

The Mineral Mite

Zoom Meeting September 23 Time: 7:30 p.m.

Program – "Mineral Hunting in the Pyrenees - Virtual & Imaginary Tour"

by Michael Pabst

Michael Pabst will give a presentation based on some new micromount specimens which he received from a French dealer. He will pretend that he actually went to the Pyrenees, collected the minerals, ate delicious French food, and toured the local scenery. Our new Zoom host is Mark Kucera from Yonkers, New York. Mark will send the link invite prior to meeting date.

President's Message:

by Dave MacLean



Covid-19 and new communications technologies such as WebEx and zoom have conspired to take us into new ways to meet and talk face to face online with each other. In August I attended an online NVMC meeting featuring a talk with slides by Dr. Jeffrey Post on What's New at the Smithsonian a pictorial description of 2020 acquisitions and the 2020 Tucson show. NVMC is figuring out whether or how to hold its September 2020 auction online. I wonder how the minerals will be delivered to the winning bidders doable but some cost and effort. In July 2020 I saw an online show and tell by NVMC members of mineral specimens in their collections and a video demo.

I recently read in the AFMS newsletter, "Maintaining Communication" by Mark Nelson AFMS Bulletin Editors Advisory Chair. He listed online sources with web addresses for free meeting software such as zoom, Go to Meeting, Google Hangout and Tips for hosting a "virtual meeting". He suggested shortening a virtual meeting. For example, a zoom meeting is limited to forty minutes before the host must start the meeting again. For a shortened meeting he suggested omitting info items like announcements etc. which could be distributed by email or in the newsletter. Specific meeting activities can be shared fellowship bull sessions, new member "getting to know you". Social media presents lots of virtual opportunities.

Photo of the Month



Mystery micro: Mineral Museum in Beirut, Lebanon
Article page 9 by Michael Pabst

continued next page

President's Message continued

I am delighted that Michael Pabst will present a program on "minerals of the Pyrenees as a demo of an MNCA meeting online presumably on our regular meeting date September 23, 2020 unless otherwise decided. The possibilities are limited by only our imagination. Let us embrace these new to us technologies.

Previous Meeting Minutes: 6/24/20

by Bob Cooke, Secretary

There were no minutes to record as the June meeting was canceled, while the nature center was closed due to the coronavirus pandemic.



Previous Program Reviewed 6/24/20

by Bob Cooke, Secretary

No meeting to review.

Desautels Symposium online Oct 10

64th Annual
**Paul Desautels Micromount
Symposium**
October 10, 2020
1 pm Eastern Standard Time

We will hold the 2020 Desautels Symposium online using Zoom. Plans are being made now but we expect the program to include

Voice Auction
Select Mounts

Hall of Fame Inductions
Renato Pagano, Milan, Italy
Title to be announced

Mike Seeds, Lancaster, PA
The Universe in a Micro Box

Registration is free of course.
Register now to receive a Zoom invitation.
Mike Seeds mseeds@fandm.edu



GeoWord of the Day and its definition:

carbon-14 A heavy radioactive isotope of carbon having a mass number of 14 and a half-life of $5,730 \pm 40$ years (Godwin, 1962). (The figure $5,568 \pm 30$ is also used.) It is produced in nature by the reaction of atmospheric nitrogen with neutrons produced by cosmic-ray collisions and artificially by atmospheric nuclear explosions. Carbon-14 is useful in dating and tracer studies of materials directly or indirectly involved with the Earth's carbon cycle during the last 50,000 years. Symbol: ^{14}C . Partial syn: radiocarbon. Popularly referred to as *carbon clock*.

diaspore (di'-a-spore) (a) A variously colored orthorhombic mineral: $\text{AlO}(\text{OH})$. It represents the alpha base dimorphous with boehmite. Diaspore is found in bauxite and is associated with corundum and dolomite; it occurs in lamellar masses with pearly luster or in prismatic crystals. Syn: diasporite. (b) A group name for minerals of composition $A\text{O}(\text{OH})$, where $A = \text{Al}, \text{Fe}^{3+}, \text{Mn}^{3+}, \text{Cr}$ or V .

litho geochemistry (lith'-o-ge'-o-chem'-is-try) The chemistry of the mineral fraction of the lithosphere, i.e. rocks, soils, and stream and lake sediments (Beus, 1978, p.110; Govett, 1978, p.109). Cf: *biogeochemistry; hydrogeochemistry*.

rouseite (rouse'-ite) An orange-yellow triclinic mineral: $\text{Pb}_2\text{Mn}^{2+}(\text{As}^{3+}\text{O}_3)_2 \cdot 2\text{H}_2\text{O}$.

