Micromineralogists of the National Capital Area, Inc.

MNCA Website www.dcmicrominerals.org

The Mineral Mite

Vol. 55 – No. 6 Washington D.C. – A Journal for Micromineralogists June 2022

June 22 Time: 3-6pm Kings Park Library in Burke, VA

Program: Micromineral Study

by Jeff Guerber, Vice President

We have decided to meet in person, to reconnect with our micromineral club members. We have reserved a room at the Kings Park Library in Burke 3-6pm. Let's bring our microscopes, microminerals to share, and collecting stories. Bob Cooke will bring George Reimherr's microminerals to the meeting for members to review. Kathy will bring items from the estate of Jack Nelson for members to purchase.

Kings Park Library 9000 Burke Lake Road
Burke, VA 22015

Mystery Micro Mineral of the Month

President's Message:

by David Fryauff

I am honored and happy to be nominated (and elected?) to the position of president of the Micromineralogists of the National Capital Area (MNCA). I thank David Maclean for his years of service as the MNCA President and look forward to the support of my fellow officers and members. I don't recall when I first joined MNCA, but I believe it was back in 2011 or 2012 and give credit to Scott Braley for bringing me aboard.

I was in the twilight years of my 28 years as a Naval Officer when I joined MNCA, but my fascination with all things microscopic in the natural world around me, and to rocks, minerals, and fossils, goes back to my grade school years in St. Paul, Minnesota. It did not take long before I was hooked on microminerals and micromounting. My father was a chemical engineer in the 3M (Minnesota Mining & Manufacturing) company and went on to become a mining engineer in 3M's Industrial Minerals Division. His jobs in the company took him to quarry and crushing operations in Little Rock, Arkansas, Corona, California, Wausau, Wisconsin, and finally to the Belle Meade New Jersey. I was collecting rocks at each of these places and really considered majoring in geology at college, but somehow, I veered off into Biology with a special interest in Entomology and the disease organisms they transmit.

continued next page

Mystery micromineral clue: Tooele Co., Utah
Joe Marty's micromineral is located on our club website, tab "photomicrography".

President's Message continued

That proved to be a good thing and led me to public health-related research in some of the most interesting and challenging places in the world. After graduate studies at Rutgers and Johns Hopkins School of Hygiene & Public Health and then a military career of infectious disease microbiology, it was a surprisingly natural and easy transition into the amazing and very friendly world of micromineralogy and micromounting. And let me just say in closing that I am still very much a field person and an avid collector. The best specimens and mounts in my collection are those that I found myself, but I really love trading. Now, if I could only learn (and afford) to take high resolution photomicrographs....

Mystery Micro Mineral for June

Answer: Cerussite, rosasite, malachite from Hidden Treasure Mine, Tooele County, Utah by Joe Marty, Atlantic Micromounters' Conference speaker 1015

Minutes of Previous Meeting 5.25.2022

by Robert Cooke, Secretary

First order of business was election of officers, an act that had been delayed by the pandemic. Dave MacLean withdrew from consideration as President. Dave Fryauff stepped up as the new nominee for President and Jeff Guerber agreed to run for Vice President. Michael Pabst and Bob Cooke agree to continue in their positions of Treasurer and Secretary, respectively. All nominees were confirmed by a unanimous vote.

Members agreed that the new fee structure for renting a meeting room at Long Branch Nature Center was more expensive that the club could afford. It was agreed to hold meetings at Kings Park Library until a better option could be identified. Meeting dates and times will vary from month to month and will be subject to whatever schedule can be arranged with the library. Bob reported that all MNCA property has been removed from the storage closet at Long Branch Nature Center. All materials remaining in the closet are the responsibility of the Northern Virginia Mineral Club.

Tom Kottyan (The Mineral House, Bucyrus, Ohio ThemineralHouse@netzero.net) donated a bag of fluorite/celestine/sphalerite "chips and dust" from the Stoneco White Rock Quarry, Clay Center, Ohio. MNCA members responded in an appropriate feeding frenzy. Remaining material will be available at future meetings.

Michael Pabst reminded attendees that the AMC auction of the better specimens from the George Reimherr micromount collection provided a net of $747 to the MNCA treasury after AMC expenses were paid. Another $253 of sales would be required to offset the acquisition cost.

