Micromineralogists of the National Capital Area, Inc.

MNCA Website dcmicrominerals.org

The Mineral Mite

Vol. 49 – No. 7 Washington D.C. – A Journal for Micromineralogists September 2016

September 28 Time: 7:30 p.m. – 10 p.m.

Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22206

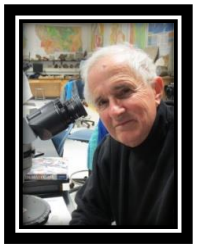
Program: The Journey of Diamonds

Kathy Hrechka will share her thirty year journey of collecting diamonds from various world localities. She will present the crystal structure, along with history and formation process. She will also share her travels from the Premier Diamond Mine in Pretoria, South Africa where her passion of diamond collecting began.

As a retired flight attendant of USAirways/American Airlines, Kathy continues to travel, seeking new geology adventures. She now volunteers at the Smithsonian Museum of Natural History in the Geology, Gems, and Mineral gallery, as well as in Q?rius, an education zone designed for teens.

Photo of the Month

President's Message:



By: Dave MacLean

I hope we all enjoyed a good summer. We spent the five weeks of our summer in Buffalo Creek, Colorado on top of the Pikes Peak batholith, one week hiking Yellowstone Park, almost two weeks in Northern Wisconsin, and one week supporting my brother Barry as his wife Mary Ann died from Alzheimer's disease.

Back to a happier note, we can look forward to the Baltimore Mineral Society micro conference at the Friends School Baltimore, MD Friday, Saturday, Sunday 14-16 October 2016.

We need volunteers to demo at the NVMC show 10AM-6PM Saturday 19 and 10-4PM Sunday 20 November at the Hub George Mason University.

We also need three volunteers for the nominating committee to present a slate of officers; president, vice president, secretary, treasurer, at our November meeting for election in December.

* *

Phoenicochroite: $Pb_2(CrO_4)O$ (red), **Seeligerite**: $Pb_3(IO_3)OCl_3$ (yellow), **Wulfenite**: $Pb(MoO_4)$ (orange) from the Union Minera Mine in Chile. The biggest crystal is said to be 2.5 mm tall, and the FOV = 3 mm (actually, the crystal is likely to be smaller than 2.5 mm, or the field of view is larger than 3 mm). Photo by Maurizio Dini. Copyright© Arturo Molina - Creative Commons Attribution License.

Article by Michael Pabst on page 3.

Previous Meeting Minutes: 6/22/16

By: Bob Cooke, Secretary

President Dave MacLean called the meeting to order at 8:10 PM. No guests or past Presidents were present. Six members were present. Minutes of the May meeting were approved as printed in the Mineral Mite.

Options were discussed for the purchase of loupes to be sold at MNCA events. Three loupes, available from Amazon, were available for comparison. Members approved the purchase of thirty (30) 10x loupes at $1.70 each and thirty (30) 20x loupes with LED illumination at $4.99 each. Anticipated sales prices are $5 and $10 respectively. Bob Cooke will place the order.

Discussion of possible MNCA interaction with Nanoscience Instruments (the Alexandria company marketing the Phenom brand of affordable Scanning Electron Microscopes) was deferred to a future meeting due to the absence of club personnel who had been in contact with the company.

Dave Fryauff reported that the club participated in three field trips in June: two to the Vulcan Materials Quarry in Manassas, VA and one to the Middleburg & Mt. Pleasant Mills quarries in Snyder County, PA. All three trips were well attended with participants collecting many mineral specimens. Dave also provided advance information on a trip to Contrary Creek on July 9 which will be sponsored by the Southern Maryland Mineral Club, as well as a GLMS trip to Garrisonville Quarry in late July. Further information will be provided in an email update.

George Reimherr thanked the club for designating him as an MNCA Honorary member. He also stated that he has been the club Secretary since 2002 (14 years) and is no longer able to fulfill those duties. Bob Cooke agreed to be Secretary for the remainder of this year's term. George will be selling his collection of Mineral Record magazines which is complete from 1976 volume 2 to the present; anyone interested should contact him directly. This was the last MNCA meeting before the summer break. The meeting adjourned at 8:40 PM.