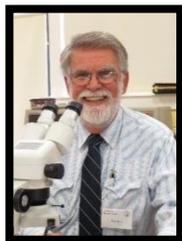
All terms and definitions come from the [Glossary of Geology, 5th Edition Revised](#). GeoWord of the Day is brought to you by: EnviroTech! envirotechonline.com

We need to return to our meetings!

Shoobox Adventures 97: A Guest Box

Photos and text by Mike Seeds, Editor BMS

When people come to visit, we sit down and talk. There are refreshments, and stories about relatives such as what Aunt Mavis did in that restaurant, and careful comments about politics. It's nice but eventually someone will say, "What about those little rocks? Can we see them?" Then I lead the group down into the basement, and it doesn't go well.



One problem is that only one person at a time can look through the microscope at a time. I have to explain how to adjust the separation between the eyepieces, which knob focuses, which knob zooms, and please don't touch the minerals, and I have to explain for each visitor because all the rest are busy yakking. It's slow and people lose interest waiting their turn.

Another problem is that I can never find really striking minerals to show them. I've got over 5400 micromounts filed in 40 drawers, but no matter what drawer I open, all the minerals are black or brown. My visitors are nomins (people who don't know much about minerals) so I need to show them something flashy, but I can never seem to find something under pressure. They probably think I'm nuts for collecting little brown smears and wee black specks.



Fig. 1 A guest box of 20 minerals ready for viewing.

So, I made a guest box. I found an empty jewelry box, and I filled it with 20 of my most flashy minerals. There's brochantite, and fluorite, and a gold nugget, and a diamond crystal and a spinel crystal and so on. I included lots of color and lots of different forms. Even a nomin would find it fascinating, surely. Now when a visitor sits down, I put the guest box under the 'scope. Each of the minerals is named by a label that is easily visible through the eyepieces, but I have a grid of labels inside the box lid in case they want to know more. So now I can show my guests some really nice minerals.



Fig. 2 The lid holds a photocopy of the labels on the bottom of the boxes.

Of course, they still have to wait their turn, but I have a fix for that too. A few months ago, Baltimore Mineral Society member Bernie Emery brought a digital microscope to a meeting. It wasn't expensive, and it was fabulous. A month later, I saw more of them at the Tucson Gem and Mineral Show, and I bought one. Now I can seat a guest (the one least likely to drop things) and put the guest box under the digital microscope and allow the guest to move the box to view mineral after mineral. Everyone in the group and see the images in full color on the 5-inch (nearly 13 cm) monitor. I could even use cables to send the image to a TV set or a computer screen if I needed a bigger display.

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Shoebox Adventures 97 continued