After considerable deliberation members agreed on the following disposition plan for the Reimherr collection:

- Recipients must be MNCA members in good standing, i.e., 2022 dues are paid.
- Distribution will occur at the September meeting (recipients or their proxy, must be present).
- The sequence for members to choose a micromount will be determined by random draw. Once everyone has had a chance to select a micromount, the process will be repeated in reverse order. The process will then be repeated until all participants have all the micromounts they want.
- Recipients will pay $2 for each micromount.

The delayed date (September) was chosen in order to allow members sufficient time to review the Reimherr collection and prioritize their wish list. The collection will be available for review at the June meeting. Additionally, members may contact Bob Cooke (rdotcooke@gmail.com or 703-451-1540) and arrange a visit to review the collection at 7407 Silver Pine Dr, Springfield, VA or to check out a drawer of micromounts for review and return.

Kathy Hrechka stated she will continue with the newsletter and website operations. She is, however, stepping down as AMC Chair. Discussion of the future of AMC activities was deferred to another meeting.

The next MNCA meeting will be June 22, 2022 from 3-6 PM at the Kings Park Library small conference room. Meeting adjourned at 5:30 PM

Previous Program Reviewed 5.25.2022

by Robert Cooke, Secretary

Members of the Micromineralogists of the National Capital Area met in-person at the Kings Park Library on May 25, 2022. Attendees were Bob Cooke, Dennis Coskren, David Fryauff, Jeff Guerber, Kathy Hrechka, John Kress, David MacLean, and Michael Pabst. Dennis is now our newest member.

Field Trip update: June 11

by David Fryauff

I briefly mentioned the start of field trips to different collecting sites. On Saturday June 11 there is a field trip to the Middleburg and Mount Pleasant Mills National Limestone quarries in Snyder County, PA. This is limestone with calcite, strontianite, fluorite, dolomite, some celestine. The MPM site is mostly wavellite and some smaller phosphate minerals. Check-in is at 0830 at the Middleburg quarry office. Let me know if any are interested. NVMC & GLMSMC members will also be attending. Carpooling is smart. For details, please call me at 240.277.7206.

Photo: David Fryauff' s field trip PA/MD Quarry

Jack Nelson's Microscope, Estate, etc.

by Kathy Hrechka

I was contacted by Jim Nelson, the son of Jack Nelson, who was a former member of MNCA. Jack was famous for panning for gold in Virginia. Jim hoped our club would memorialize his father by taking possession of his late father's microscope etc. I paid $450 from the AMC funds to Jim. The attached inventory is listed below.

*Olympus QZT-745 stereo microscope w/ 10x oculars, trans/reel stand, pr. 20x oculars
*Edmund Scientific Co. camera to microscope adapter
*2 - Tensor Halogen Table Lamps (one needs repl. bulb)
*UVP Model UVG-4 Cordless Mineral light UV light
*UVP handheld Black light
*Titan Tool Supply FOILB 150 Fiberoptic illuminator Titan Tool Supply FOI-1 Bifurcated bundle
*Swiss mm dial gauge
*Box of 81 mounted samples in 1.5" plastic display boxes
*Box of mounted micro crystals
*Box misc. supplies - plastic bags, labels, etc.
*Box of 15 different mineral samples sent to Dad from Graham Lee - Australia
*Large box samples w/ handmade list from Sugar Grove WV.
*Various rock samples
*Box of photos - collecting trips, conferences, gold panning trips etc.
*Misc. correspondence and articles
bag of rough opals
*Copies of Mineral Mite 1996-2002

I will bring this inventory to the June 22 meeting. Jeff Gruber is in possession of the microscope and fiber optic lighting system, with consideration to purchase. I promised Jim Nelson that I would give his father a special tribute in an upcoming newsletter.

Baltimore Mineral Society Picnic 6.26

by Mike Seeds, editor of The Conglomerate

Sunday, June 26, 5-8pm - Home of Al Pribula and Linda Watts. BMS will provide the meats, buns, and soft drinks, and the attendees will provide side dishes and desserts.

Photographing Gillardite

by Michael Pabst PhD, Treasurer

In previous articles, I lamented the scarcity of well-crystallized nickel secondary minerals. Except for Annabergite (nickel arsenate), other oxidized nickel minerals, which can be abundant ores of nickel, mostly fail to crystallize in a pleasing way. At the end of my article on nickel minerals in the March 2022 issue of *Mineral Mite*, I did show a borrowed photo of a nice Gillardite crystal. I had to borrow the photo because I was unable to obtain a sample of Gillardite.