Previous Program Reviewed 6/22/16

By: Bob Cooke, Secretary

The scheduled program was a recorded presentation by Rock Currier on "Exploring the Mines of Dal'negorsk Siberia" from the 2012 Dallas Mineral Collecting Symposium. Club members viewed micro minerals after the presentation.

Photo: Bob Cooke & Dave Hennessey

Photo: John Kress

Phoenicochroite

By Michael J. Pabst, Treasurer

Continuing our examination of minerals containing chromium, we come to Phoenicochroite. Phoenicochroite is a lead chromate. It is a partially oxidized analog of Crocoite: Phoenicochroite, $Pb_2(CrO_4)O$, monoclinic $\beta = 115.22°$, 2/*m*-prismatic, space group C2/*m* versus Crocoite, $Pb(CrO_4)$, monoclinic $\beta = 102.41°$, 2/*m*-prismatic, space group $P2_1/n$. So, at the atomic level, the chemical and crystal structures are rather similar. However, as mineral specimens in real life, Phoenicochroite is a poor cousin to Crocoite. In fact, Mindat (www.mindat.org/min-3194.html) describes the morphology of Phoenicochroite as follows: "Crystals tabular and imperfect, often reticularly intergrown. Massive; thin coatings."

In fairness, Phoenicochroite does have a nice deep red color. Mindat states that "the name comes from Greek φοίνικος for "deep red" and χρόα for "colour," in allusion to its colour." (By quoting Mindat, we can enjoy a bit of Greek and a little British spelling.) Phoenicochroite is darker in color than Crocoite, deep red versus orange-red in crystals, and the streak color of Phoenicochroite is brick red versus yellow-orange for Crocoite.

The type locality for Phoenicochroite is the Berezovskoe Au Deposit (Berezovsk Mines), Berezovskii, Ekaterinburg, Sverdlovskaya Oblast', Middle Urals, Russia. This is also the type locality for Crocoite. On Mindat, there are 70 photos of Crocoite from Berezovskoe, and only 3 photos of Phoenicochroite. So, in terms of quantity and aesthetics, Crocoite dominates at the type locality. The nicest photo of Phoenicochroite from Berezovsk, showing unusually large but dull crystals, is here: www.mindat.org/photo-121515.html. Phoenicochroite and Crocoite are sometimes found at the type locality associated with another chromium mineral, Vauquelinite. $Pb_2Cu(CrO_4)(PO_4)(OH)$.

By the way, *The Mineralogical Record* was kind enough to follow up my previous article on Crocoite in the June 2016 issue of *The Mineral Mite* with a special issue entitled: *Berezovsk, Russia!* This article just appeared in the July-August 2016 issue, Volume 47, number 4. (If you are not a subscriber, the issue is available for $15 on *The Mineralogical Record* website, minrec.org. I suppose that it is likely that they prepared their *Berezovsk, Russia!* issue before they saw my little article, if they saw it at all.)

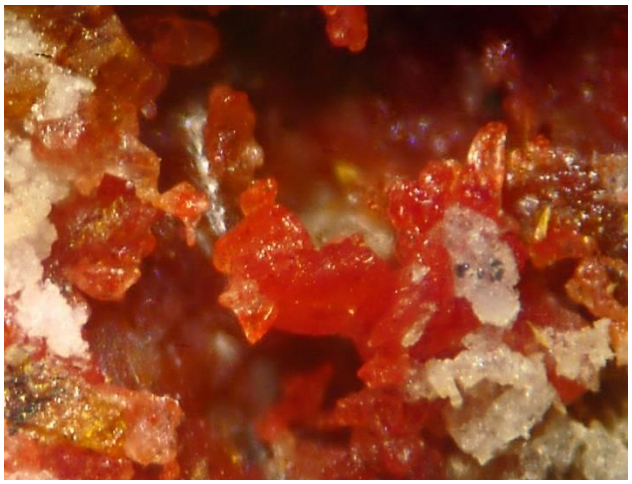
My specimen of Phoenicochroite comes from the Rat Tail claim (Pack Rat claim), Wickenburg area, Belmont Mountains, Maricopa County, AZ. The yellow associated mineral is Hemihedrite: $Pb_{10}Zn(CrO_4)_6(SiO_4)_2(F,OH)_2$, which is a triclinic chromium mineral. Hemihedrite is a member of the Iranite Group.

