Micromineralogists of the National Capital Area, Inc.

MNCA Website www.dcmicrominerals.org

The Mineral Mite

Vol. 58 – No. 1 Washington D.C. A Journal for Micromineralogists Jan 2025

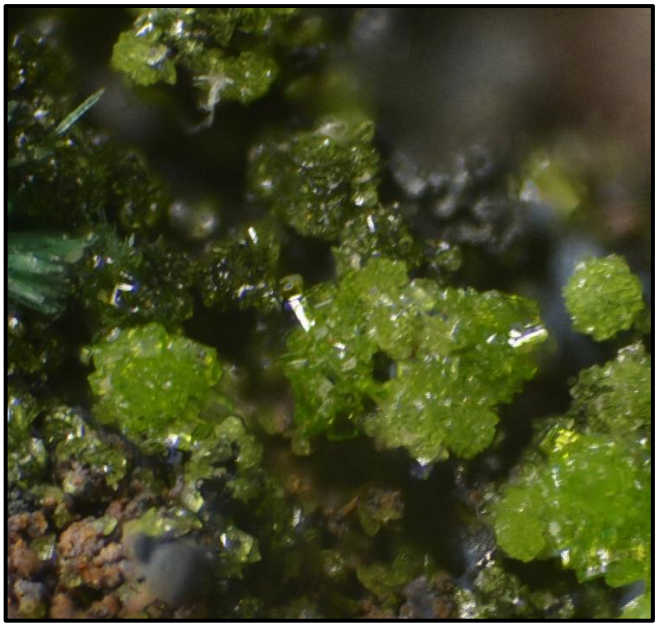
Meeting: Jan 27 3-5:30pm Kings Park Library, Burke

Program: TBD

By Jeff Guerber, Vice president

MNCA's January meeting will be held on Monday, January 27 from 3-5:30pm at Kings Park Library, in the large meeting room. The February meeting will be held on Monday Feb 24, 3-5:30pm KPL.

Mystery Micro Mineral of the Month



Clue of locality: San Pablo Mine, Inca de Oro Mining District, Atacama, Chile. FOV=1.2mm.
By Aloha Peter Chin, Honolulu, Hawaii. Answer p 2.

President's Message:

By David Fryauff, President

All this cold weather, shopping, holiday preparation, cooking, child-care & dog care has claimed a lot of my time recently, but I welcome the bleak midwinter days ahead when I can close myself up with tiny minerals, tiny micro boxes, tiny labels, database updates, photomicrography, and emails. It was great seeing most of you at our December 30th meeting, and I apologize (again) for being late.... but that is not quite true because I was not at all sorry about being late. Sure, I was late, but I really enjoyed every minute of time in the slow traffic with George.

The traffic coming around the MD & VA I-495 beltway was terribly slow that early afternoon, but I had the legendary George Loud in the car with me and we chatted far and wide about lots of favorite mineral things: collections, collecting sites, best specimens, mineral collectors alive and well from all over the U.S. and not a few that are now deceased but were legendary or notable for mostly good but sometimes bad reasons. I don't know how it was for George, but I seemed to do most of the talking, and I was hardly aware of the traffic and time going by. All that time passed in a flash because it was just a pleasure to talk to someone who had collected so far and wide at many of the most famous and notable places in the US.

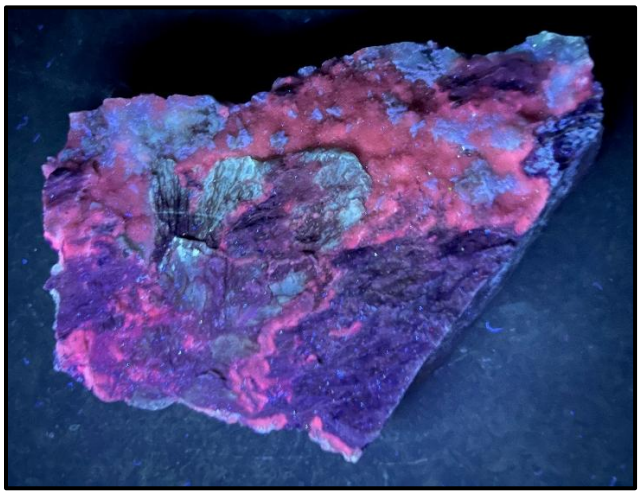
Continued next page.

