

MNCA Website www.dcmicrominerals.org

The Mineral Mite



Vol. 57 – No. 2 Washington D.C. – A Journal for Micromineralogists Feb 2024

February 26 3-5:30pm Kings Park Library, Burke

Program: Icelandic Tour

by Jeff Guerber, Vice President

Kathy Hrechka will have just returned from a trip to Iceland and has volunteered to tell us about it! Bring minerals from Iceland to show & tell. NOTE THE DATE/ROOM CHANGE FROM WHAT WAS PREVIOUSLY ANNOUNCED to Feb 26! The large meeting room had since become available, and for Monday, so I was able to grab it instead. The March meeting will be in KPL's large meeting room, at 3:00 on Mon, March 25.



President's Message:

by David Fryauff

Thank you so much, Michael Pabst, for your wonderful presentation on Greek Minerals (and SO MUCH MORE!!!) to the Micromineralogists of the National Capital Area (MNCA) this past Monday, the 29th of January 2024. Michael Pabst, our current MNCA treasurer, devoted husband of Karen, retired University Professor of biochemistry, award-winning micromineral photographer, globe-trotting world traveler, and dedicated epicurean/gastronomist took us to the fabulous nation of Greece for an incredible hour of travelogue, geography, food appreciation. He showed us fabulous minerals formed by nature and in the ancient slags of the Greek miners/slaves and silver smelters that proliferated in the Lavrion Mining District of the East Attica, region of southeastern Greece.



Mystery Micro Mineral of the Month



*Clue Locality: Near ruins of Lombodas, Lagoa do Fogo, São Miguel Island, Azores. FOV=1.5mm
by Aloha Peter Chin, Honolulu, Hawaii*

We were also privileged to follow Michael and Karen on their tour of the wondrous and legendary volcanic island of Santorini which made one of the largest volcanic eruptions ever witnessed by man and buried the surface of the island under 200 feet of starkly white tephra. (which presumably leads to starkly white churches, homes, restaurants, etc.). I have not yet been to Greece, but Michael's photographic journey took me back to a time--2008? 2010? 2012? when I purchased an amazing little specimen of annabergite from the Kamaniza Km 3 mine in Lavrion, Greece. That little specimen was so beautiful and rare that it led me to gamble on a "box of mixed Lavrion Greece minerals" from the Phoenix dealer, Michael Shannon.

continued next page

Micromineralogists of the National Capital Area, Inc.

President's Message continued

It seemed like it took months for the rocks to come in the mail, and when they did, the box was broken and leaking pieces of rocks and dust....At first I also felt crushed, and in pieces, but it was quite amazing the minerals that survived the trip and which led me to become a totally head-over-heels micro guy. And then, a month or two later--surprize!!! It was another box of Rocks from Lavrion Greece.....Somehow, they had doubled the order. How lucky I was to buy that box of rocks from Lavrion, Greece and Michael Shannon.



Calcite, chabazite, laumontite, byssolite, & distorted, bi-terminated quartz crystals from the Vulcan quarry in Manassas, VA. FOV ~14 mm with lighting by LW UV & LED white light simultaneously. Only the calcite fluoresces, presumably due to organic? impurities?

Photo by David Fryauff

Mystery Micro Mineral of the Month

by Aloha Peter Chin, Honolulu, Hawaii

Answer: Fogoite-(Y). Near ruins of Lombodas, Lagoa do Fogo, São Miguel Island, Azores. FOV=1.5mm

2024 Membership Dues are Due

by Michael Pabst, Treasurer

Dues for MNCA for 2024 are being gratefully accepted by the Treasurer, either in person or by mail. (By mail, send a check made out to MNCA, and mail it to Michael Pabst, 270 Rachel Dr., Penn Laird, VA 22846.) \$15 for an individual and \$20 for a family.

Previous Meeting Minutes 1.29.2024

by Bob Cooke, Secretary

The Micromineralogists of the National Capital Area (MNCA) met on January 29, 2024, at the Fairfax County Kings Park Library in Burke, Virginia. Members present were Bob Cooke, David Fryauff, Jeff Guerber, Dave Hennessey, Dave MacLean, Michael Pabst, and Tom Tucker.