Gillardite is a copper and nickel mineral, $Cu_3Ni(OH)_6Cl_2$. Gillardite is a member of the Atacamite Group. It crystallizes in the trigonal system $3^{-}m$ – hexagonal scalenohedral. It is close to Paratacamite-(Ni), $Cu_3(Ni,Cu)(OH)_6Cl_2$, which is also trigonal, but 3^{-} – rhombohedral. It is the nickel analog of Herbertsmithite, $Cu_3Zn(OH)_6Cl_2$, which contains zinc, and Leverettite, $Cu_3Co(OH)_6Cl_2$, which contains cobalt.

Imagine how delighted I was to receive an email from John Haupt, who lives near Melbourne, Australia. John Haupt took the photograph of Gillardite that I had borrowed, and he offered to send me a sample of Gillardite! He also sent me two photos of the specimen, and he said that he would like to compare his photos with mine. I had been meaning to review my current photography setups for the benefit of *Mineral Mite* readers, so this Gillardite gift is the perfect subject for an article on photomicrography as currently practiced in my basement.

The plan of this article is to photograph the beautiful Gillardite specimen that John Haupt sent to me, using three methods:

1) Macro lens (Olympus 60 mm) with or without supplementary Raynox DCR-250 lens
2) Stereomicroscope (Bausch & Lomb StereoZoom 7) with 10X eyepiece
3) Wemacro rail with Mitutoyo 10X infinite-focus objective with Raynox DCR-150. (The Mitutoyo lens allows longer working distance for better lighting. The Raynox DCR-150 focuses the Mitutoyo image onto the camera sensor.)

All three methods use the same camera, an Olympus (now called OM System) micro four-thirds mirrorless camera, model OM-D E-M5 Mark II. This camera with the macro lens attached can perform focus stacking automatically. Focus stacking is a process to improve depth-of-field by taking a series of photographs at different depths of focus, then using computer software to combine the sharpest parts of each photograph into a composite photo, giving greater apparent depth-of-field. With the stereomicroscope, the steps of focus involve manually turning the focusing wheel with the tiniest steps possible. The Wemacro rail makes the steps and triggers the camera automatically. With the macro lens, I can use free Olympus Workspace software to stack the images. With the stereomicroscope and the Wemacro rail I use the free CombineZP to stack the images. The camera is always controlled by a laptop computer, either directly using Olympus Capture, or indirectly using the Wemacro rail software.

Let me begin by saying that I like John Haupt's photos better than mine, especially from an aesthetic point of view. Here is a beautiful group of Gillardite crystals from the specimen he sent:

***Gillardite**, 132 North Nickel Mine, Widgiemooltha, Coolgardie Shire, Western Australia. FOV 0.5 mm. Photo by John Haupt. Photo taken with Olympus E-M1 camera with Mitutoyo 10X objective and an Olympus 75-300 mm zoom lens. Stacked with Helicon Focus software and adjusted with Photoshop Elements.*

I cannot do better than this photo, and I won't even try. John's second photo appears next:

Photographing Gillardite continued

***Gillardite on Gaspéite**, $NiCO_3$, 132 North Nickel Mine, Widgiemooltha, Coolgardie Shire, Western Australia. FOV 0.5 mm. Photo by John Haupt. Note that the FOV is 0.5 mm, indicating that the width of the crystal group is about 0.25 mm.*

I decided to see how close I could come to equaling this photo with my various setups. A specimen of width 0.25 mm is challenging, and I hope you will enjoy watching my photos struggle to slowly approach John's standard. This photo is not a fluke, here are two other beautiful photos of Gillardite by John Haupt on Mindat: https://www.mindat.org/photo-897390.html and https://www.mindat.org/photo-897391.html.

Photo on right:
Gillardite on Gaspéite with colorless Gypsum. FOV 10 mm. Photo by Michael Pabst, stacking 145 images. The tiny hexagonal crystal group can be seen just below the top center of the photo.

