that is ~100 years old and which began principally for the production of industrial feldspar products which, over the past 20 years has shifted to HIGH PURITY QUARTZ to feed the international market for semiconductors, photovoltaics, precision optical glass, etc. etc. etc. Continued next page.

## Micromineralogists of the National Capital Area, Inc.

### President's Message continued

The USGS reported in 2019 that the Spruce Pine Mine (aka Chalk Mountain Mine) is the world's largest producer of high-quality quartz raw material with ten million metric tons produced each year. This volume of HQ product currently supplies 90% of the world's demand and depends upon the heavily damaged single track CSX rail line for shipping from K-T Feldspar Corp. in Spruce Pine to the ports of Charleston and/or Savannah and then on to Norway.

Why Norway? Because K-T Feldspar of the US is partnered with The Quartz Corp. of Norway and SIBELCO of Belgium for the "Deep Processing" that will render the high-quality quartz sand Ultra-Pure for use in the (global, but mainly Chinese) semiconductor industry. Not to worry about this industry and their insatiable appetite for ultra-pure quartz. All of those companies, from Spruce Pine to Charleston, and from Norway to Luoyang had wisely built-up supplies of raw materials. What will take time and lots of \$\$\$\$\$ will be the rebuilding of lives and towns, jobs, schools, stores, churches, roads, railways, and so much more for the communities of beautiful Western North Carolina.

Let us do all that we can to support the cleanup and donate to the rebuilding effort. Connect with friends & family in WNC. There has never been a more important time to open your hearts, homes, and wallets to those in need and to those who can do the most good. And while you are at it VOTE WITH YOUR HEART FOR OUR PRECIOUS NATION AND PRAY FOR PEACE.

### Mystery Micro Mineral of the Month

By Aloha Peter Chin, Honolulu, Hawaii  
Answer: **Schmiederite**. Blue crystals on matrix, Baccu Locci Mine, Villaputzu, Cagliari Province, Sardinia, Italy. FOV=3.75mm.



L-R Tom Tucker, Jeff Guerber, Michael Pabst, John Sanborn, Kathy Hrechka

### Previous Meeting Minutes 10.23.2024

By Bob Cooke, Secretary



The Micromineralogists of the National Capital Area (MNCA) met on October 23, 2024, at the Fairfax County Kings Park Library in Burke, Virginia. Twelve members were present: Bob Cooke, Dennis Coskren, Dave Fryauff, Jeff Guerber, Dave Hennessey, Kathy Hrechka, George Loud, David MacLean, Michael Pabst, John Sanborn, Tom Tucker and Corrine Wilson.

The MNCA business meeting was called to order by President Dave Fryauff at 5:05 PM. He recognized Dave MacLean and Tom Tucker for their contributions as past presidents. Michael Pabst reported on the club finances; there were no significant changes from the prior month. The give-away table was filled with donations from many MNCA members.

Upcoming mineral events include:

\*Nov 9: Richmond Gem and Mineral Society annual Rock Swap and Sale from 9 a.m. to 3 p.m. at St. Paul Lutheran Church 8100 Shady Grove Road, Mechanicsville, VA

\*Nov 15-17: Gem Miner's Holiday, Lebanon Valley Expo Center, 80 Rocherty Road, Lebanon, PA

\*Nov 23-24: Northern Virginia Mineral Club/George Mason University annual Gem Mineral & Fossil Show in Dewberry Hall, Johnson Center, George Mason University, Fairfax, VA

Dave Fryauff announced that the last GMLS-MC field trip of the year will be on November 23 to the Haines & Kibblehouse Penn-Maryland Materials Quarry, Fulton Township, Lancaster County, Pennsylvania. Attendance is limited to 25. POC is Sam Linton, GLMS-MC Field Trip Chair [fieldtripchair@glmsmc.com](mailto:fieldtripchair@glmsmc.com).

The Manning of the MNCA micromount demonstration table at the NVMC/GMU mineral show was discussed. Due to a conflict with the GMLS-MC field trip, Dave Fryauff will not be able to attend until 2 PM on Saturday. John Sanborn and Dave MacLean agreed to cover. Members attempted to discuss whether to have a regular MNCA meeting in December in addition to the annual joint holiday party with NVMC. At this point the meeting was winding down, multiple conversations were ongoing and there was no clear consensus amongst all the confusion. Discussion will be continued at the November 25 meeting. The meeting adjourned at 5:25 pm.

The Mineral Mite November 2024



**Previous Program Review 10.23.2024**

By Bob Cooke, Secretary  
Kathy Hrechka presented Geology 2.0 Europe, a travelogue featuring geological and gastronomical highlights of her trips to Portugal, Spain and France in September of 2024, as well as her cruise from 2023 through Italy and Greece. Some screen shots follow.



*Sedimentary rock formation & clouds, Huesca, Spain*



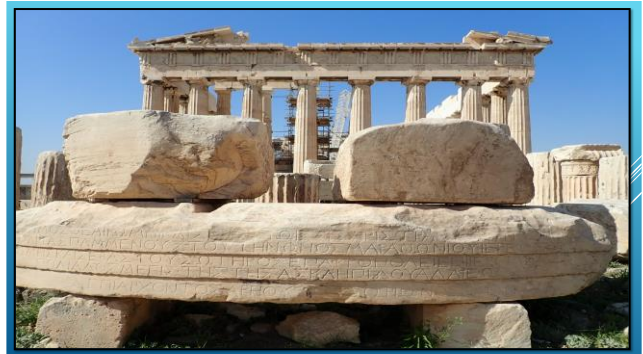
*Norwegian Cruise ship docked in the caldera of Santorini, (Thera) Greece.*



*Kathy's volcano hike on Santorini's (Thera), Greece*



*Mosaic of the Nativity and detailed stone workings at the Basilica in Lourdes, France.*