Iranite is $Pb_{10}Cu(CrO_4)_6(SiO_4)_2(F,OH)_2$, also triclinic, with a similar chemical composition except for substituting Cu for Zn. (I will write about Hemihedrite and Iranite soon.)

Phoenicochroite (red) and **Hemihedrite** (yellow). View of entire specimen. Rat tail claim, Maricopa County, AZ. FOV = 14 mm.
Photo by Michael Pabst

Continued on next page

Phoenicochroite continued



Close-up of the **Phoenicochroite** specimen, showing typical "imperfect" crystals. FOV = 1.5 mm. *Photo by Michael Pabst*.

More recently, there have been a few good crystals of Phoenicochroite coming from the Union Minera mine, Caracoles, Sierra Gorda District, Antofagasta Province, Chile. For example, please click on this link to see a photo by Luigi Mattei of a Phoenicochroite specimen (minID 54A-FPA) on Mindat: www.mindat.org/photo-218125.html. The photo shows well-formed 0.2 mm tall Phoenicochroite crystals.

****

GeoWord of the Day and its definition

kalininite (kal-in'-in-ite) A metallic black cubic mineral of the *linnaeite* group: $ZnCr_2S_4$.

All terms and definitions come from the Glossary of Geology, 5th Edition Revised.

GeoWord of the Day is brought to you by: Rayfract! Check them out at rayfract.com

And below I reproduce a photo from Mindat, specimen AME-AWV, also from the Union Minera Mine in Chile. The link is www.mindat.org/photo-227451.html. The photo was taken by Maurizio Dini from a specimen in the collection of Arturo Molina. This photo was Mindat Photo-of-the-Day for 13 Jun 2009.

****

Mark your Geo calaendars:
Atlantic Micromounters Conference
March 31 – April 1, 2017

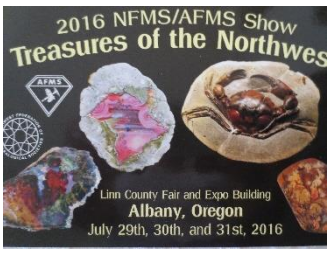
Speaker: to be determined
Location: Springhill Suites by Marriott, Alexandria.
6065 Richmond Hwy, Alexandria, VA 22303
Phone (571) 481-4441

Kathy Hrechka, MNCA Conference Chair

Details will be posted on our club website:
Tab Events - Conference
www.dcmicrominerals.org

2016 NFMS/AFMS Show Treasures of the Northwest

By Kathy Hrechka



On July 29 – 31, 2016 I had the opportunity to attend the 78th Annual Gem and Mineral Show in Albany, Oregon at the Linn County Expo Center. The show was hosted by the Willamette Agate & Mineral Society, which is a member of the Northwest Federation of Mineralogical Societies. This show was also the location for this year's American Federation of Mineralogical Societies convention and meetings. American Federation President, Matt Charskey (member of NVMC) invited me to attend the AFMS Delegate meeting, where I observed the many AFMS position representatives submitting their committee reports. I was amazed at the many participants from all over the USA, representing the seven federations. I ran into fellow micromounters; Barbara Sky, and Carolyn & Steve Weinberger.