President's Message continued

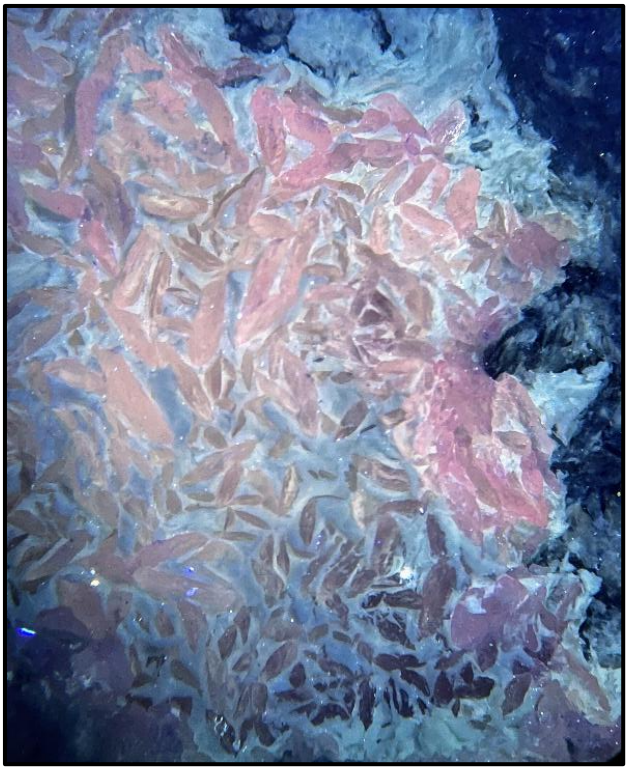
Then suddenly we were there at the Braddock Road exit, and I could not believe the drive had been so enjoyable. I just wish I had visited George when he still had his legendary mineral collection, all beautiful cabinet specimens, and all housed in a special wing of his house in Hilton Head, SC.

Tom Tucker and I had a plan to go down there several years ago to see George's collection then to collect tiny phosphate minerals (i.e. Cacoxenite!!!!) in the Savannah River agate found along River Road in Girard, GA. Alas, I missed my chance to see that wonderful collection, but all is not lost because it seems George has kept virtually all of his Maryland Hunting Hill collection and his Mont Sainte-Hilaire collection as well. Oh, the places he has been!!! And the stories he can tell!!!

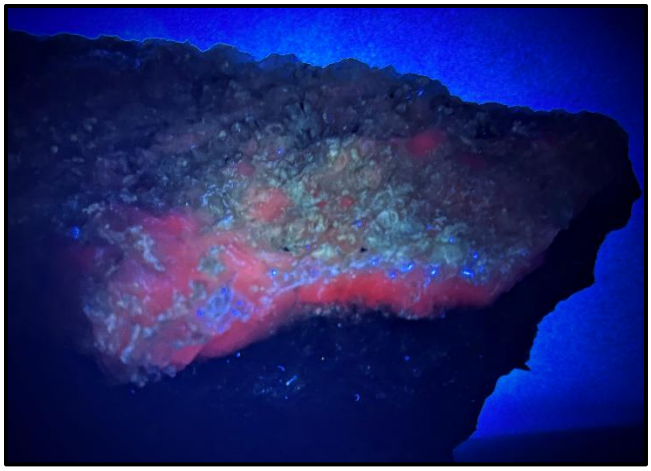
Our serpentine quarries (i.e.. Hunting Hill in Rockville, Cedar Hill & the Haines-Kibblehouse Penn-Md quarry just over the MD state line in Lancaster Co., PA) are rich in both dolomite and magnesite but I am able to separate these minerals (at this site) based on their UV fluorescence (pink = dolomite; gray = magnesite). A few photos are attached that show the bright pink response of dolomite from these places.



LW UV pink is dolomite -- FOV = 15 cm -- HK Penn-Md quarry, Lancaster Co., PA



LW UV pale pink lamelar dolomite FOV = 6.0 mm -- HK Penn-Md Quarry, PA



LW UV pink Dolomite -- FOV = 20 cm -- Hunting Hill Quarry, Rockville, MD

Mystery Micro Mineral of the Month

By Aloha Peter Chin, Honolulu, Hawaii
Molybdofornacite, San Pablo Mine, Inca de Oro Mining District, Atacama, Chile. FOV=1.2mm.

Holiday Party MNCA & NVMC

By Kathy Hrechka, Editor

Jason Zeibel, NVMC president facilitated festivities for the evening. Great friendship, food, and gifts exchanged created joyful holiday spirit. John Sanborn, representing MNCA, introduced the members of our club who joined the holiday party. He invited everyone in attendance to join our club, noting that "what you can see under a microscope is a whole 'nother' world!" Kathy brought the handmade crystallography tree, which was constructed in the 1980s. Each ornament represents mineral crystal structures found in nature.

Crystallography tree photo by Kathy Hrechka.

Previous Meeting Minutes 12.30.2024

By Bob Cooke, Secretary

President Dave Fryauff called the meeting to order at 5:02 PM December 30, 2024. Nine members were present: Bob Cooke, Dave Fryauff, Jeff Guerber, Kathy Hrechka, George Loud, Dave MacLean, Craig Moore, John Sanborn, Corrine Wilson.

Dave MacLean was recognized for his prior service as President. The minutes of the November meeting were approved as published in the Mineral Mite.

Members unanimously approved the proposed candidates for 2025 officers: President Dave Fryauff, Vice President Jeff Guerber, Treasurer Michael Pabst and Secretary John Sanborn.

Bob Cooke distributed an MNCA membership list. He had modified it from the version provided by Michael Pabst by sorting names according to the date of last dues payment. No one knew of a definition for "active member." Dave Fryauff agreed to bring a copy of the NMCA charter and by-laws to the next meeting so members could discuss the basis of membership status.

The group discussed the distribution of the Mineral Mite and whether addressee names should be in clear text or better concealed. A proposal was discussed for active members to be listed but other addressee names to be hidden in a bcc status. Further discussion was postponed to the January meeting.