*Parthenon on the Acropolis, Athens, Greece*



*Papal Altar alabaster window at St. Peter's Basilica, Rome "Dove of the Holy Spirit" 6' wingspan.*



*Original starting line at the 1<sup>st</sup> Olympics 776BC.*





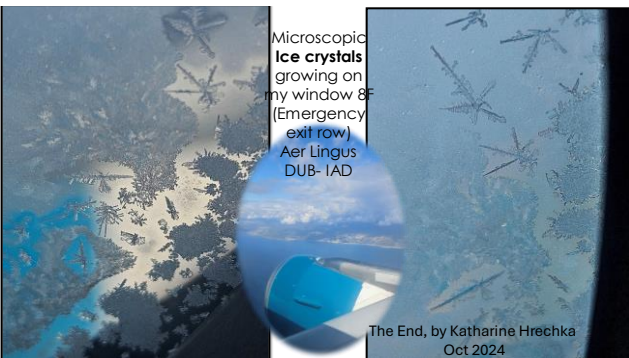
*Pompeii, Italy unearthed from Mt. Vesuvius eruption of 79AD. Pompeii was discovered in 1559.*



*Limoncello factory, Sorrento, Italy*



*Norwegian Cruise fine dining.*



*Microscopic ice crystals growing on the window 8F, exit row of Aer Lingus Boeing 737, DUB-IAD.*

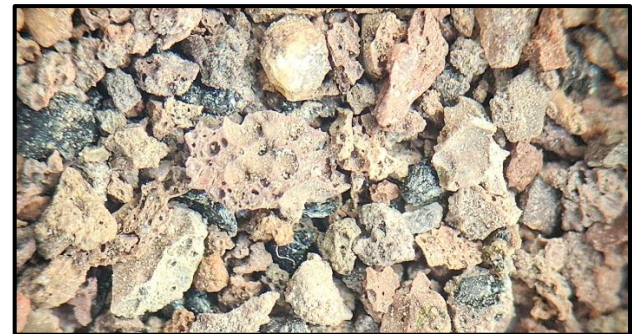
## Mt. Vesuvius Sediment Collection

By Kathy Hrechka, Editor

My first adventure to the lost civilization of Pompeii, Italy occurred in 1988. History reports that the stratovolcano Mt. Vesuvius erupted in 79AD smothering the entire city with a depth of nine meters of volcanic basalt and ash. I purchased a souvenir vial of volcanic sediments, containing 5 layers. At our last MNCA meeting I examined it under my microscope, in amazement to discover olivine crystals, etc. Three samples are shown below. I hope you like them.



*Microscopic basalt, olivine, etc. Photo by K. Hrechka*



*Microscopic basalt, pumice, etc. Photo K. Hrechka*



*Microscopic basalt, ash, etc. Photo K. Hrechka*



## Antlerite and Brochantite

By Michael Pabst PhD, Treasurer

About 10 years ago, at a flea market at the Sterling Hill mine in New Jersey, I accidentally bought a beautiful specimen of Antlerite. That specimen is the principal subject of this article. I debated about buying yet another "Diopside" specimen, but one with an especially good emerald-green color (and it was cheap). The specimen was mislabeled. I found its relatives on Mindat, and it turned out to be Antlerite. Antlerite is a basic copper sulfate, like Ramsbeckite and Linarite from the last article. Antlerite is a secondary mineral occurring in the oxidized zone of copper deposits in arid regions. Antlerite is less common than the chemically and visually similar [Brochantite](#), which we will compare in this article.

**Antlerite.** Antlerite is  $\text{Cu}_3(\text{SO}_4)(\text{OH})_4$ . It is orthorhombic  $mmm$  – dipyramidal. Hardness  $3\frac{1}{2}$ . Antlerite is a rare cousin of another green copper sulfate, Brochantite  $\text{Cu}_4(\text{SO}_4)(\text{OH})_6$ , which is monoclinic  $2/m$  – prismatic,  $\beta = 103.35^\circ$ . Both Antlerite and Brochantite have hardness  $3\frac{1}{2}$ -4. Antlerite was named after its type locality, the Antler Mine in Mohave County, Arizona. The first photo is an overview of my Antlerite specimen.



*Antlerite. Phelps Dodge mine, Morenci, Arizona. FOV 40 mm. Photo by Michael Pabst, using macro lens, single exposure.*

Michael Förch has two photos on Mindat, showing Antlerite and Brochantite on the same specimen from the famous Clara Mine, Oberwolfach, Freiburg, Baden-Wurttemberg, Germany:



<https://www.mindat.org/photo-724484.html> and <https://www.mindat.org/photo-725097.html>. In these photos, Antlerite is lighter in color than Brochantite, which might be true generally.

In the next photos, we zoom in to see groups of crystals, then a tiny individual crystal of Antlerite from the same specimen.



*Antlerite. FOV 3.5 mm. Photo by Michael Pabst, using microscope, stacking 18 images. Tiny blue crystals might be chrysocolla?*



*Antlerite. FOV 3.5 mm. Photo by Michael Pabst, using microscope, stacking 26 images. Continued next page.*



**Antlerite continued**



*Antlerite. FOV 1 mm. Photo by Michael Pabst, using microscope, stacking 25 images. You can see through the crystal to the matrix below.*

Antlerite is also well known from the Chuquicamata Mine in Chile. I have a decent specimen from that locality shown below. First a photo of a group of larger crystals, then a photo of a tiny single crystal from the same specimen.



*Antlerite. Chuquicamata Mine, Antofagasta, Chile. FOV 6 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 62 images.*



*Antlerite. Chuquicamata Mine, Antofagasta, Chile. FOV 1.5 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 20 images.*

Christian Rewitzer provides a beautiful photo of a single crystal of Antlerite from the Chuquicamata Mine, Antofagasta, Chile:

<https://www.mindat.org/photo-480741.html>.