Here is my photo of the overall specimen, using the macro lens alone:

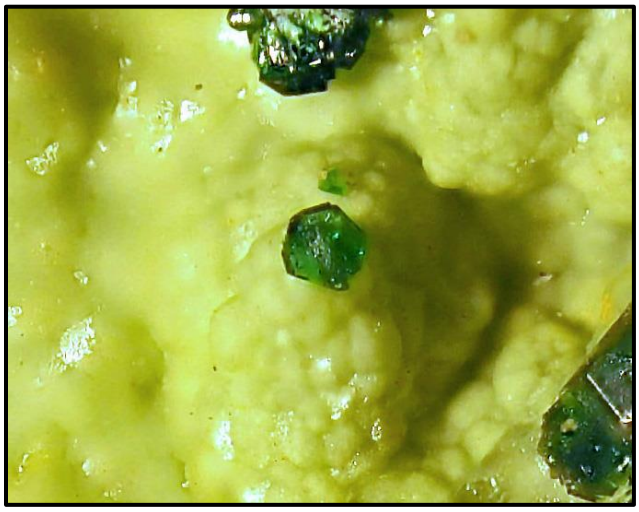
***Gillardite on Gaspéite** with colorless Gypsum. FOV 19 mm. Photo by Michael Pabst, stacking 75 images. The little 0.25 mm crystal group is at the 12 o'clock position. It is the tiny green dot just barely visible below the bigger green group near the top edge of the specimen. The whole specimen fits into a 22 mm x 22 mm micromount box.*

Zooming in a bit by adding the Raynox 250 supplementary lens to the macro lens, and cropping a bit, we get this:

***Gillardite on Gaspéite** with colorless Gypsum.*

Photographing Gillardite continued

Because of the high resolution of the macro lens, even with the Raynox lens attached, this photo can be cropped further to give this closeup:



***Gillardite on Gaspéite**. Preceeding photo cropped with Photoshop. FOV 1.5 mm.*

I have reached the limit of the macro lens. The macro lens is fast and easy to use, and the software can stack many images quickly. But the cropped photo shown above is about the limit of what the macro lens can do. Further cropping or magnification shows noticeable blurring.

The next step is to try the stereomicroscope. My microscope is surprisingly limited with respect to photography. The zoom feature is nice because it is easy to find and focus on the tiny crystal of interest. But the resolution is limited because of the need to provide enough light for easy viewing. (For $20,000, the Zeiss v.20 scope can do much better than my old B & L, but there seems to be a delay in winning the lottery.) Crystals that stand out in stereo often fall flat in the 2-D photo, so I close one eye and then the other, and chose which eyepiece gives the best 2D image, and attach the camera to that eyepiece. I can take photos from both eyepieces and create a stereo image pair, but many people struggle to see 3D in such images.

***Gillardite on Gaspéite**. FOV 0.5 mm. Photo by Michael Pabst, using stereomicroscope and stacking 6 images. This photo is cropped to about ¼ of the original size, which is the practical limit with my scope.*

Finally, the greatest magnification and resolution that I can muster comes from using the Wemacro rail and the Mitutoyo 10X objective. Because there is no zoom function, it can be time consuming to find the item of interest at such high magnification. Also, it is difficult to tell whether the lighting is well arranged. But once the area of interest is located and lighted, the rail takes the stack of photos automatically.

***Gillardite on Gaspeite**. FOV 0.5 mm. Photo by Michael Pabst, using Wemacro rail and Mitutoyo 10X objective, stacking 27 images.*

I think this is a pretty good photo of a crystal group that is only about 0.25 mm. But it is a little harsh, compared with John Haupt's beautiful images. Thank you, John, for providing such a beautiful and inspiring specimen of Gillardite.

Diamond Prospecting in Murfreesboro Arkansas: a Mother's Day Retreat

by Kathy Hrechka, editor

What can I say? I finally made it to Murfreesboro, Arkansas to discover naturally occurring diamonds at the Crater of Diamonds State Park. Upon arrival I studied the exhibits and viewed a video of what to expect while prospecting.

While trekking through the 37-acre weathered lamproite field, I had eagle eye vision, to catch a mere sparkle of a diamond in the sunshine. The conditions were right, as it had previously rained three inches days prior to my arrival. The temperature soared in the nineties, with a slight breeze. I decided to prospect with my loope, hand tools, and dry sift. I located many associated minerals, including amethyst, calcite, jasper, mica, quartz, sandstone, volcanic tuff, and lamproite. I was in a state of amazement that I finally made this trip by myself. Just digging, raking, and sifting was so much fun. My hiking boot tracks crisscrossed over the entire field. On occasion, I would go the sluicing stations for shade and cool water breaks. I studied minerals left behind on the tables. My opinion was that diamonds could be recovered at the bottom of the water tables because they were micromineral in size.

While I did not strike it rich for diamonds, I decided to shop in town before I drove away. One of the local shops provided my "silver pick" micro diamond for Mother's Day. Priceless memories included 2022!