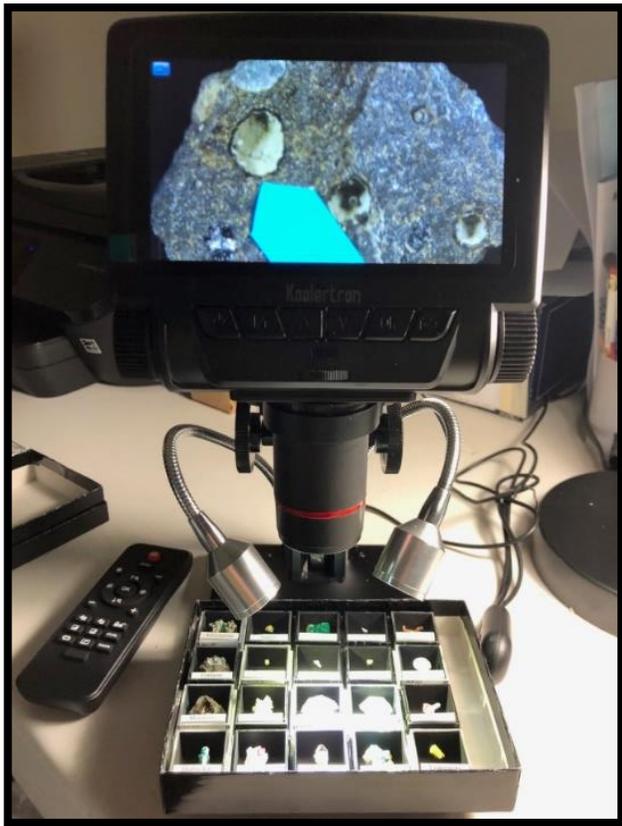


Fig. 3 This digital microscope has its own lights and a big color screen.

This works really well for basement visitors. Nomins enjoy the color and crystals, and I can glance at the screen and explain what they are seeing. And 20 minerals is easily the limit for nomins. If someone is really interested, I love opening a drawer and showing off tiny crystals from Namibia or rare minerals from Siberia. I got a million of 'em. Well, not quite a million, but I'm working on it.

Desautels Symposium online Oct 10

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Micromineralogists of the National Capital Area, Inc.

Acanthite

by Michael Pabst PhD, Treasurer

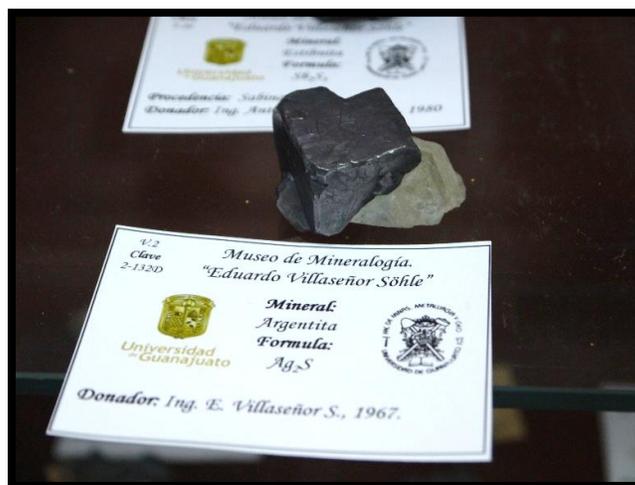
Acanthite is silver sulfide Ag_2S . Acanthite is monoclinic $2/m$ – prismatic, with $\beta = 99.61^\circ$. The high-temperature ($>177^\circ\text{C}$) dimorph is Argentite. Argentite is cubic, whereas Acanthite is monoclinic. All specimens are Acanthite at room temperature, but those that crystallized at higher temperature show the crystal forms of isometric Argentite. Acanthite is black or dark gray, and it is soft with Mohs hardness of $2\frac{1}{2}$.

A common impurity in Acanthite is selenium, which is above sulfur in the Periodic Table. With enough selenium, Aguilarite Ag_4SeS forms, which is an isostructural member of the monoclinic Acanthite group. Add more selenium, and orthorhombic Naumannite Ag_2Se forms. Replacing selenium with tellurium results in monoclinic Hessite Ag_2Te . Gold replaces some of the silver to form cubic Petzite Ag_3AuTe_2 . So Acanthite has many cousins, even without mentioning copper analogs.

I have four samples of Acanthite from the Guanajuato region of Mexico, so I thought I would begin this article with a photo of the city of Guanajuato. This photo reminds me vividly of the wonderful opportunity I had to visit Guanajuato last year before the virus. Such music! Such food! Such architecture! Sigh.



View of Guanajuato, with yellow Cathedral in foreground, and the gray University of Guanajuato in the middle. The branch of the University that holds the Mineral Museum is up near the green hills in the center. Photo by Michael Pabst.



Argentite (Acanthite at room temperature). Unspecified mine, from the Mineral Museum of the University of Guanajuato. Estimated FOV 40 mm. Photo by Michael Pabst. Lower photo shows the museum label.