**Brochantite.** Brochantite is a monoclinic copper sulfate, sometimes confused with orthorhombic Antlerite.

Brochantite is  $\text{Cu}_4(\text{SO}_4)(\text{OH})_6$ , the same chemical formula as Antlerite. Brochantite is monoclinic  $2/m$  – prismatic,  $\beta = 103.35^\circ$ . Hardness  $3\frac{1}{2}$ -4. Named for French mineralogist, André-Jean-François-Marie Brochant de Villiers, 1772-1840.

Mindat offers more than 2000 photos of Brochantite. Here are a few of my favorites: From the Reward Mine, Inyo County, CA, photo by Storm Sears:

<https://www.mindat.org/photo-1340498.html>.

Interesting horizontal striped crystals from Cornwall, England by Steve Rust:

<https://www.mindat.org/photo-953232.html>.

From Atacama, Chile, a bouquet of three minerals (Brochantite, Malachite, Linarite) photographed by John Haupt:

<https://www.mindat.org/photo-1222597.html>.

Continued next page.



**Brochantite continued**

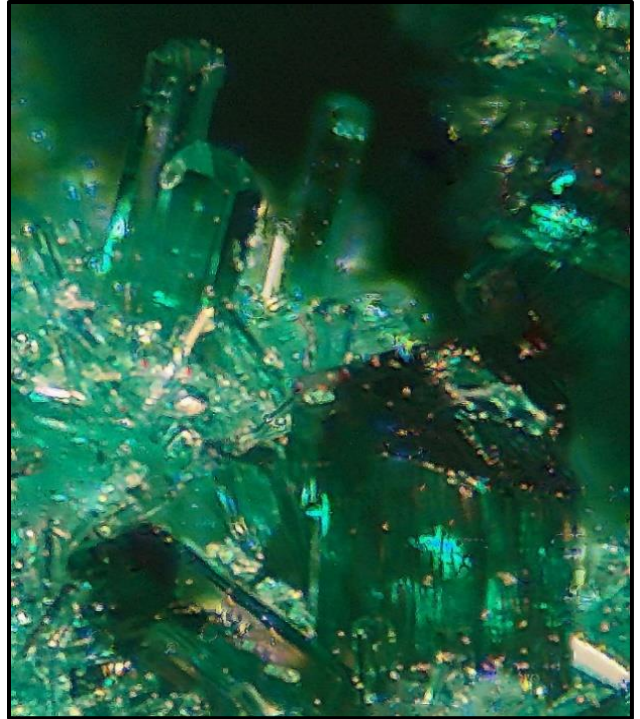
Here are photos of Brochantite and Linarite from four localities that are in my collection:



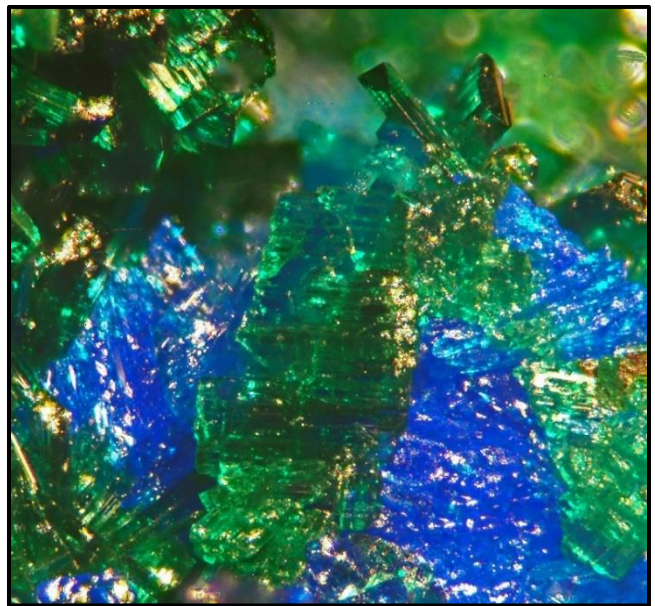
*Brochantite. Blanchard Mine, Bingham, Socorro County, New Mexico. FOV 12 mm. Specimen and photo by Michael Pabst, using macro + Raynox lens, stacking 150 images.*



*Brochantite. Milpillas mine, Santa Cruz, Sonora, Mexico. FOV 16 mm. Specimen and photo by Michael Pabst, using macro lens, stacking 24 images.*



*Brochantite. Mammoth Mine, Tiger, Pinal County, Arizona. FOV 1 mm. Specimen and photo by Michael Pabst, using scope, stacking 13 images.*



*Brochantite and Linarite. Tsumeb, Namibia. FOV 2 mm. Specimen and photo by Michael Pabst, using scope, stacking 24 images.*

There are many more copper sulfates. Next article will describe Langite and Connellite. Both have type localities in Cornwall, England.



**A. L. Kidwell Mineral Collection Find**

By Corrine Wilson

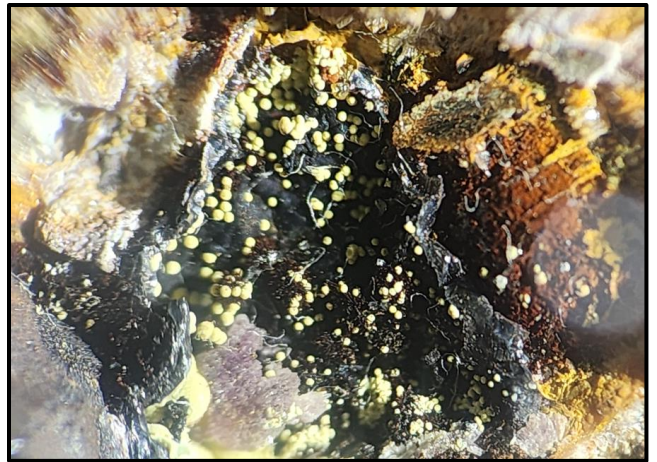
Here is one noteworthy find from your giveaways that I found interesting. The specimen was wrapped up in TP and taped up; seems to have been that way for a while. There are five minerals on this specimen but the kidwellite is what caught my eye. It came with an old A. L. Kidwell label for whom kidwellite was named after. The mineral was first discovered in Arkansas, but not at the locality listed on the label.