Kathy arrives at her "bucket list destination"

Brief history: The first diamond was found there in 1906 by John Huddleston, who owned the property. Crater of Diamonds changed hands over time with unsuccessful attempts made at commercial mining. The mine was privately owned and opened as a tourist attraction from 1952 to 1972. The state of Arkansas purchased the property in 1972 for development as a state park. Today you can rent prospecting equipment for a nominal fee. Park entrance cost me $10.

Geology of Crater of Diamonds State Park (Prairie Creek Lamproite), Murfreesboro, Pike County, Arkansas:

The Crater of Diamonds volcanic pipe is part of a 95-million-year-old eroded volcano. The deeply sourced lamproite magma, from the upper mantle, brought the diamonds to the surface.

Four major rock types occur:

- magmatic lamproite (with mantle and crust-derived xenoliths);
- marr epiclastics (largely sandstone);
- lamproite lapilli tuff (phlogopite-rich);
- and lamproite breccia tuff.

These last two types are the source of most of the diamonds recovered in the visitor area. Haggertyite is present as microscopic hexagonal plates in the alteration zones of xenoliths in Prairie Creek Lamproite. The Prairie Creek Lamproite is Early Cretaceous (106 mya) in age.

Kimberlite vs Lamproite:

The primary melts of kimberlites and lamproites were derived from different types of mantles. Kimberlites are characterized by CO_2-dominated regime, whereas formation of lamproites was assisted by essentially H_2O fluid. Kimberlite and lamproite bodies have different morphology: lamproites compose small subvolcanic bodies with lava flows, while kimberlites form volcanic pipes with no lavas. Kimberlites are localized within ancient cratons, while within-plate lamproites are restricted to adjacent Proterozoic belts.

Diamond Prospecting

Visitor's Center

Kathy's "Field of micromineral diamond dreams"

Kathy's 5pt diamond above *Kathy Hrechka photos*

Sources Cited:
https://ww.Mindat.org Murfreesboro, Pike County, Arkansas, USA
Wikipedia https://en.wikipedia.org wiki Crater of Diamonds State Park
https://link springer.com/article/10.1134 Kimberlites and lamproites: Criteria for similarity and differences

Quartz: A Tour of Ron Coleman's Mine in Jessieville, Arkansas

by Kathy Hrechka

I had the recent opportunity of touring the open pit quartz mine located in Jessieville, Garland County, Arkansas. The mine has been owned and operated by the Coleman family for six generations. My wish was to explore to the bottom of the pit, so I joined a tour. The military styled vehicle rumbled steadily down the winding road to the bottom of the pit which was filling with water from a natural spring. Since I was the sole adventurer on the vehicle, I cherished great views along the way of both sides of the sandstone walls. I imagined new quartz veins to be discovered.

General Geology: Most of the quartz veins/crystals are restricted to a belt about 30-40 miles wide that extends about 170 miles west, southwest from Little Rock, Arkansas This area corresponds to the core region of the Ouachita Mountains. In the Jessieville area, the basal beds of the Blakely are transitional from the overlying sandstones and conglomerates downward into the underlying Mazarn shale. More than 85 percent of the crystal deposits occupy steeply dipping or vertical longitudinal fissures, which parallel or diverge only slightly from the trend of the folds in the Ouachita Mountains.

The Ouachita orogeny was a mountain building event during the Pennsylvanian Period (a period that was 320 to 286 million years ago) that resulted in the folding and faulting of strata (layers of sediment/rock) currently exposed in the Ouachita Mountains. The Ouachita orogeny led to the formation of both the Ouachita Mountains and the Ozark Uplift to the north. The two areas, however, formed in very different ways which significantly affected the region's topography. The Ouachitas are the result of folding, and their rock units are twisted and tilted. This makes the Ouachitas truly mountains.

Most of the collectible quartz crystal is obtained from deposits in the Paleozoic time scale. The more than 25,000 feet of Paleozoic rocks exposed in the Ouachita Mountains have been deformed into complex gently plunging folds that trend nearly east west. Steeply dipping fractures, closely related to the major folds and faults of the region controlled the location and deposition of most of the quartz. Arkansas is known worldwide for the production of quartz crystals by both collectors and scientists. Quartz from Arkansas became a valued part of a nation-wide search for quartz suitable with piezoelectrical and optical use in 1942 during World War II. The Arkansas General Assembly of 1976 established Act 128, designating quartz crystal as the official State Mineral.