Acanthite occurs all over the world. So, to show the variety of Acanthite crystals, here are some noteworthy photos of Acanthite on Mindat (minID in parentheses): *You must click on the links below, because the photos are amazing!*

Continued next page

Acanthite continued

The best specimen of Acanthite in the world:

<https://www.mindat.org/photo-266481.html>

(XYN-WW5) from the Chispas Mine, Arizpe, Sonora, Mexico.

A large complex crystal, originally Argentite, with Silver ribbons: <https://www.mindat.org/photo-509230.html> (A7G-9YP) from the Uchucchacua Mine, Oyon Province, Lima, Peru.

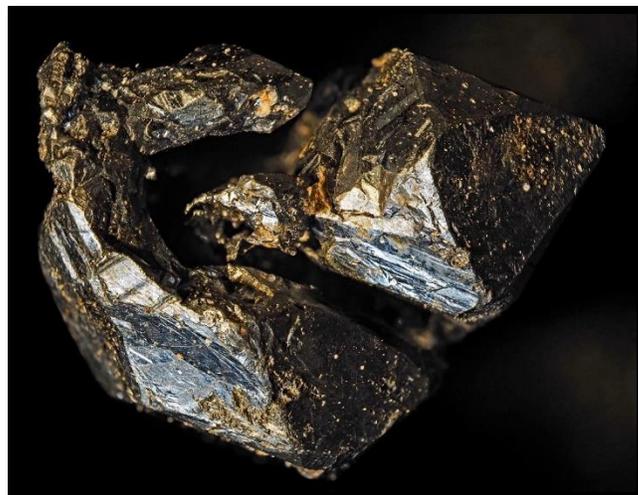
Acanthite in thorny spikes and needles: <https://www.mindat.org/photo-427742.html> (8NV-RED) from the Clara Mine in Germany.

An excellent pyramid of Acanthite cubes: <https://www.mindat.org/photo-176698.html> (5UN-CKL) from the Rayas Mine in Guanajuato, Mexico.

And now back to reality. Here are my little micros of Acanthite from Guanajuato:



Acanthite, Guanajuato, Mexico. FOV 8 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 22 images.



Acanthite, Guanajuato, Mexico. FOV 11 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 20 images.

I do have Acanthite from other localities. Here is a specimen from Creede in Colorado.



Acanthite on Rhodochrosite, Bull Dog Mine, Creede, Mineral Co., CO. FOV 1 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 23 images.

The next Acanthite comes from California. (I have been staring at these specimens too long, because I see Bullwinkle with a Pyrite monocle in his right eye; but never mind.)

Continued next page

Acanthite continued



Acanthite, Advance Mine (Zaca Mine), Colorado Hill, Monitor-Mogul District, Alpine Co., CA. FOV 3 mm. Photo by Michael Pabst, using macro + Raynox lens, stacking 22 images.



Acanthite (after Argentire) on Calcite. Highland Bell Mine, Beaverdell, British Columbia, Canada. FOV 3 mm. Photo by Michael Pabst, with Macro + Raynox lens, stacking 23 images.
In the next article, silver minerals related to Acanthite will be shown, including Agularite.

New Light from the Depths

By Erich Grundel (originally written May 1980)

Recent observation from the floor of the Pacific Ocean are being hailed as major scientific discoveries. Scientists working on board the submarine Alvin, have located areas of hot water emerging from the ocean floor. These hot vents are providing information on some exciting ideas in geology and biology that were once only theories. Vent, called “black smokers” are expelling hot (350-400C) mineral laden black soot into the cold (2C) ocean water. The hot solution’s contact with the cold causes the minerals to precipitate. To date sulfides of copper, zinc and iron have been found. Lesser quantities of cobalt, lead, and indium were also found. This is the first time that the formation of ores has been seen. These events were photographed last April and May on the East Pacific Rise at 21 degrees North near the mouth of the Gulf of California.



Geologists say this is all good evidence for the theory that water penetrates the ocean crust near spreading centers. Spreading centers are where new crust is forming. As the water percolated downward it is heated by hot volcanic rocks or magma. The hot seawater leaches mineral from the rocks. As the water gets closer to the actual point of spreading, it rises and is deposited as ore. The theory was originally evoked to explain how mid-ocean ridges cool. Geologists think these vents are likely to be found near fast-spreading centers. In May, a team of French scientists will explore an area of the Pacific near Easter Island where spreading is unusually fast (18cm per year). There the scientists hope to find further confirmation of what are now thought to be worldwide phenomena.