I tried my best to get a good picture of it with my camera and loop, the quality could be better, but I think you get a good idea of what it looks like close up. The following three photos are of the same set of minerals listed on A.L Kidwell's original label.

Kidwellite is named in honor of Albert Lewis Lidwell January 1, 1919. Kidwell was a mineral collector and research geologist with Carter Oil Co. and later Exxon Oil, Houston, Texas. *Mindat.org*



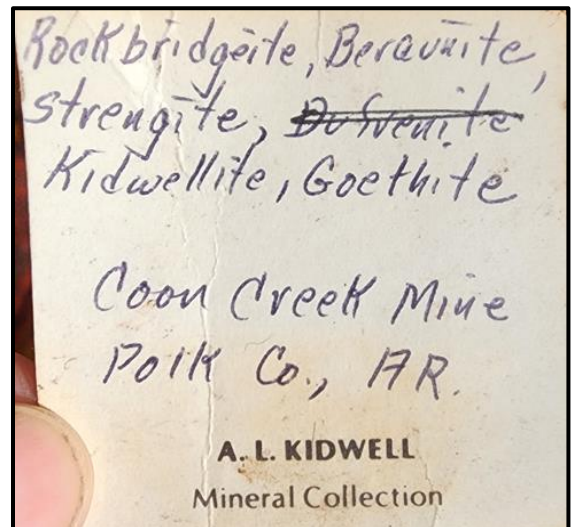
**Rockbridgeite, beraunite, strengite, kidwellite, goethite.** Moon Creek Mine, Polk Co., Arkansas  
Photo by Corrine Wilson



**Kidwellite magnified,** Moon Creek Mine, Polk Co., Arkansas  
Photomicrography by Corrine Wilson



**Rockbridgeite, beraunite, strengite, kidwellite, goethite.** black rockbridgeite radials with outer rim of beraunite, Moon Creek Mine, Polk Co., Arkansas  
Photo by Corrine Wilson







### Biographical Label Archive

#### Loud, George (1942-

“George Albert Loud, prominent long-time mineral collector in Hilton Head Island (since his retirement in 2013), South Carolina, was born in Missouri on August 16, 1942, the son of Margaret and George A. Loud, Sr. He obtained his law degree from George Washington University (J.D., cum laude) and also earned a B.S. degree in Chemical Engineering (magna cum laude) from Christian Brothers University. He married Karen McDonnell in Scranton, Pennsylvania in 1978.



George’s law career spanned over 50 years as a distinguished patent attorney working in the Washington, DC, and northern Virginia area. His work covered mechanical, computer, pharmaceutical and chemical fields in preparing and prosecuting U.S. and foreign patent applications. He also served as a claim drafting instructor with Patent Resources Group for over 10 years, helping students prepare for the agency examination before the United States Patent and Trademark Office.

He began collecting minerals in 1955, and most recently coauthored an article for *Rocks & Minerals* magazine on the minerals of the northern Virginia trap rock quarries (2023). Over the years he assembled an enormous worldwide collection, then sold most of his worldwide specimens in order to concentrate primarily on minerals from the United States, especially suites from the Middle Atlantic states where he has spent most of his life. He collects all sizes from micro-mounts to cabinet size.

George has housed his collection in an addition to his home. It consisted of three rooms devoted entirely to mineralogy. The walls carried an assortment of personal mementoes and mining memorabilia. A hallway was lined on both sides by a mineralogy and mining history library, with floor-to-ceiling bookshelves and a ladder system for access. The Colorado section of reference books was so extensive that it was divided by county.

The mineral collection room featured cabinetry custom-built for him by Keith Williams, starting off with a relatively small single cabinet of minerals from the Hunting Hill quarry in Montgomery County, Maryland. Then came specimens in a long row of cabinets lining the left wall, beginning with a suite from his favorite locality, the famous Centreville quarry in Fairfax County, Virginia—source of many world-class apophyllite and prehnite specimens. Other Virginia specimens came from the Whitehall mine in Spotsylvania County; Amelia County; and large turquoise crystal specimens from the Bishop copper prospect at Lynch Station.

An impressive Pennsylvania suite filled another display case. Including a fine brucite from the Woods Chrome mine in Lancaster County. George’s specimens all carry a catalog number written on a white painted square in black ink and covered with a sealer coat. Provenance is important to him, and he carefully maintained old labels with each piece. His Phoenixville anglesite specimen from the Wheatley mine, for example, has labels from eight previous owners going all the way back to the famous mining magnate and mineralogist Charles Wheatley.

A great many other topical suites form part of the Loud collection as well, including gemmy minerals from Maine; a superb suite from Bisbee, Arizona; a suite from Franklin and Sterling Hill, New Jersey; a superb witherite specimen from the Pigeon Roost mine near Glenwood in Montgomery County, Arkansas; a suite from Magnet Cove, Arkansas (a favorite collecting spot for George); A rare prismatic garnet from Spruce Pine, North Carolina (as well as many other North Carolina minerals); an anatase pseudomorph after titanite from Tuxedo Junction in North Carolina; an entire shelf of pseudomorphs from Mount Saint Hilaire, Quebec; and a suite of minerals from Japan. And these are just a small portion of the 9,000 specimens in his collection.

The George Loud collection has recently been sold to Rob Lavinsky (The Arkenstone).”

Min Record

[https://mineralogicalrecord.com/biographies\\_labels/george-loud/](https://mineralogicalrecord.com/biographies_labels/george-loud/)

Discovered on MinDat digital and submitted by Dave Hennessey. Welcome back to Virginia George!