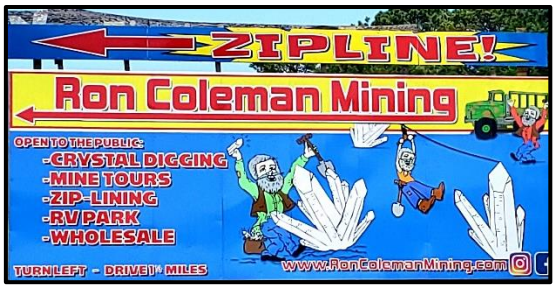


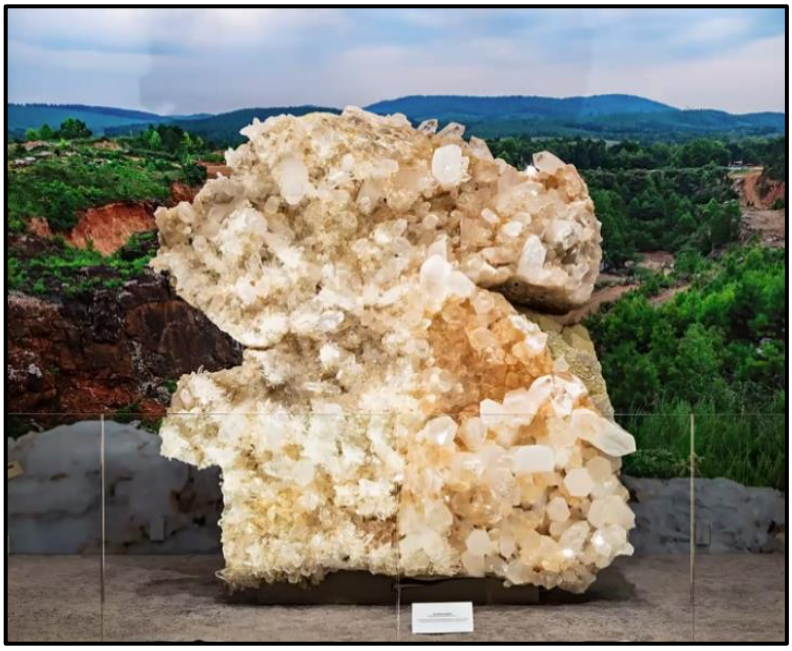
Photo lower left: Kathy's silver pick quartz, 6x3x3cm Jessieville, Arkansas

Quartz continued

Kathy is admiring her favorite quartz in the showroom at Ron Coleman's quartz mine.

Quartz from Ron Coleman's mine resides in the new UofArizona Alfie Norville Gem & Mineral Museum in Tucson, Arizona - dimensions 6x6 ft.

Smithsonian's Dr. Mike Wise, Geologist in the Mineral Sciences department is observed searching for microminerals in the new 8,000-pound quartz.



Dr. Kirk Johnson, Sant Director of the Natural History Museum, officiated at the grand opening of the new quartz from Arkansas on October 27. 2021.

Sources cited:
J. Michael Howard 2008 Arkansas Geological Survey A.G.E.S. Brochure Series 001 Arkansas Quartz Crystals

What are the Ozarks? https://lovetheozarks.com/

Field Trip Report: Haines-Kibblehouse PA/MD State Line - May 28, 2022

By David Fryauff, President

A note about my/our first mineral collecting field trip of 2022: The Haines-Kibblehouse Penn/Md serpentine quarry sits squarely within the State Line Chromite Mining District of Maryland and Pennsylvania. It is a small quarry that sits right next to the much larger Cedar Hill quarry. Mindat lists just 14 mineral species from the H-K Penn/MD quarry, but they list 31 mineral species from the Cedar Hill quarry and state that the geology and mineralogy of the two places is basically identical.

I have known the PA/MD quarry superintendent from six previous visits to his quarry.He gave me a date of May 28th and a quota of 25 people for a 4-hour Saturday morning rockhounding session. Magnesite in this quarry makes it a very dusty place, but we had several rainy days in the week before. When we got down into the quarry at 8 am on Saturday morning everything was clean and bright. Everyone was keen to find some brilliant green williamsite, or a specimen of the elusive copper-magnesium carbonate mineral mcguinnessite. Of course, every single one of us wanted to find nakauriite, a ridiculously rare copper sulfate carbonate hydroxide hydrate mineral that is known from just a dozen places in the world. Those two are from the H-K PA/MD quarry and the Cedar Hill quarry located right next to it.