Kathy provided an update about the MNCA web page. Weebly appears to be providing greater support for our webpage but wants to include its name in the URL address. The situation is fluid; Kathy will provide future updates. Next MNCA meeting will be on January 27th 3-6 PM in the Kings Park Library meeting room. Meeting adjourned at 5:17 PM

Previous Program Review 12.30.2024

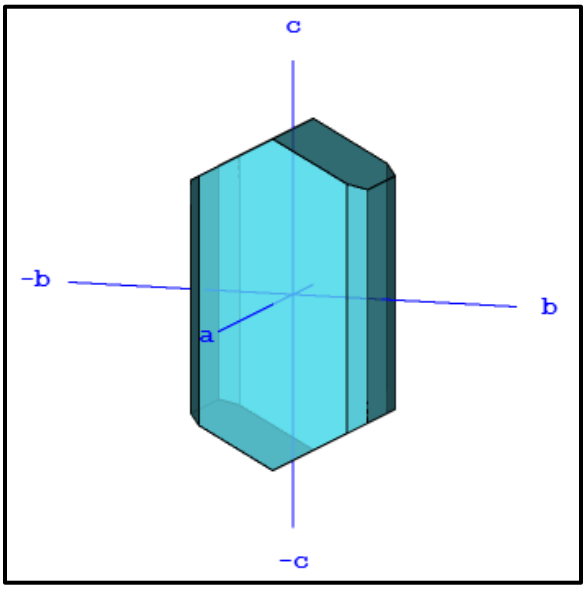
In lieu of a formal program, members studied the multitude of minerals which had been donated to the club. Kathy donated California micros from last year's Micromineral conference of Southern California. George Loud also contributed fine micros for giveaway.

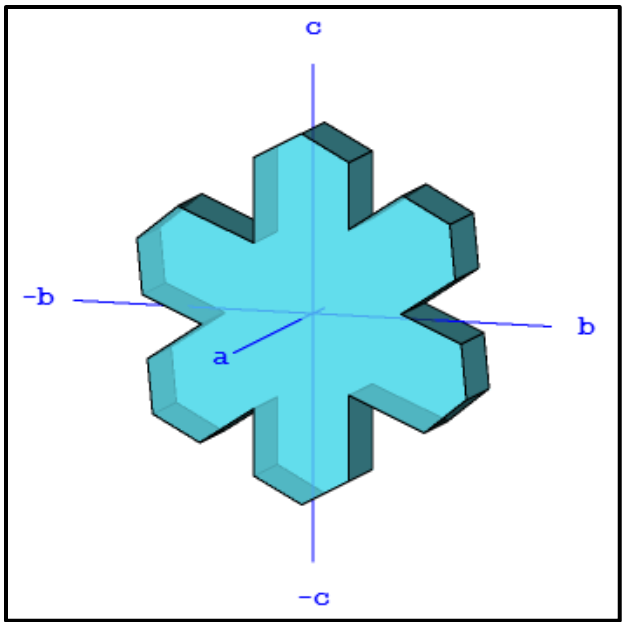
Langite

By Michael Pabst PhD, Treasurer

The copper sulfate mineral Langite $Cu_4(SO_4)(OH)_6 \cdot 2H_2O$ is beautiful mineral, found both in native rock and in slag. Aside from an attractive blue-green to blue color, one of the special features of Langite is its ability to form sixlings or pseudo-hexagonal twins, like Cerussite. Langite was first found in Cornwall, England. It was named for Victor von Lang (1836-1921), a professor of physics at the University of Vienna and an early crystallographer. Type locality is St Just, Cornwall, England. Langite originates from oxidation of copper sulfide ores. From ancient times, copper and tin were mined in Cornwall, contributing a lot of bronze to the Bronze Age.

Langite crystalizes in the monoclinic system, Monoclinic *m* – Domatic. Although monoclinic, based on overall symmetry and X-ray diffraction, $\beta = 90°$, so Langite looks orthorhombic. Here are two diagrams, taken from Goldschmidt's *Atlas der Crystallformen*, which are available on Mindat. The first diagram shows a pseudo-orthorhombic prism. The second diagram shows a sixling, a habit often shown by Langite. If you visit Mindat.org, these diagrams are "live", so you can rotate them freely, and look (in vain) for a specifically monoclinic form. But the X-ray diffraction doesn't lie. Someday, a crystal might be found that displays the true monoclinic symmetry.





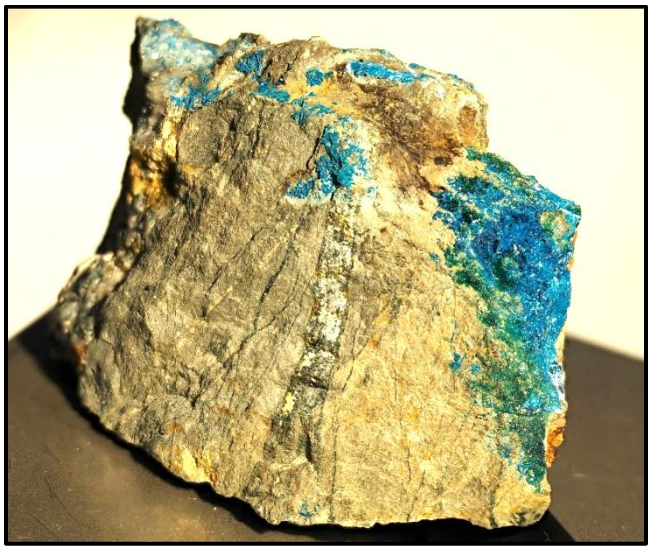
There is a dimorph of Langite, which is Wroewolfeite $Cu_4(SO_4)(OH)_6 \cdot 2H_2O$. Wroewolfeite is also Monoclinic *m* – Domatic, but with $\beta = 93.39°$, so not exactly 90° like Langite. I don't have any Wroewolfeite, but here are two photos from Mindat taken by Steve Rust: https://www.mindat.org/photo-1031879.html and https://www.mindat.org/photo-1161135.html.