The MNCA business meeting was called to order by President Dave Fryauff at 5:10 PM. He recognized Tom Tucker and Dave MacLean for their contributions as past presidents. Michael Pabst gave the Treasurer's Report. He requested confirmation of the club's desire to invest monies in Certificates of Deposit, rather than having the funds sit idle in checking accounts. Members voted unanimously to authorize the purchase of two Certificates of Deposit: one from the MNCA checking account, and one from the Atlantic Micromounters account.

There was general discussion of options for a 2024 AMC and for field trip activities. Michael and Tom will talk with Liz Johnson about activities at JMU. Learning more about Raman Spectroscopy for mineral identification was suggested as a theme for a potential gathering at JMU. The possibility of a joint activity with the Shenandoah Valley Gem & Mineral Club was also discussed.

Dave Fryauff mentioned upcoming mineral events. The Leidy Microscopical Society will host a show on March 8 & 9 (Fri. 12-6, Sat. 9-6) at the Advent Lutheran Church 45 Worthington Mill Road Richboro, PA 18954. The Gaithersburg mineral show sponsored by the Gem, Mineral & Lapidary Society of Montgomery County will be on March 16 & 17 at the Montgomery County Fairgrounds. Tom Tucker also mentioned a rock shop he visited on Route 211 about 5 miles west of Luray, VA (Massanutten Country Corner at 3546 US Hwy 211 W, Luray, VA 22835).

Club members agreed to donate 20 loupes to the KPL. The next MNCA meeting will be Monday February 26th in the Kings Park Library large meeting room. Members agreed that the scheduling of future meetings should consider Tuesdays if the preferred Monday or Wednesday dates are not available. The meeting adjourned at 5:45 PM.

The Mineral Mite February 2024

Previous Program Reviewed 1.24.2024

Bob Cooke, Secretary

Michael Pabst gave a presentation on the trip he and Karen took to Greece in October last year. As a preview for a future talk about the Mineral Museum at the University of Athens, this presentation showed photos of microminerals from the ancient copper mines of Lavrion in Attica, southeast of Athens. The actual mineral specimens used in the photos were available for members to view with their scopes. In addition to a discussion of mineralogy, he provided a mouth-watering description of many culinary items he felt obliged to imbibe.



Microminerals from Greece

by Michael Pabst

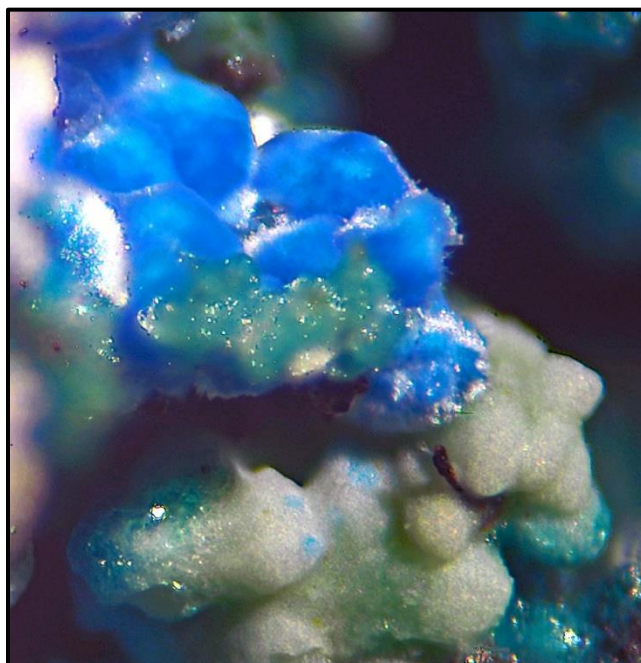
As an appetizer for a future talk about the Mineral Museum at the University of Athens, Michael Pabst showed photos of his microminerals from the copper-mining region of Lavrion in Greece. He also brought the specimens themselves so that members could view them with their stereomicroscopes. The actual minerals viewed in three-dimensions in the microscope were almost always more impressive than two-dimensional photographs, but some photos were reasonably successful. Here are some photos favored by the audience:



Annabergite. Lavrion, Greece. FOV 6 mm. Photo by Michael Pabst, using macro lens + Raynox lens, stacking 42 images. $Ni_3(AsO_4)_2 \cdot 8H_2O$



Adamite-(Al), (aluminum-bearing Adamite), Lavrion, Greece. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 5 images. $(Zn,Al)_2AsO_4(OH,O)$



Cyanotrichite (blue) and Spangolite (blue-green), Christiana Mine, Kamariza, Agios Konstantinos, Lavrion, Attica, Greece. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 22 images. $Cu_4Al_2(CO_3,SO_4)(OH)_{12} \cdot 2H_2O$ & $Cu_6Al(SO_4)(OH)_{12}Cl \cdot 3H_2O$

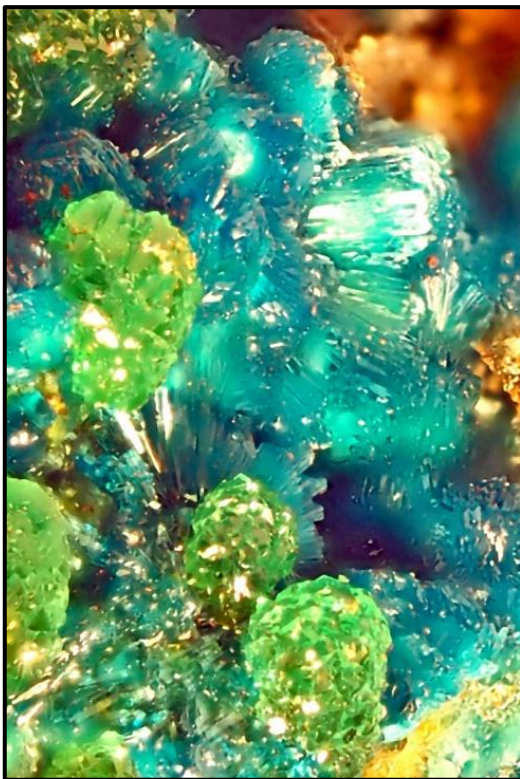
Micromineralogists of the National Capital Area, Inc.



Fluorite, Passa Limani Cove (slag), Lavrion, Greece. FOV 1.2 mm. Photo by Michael Pabst, using stereomicroscope, stacking 21 images. CaF_2



Greek Pastry: Kataifi with pistachios (upper shelf) and Orange Cake (lower shelf). FOV ~400 mm. Photo by Michael Pabst, using iPhone.



Serpierite (blue) and Adamite, copper-bearing (green). Lavrion, Greece. FOV 4 mm. Photo by Michael Pabst, using macro lens + Raynox lens, stacking 100 images. $\text{Ca}(\text{Cu,Zn})_4(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$ & $\text{Zn}_2(\text{AsO}_4)(\text{OH})$
(This photo seems out-of-focus because the depth-of-field was too large. Must try again. But it's so pretty!)



Bronze tools made with copper from the Lavrion region of Greece and with tin from Turkey or Cornwall? Third Millenium BC (3000 – 2001 BC).



Parthenon (Temple of Athena) on the Acropolis, Athens, Greece, with John and Karen Pabst in October 2023.

Snow Crystal Photomicrography 2.0

by Kathy Hrechka, Editor

We had a beautiful snowfall in Alexandria, Virginia on January 19, 2023. The temperature was 30F while the humidity measured 65 percent. This was a perfect day for admiring snow crystals through my microscope lens. Since I have been waiting years for these conditions, I looked forward to my freezing cold, snow crystal adventure.

I set up my Olympus microscope on the front porch with my Samsung 23 cell phone attached to one ocular eyepiece. I used 5"x5" square snow crystal collection stages constructed of felt or velvet. I did not use an external light source, as it would have created unnecessary glare onto the ice. These tiny crystals required thirty power magnification. The photos reveal what we commonly notice, falling clusters of hexagonal ice crystals. Mostly, it is the joy of science in the natural world that I experience and appreciate.