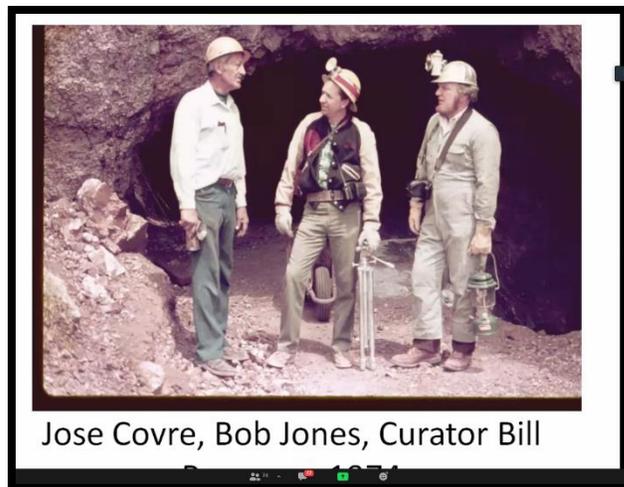
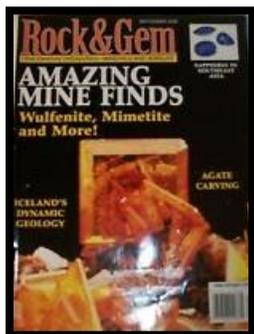
MNCA Editor’s note: Reprinted from Palmetto Diggings and Doings May 1980 Vol 4, No. 5, Palmetto Gem and Mineral Club Greenville, South Carolina. Historically, Erich has researched and submitted numerous articles for local mineral club newsletters. Before he moved to New York, he gave me a folder of archived MNCA items. His article on black smokers caught my attention, while written in 1980.

In June 2014, the Deep Submergence Vehicle (DSV) *Alvin*, the world’s first deep-diving sub-marine dedicated to scientific research in the United States, celebrated its 50th anniversary.

Bob Jones: "Wulfenite" virtual Zoom

By Kathy Hrechka, Editor

The Eastern Federation of Mineralogical Societies sponsored Bob Jones on August 20th to present "Wulfenite". He is editor of Rock & Gem magazine, and a Carnegie Award-winner. Over 70 viewers signed up for his virtual presentation. Some screen shots are shared below.



Jose Covre, Bob Jones, Curator Bill



Old Yuma Mine near Tucson -



79 mine-being worked for specimens now



Defiance Mine-90 foot water course - 1957



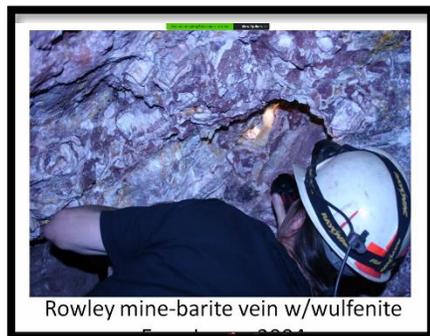
Mina Ojuela, Durango, Mexico



Eruption mine, Los Lamentos, Mex.



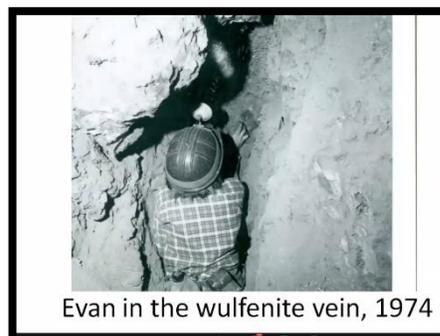
Hilltop mine, Ed McDole, 1938 lost pocket



Rowley mine-barite vein w/wulfenite



One of San Francisco's best-4 "