Also closely related is Posnjakite $Cu_4(SO_4)(OH)_6 \cdot H_2O$, which is also Monoclinic m – Domatic, with $\beta = 117.98°$. Here is a good photo of Posnjakite by Michael Förch: https://www.mindat.org/photo-835413.html. Langite, Wroewolfeite, and Posnjakite are geologically young minerals that form in mines, which allow them to be tiny and delicate and perfect. It can be difficult to distinguish among Langite, Wroewolfeite, and Posnjakite without X-ray diffraction to determine the β angle. With most specimens, collectors will have to guess, based on the locality.

I do have several good specimens of Langite. We will start with good-sized rock from Ireland.

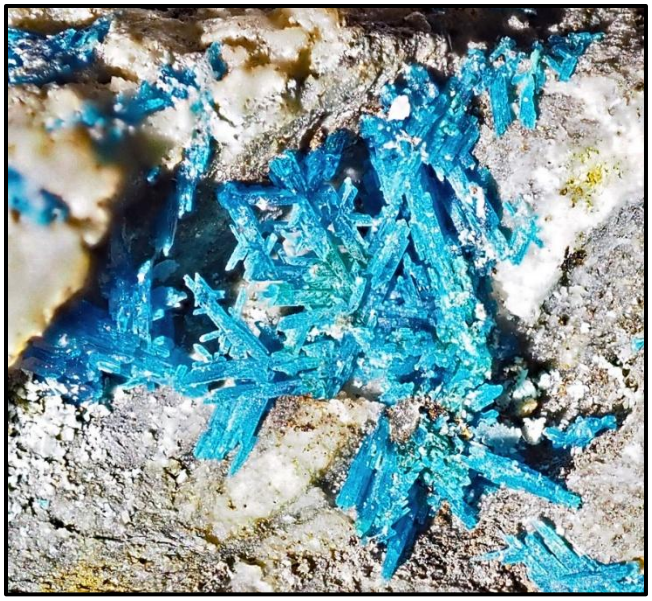
Continued next page.

Langite continued



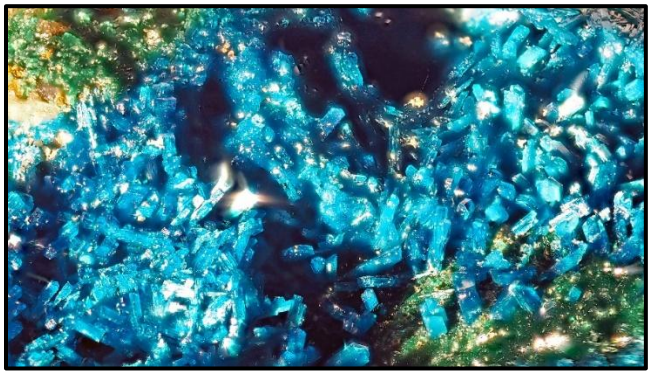
Langite (blue) and Brochantite (green). *Allihies, Castletown-Bearhaven Copper Mines, Cork County, Munster, Ireland. The specimen is 62 mm wide. Photo and specimen by Michael Pabst, using macro lens, stacking 24 images.*

We can look closer at this Langite specimen, first at an area where the crystals are spread out on a light background, showing many sixlings:



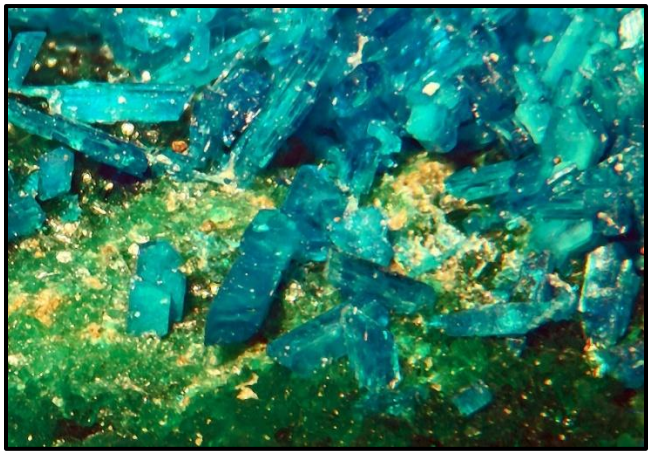
Langite. *Allihies, Castletown-Bearhaven Copper Mines, Cork County, Munster, Ireland. FOV 2 mm. Photo and specimen by Michael Pabst, using macro + Raynox lenses, stacking 35 images.*