Manganese Iron Phosphates: Laueite, Stewartite, Strunzite, Schoonerite.

by Michael Pabst PhD, Treasurer

On the Mineral Atlas website (mineralienatlas.de) there are 83 manganese iron phosphates. Let's look at a few that I happen to have in my collection.



Laueite. Laueite

$Mn^{2+}Fe^{3+}_2(PO_4)_2(OH)_2 \cdot 8H_2O$ is triclinic $\bar{1}$ -pinacoidal. Usually honey to light orange in color. Hardness 3.

Herwig Pelckmans sent me this short article describing Laueite. The article, written by Hugo Strunz and shown in its entirety below with its beautiful crystal drawing, is a model of elegance and brevity. I believe that Herwig is writing a proper article on Stewartite and Laueite, which should be most interesting.



Laueite, Palermo No.1 Mine, Groton, Grafton County, New Hampshire. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 11 images.

Laueit, $MnFe_2 \cdot [OH|PO_4]_2 \cdot 8H_2O$, ein neues Mineral.

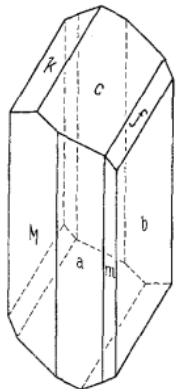


Fig. 1. Laueitkristall von HAGENDORF.

Bis 2 mm große honigbraune Kristalle von triklin-pinakoidaler Symmetrie. $a_0 = 5,28$, $b_0 = 10,66$, $c_0 = 7,14$ Å (metr. Å); $\alpha = 107^\circ 55'$, $\beta = 110^\circ 59'$, $\gamma = 71^\circ 07'$; Raumgruppe $C_2^1 - P^1$; Analyse: CaO 0,23, MnO 11,06, FeO 1,34, MgO 0,52, Fe_2O_3 27,54, Al_2O_3 1,76, P_2O_5 26,47, H_2O 30,84%. Vollkommene Spaltbarkeit nach {010}, sehr brüchig, Härte 3, Dichte 2,44—2,49; $Z = 1$. Häufigste Formen: $a\{100\}$, $b\{010\}$, $c\{001\}$, $m\{110\}$, $M\{1\bar{1}0\}$, $h\{0\bar{1}1\}$, $f\{011\}$. (Fig. 1.) Vorkommen im Feldspatpegmatit von Hagendorf-Süd in Ostbayern, und zwar auf Rockbrüchigkeit.

Laueit ist isotyp mit Gordonit $MgAl_2[OH|PO_4]_2 \cdot 8H_2O$ und Paravauxit $Fe \cdot Al_2[OH|PO_4]_2 \cdot 8H_2O$. Benennung nach MAX VON LAUE.

Institut für Mineralogie (Kristall-, Mineral- und Gesteinskunde) der Technischen Universität Berlin-Charlottenburg und Hochschule Regensburg.

H. STRUNZ.

Eingegangen am 27. März 1954.



Laueite, Palermo No.1 Mine, Groton, Grafton County, New Hampshire. FOV 1.5 mm. Photo by Michael Pabst, using stereomicroscope, stacking 25 images.

This is the original research article describing Laueite. (You can try your German, or I can help for a small fee.)

Laueite was named by Hugo Strunz in honor of Max von Laue (1879-1960) who invented X-ray diffraction to identify crystal structures.

Continued next page.

Micromineralogists of the National Capital Area, Inc.

Pseudolaueite. Pseudolaueite is

$\text{Mn}^{2+}\text{Fe}^{3+}_2(\text{PO}_4)_2(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ (same chemical formula as Laueite). Pseudolaueite is monoclinic $2/m$ – prismatic, $\beta = 104.43^\circ$. It appears pseudo-hexagonal, and so can be distinguished from Laueite by shape, even though the hardness, color and associations are similar. I like this beautiful photo on Mindat by Christian Rewitzer: <https://www.mindat.org/photo-141095.html>. This photo by Italo Campostrini is also beautiful: <https://www.mindat.org/photo-1182095.html>.

