

MNCA Website dcmicrominerals.org
The Mineral Mite



Vol. 52 – No. 9 **Washington D.C. – A Journal for Micromineralogists** **November 2019**

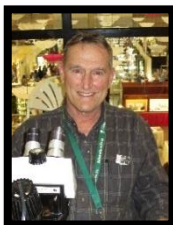
November 20 Time: 7:30 p.m. – 10 p.m.

Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22204

Program: George Reimherr's Micros

by David Fryauff, Vice president

MNCA acquired 500 micromounts from the estate of George Reimherr. The exact procedures for the distribution of those micromounts to MNCA members are being decided. Pending that decision, George's micromounts will be available at monthly meetings for members to purchase. Bob Cooke will update us at the meeting.



President's Message:

by Dave MacLean

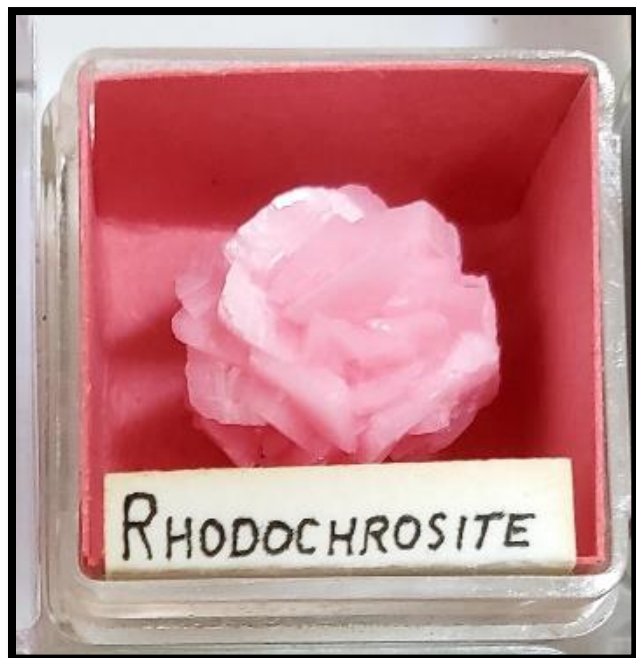
I heard a talk by Thomas Hale, advocate for the Virginia Mineral Project VMP on October 28th. His talk made me remember George Loud's visit to the site of the Theodora Copper mine just west of the junction of Highways 50 and 29. He found condos under construction on the mine site and a small pile of rocks containing hematite flakes and very thin copper mineral films. There is an 1880 reference to the mine and description in the 1980 Rocks and Minerals of the Washington, DC area. A construction company employee said he went into the tunnels and took photographs for the construction company's headquarters in New Jersey. Today large condos cover the mine site. No minerals were ever recorded.



This story reminds me of the disappearing mineral hunting places. Collecting site disappearance or inaccessibility come from overgrowth, barriers of "no trespassing or trespassers will be shot, and survivors shot again". Covering over with soil for urban development, the waste rock piles are hauled away for aggregate. Regulatory agency rules do not allow visitors into mines or quarries. The VMP goal is to document sites and attractive minerals coming from them. VMP will need help from mineral clubs, individuals' colleges and universities, and perhaps landowners to obtain information on sites. Collectors' stories and color photos in situ will be needed. Thomas Hale intends to update publications such as Virginia Minerals and Minerals of Virginia, which were last published in 1990 or earlier.

Continued next page

Photo of the Month



Rhodochrosite, San Juan Co., Colorado from the Micro Collection of John Ferrante Article page 7

President's Message Continued

Thomas Hale took photos in situ including a large green beryl crystal from a granite quarry near Richmond, Virginia.

I believe he applied these ideas to larger specimens. Our colored micro photographs document specific mineral finds. How do we and other clubs, colleges and universities bring all this information together for interested public view?

Thomas Hale said that colored photos by cell phone are better than the many photos taken in the 1980's. Perhaps we should make photos of the George Reimherr collection and present them with a speaker at other clubs.

NVMC Show November 23-24: We still need demonstrators at the micro table. Bob has loupes to sell, and Dave has the microscope and turntable. We can use lots of give way specimens. Please volunteer.

September minutes were approved as published in The Mineral Mite.

A flat of mixed minerals and fossils from the Georgia Olmsted collection was donated to the club by Tom Taaffe. Appreciative members quickly appropriated specimens for their personal collections. Remaining pieces will be available at the November meeting.