Here is a denser mass of Langite crystals on green Brochantite background:



Langite and Brochantite. *Allihies, Castletown-Bearhaven Copper Mines, Cork County, Munster, Ireland. FOV 7 mm. Photo by Michael Pabst, taken with macro + Raynox lenses, stacking 125 images.*

Finally, we zoom in to a a few Langite crystals scattered on Brochantite:



Langite and Brochantite. *Allihies, Castletown-Bearhaven Copper Mines, Cork County, Munster, Ireland. FOV 2 mm. Specimen and photo by Michael Pabst, using stereo microscope, stacking 24 images.*

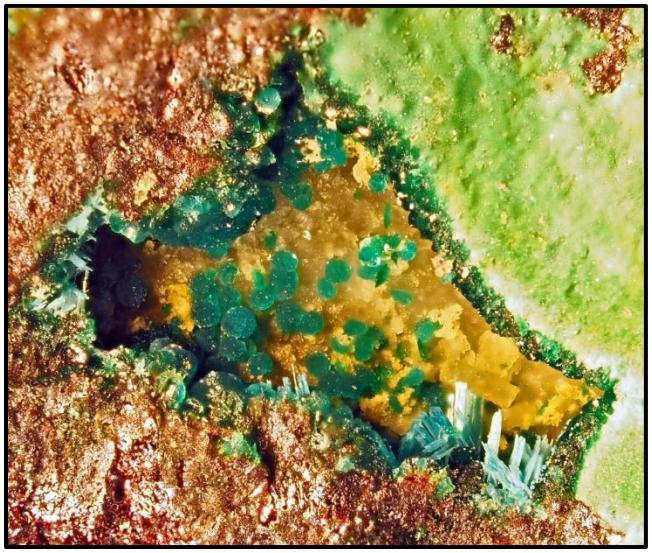
This Irish specimen was probably formed post-mining on a stope of the mine; there was no smelting involved.

Continued next page.

Here is another beautiful Cornish specimen of Langite:

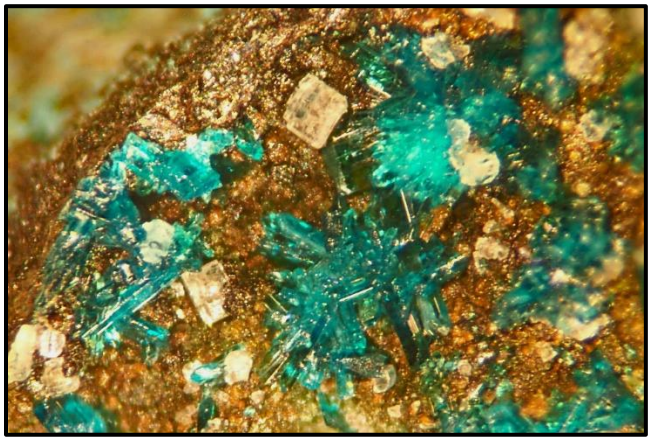
Langite and Brochantite*. Bedford United Mine, Gulworthy, near Tavistock, West Devon, Devon, England. FOV 1.5 mm. Photo and specimen by Michael Pabst, using stereo microscope, stacking 21 images.*

I don't believe that this specimen and the next specimen are from slag, because they appear to have a proper matrix.

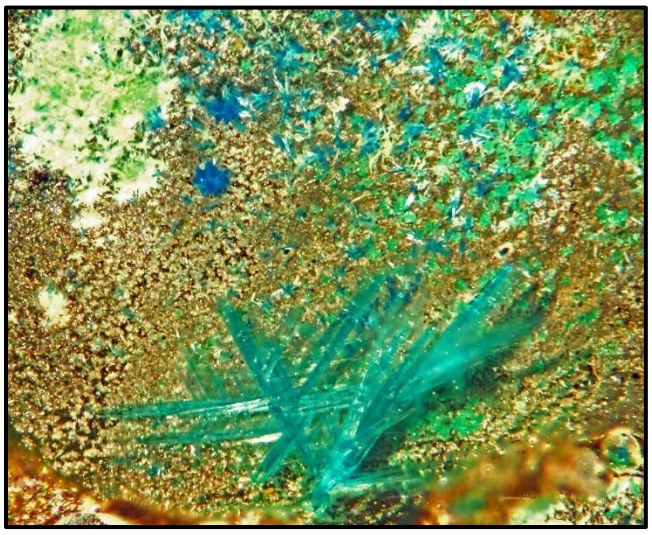


Langite (light blue, lower right) and Brochantite (green spheres) *in Cuprite. Wheal Gorland, Gwennap, St. Day, Cornwall, England. FOV 5 mm. Photo and specimen by Michael Pabst, using macro + Raynox lenses, stacking 40 images.*

However, Langite is also found in many slag localities. Here are a few photos from my collection:



Langite *and unknown colorless crystals in slag. Astenschmiede slag locality, near Bodenhaus, Rauris, Salzburg, Austria. FOV 2 mm. Photo and specimen by Michael Pabst, using stereomicroscope, stacking 5 images.*