To my knowledge as the field trip coordinator of this event, no one in any of the 3 EFMLS clubs (1 DE, 2 MD) found either of these two minerals. Possibly the best find of the day was made by Dave Lines who found a tailgate boulder of magnesite-serpentine with a large mint-green mass of botyroidal williamsite (=a translucent, pale, apple green to intense chrome green variety of antigorite) or possibly nickel-bearing magnesite, or even nickel-bearing gaspeite.

Attached is my only good find of the day.....found in the last 5 minutes before we had to clear out, and limited to just a couple of thumbnails and micros. I used LW UV to show the nice pink of magnesite crystals but took the photo in shaded daylight to allow us to see the lattice of interconnected plates of nickel-bearing pyroaurite.

Magnesite *crystals with lattice of interconnected plates of nickel-bearing pyroaurite,*

Magnesite *crystals with lattice of interconnected plates of nickel-bearing pyroaurite, LW UV light.*

Friends of Mineralogy VA Chapter FMVA May

by Thomas Hale, President

We have been busy working on the publication, so apologize for a short article this month and any issues. Lots of exciting news on the way!

FMVA will be hosting a book launch and community social event on **July 22nd in Culpeper, Virginia at 1:00pm.** We highly encourage all of our teachers, industry contacts, and affiliate partners to attend, as this book launch will be a major milestone for our state! (*EVERYONE IS WELCOME*) Our goal is to have this at the Old House Winery near the Culpeper Quarry, where our team will be earlier that morning for a Rockin' PD event with VAST, VESTA, and VTCA. **Please RSVP now and more information will be provided in an individual email soon:** https://forms.gle/utWoAYA83PPCQZCi7

Brandi Moore will be starting pre-social events before our monthly speaker series as a way for our members and affiliates to get to know one another and chat before meetings. There will be topical meetings and different geology/mineralogy games to just get people engaged. In the future, we may do short mini presentations from our members who have been on trips or recent mineral shows. This will start at 6:30pm, with the official meeting at 7:10pm. **Please let us know if you would be interested in this event by emailing back to this chain:** "INTERESTED IN PRE-SOCIAL"

On July 23rd, the Lynchburg Club will be hosting their 2nd Annual Mineral Show! Please come out to support this event and share the flyer with your clubs! Flyer is attached below. FMVA will have a booth at this event.

You will be hearing more soon from our team regarding the book launch and social event. We have a lot of work to get accomplished over the next few weeks, so bear with us as we achieve this incredible milestone for our state!

Reach out with any questions or further inquiries!

Stilbite, Goosecreek Quarry, Loudoun Co., VA (Ex Buck Kellar)

NOVA Traprock Quarries

Publication Update

The time has come for us to wrap up our first book publication! Right now, we are putting the final touches on and finishing the design. From June 6-11, our team will be taking comments and edits from reviewers. After that, we will be getting a proof and making the order. By July 22, we will have 400 copies available for interested parties, with half going towards teachers across the Commonwealth. Our price for the book will be $25.00 and we will have more information on ordering soon. This has been a massive team effort and we are exciting to continue making new publications!

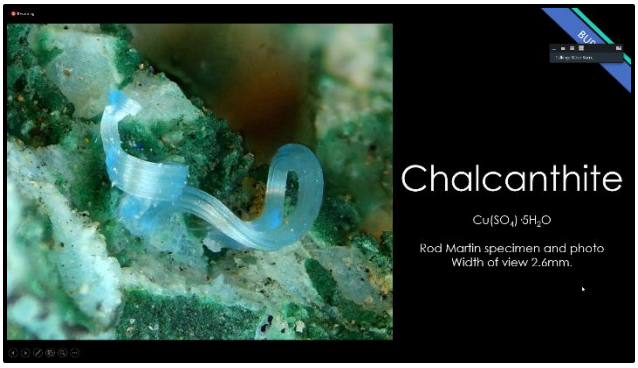
Micromineral News from Australia

"Mines and Minerals of the English Midlands"
presented by Martin Stolworthy on May 17
screenshots by Kathy Hrechka

Steve Sorrell resides in Melbourne, Australia and hosts various geology persons of interest at their micromount meeting every other Tuesday at 4pm (ET) on Zoom. You can sign up for Steve's programs, while enjoying friendly faces within our geology community around the globe. Join the June 14 meeting.
steve@sorrellpublications.com

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

"Burra Mines of Australia"
presented by Steve Sorrell on May 31
screenshots by Kathy Hrechka



Steve archives all programs for the The Micromount Club Facebook group presentations are available through the following link:

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

American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

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

2022 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.