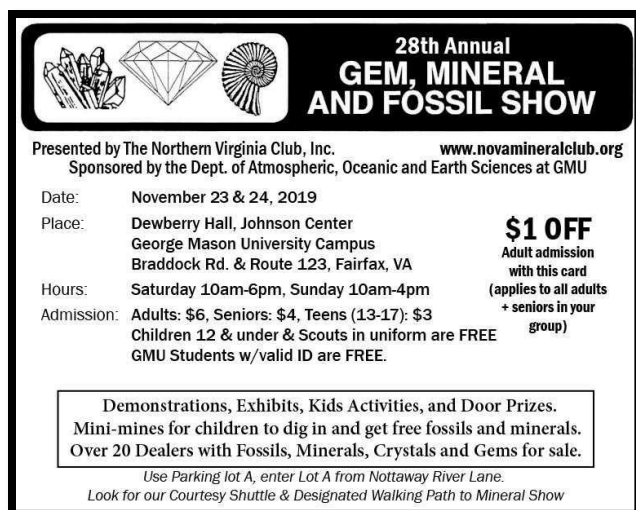
Members discussed how best to distribute the approximately 500 micromounts which MNCA acquired from the estate of George Reimherr. It was agreed that for the next few months, members would review the collection and compile individual lists of those micromounts which they would like to acquire. Uncontested micros may be purchased, eventually, for \$2 each. At a future MNCA meeting, a decision will be made as to whether contested micros should be auctioned to club members or reserved for auction at the Atlantic Micromounters Conference (AMC).

No decision was made as to how to select micros to be photographed by Michael Pabst and auctioned at the AMC. There was a consensus that until the club has recouped the \$1000 cost of acquiring the collection, all proceeds from auctioning these micros at the AMC should be returned to the MNCA treasury. George's collection will be available for review at the November meeting.

Kathy Hrechka provided an update on planning for the April 3-5, 2020 AMC. In lieu of a featured keynote speaker, the 2020 AMC will have presentations by several speakers, to include Scott Duresky, Michael Seeds, Steve Stuart. Sunday will feature a field trip to Marshall, Virginia to see the mineral collection of Victor Yount.

Dave Fryauff reported that during recent mineral collecting field trips to commercial quarries, he has had to counsel participants for safety violations such as crossing berms and touching the high wall. Dave is justifiably concerned that further safety violations may jeopardize the opportunity for continued trips to these quarries. Dave also reported that the new mineral museum at James Madison University is scheduled to open in April 2020. Meeting adjourned at 9:00 PM.

Previous Program Reviewed: 10/23/19
Members studied the micros of George Reimherr.



**28th Annual
GEM, MINERAL
AND FOSSIL SHOW**

Presented by The Northern Virginia Club, Inc. www.novamineralclub.org
Sponsored by the Dept. of Atmospheric, Oceanic and Earth Sciences at GMU

Date: November 23 & 24, 2019
Place: Dewberry Hall, Johnson Center
George Mason University Campus
Braddock Rd. & Route 123, Fairfax, VA
Hours: Saturday 10am-6pm, Sunday 10am-4pm
Admission: Adults: \$6, Seniors: \$4, Teens (13-17): \$3
Children 12 & under & Scouts in uniform are FREE
GMU Students w/valid ID are FREE.

\$1 OFF
Adult admission
with this card
(applies to all adults
+ seniors in your
group)

Demonstrations, Exhibits, Kids Activities, and Door Prizes.
Mini-mines for children to dig in and get free fossils and minerals.
Over 20 Dealers with Fossils, Minerals, Crystals and Gems for sale.

Use Parking lot A, enter Lot A from Nottaway River Lane.
Look for our Courtesy Shuttle & Designated Walking Path to Mineral Show

Previous Meeting Minutes: 10/23/19

by Bob Cooke, Secretary

VP David Fryauff convened MNCA's monthly meeting on October 23, 2019 at 8:20 PM. No past presidents were present. Members present included Robert Clemenzi, Bob Cooke, Dave Fryauff, Dave Hennessey, Kathy Hrechka and Barry Remer. Guest Jeff Guerber became MNCA's newest member with his promise to mail a dues payment to the treasurer.