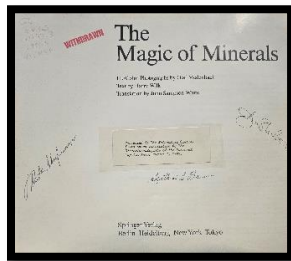
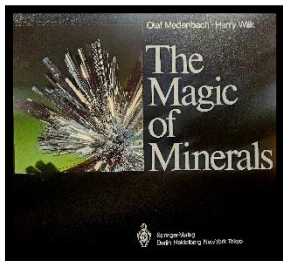
**Smithsonian Treasure**

By Kathy Hrechka, Editor

While recently volunteering at the Museum of Natural History, I noticed a special book in our breakroom. The Magic of Minerals, translation by John Sampson White, former Curator NMNH was presented to the Naturalist Center, Smithsonian Institution by The Micromineralogists of the National Capital Area, August 1, 1989. Signatures include legacy MNCA members Cynthia Barnes, and Fred Schaefermeyer. This discovery reminded me of personal gratitude to Cynthia and Fred for introducing me to the geology study of micromineral collecting in 1985. Volunteering in the mineral gallery has become my “happy place” since 2012. Some interesting mineral photos from the book are shown in my article.



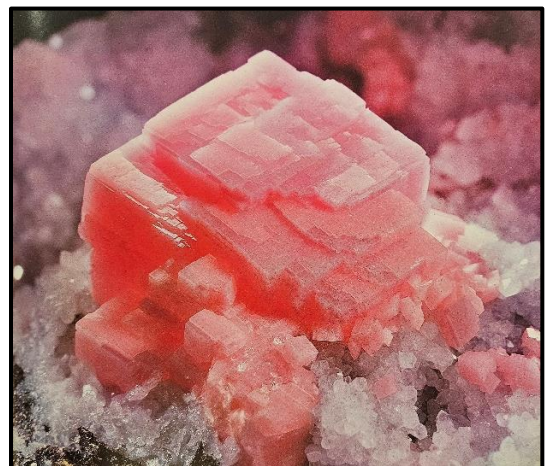
*Pyrite on calcite Trepka/Yugoslavia.  
Original size 24x27mm. p17*



*Fluorite on aurichalcite Mina Ojuela, Mapimi,  
Durango, Mexico. Original size 12x14mm. p25*



*Diamond in Kimberlite, Republic of South Africa  
Original size 22x25mm. p8*



*Rhodochrosite, Waldalgesheim/FRG,  
Original size 61x45mm. p49*



## Micromineralogists of the National Capital Area, Inc.

### 68th Paul Desautels Memorial Micro-mount Symposium, Oct 4-6, 2024

By Steve Stuart, editor MicroNews CMMA

The Symposium ran from Friday evening, October 4th through Sunday noon, October 6th. It was held at the Natural History Society of Maryland in the city of Baltimore. This was the second year at this site. The schedule on Friday included two presentations. First up was a very interesting talk by Dave Fryauff about some unusual fluorescent fluoroapophyllite from the Virginia traprock quarries, showing zoning under long-wave UV light.



David Fryauff, Tom Tucker, Karen & Michael Pabst



Dave Fryauff, giving his talk. Steve Stuart photo.

Quintin Wight followed with his talk about collecting pyrite at Navajún, Spain. Attendance on Friday evening peaked at 19.



Jeff Grueber is studying the "give-away" table.



The Friday crowd. Steve Stuart photo.



The Wight family on Friday evening: Quintin, Willow and granddaughter Moira Carlson. Steve Stuart photo.

Continued next page.



## Micromineralogists of the National Capital Area, Inc.

### 68th Paul Desautels continued

The Symposium opened again on Saturday, October 5th, at 9:00 am. The silent auction started at 10:00 am and ran until about 11:30 am.

The Symposium organizers had sandwiches and salads brought in for the attendees. Al Pribula started the voice auction at 2:00 pm. At 3:00 pm, Quintin Wight oversaw the induction of Paul Adams and George Rambo (deceased) into the Micromounters Hall of Fame. George was represented by his son, Doug Rambo. Several other members of the extended Rambo family also attended the ceremony and Symposium.



*Quintin Wight congratulates Paul Adams HOF 2024.*



*Quintin Wight honors the late George Rambo HOF 2024, an award accepted by son Doug Rambo.*

Paul Adams, from California, then presented a talk on the mines of the Candelaria region including some of the history of the mine owners in addition to old photos of mines and mining towns compared to recent photos of the same areas. In many cases, almost no trace of entire towns remains and only dumps and pits marked the location of some mines. He is well known for his field collecting and for photography. His mineral photos attracted a lot of attention.

The Symposium paused for dinner off-site at 5:00 pm and reconvened at 7:30 pm for Doug Rambo's presentation. He began by talking about his father, George Rambo, and his early interest in mineral collecting. George collected thumbnails early on and later got interested in micromounts. Doug then talked about the Estes Quarry in Cumberland County, Maine. He also reviewed the geology of the quarry and then showed photos of some of the minerals.

The Symposium recessed at about 9:00 pm and reconvened on Sunday morning for a short session that ended at noontime. The last presentation of the Symposium was given by Quintin and Willow Wight and covered a gemology trip that they made to Vietnam in 2013. It was entertaining to see their take on the culture of Vietnam, and photos of the cultivated oyster beds where locals grow and harvest pearls. They also made visits to open pit mines that yield spinels, rubies and pargasites.