Stewartite. Stewartite $\text{Mn}^{2+}\text{Fe}^{3+}_2(\text{PO}_4)_2(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ is triclinic $\bar{1}$ - pinacoidal. Stewartite has the same chemical formula as Laueite, and it crystallizes in the same triclinic class in the same space group, $P\bar{1}$. It has the same color and hardness, so distinguishing between them can be difficult. Nevertheless, there are photos on Mindat that show Stewartite and Laueite together on the same specimen, where the two minerals are visibly different. <https://www.mindat.org/photo-113731.html> or <https://www.mindat.org/photo-929740.html>.

Although Stewartite is sometimes described as yellow and Laueite as orange, I wonder if the colors would be similar if the crystals were the same size? Stewartite, Laueite, and Pseudolaueite are all members of the Laueite Group.



Stewartite (yellow) with *Strengite* (purple) and *Cacoxenite* (orange). Foote Lithium Mine, Kings Mountain, Cleveland County, North Carolina. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 21 images.

Strunzite. Strunzite $\text{Mn}^{2+}\text{Fe}^{3+}_2(\text{PO}_4)_2(\text{OH})_2 \cdot 6\text{H}_2\text{O}$ is triclinic $\bar{1}$ - pinacoidal. Straw colored. Hardness 4. Named after Hugo Strunz, who wrote the description of Laueite, shown at the beginning of this article.



“Strunzite” (white) with *Rockbridgeite* (black), Mont-des-Groseillers, Blaton, Bernissart, Hainaut, Wallonia, Belgium. FOV 2 mm. Photo by Michael Pabst using stereomicroscope, stacking 12 images.

Although labeled “Strunzite”, this material was later shown to be Ferristrunzite $\text{Fe}^{3+}\text{Fe}^{3+}_2(\text{PO}_4)_2(\text{OH})_3 \cdot 5\text{H}_2\text{O}$, which lacks Mn. Blaton is in fact the type locality for Ferristrunzite. Here is a photo by Joachim Esche of Strunzite from Hagendorf:

<https://www.mindat.org/photo-700347.html>, which I hope is really Strunzite.

Schoonerite. Schoonerite

$\text{ZnMn}^{2+}\text{Fe}^{2+}_2\text{Fe}^{3+}(\text{PO}_4)_3(\text{OH})_2(\text{H}_2\text{O})_7 \cdot 2\text{H}_2\text{O}$ is orthorhombic mmm - dipyrmidal. Schoonerite can be either greenish brown, like my specimen below, or reddish brown, like this photo by Stephan Wolfsried: <https://www.mindat.org/photo-635787.html>.

Both specimens come from the Hagendorf South Pegmatite, Upper Palatinate, Bavaria, Germany. Stephan Wolfsried also has good photo of a reddish Schoonerite from the Palermo No. 1 Mine, Groton, Grafton County, New Hampshire:

<https://www.mindat.org/photo-768100.html>.

Continued next page

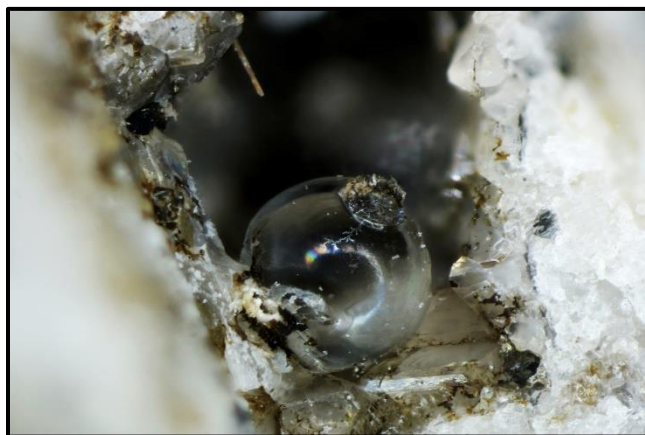
Micro Club Zoom Session - Australia

Program: February 21st: Favourite specimens presented by Martin Stolworthy.

March 20th: Part 1 of the minerals of the east Eifel, Germany, presented by Frank Loman.

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

Below: Fluorite, In den Dellen quarries, Niedermendig, Mendig, Laach lake volcanic complex, Eifel, Rhineland-Palatinate, Germany. Width of view 3mm.



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.