Ruizite

by Michael Pabst PhD, Treasurer

Ruizite $\text{Ca}_2\text{Mn}^{3+}_2[\text{Si}_4\text{O}_{11}(\text{OH})_2](\text{OH})_2 \cdot 2\text{H}_2\text{O}$ is a pretty cousin of Hubeite $\text{Ca}_2\text{Mn}^{2+}\text{Fe}^{3+}[\text{HSi}_4\text{O}_{13}] \cdot 2\text{H}_2\text{O}$ (a triclinic mineral described in my last article). Ruizite is monoclinic $2/m$, $\beta = 91.33^\circ$, Hardness 5. Ruizite was named in 1978 after Joe Ana Ruiz, a mineral collector from Mammoth, Arizona.

Here are photos of two specimens of Ruizite from the Christmas Mine, Dripping Spring Mts, Gila County, AZ, that reside in my collection. (Please set your monitor to 200% for best views.) The first specimen, acquired at a recent Atlantic Micromounters Conference auction, features green Gilalite $\text{Cu}_5\text{Si}_6\text{O}_{17} \cdot 7\text{H}_2\text{O}$. The second specimen features deep blue Kinoite $\text{Ca}_2\text{Cu}_2(\text{H}_2\text{O})_2[\text{Si}_3\text{O}_{10}]$:



Ruizite (orange), **Apophyllite** (colorless) and **Kinoite** (blue), from the Christmas Mine. FOV 18 mm. Photo by Michael Pabst, using macro lens.



Ruizite (orange) and **Gilalite** (green) from the Christmas Mine, Banner Mining District, Dripping Spring Mts, Gila Co., AZ. FOV 1.2 mm. Photo by Michael Pabst, stacking 2 images taken with a stereomicroscope.

The next specimen of Ruizite with Kinoite and Apophyllite is a favorite in my collection. So, there are 4 photos: a photo with a macro lens, a photo with a stereomicroscope, a photo with a Luminar lens, and a photo with a Mitutoyo lens. Some of these photos appeared earlier in an article about the Christmas Mine that I wrote for the *Mineral News* (*Mineral News* 32, No. 8, pp.7-11, 2016). (Copies are available from Excalibur Mineral Corporation in Charlottesville.)



Ruizite, Apophyllite and Kinoite, Christmas Mine. FOV 1.5 mm. Photo by Michael Pabst, using stereomicroscope, stacking 6 images.

Micromineralogists of the National Capital Area, Inc.



Ruizite, Apophyllite and Kinoite, Christmas Mine. FOV 1.6 mm. Photo by Michael Pabst, using Luminar lens, stacking 13 images.



Ruizite, Apophyllite and Kinoite, Christmas Mine. FOV 2 mm. Photo by Michael Pabst, using Mitutoyo lens, stacking 20 images. Unfortunately, the stacking program, Combine ZP, makes the sharp colorless Apophyllite disappear into a slightly milky blur.

Ruizite can be also found at the Cornwall Mines in Lebanon County, Pennsylvania. I just returned from the Desautels Micromount Symposium in Baltimore, where I found a Pennsylvania Ruizite.

My specimen is not up to the standards of some top specimens on Mindat, but my tiny piece is really better than I can photograph.



Ruizite from Cornwall Mines, Lebanon County, PA. FOV 0.5 mm. Photo by Michael Pabst, using stereo microscope, stacking 4 images.

Ruizite can also be found at the Wessels Mine and the N'Chwaning II Mine, near Kuruman, in the Kalahari manganese field, Northern Cape, South Africa. I have seen good photos of Ruizite from the Kalahari, but I have not yet been able to buy any that I liked.

Here are some of my favorite photos of Ruizite from Mindat:

From the Christmas Mine:

www.mindat.org/photo-376677.html

www.mindat.org/photo-100790.html.

From Cornwall, PA:

www.mindat.org/photo-342613.html

www.mindat.org/photo-482738.html.

From South Africa:

www.mindat.org/photo-249842.html

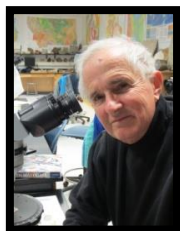
www.mindat.org/photo-180789.html.

Next month will feature a manganese borate mineral, Roweite, and the associated calcium borate mineral Olshanskyite, that were new to me until recently.

63rd Annual Paul Desautels Memorial Micromount Symposium Oct 11-13

By Dave MacLean, President

The Baltimore Mineral Society inducted Anne Cook into the Micromounters' Hall of Fame at its conference in Baltimore on October 12, 2019.