Langite (green) and Connellite (blue) *in slag. Varenna Valley, Genoa, Liguria, Italy. FOV 2 mm. Photo and specimen by Michael Pabst, using stereomicroscope, stacking 23 images.*

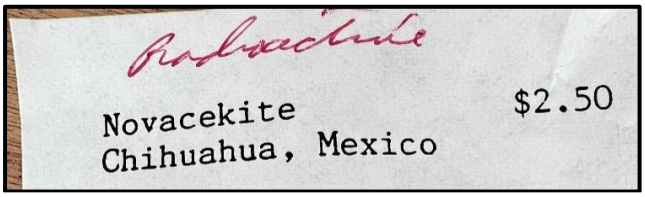
Before we continue with other copper sulfates, in the next article we will look at a copper sulfate and **selenite**. My motivation is to brag about winning the bid for a rare sample of Pauladamsite $Cu_4(SeO_3)(SO_4)(OH)_4 \cdot 2H_2O$ at last year's Desautels Conference in Baltimore.

Novacekite: MNCA Give-away

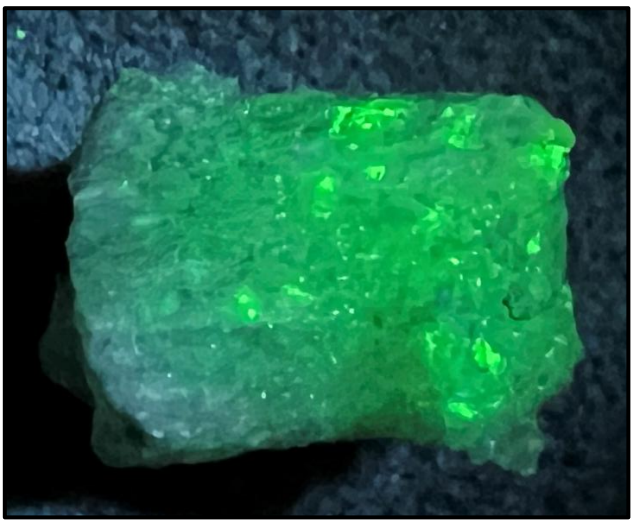
By John Sanborn

One mineral specimen give-away, (among many), from George Loud at the 12-30-24 MNCA meeting was a radioactive novacekite. I took photos under LED light, SW, MW, LW UV. I am not sure when the price tag was attached or the current market value, but I am thrilled to have it at no cost. Thank you, George, for one of my treasured possessions, and everyone that provided excellent items at the meeting.

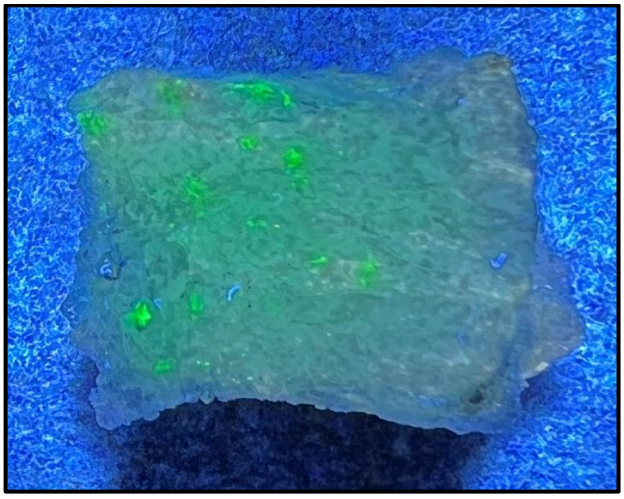
I am a little concerned about having something radioactive nearby and have worn disposable gloves when touching it. I feel like I should have it encased in lead with concrete and stainless steel and buried back deep in the earth where it came from. I suppose, (hope) that is being a little dramatic, and maybe you get a chuckle reading this. Also, thank you all for electing me as an officer of the club. I will do my best to serve all current and former officers and members well. It is an honor to be the club Secretary that I accept proudly.



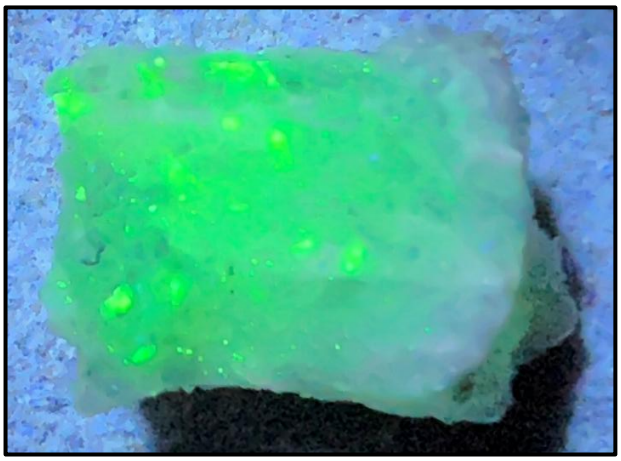
Novacekite, *Chihuahua, Mexico*
John Sanborn photos



Novacekite, *Chihuahua, Mexico SW UV light*



Novacekite, *Chihuahua, Mexico MW UV light*



Novacekite, *Chihuahua, Mexico LW UV light*

Shoebox Adventures 144: A Speck

Photos and text by Mike Seeds, Editor Baltimore Mineral Society Conglomerate reprinted from Micro News Vol. 59, No. 1, Jan 2025, CMMA Editor Steve Stuart

Sherlock Holmes was sometimes asked to find things such as a certain naval treaty or the black pearl of the Borgias. I thought of Sherlock recently when I lost something and needed expert help. Lately I've been going through some old micromounts from the giveaway tables at the Desautels Symposium last October. Among them was a very small, crystalized copper from Bisbee Arizona. It was only about 1.2 mm in diameter. Someone had tried to mount it on a thin wooden post, but before the glue had dried, the specimen had slumped over the side and was hanging from the top of the post on a strand of old glue. I got it off the post and was in the process of turning it good side down ready to glue it to a brush bristle when it vanished. Poof.