"The vast majority of presentations, apart from the first few sessions, have been recorded and are available on my YouTube Channel. You can now register for upcoming sessions. Once registered, you will receive an email and the opportunity to save the Zoom session in your (Google, Yahoo, or Outlook) calendar, and this will be in your local time zone." Steve's website

EFMLS Wildacres Geology Retreat Little Switzerland, NC May 13-19, 2024

by Mary Bateman, Committee member

A very Happy and Healthy 2024. Have you put Wildacres on your new year's resolutions' list? If not, now is the time to do so.

The EFMLS Wildacres Committee is happy to announce that registration for the May13-19, 2024, session begins on Monday, January 1, 2024. With a great lineup of classes and instructors and a well-accomplished Speaker-in-Residence, classes are sure to fill up. You may want to get your registration early. Getting your registration early gives you a better chance to get your first choice of the class(es) you want.

Speaker in Residence: Michael J. Colella

"We are very fortunate to have a fabulous new Speaker-in-Residence for the Spring 2024 session of the EFMLS Wildacres Workshop, Michael. J. Colella, a multi-faceted artist, who will share his passion for photography, rocks and minerals, world sands, suiseki stones, and wood-turning art.

Michael J. Colella is a native Washingtonian who grew up in Silver Spring, Maryland. As a child, Mike used to go hunting with his dad and scour the ground for rocks and possible fossils. In 5th grade, his dad made a wooden display case for his collection to enter in the school science fair, and his first connection to the earth was formed.

Today Mike still enjoys photography, collecting rocks and minerals and viewing stones. He also has a quite extensive sand collection, which he has photographed.

Michael will give six presentations at Wildacres on all these art forms and travels. I've known Mike for over 35 years. He photographed much of my work. Get ready to see and hear how all these experiences became one man's connection to the Earth. I am sure you will enjoy his stunning photography and stories of his life passions. Mike will be accompanied by his wife Sue".

Helen Serras-Herman, Speaker-in-Residence Coordinator, Wildacres Committee

Micromineralogists of the National Capital Area, Inc.

Classes this session are.

<u>Class</u>	<u>Instructor</u>
Beading	Cheryl Brown
Chainmaille	Marilou Hillenbrand
Geology	Rob Robinson
Intarsia	Chuck Bruce
Silversmithing	Richard Meszler
Soapstone Carving	Ken Valko
Viking Knit	Danny Griffin
Wire Wrapping	Jacolyn Campbell

If you have any questions about classes or the facilities, contact: Mark Kucera (mark_j_kucera@yahoo.com)

Questions regarding registering and accommodations, contact: John Milligan (jmilligan@stny.rr.com).

For more details about the history or what Wildacres is, go to <https://efmls.org> or contact Mary Bateman at mbateman1@verizon.net.

We look forward to seeing you at the Wildacres session, on top of the mountain, May 13-19.

Steve Weinberger, Chairman, Wildacres Committee



Wildcare's lodge, Little Switzerland, North Carolina
wildacres.org

Tucson Gem & Mineral Society, AZ
Pegmatites: Crystals Big & Beautiful
A Day-long Symposium from Tucson
by Ken Rock, MSDC Editor **February 10, 2024**



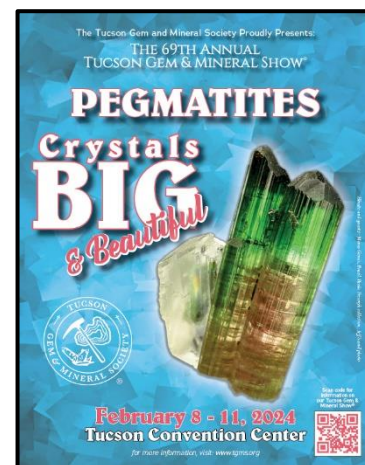
Bill Stephens, President of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS), of which MSDC is a part, has asked us to let our members know that he will live streaming the entire 42nd annual Friends of Mineralogy Tucson Mineral Symposium at the Tucson Convention Center on **February 10, 2024**. The day-long agenda for this meeting can be found [here](#).

The symposium is all about pegmatite gems and minerals and how they form. The speakers include Dr. Michael Wise from the Smithsonian's National Museum of Natural History.