She talked about collecting rocks when she was at Columbia University in New York and after marriage, collected in the Cleveland Ohio area while on family camping trips. Anne jumpstarted the Cleveland Mineral Society. Her husband was the volunteer curator for the mineralogy department in the Cleveland Natural History Museum for more than twenty years. She collected minerals up to age eighty and attended the BMS micro conferences 1985-2019. Anne regularly attended the Tucson, Arizona and Denver, Colorado shows.

She served many volunteer positions including, president of the Cleveland Micromineral Society, which was the only micro mineral group in the Midwest, president of the Mineral Society of Cleveland, and the Midwest Federation of Mineral Societies, secretary of AFMS, and Chair of the Uniform Rules Committee.

Anne revealed that she will continue in micromounting with presently 300 species in her collection. She enjoys collecting microminerals.

Micromounters' Hall of Fame 2019 Inducted Anne Cook 1928—

Anne's award reads as follows: "Anne's background was in mathematics, but she followed the logic of "if you can't beat them, join them" when faced with her husband Bill's enthusiasm for minerals (after the logic of "but Bill, you already have a calcite" didn't work). Together they became founding members, officers, and mainstay supporters of both the Micromineral Society of the Cleveland Museum of Natural History and the Mineralogical Society of Cleveland. Anne's talents for precision and attention to detail helped the Societies achieve national acclaim for their many educational exhibits.

Always active, she has spread her influence afield through both the Midwest and American Federations

of Mineralogical Societies, having held positions in each, most notably as long-standing parliamentarian. Furthermore, her obvious knowledge and impartiality have led to frequent judging assignments at national and regional shows.

Anne instructed many new collectors in basic mineralogy and available literature. She has continued to pursue Bill's interest in rare minerals and has agreeably offered her own specimens to Dr. John Turner of Cleveland State University for Raman spectroscopic characterization. In this way, she is helping to build the library of spectra for a truly useful, non-destructive, analytical technique in mineral identification.

Anne Cook's contributions to micromounting have not been through usual channels, but through service to the community at large. Many micromounters have benefitted from her generosity in sharing her knowledge and collection, and two Federations from her organizational skills in management. She has proven her worth and earned her place in the Micromounters' Hall of Fame."



Anne Cook accepting award from Quintin Wight

**63rd Annual Paul Desautels Memorial
Micromunt Symposium October 11-13**

**Happy 97th Birthday Lou D'Alonzo with Kathy!
Dave MacLean cantered a Happy Birthday song.
Lou recalls attending most of the 63 symposiums.**

Members attending from MNCA included Michael and Karen Pabst, Dave MacLean, David Fryauff, and Kathy Hrechka. It was announced at the Baltimore Mineral Symposium that Mike Seeds from Pennsylvania and Dr. Renato Pagano from Italy will be inducted into the Micromounters' Hall of Fame in 2020. *Photos courtesy of Kathy Hrechka*

Hall of Fame members below include:

L- R Quintin Wight, Lou D'Alonzo, Anne Cook,
Bob Rothenberg, and Steve Weinberger
Congratulations Hall of Famers!



The Colorful Art of Micromounting

By Kathy Hrechka, Editor

I believe Micromounting is a rather fine art with precision mounting of our scientific microminerals. John Ferrante of The Leidy Microscopical Society took it to another level, while coordinating colorful paper liners to match each mineral. He shared his new collection at the BMS. I viewed them as “eye candy”.



John Ferrante showcases “Eye Candy” micros.



John’s collection is styled in a vintage 1964 Padron Cigar box. Some of my personal favorite micros are featured above. *Photos courtesy of Kathy Hrechka*



Leidy Gets an Appetite for Apatite

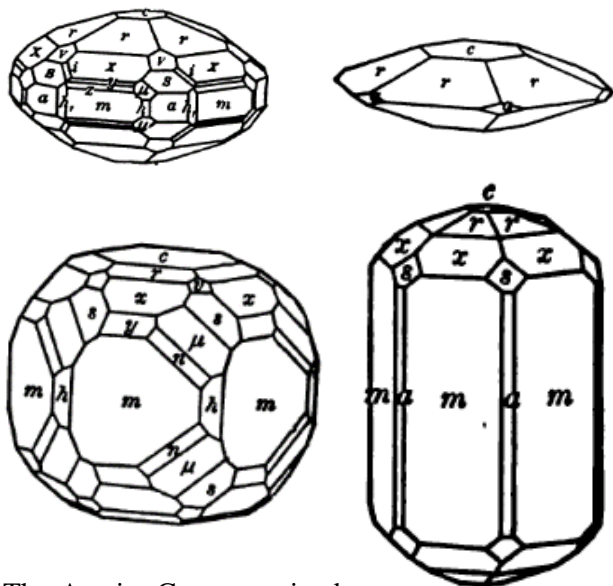
By Eric Brosius of the Rock & Mineral Club of Lower Bucks Co., PA *Rock Chatter* Vol. 53, No. 9