*Figure 1: **Copper** from Bisbee Az. The crystal is about 1.2 mm in diameter.*

Somehow the little specimen popped into the air and was gone. I searched for it on my work bench and finally decided it had fallen onto the carpet.

Crawling around in a darkened room with a flashlight passed some time but didn't reveal the specimen down in the carpet pile. Should I give up? After all, the crystals were beautiful, but they were just a tiny speck. It was gone. I tried to consol myself that it was really quite small, but it seems to me that the smaller a specimen is the nicer it is as if its beauty were more concentrated. That I got it for free from a giveaway table didn't seem to be a satisfactory excuse for abandoning the little thing -- lost, all alone, in a strange place. Quintin Wight had a suggestion. "Put a piece of a nylon stocking over the nozzle of a vacuum cleaner and vacuum the carpet. Then inspect the nylon filter to see if it picked up the specimen." (Note to self: If you put a piece of nylon stocking over the nozzle of a vacuum cleaner, use lots of duct tape. A rubber band isn't enough.)

Quintin said he lost a lovely quartz bit with imbedded goethite in a deep pile carpet, and the nylon trick recovered the specimen on the 10th try. I opened negotiations for a piece of a nylon stocking and got to work on the carpet. After a lot of vacuuming, I had a clean carpet but no copper speck.

What would Sherlock do? Whatever remained had to be true. I began at one end of my work bench and removed and inspected items one at a time searching for the little speck of copper. I also studied the grit left behind on the table, and there was a lot of grit, but I had confidence that the little copper was quite sparkly and would stand out. At last, almost 18 inches from where I had been working with it, two thirds of the way across my work area, I found the little copper speck. It is now mounted on a brush bristle in a microbox safe from whirlwinds, earthquakes, and clumsy fingers. I think Sherlock would smile and nod.

*Figure 2: The **copper** specimen is now home and safe in its dedicated display case.*

Micromount Zoom Sessions - Australia

Micromount 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.

https://crocoite.com/index.php/2023/07/the-micromount-club-zoom-sessions/

All sessions are held on the third Wednesday of the month (unless noted otherwise) 6am Australian time. Steve has set up a recurring Zoom meeting, which means you only need to register once, and join as many sessions as you like.

2025 Micromount Club Zoom Meetings: 2pm ET

February 19: "Roy Starkey Micros" presented by Martin Stolworthy.

March 19: "Minerals from the South of Spain" presented by Henk Smeets.

April 16: "Minerals of Japan" presented by Steve Sorrell.

May 21: "Crystal shapes: spheres, cubes, fibers and more" presented by Frank Loman.

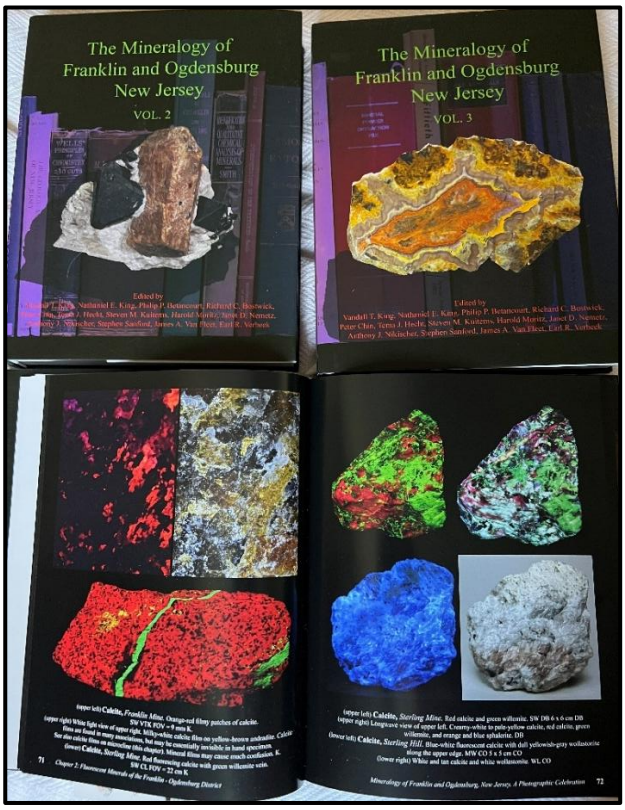
June 18: "Minerals on Stamps" presented by Steve Sorrell.

July 16: Topic & Speaker TBD.