Evan in the wulfenite vein, 1974

Mineral Museum in Beirut, Lebanon

By Michael Pabst

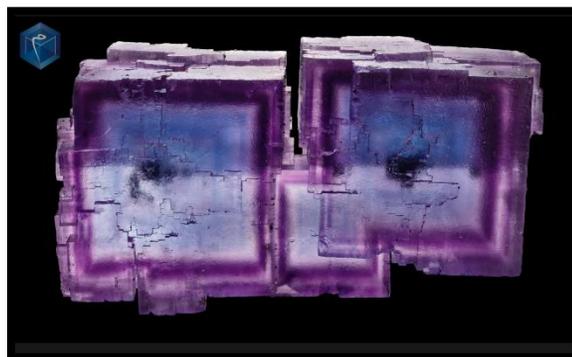
Please click on the link below to see a YouTube video of 99 of the world-class mineral specimens that miraculously survived the recent explosion in Beirut. They are located at the MIM museum, established by a financial software entrepreneur, who has bought the best specimens on the world market for the last 15 years. The video lasts about 17 minutes. (Turn down the volume of the repetitive music, or mute.) They are not labeled, because you are supposed to focus on the beauty. I can try to answer any questions.

I have to admit that *some* of these large specimens are as beautiful as my micro-minerals. I hope they will continue to survive in Beirut. They are irreplaceable treasures.

The link below is "secret", meant only for the deserving. (The video is "unlisted".)

<https://www.youtube.com/watch?v=vhj9iSR4CbA&feature=youtu.be>

MNCA Editor's note:
Enjoy some screen shots.



Micromineralogists of the National Capital Area, Inc.



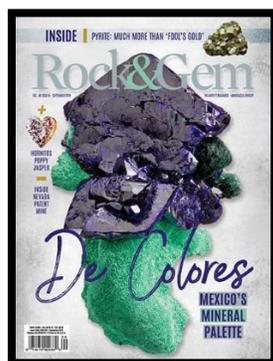
American Federation of
Mineralogical Societies

(AFMS)
www.amfed.org

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

2020 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.

The A.F.M.S. Newsletter is normally published monthly except January, July, and August by the American Federation of Mineralogical Societies. Each Regional Federation Club is entitled to receive three (3) copies of the AFMS Newsletter. These are usually sent to the President, Federation Director and Editor. Subscription Information, Distribution Questions and address changes should be sent to the AFMS Central Office.



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



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: Zoom September 2020

2: Mineralogical Society of DC–MSDC meeting
Smithsonian NMNH, 7:30 pm **Zoom**
www.mineralogicalsocietyofdc.org

**14: The Gem, Lapidary and Mineral Society of
Montgomery County, Maryland - GLMS-MC**
7:30 pm - **Zoom**
www.glmsmc.com

**19?: The Gem, Lapidary and Mineral Society of
Washington, DC - GLMS-DC meeting**
7:00-10pm – Chevy Chase Community Center,
5601 Connecticut Ave., NW, Chevy Chase, MD
www.glmsdc.org

28: Northern VA Mineral Club – NVMC meeting
7:30 **Zoom**
www.novamineralclub.org

**23: Micromineralogists of the National Capital
Area, Inc. - MNCA meeting**
7:30 **Zoom**
www.dcmicrominerals.org

Editor's Note: Even though our geology meetings are canceled in person, please visit their websites for continuing education. Check Zoom invites.

Micromineralogists of the National Capital Area, Inc.



<http://go.mineraltalkslive.com>



Micromineralogists of the National Capital Area Meeting: The 4th Wed. of each month 7:30 -10 p.m.
Long Branch Nature Center (No meetings July & Aug)
625 S. Carlin Springs Road, Arlington VA 22204
Phone (703) 228-6535

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

President: Dave MacLean

Vice President: David Fryauff

Secretary: Bob Cooke

Treasurer: Michael Pabst

Editor/Historian: Kathy Hrechka

Website: Julia Hrechka

AMC Conference: Kathy Hrechka

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 for 2020
\$15 (single) or \$20 (family)

Payable to 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 on 5th.
No newsletter July/August

EFMLS Editor's Award
First Place 2016 - Small Bulletins
Inducted into Editor's Hall of Fame – 2018
AFMS Trophy 2019

Member inputs:

- * Dave MacLean
- * Michael Pabst
- * Kathy Hrechka
- * Mike Seeds
- * Thomas Hale
- * Erich Grundel