*The five Hall of Fame members are present at the Symposium. (L-R) Steve Weinberger, Paul Adams, Quintin Wight, Doug Rambo representing his father George, and Mike Seeds. Steve Stuart photo.*



## Micromineralogists of the National Capital Area, Inc.

### Friends of Mineralogy – Pennsylvania Chapter Symposium and Show Nov 9 Field Trip Nov 10, 2024

**Theme: GREEN PENNSYLVANIA MINERALS  
And SECOND ANNUAL MINERAL, GEM, AND  
FOSSIL SHOW**

IN PERSON and ONLINE Mineral Collecting  
Enthusiasts Meet and Learn

#### University of Pittsburgh – Johnstown, PA

The Friends of Mineralogy – Pennsylvania Chapter will hold their 2024 Symposium and field trip, and First Annual Mineral, Gem and Fossil Show, on the second weekend in November. Mineral collectors arriving on Friday November 8 are invited to an evening Meet & Greet; bring your best find from this year to talk about. Those in attendance on Saturday will check in at the University of Pittsburgh – Johnstown's Heritage Hall at the Living Learning Center. Activities, including informative talks by knowledgeable speakers on minerals, geology and mining in Pennsylvania and beyond, are planned. Online attendance is also being planned. The Mineral Show, held on Saturday only, has free admission for all. On Sunday, a field trip will provide an opportunity for mineral collecting at Mount Pleasant Mills quarry. The field trip is open only to symposium registrants who attend the Saturday afternoon safety briefing in person or online. Safety equipment will be required.

Speakers scheduled so far for Saturday, November 9 (three more are planned):

- \***Ronald A. Sloto, PG:** Beryls of Pennsylvania
- \***Ross Elliott, PG:** Pyromorphite in Pennsylvania
- \***Bill Stephens, PG:** Wavellite at Mt. Pleasant Mills, PA

All interested mineral collectors are invited to register and attend. As usual, there will be a silent auction, giveaway table, and plenty of opportunities for visiting with fellow enthusiasts. Lunch is available nearby on campus and at restaurants within a short driving distance.

Please see the web site  
<https://www.rasloto.com/FM/whats-new>  
for any updates, details, and the registration form.

#### Dates: November 8-9-10, 2024

Location: Friday evening, Nov. 8: Meet & Greet at Sleep Inn, 453 Theatre Dr, Johnstown, PA 15904

**Saturday, Nov. 9:** Heritage Hall at Living Learning Center, University of Pittsburgh- Johnstown

**Sunday, Nov. 10:** collecting trip to Mt. Pleasant Mills quarry, open only to Symposium registrants who attend the Saturday afternoon safety briefing in person or online.

Registration: \$15/person for non-members (or join for 2025 and get the member rate), \$10/person for current FM-PA members; free for college students; free for younger students. Parents must provide supervision of minors.

Please register in advance, online or by mail; a form is available on the web site.

Professional Geologists: Five Professional Development Hour credits available for full lecture attendance.

Web Site: <https://www.rasloto.com/FM/whats-new>  
Contact: e-mail: <bstephens@stephensenv.com>

**Rockin' in the Alleghenies - JOHNSTOWN**  
**FM-PA Annual Symposium and MINERAL, FOSSIL & GEM SHOW**

**Friends of Mineralogy - Pennsylvania Chapter**  
**SYMPOSIUM & SHOW Nov. 9, 2023 - Field Trip Nov. 10**  
Attend ONLINE -OR- IN PERSON at University of Pittsburgh - JOHNSTOWN

**SECOND ANNUAL MINERAL, FOSSIL & GEM SHOW**  
**SHOW SATURDAY 8:30 - 6:00 ADMISSION FREE TO ALL**  
**40 TABLES OF SELECTED VENDORS**

**SYMPOSIUM** for mineral collecting enthusiasts Non-members \$ 15.00 Members \$10.00 Students free  
**Friday evening Nov. 8:** Meet & Greet - bring your mineral specimens to talk about.  
**Saturday Nov. 9:** Hybrid Symposium - **ONLINE or IN PERSON**  
8:00 a.m. to 5:00 p.m. at University of Pittsburgh - Johnstown

Talks by knowledgeable **SPEAKERS** concentrating on **Green Pennsylvania Minerals, including:**  
Beryls of Pennsylvania - by Ronald A. Sloto, PG, West Chester University  
Pyromorphite in Pennsylvania - by Ross Elliott, PG, Delaware DNREC  
Wavellite at Mt. Pleasant Mills, Pennsylvania - by Bill Stephens, PG, Stephens Environmental

Silent Auction – Give-away Table – Meet Fellow Collectors  
Professional Geologists: Professional Development Hour credits available for full lecture attendance

**FIELD TRIP Sunday Nov. 10** Mt. Pleasant Mills Quarry. Open only to symposium registrants.  
Visit our web site for details, registration form, changes and updates: [www.rasloto.com/FM](http://www.rasloto.com/FM)

The Mineral Mite November 2024



## Micro Club Zoom Session - Australia

**Micro Club Zoom Host:** Steve Sorrell resides in Melbourne, Australia and hosts various geology persons of interest at his micromount meeting each month on Zoom. You can sign up for Steve's programs, while enjoying friendly faces within our geology community around the globe.



There will not be a session in October.

Micromount Club Zoom Meeting 2024-009. **Wednesday 20th November** at 6am. [Australia] Minerals from the Eifel, Germany, presented by Henk Smeets.

Micromount Club Zoom Meeting 2024-010. **Wednesday 18th December** at 6am. To be advised.

You can register for these sessions at [crocoite.com](http://crocoite.com). Once registered, you will receive an email and the opportunity to save the Zoom session to your Google, Yahoo, or Outlook calendar, and this will be in your local time zone.