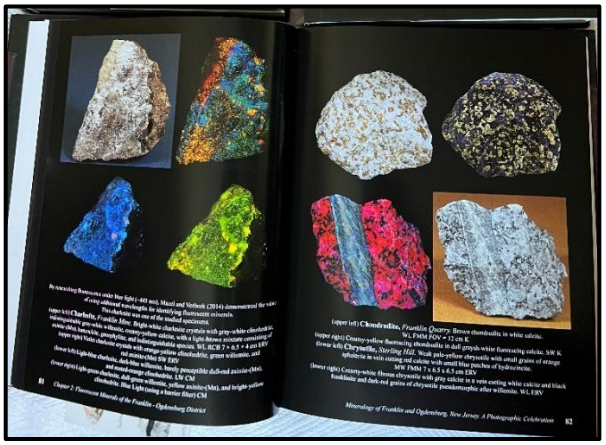
MNCA Editor's note: thanks to Steve Sorrell from Melbourne, Australia, we have been connecting with new mineral friends around the world for the past three years. I have learned that he is a master photomicrographer, as well as an author of mineral books and a talented mineral artist.

Books: The Mineralogy of Franklin and Ogdensburg, NJ Vols. 1 to 3 for John S.

Santa did not leave coal in John Sanborn's stocking, rather 1,400 pages of the "best ever" reading on fluorescent minerals. Notice Peter Chin's name on the front cover as an editor. Aloha Peter resides in Hawaii.



Page samplings of 1,400 total pages within three volumes of the history of New Jersey fluorescent minerals. Photos by John Samborn.



49th Annual Leidy Microscopical Society Micromount Symposium

TWO GREAT LECTURES

SATURDAY

"Diving Into Olivine"

By P.M.S. member Chris Duerr
Geologist

"The Fascinating World of Diatoms"

By Bill Dailey

Bill is a collector of high-quality samples of diatomite and freshly collected diatom samples from all over the world for 25 years.

Silent Auctions*Give-Away Tables

100th Anniversary

Celebrating 100 Years of Microscopical Magnificence

March 7th – 8th 2025

Fri. Noon to 6:00 PM
Sat. 9:00 AM to 6:00 PM

Lunch to be Provided on Saturday with Paid Admission
Table Space for Two Days: $30.00 for ½ of 6 Foot Table, $40.00 for Full 6 Foot Table
Visitor's Fee: $5.00 for Friday, $10.00 for Saturday (Includes Lunch)

RESERVATIONS & ADMISSIONS:
Make Checks Payable to: The Leidy Microscopical Society
Mail to: Don McAlarnen, Treasurer
916 Senator Road
East Norriton, PA 19403
For Questions: Contact Don at (610) 584-1364
Or Email: donmcalarnen@outlook.com

Same Great Location:
Advent Lutheran Church
45 Worthington Mill Road
Richboro, PA 18954

American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

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

2025 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 over 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.

January 2025 Local Geology Club Meetings

6: Northern Virginia Mineral Club NVMC Meeting 6:30pm Holiday Party with MNCA www.novamineralclub.org

8: Mineralogical Society of the District of Columbia MSDC Meeting 7:30pm on Zoom www.mineralogicalsocietyofdc.org

13: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland – GLMSMC Meeting 7:30 pm 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

22: Baltimore Mineral Society BMS meeting www.baltimoremineralsociety.org

27: Micromineralogists of the National Capital Area, Inc. MNCA Meting 3pm Kings Park Library www.dcmicrominerals.org

MNCA Dues are Due 2025

Note: MNCA members, remember to pay your dues for 2025. Details are found on page 11. Michael Pabst, Treasurer

Geo Word of the Day and its definition

kaliophilite (kal-i-o-phil'-ite) An colorless hexagonal mineral of volcanic origin: $KAlSiO_4$. It is dimorphous with kalsilite. Syn: *facellite; phacellite.*
urusovite A vitreous light green monoclinic mineral: $CuAlO(AsO_4)$.
yttrofluorite (yt-tro-flu'-o-rite) An ill-defined cubic mineral: $(Ca,Y)F_{2-3}$. It may be yttrium-bearing fluorite.
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.

Black Halite on Butter?

By Kathy Hrechka, Editor

I became curious with black sprinkles on my butter served at the Flying Fish restaurant, Disney. My photos did not reveal cubic crystals, but translucent angled what? Crystals tasted mildly salty. Black liquid washed off crystals, so I researched and found an answer. "Today, many black salts are made synthetically from a combination of sodium chloride, sodium sulfate, sodium bisulfate, and ferric sulfate. The salt is then mixed with charcoal and heated before the final product is ready." https://www.healthline.com/nutrition/black-salt#regular-vs-black-salt

Closeup photo of black halite crystals on butter. Photo by Kathy Hrechka.

Micromineralogists of the National Capital Area
www.dcmicrominerals.org

We are meeting at Kings Park Library in Burke, VA 3-5:30pm (forth Monday to Wednesday)

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

President: David Fryauff
Vice President: Jeff Guerber
Secretary: John Sanborn
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
*American Federation of Mineralogical Societies (AFMS) www.amfed.org affiliation

Dues: MNCA Membership **Dues 2025**
$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
* John Sanborn
* Kathy Hrechka
* Don McAlarnen
*Mike Seeds