The October Leidy Microscopical Society meeting featured a short program on the Apatite Group Minerals prepared by your author. Spectacular micromount specimens were viewed by those present via the Society's digital microscope. Cabinet sized specimens of Apatite Group Minerals were displayed by Dick Braun and Bill Prince from their personal collections and were enthusiastically enjoyed before and after the program.



The Apatite Group Minerals are one of the five groups of minerals in the Apatite Supergroup of Minerals as approved by the International Mineralogical Association in 2010. The Supergroup minerals include the Apatite Group, Hedyphane Group, Belovite Group, Britholite Group and the Ellestadite Group which are all grouped based on their crystallographic or chemical criteria. The generic formula for the Apatite Supergroup Minerals is: $\text{IXM}_{12}\text{VIIM}_{23}(\text{IVTO}_4)_3\text{X}(\text{Z}=2)$

$\text{M} = \text{Ca}^{2+}, \text{Pb}^{2+}, \text{Ba}^{2+}, \text{Sr}^{2+}, \text{Mn}^{2+}, \text{Ce}^{2+}, \text{La}^{3+}, \text{Y}^{3+}, \text{Bi}^{3+}$ $\text{T} = \text{P}^{5+}, \text{As}^{5+}, \text{V}^{5+}, \text{Si}^{4+}, \text{S}^{6+}, \text{B}^{3+}$ $\text{X} = \text{F}^-, (\text{OH})^-, \text{Cl}^-$



The Apatite Group received geologist/mineralogist Abraham Gottlob Werner in 1876. It is derived from the Greek ἀπατάω (apatao) to deceive. This is an allusion to Apatite being confused with other minerals such as beryl and milarite.

The minerals of the Apatite Group include:

Alforsite $[\text{Ba}_5(\text{PO}_4)_3\text{Cl}]$,
 Apatite $[\text{Ca}_5(\text{PO}_4)_3(\text{Cl}/\text{F}/\text{OH})]$
 Chlorapatite $[\text{Ca}_5(\text{PO}_4)_3\text{Cl}]$
 Fluorapatite $[\text{Ca}_5(\text{PO}_4)_3\text{F}]$
 Hydroxylapatite $[\text{Ca}_5(\text{PO}_4)_3(\text{OH})]$
 Hydroxylpyromorphite $[\text{Pb}_5(\text{PO}_4)_3(\text{OH})]$
 Johnbaumite $[\text{Ca}_5(\text{AsO}_4)_3\text{OH}]$
 Mimetite $[\text{Pb}_5(\text{AsO}_4)_3\text{Cl}]$
 Oxyapatite $[\text{Pb}_{10}(\text{PO}_4)_6\text{O}]$
 Pieczkaite $[\text{Mn}_5(\text{PO}_4)_3\text{Cl}]$
 Pyromorphite $[\text{Pb}_5(\text{PO}_4)_3\text{Cl}]$
 Stronadelphite $[\text{Sr}_5(\text{PO}_4)_3\text{F}]$
 Svabite $[\text{Ca}_5(\text{PO}_4)_3\text{F}]$
 Turneaureite $[\text{Ca}_5(\text{AsO}_4)_3\text{Cl}]$
 Unnamed (F-analogue of Pyromorphite) $[\text{Pb}_5(\text{PO}_4)_3\text{F}]$
 Unnamed (OH-analogue of Mimetite) $[\text{Pb}_5(\text{AsO}_4)_3(\text{OH})]$
 Vanadinite $[\text{Pb}_5(\text{VO}_4)_3\text{Cl}]$

Apatite is generally used as a field term for Apatite Group Minerals as it is hard to distinguish between the individual species in the group without properly analyzing the specimen. The most common Apatite Group Mineral is Fluorapatite. Hydroxylapatite is less common and Chlorapatite is quite rare.