Register to Join Remotely for Free via Zoom
There will be access to attend the symposium remotely through Zoom via a non-speaker computer. Remote attendance to the symposium is **free**. Remote viewers will need to register using the form in the link provided [here](#).

Please note, registration will close on **February 7th, 2024**. Log-in information for viewing the symposium will be emailed to registrants by February 8th, 2024, by President,

[Bill Stephens, PG](#),



The Mineral Mite February 2024

Micromineralogists of the National Capital Area, Inc.



American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

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

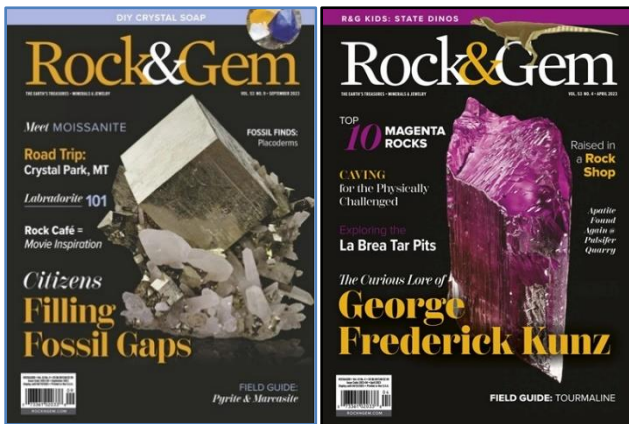
2024 Purpose of the AFMS: To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary, and related subjects, and to sponsor and provide ways to coordinate the work and efforts of all interested persons and groups; 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.

February 2024 Local Geology Club Meetings

5: Northern Virginia Mineral Club NVMC
Meeting 7:30pm on Zoom
www.novamineralclub.org

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

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

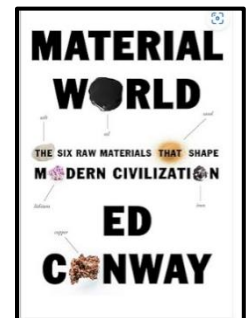
?: The Gem, Lapidary and Mineral Society of Washington, DC - GLMS-DC meeting 7 p.m.
Chevy Chase Community Center, 5601 Connecticut Ave; Washington, DC. www.glmsdc.org

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

26: Micromineralogists of the NCA, Inc.
Meeting 3 – 5:30pm Kings Park Library, Burke, VA
www.dcmicrominerals.org

“Miner” Mike Kaas Recommends Book

Material World: The Six Raw Materials That Shape Modern Civilization - Sand, salt, iron, copper, oil, and lithium. Deckle Edge, Nov 7, 2023, by Ed Conway



Micromineralogists of the National Capital Area, Inc.



GeoWord of the Day and its definition

dahllite (dahl'-lite) A resinous, yellowish-white carbonate-apatite mineral, sometimes occurring as concretionary spherulites.

metadelrioite (met-a-del-ri'-o-ite) A pale yellow-green triclinic mineral: $\text{CaSrV}^{5+}_2\text{O}_6(\text{OH})_2$. It is a dimorph of delrioite.

ripe-snow area The area of a drainage basin where coarsely crystalline snow is in a condition to discharge meltwater upon the addition of heat (as by rain); expressed in percent of drainage basin or in square kilometers. Abbrev: RSA. See also: *ripe snow*.

suzukiite (su-zu'-ki-ite) A green orthorhombic mineral: $\text{BaV}^{4+}\text{Si}_2\text{O}_7$. It is the Ba analogue of haradaite.

trihedron (tri-he'-dron) A geometric form composed of three planes that meet at a central point, e.g. the trigonal pyramid crystal form.

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.

Barry Remer update. Please visit him/send card.

Barry Remer
Potomac Place
3236 Locker Street
Falls Church, VA 22042
Potomac Place phone 571-378-0295



Micromineralogists of the National Capital Area 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
* American Federation of Mineralogical Societies (AFMS) 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
* Mike Kaas
* Don Mcalarnen
* Mary Bateman
* Ken Rock
* Kathy Hrechka



The Mineral Mite February 2024