The Micromount Club Facebook group has been meeting on Zoom regularly, hosted by Steve Sorrell in Australia. Meetings are now scheduled monthly. Most previous presentations up to #24-05 are available through the Volume 58-08 Page 15 of 22 Aug 2024 following link:

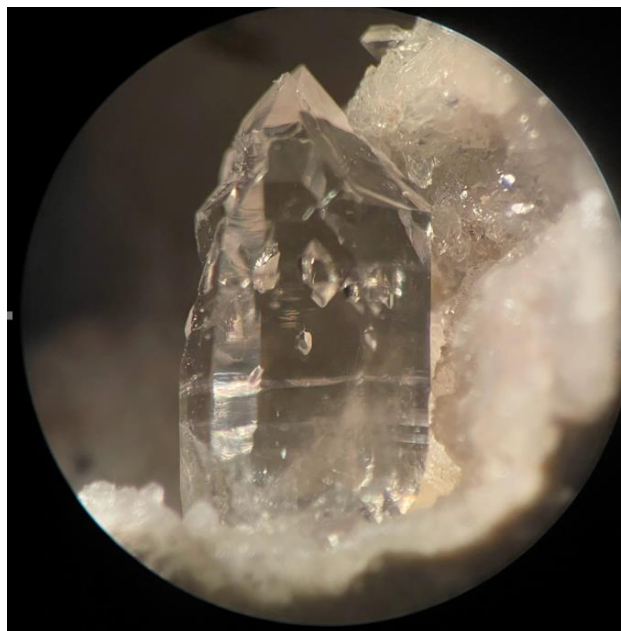
<https://www.youtube.com/playlist?list=PLwdOHcjmducFKcDw8d2qgAoEEEB0M7vht>.

Micromount Club Zoom Meeting #24-06 was on Tuesday 16th July at 4 pm EDT. It was entitled "From Aosta to Sicily, a Mineralogical Journey through Italy, Part 2", presented by Henk Smeets. Here is the link: <https://www.youtube.com/watch?v=562hCbbxWRg>.

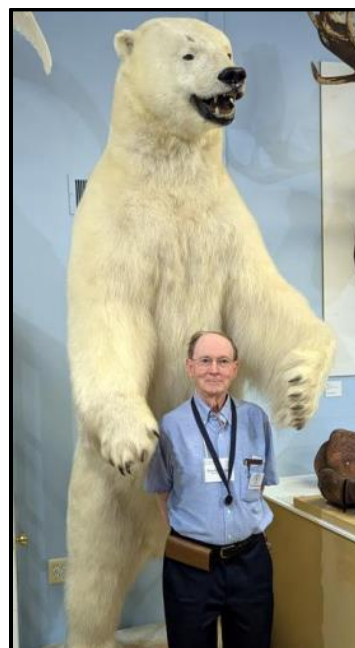
*MNCA Editor's note: thanks to Steve Sorrell from Melbourne, Australia, we have been connecting with new mineral friends around the world for the past three years. I have learned that he is a master photomicrographer, as well as an author of mineral publications.*

## Negative Quartz Crystals in Quartz

By David Fryauff, President



*Quartz on rhyolite from Round Mountain, Sierra Co., New Mexico. Note the multiple internal "negative" crystals inside the main, sceptered "positive" quartz crystal. FOV = 7.0 mm. Photo by David Fryauff*



*Polar Bear Hug for Steve Weinberger at the 68<sup>th</sup> De-sautels Symposium on Oct 5, 2024. Natural History Society of Baltimore, Maryland. Steve Stuart photo.*



## Critical Minerals Mining & Refining

By Kathy Hrechka, Editor

On October 23, 2024, I attended a virtual briefing, hosted by SAFE's Center for Critical Minerals Strategy. The event explored the complex landscape of battery material and REE supply chains, focusing on policy tools. Speakers discussed the intersection of trade policies, national security, and economic competitiveness in the context of critical minerals.

I valued the graph that measures international mining of critical minerals. I hope you find it interesting too.

## Trading Tensions: Navigating Policy Tools for a Diverse Critical Minerals Supply Chain

October 2024

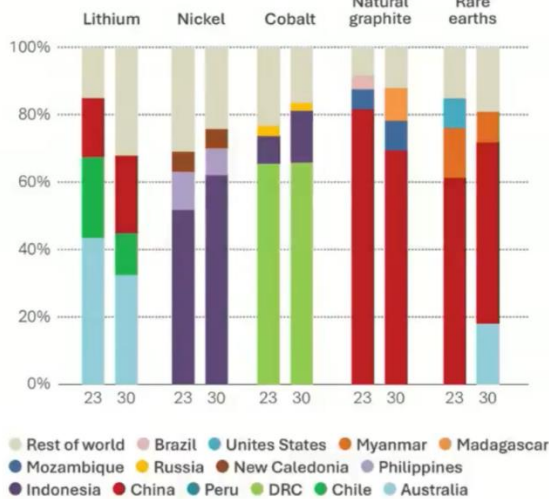


The Ambassador Alfred Hoffman, Jr.  
Center for  
Critical Minerals  
Strategy

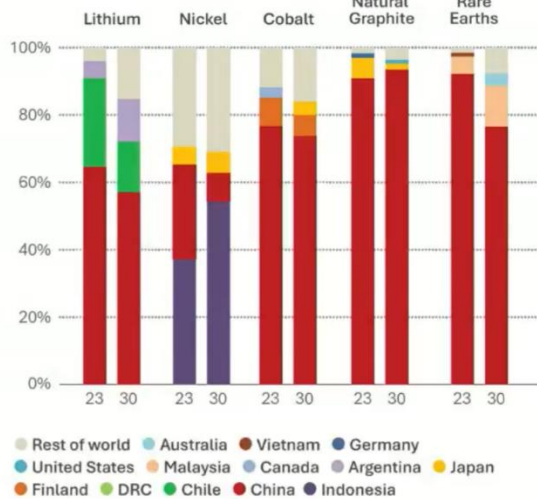
### GEOGRAPHIC CONCENTRATION OF CRITICAL MINERALS MINING AND REFINING

live on Custom Streaming Service

Geographical Distribution of Mined or Raw Material for Key Energy Transition Minerals in the Base Case, 2023-2030



Geographical Distribution of Refined Material Production for Key Energy Transition Minerals in the Base Case, 2023-2030



Note: Nickel refining data includes production of non-battery grade nickel. Graphite refining data is based on battery-grade spherical graphite production. Rare earths data includes magnet rare earths only. Source: International Energy Agency



## Micromineralogists of the National Capital Area, Inc.



American Federation of Mineralogical Societies

(AFMS)  
[www.amfed.org](http://www.amfed.org)

**Please read the AFMS bulletin attached in original monthly email to MNCA members.**

2024 Purpose of the AFMS: To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary, and related subjects, and to sponsor and provide ways to coordinate the work and efforts of all interested persons and groups; to sponsor and encourage the formation and international development of Societies and Regional Federations and thereby to strive toward greater international good will and fellowship.