The micromount specimens of Apatite were projected on the screen by John Ferrante included those of Dick Braun and Bill Prince and were mostly self-collected and mounted. Additional micro Apatite specimens were viewed from the Tony DiDonato collection and the Lee Tori collection were provided by John Ferrante and your author respectively.

The members and guests were also treated to projected specimens of copper minerals from Laurel Hill (Snake Hill), Secaucus, NJ from Mike Rosso that were recently acquired and some Fluorite specimens from the Walworth Quarry, Walworth, NY that Brian Schwab recently collected.

The Leidy Micromount Symposium is scheduled for March 13-14, 2020 with more information to follow.



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.

AFMS Purpose: 2019

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 other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship.

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

Subscriptions are \$4.50 per year Remit payment to the AFMS Central Office Checks should be made payable to "AFMS"

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<central_office@amfed.org> 410-833-7926

Content – Letters Editorial Comments – Submissions
Any communication concerning the content or format of the newsletter should be sent to the Editor
<editor@amfed.org>

Deadline is the 1st of each month preceding publication (i.e. April 1 for the May issue)
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Eastern Federation of
Mineralogical and
Lapidary Societies

(EFMLS)
www.amfed.org/efmls

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

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

Geology Events:

November 2019

6: Mineralogical Society of DC – MSDC meeting
Smithsonian NMNH, Constitution Avenue lobby
7:30 pm to head up to the Cathy Kerby Room.
www.mineralogicalsocietyofdc.org

15: 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

18: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland - GLMS-MC
7:30 pm - Rockville Senior Center, 1150 Carnation Drive, Rockville, MD

18: Northern VA Mineral Club - NVMC meeting
7:30–10pm Long Branch Nature Center
625 South Carlin Springs Road in Arlington, VA
www.novamineralclub.org
www.glmsmc.com

20: Micromineralogists of the National Capital Area - MNCA meeting
7:30–10pm Long Branch Nature Center
625 South Carlin Springs Road in Arlington, VA
www.dcmicrominerals.org

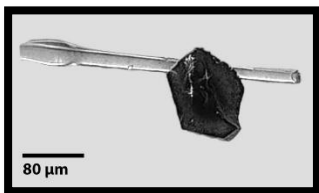
Atlantic Micromounters' Conference
April 3-5, 2020 Holiday Inn, Alexandria, VA
Tour Victor Yount's mineral collection Sun 5

Micromineralogists of the National Capital Area, Inc.

What's New in Minerals?

by Herwig Pelckmans, Belgium

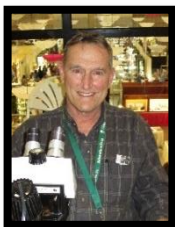
Here is a close-up of the grain of **goldschmidtite** that was found inside a diamond. The diamond was dissolved, and the grain attached to a glass fiber so it could be studied in detail. © Meyer et al., American Mineralogist, 2019 used with permission.



Mineral Collecting Field Trips:

by David Fryauff, Vice-president

Nov. 16: Haines-Kibblehouse Penn-Maryland Serpentine Quarry. Saturday, Nov. 16th, at 0730 at the quarry office for sign in & safety brief. Address is 303 Quarry Rd., Peach Bottom, PA. Please arrive in full standard safety gear at 0730 for an 0800 start. We are out at noon. This quarry allows kids over 10 years old as long as they are part of family membership in an EFMLS club and have the full standard safety gear, a parent present, and "Hold Blameless Waiver". RSVP to me, Dave Fryauff. <fryauffdj@gmail.com> call 240-277-7206 Have fun, be safe, & good hunting. Take lots of photos!!! Dave Fryauff



GeoWord of the Day and its definition:

coparsite A metallic black orthorhombic mineral: $\text{Cu}_4\text{O}_2(\text{As}, \text{V})\text{O}_4\text{Cl}$.

ruby sand A red-colored beach sand containing garnets, as at Nome, Alaska.

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

Micromineralogists of the National Capital Area

Meeting: The 4th Wed. of each month 7:30 -10 p.m.
Long Branch Nature Center (No meetings June & July)
625 S. Carlin Springs Road, Arlington VA 22204

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

Pres: Dave MacLean
Vice Pres: 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.amfed.org/efmls
* American Federation of Mineralogical Societies (AFMS) www.amfed.org Affiliation

Dues: MNCA Membership Dues for 2019
\$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
* Bob Cooke
* David Fryauff
* Herwig Pelckmans