Congratulations! Matt Charsky Arlington, Virginia was voted as 1st Vice President of the American Federation, representing the EFMLS.

University of Arizona Alfie Norville Gem and Mineral Museum at the Historic Pima County Courthouse, Is Now Open!
by S. Kaminski, Mineralogical Society of Arizona

A new gem, and mineral museum has opened in Tucson, Arizona. The University of Arizona Alfie Norville Gem & Mineral Museum (UAANGMM) is located within the historic Pima County Courthouse, an iconic and historic building of magnificent Spanish Revival architecture in the heart of Tucson
*Full article published in the AFMS News Sept 2021

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.

Local Geology Club Meetings:

June 2022
1: Mineralogical Society of the District of Columbia MSDC 7:30 Zoom
www.mineralogicalsocietyofdc.org

13: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland - GLMSMC
7:30 pm www.glmsmc.com

17: The Gem, Lapidary and Mineral Society of Washington, DC - GLMS-DC meeting
www.glmsdc.org

22: Micromineralogists of the National Capital Area, Inc. - MNCA 3-6pm - Kings Park Library, 9000 Burke Lake Road, Burke, VA 22015-1683
www.dcmicrominerals.org

26: Baltimore Mineral Society Picnic 5-8 PM
(Replacing our usual third-Wednesday meeting)
Residence of Al Pribula and Linda Watts
www.baltimoremineralsociety.org

27: Northern VA Mineral Club – NVMC meeting
7:00 pm Hybrid Zoom/in person
www.novamineralclub.org

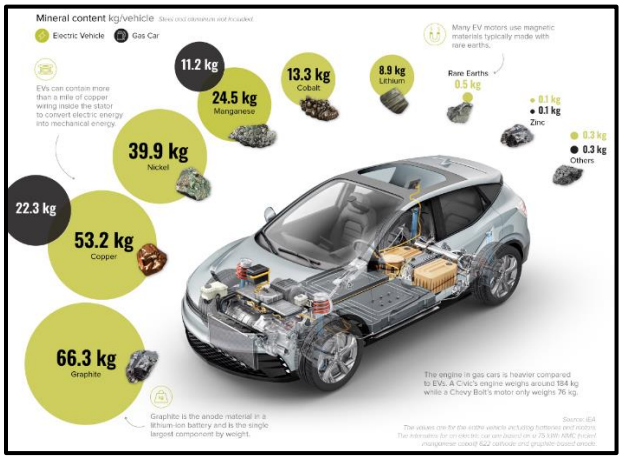
GeoWord of the Day and its definition:

russellite (rus'-sel-lite) A pale yellow or greenish orthorhombic mineral: Bi_2WO_6 .

All terms and definitions come from the Glossary of Geology, 5th Edition Revised.
GeoWord of the Day is brought to you by: EnviroTech!. envirotechonline.comwordoftheday@agiweb.org
AGI was founded in 1948, under a directive of the National Academy of Sciences It is a not-for-profit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

Elements: Need for Mining Minerals Electric Vehicles VS Gas Cars

submitted by David Fryauff, President



This graphic list elements that are mined for electric vehicles compared to gas powered cars. Electric vehicles can have 6 times more minerals than a combustion vehicle and be on average 340 kg heavier. Read More Here: https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Felements.visualcapitalist.com%2Fevs-vs-gas-vehicles-what-are-cars-made-out-of%2F&data=05%7C01%7C%7Cf1465b3e04f64766b03b08da432e1f64%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637896162608463579%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=gc64Lt6vLf4OkofXtIvpuTWBIOFrF8bVvedObZgkmD8%3D&reserved=0

Micromineralogists of the National Capital Area
www.dcmicrominerals.org
We are temporarily meeting at Kings Park Library in Burke, 3-6pm (forth Wednesdays) until we locate our 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
*American Federation of Mineralogical Societies (AFMS) www.amfed.org affiliation

Dues: MNCA Membership **Dues 2022**
$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 1st of each month.
***The Mineral Mite* will be emailed by 5th.**
No newsletter July/August

Inducted into Editor's Hall of Fame – 2018
EFMLS Trophy 2021 Small bulletins

Newsletter inputs:

*David Fryauff
*Michael Pabst
*Bob Cooke
*Kathy Hrechka
*Thomas Hale