**Celebrating 50 years!**

The Rock & Gem magazine is recognized as the official magazine of the AFMS.  
Free archived downloads

[Rock & Gem Magazine Archive : Free Download, Borrow, and Streaming : Internet Archive](#)



Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS)  
<https://efmls.org>

**Communication and Involvement  
Are the Keys to Our Success!**

**Please read the EFMLS bulletin attached in original monthly email to MNCA members.**

### November 2024 Local Geology Club Meetings

**4: Northern Virginia Mineral Club NVMC Meeting 7:30pm**  
[www.novamineralclub.org](http://www.novamineralclub.org)

**6: Mineralogical Society of the District of Columbia MSDC Meeting 7:30pm on Zoom**  
[www.mineralogicalsocietyofdc.org](http://www.mineralogicalsocietyofdc.org)

**11: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland - GLMSMC Meeting 7:30 pm** [www.glmsmc.com](http://www.glmsmc.com)

**?: The Gem, Lapidary and Mineral Society of Washington, DC - GLMS-DC meeting 7 p.m.**  
Chevy Chase Community Center, 5601 Connecticut Ave; Washington, DC. [www.glmsdc.org](http://www.glmsdc.org)

**20: Baltimore Mineral Society BMS meeting**  
[www.baltimoremineralsociety.org](http://www.baltimoremineralsociety.org)

**25: Micromineralogists of the National Capital Area, Inc. MNCA Meeting 3 – 5:30pm Kings Park Library, Burke, VA**  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)

**November 23 & 24, 2024  
Northern Virginia Mineral Club Show  
Dewberry Hall, Johnson Center  
George Mason University-Fairfax Campus  
Hours: Sat 10am-6pm & Sun 10am-4pm**



## Micromineralogists of the National Capital Area, Inc.



### Geo Word of the Day and its definition

**tychite** (tych'-ite) A white cubic mineral of the *northupite* group:  $\text{Na}_6\text{Mg}_2(\text{SO}_4)(\text{CO}_3)_4$ .

**volynskite** (vo-lyn'-skite) A metallic trigonal mineral of the *matildite* group:  $\text{AgBiTe}_2$ .

All terms and definitions come from the

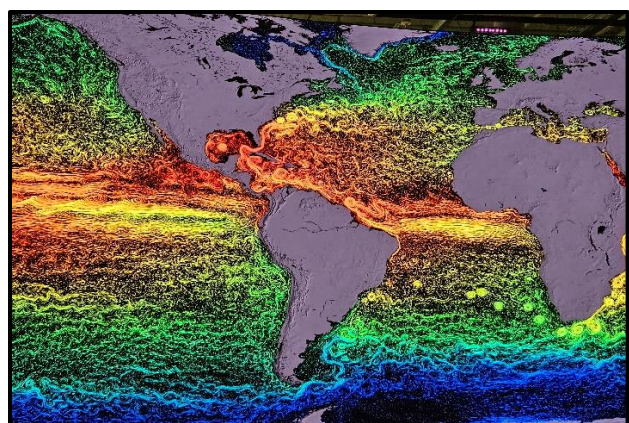
[Glossary of Geology, 5th Edition Revised.](#)

GeoWord of the Day is brought to you by:

EnviroTech! [envirotechonline.com](http://envirotechonline.com).

### Smithsonian's NMNH Newest Exhibit

By Kathy Hrechka, Editor



*"Ocean Flows: ECCO estimates ocean circulation and its role in climate, combining state-of-the-art ocean circulation models with global ocean data sets". Exhibit information, Photos by Kathy Hrechka*

Micromineralogists of the National Capital Area  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)

We are temporarily meeting at Kings Park Library in Burke, 3-5:30pm (forth Monday or Wednesday) until we locate a permanent meeting place.

**MNCA Purpose:** To promote, educate and encourage interest in geology, mineralogy, and related sciences.

President: David Fryauff

Vice President: Jeff Guerber

Secretary: Bob Cooke

Treasurer: Michael Pabst

Editor/Historian: Kathy Hrechka

Website: Kathy Hrechka

AMC Conference: open

### The society is a member of:

- \* Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) [www.efmls.org](http://www.efmls.org)
- \* American Federation of Mineralogical Societies (AFMS) [www.amfed.org](http://www.amfed.org) affiliation

### Dues: MNCA Membership Dues 2024

\$15 (single) or \$20 (family) donations

**MNCA - Michael Pabst, Treasurer**

**270 Rachel Drive**

**Penn Laird, VA 22846**

### Editor's Note: By Kathy Hrechka

Send your articles and photos to your editor.

**Club Article Deadline is the 1st of each month.**

***The Mineral Mite* will be emailed by the 5th.**

**No newsletter July/August**

### Inducted into Editor's Hall of Fame – 2018

**EFMLS Trophy 2021 Small bulletins**



### Newsletter inputs:

- \* David Fryauff
- \* Jeff Guerber
- \* Michael Pabst
- \* Pete Chin
- \* Bob Cooke
- \* Corrine Wilson
- \* Kathy Hrechka
- \* Steve Stuart



**The Mineral Mite November 2024**