Photo: Barbara Sky by her Carved Pigs showcase

Photo: Steve Weinberger Past AFMS President 2002

On Saturday morning, I attended the editor's breakfast, where I received an American Federation "Forth Place, in the small bulletin category" for *The Mineral Mite* by the Bulletin Editors Advisory Committee. I also accepted the "9th Place award" for Scott Braley for his article, Crystal Grove Diamond Mine and Ace of Diamonds Mine, Herkimer, NY. I was also awarded "11th Place" for my article, Snow Storm Thor's Snow Crystals. Over one hundred awards were presented, so I felt very appreciated as our club newsletter editor.

The show theme featured the local collecting in the state of Oregon, which highlighted, "home of the Thunderegg beds of agates." There were over 200 display cases, forty dealers, lectures, silent auctions, demonstrations, and daily field trips to a local petrified wood locality. The local club also provided a gold panning activity for the youth.

This show actually brought me back to my childhood rock collecting memories. I remember, acquiring matching Thunderegg agates, not realizing their locality. As I studied the many show cases featuring local agates, I found my matching locality to be Oregon. The displays which caught my attention included anything with agates. My favorite competitive showcase contained fluorescent minerals.

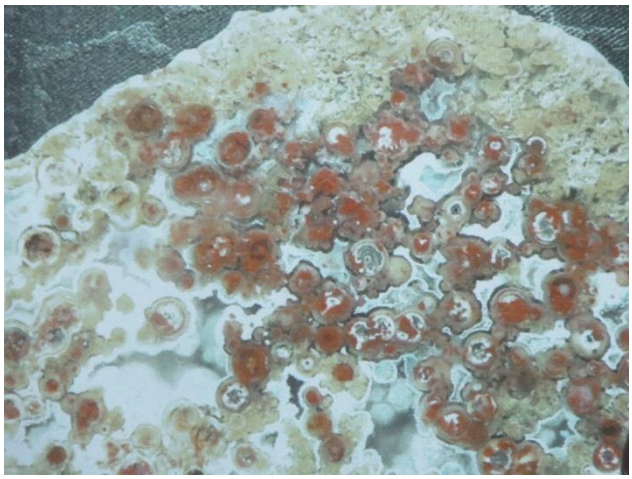
Photo: My niece, Breann Victoria Hrechka

My first impression of this show was "rocks," which I no longer collect. As a mircomounter, I was determined to find something unique. I actually found my answer in the lecture series presented by Eddie Hooper and his microscope.

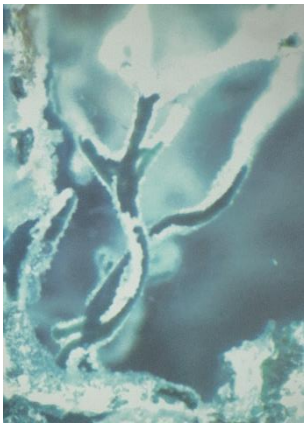
I appreciated the lecture series which featured local collecting, completely different to our East coast collecting. Eddie Hopper, member of the Willamette Agate & Mineral society presented "Look at What is Deep Within that Rock – a Microscopic View".

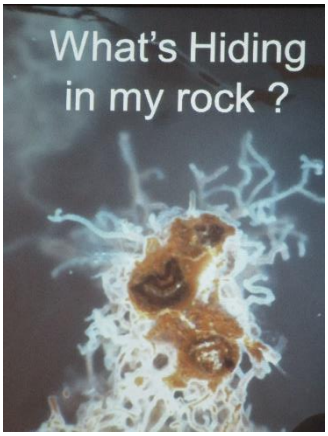
Photo: Eddie Hooper presenting agates close up.

Eddie gave me a reason to look more closely at agates while viewing them under a microscope. MacKensie Smith, recent graduate of Oregon State University in Geology and Biology lectured on the "History of Paleontology in Oregon". I met the agate expert and author K.T. Meyers, as she presented "Beachcombing 101 Finding Agates to Zeolites on the Central Oregon Coast". She also had a display of rocks from her "Agates of the Oregon Coast" book.



Overall, I was glad to have attended this show, because the vendors and exhibitors all collected fascinating agates.





Field Trips: * Calvert Cliffs, *Building Stones of the National Mall, Washington, DC, & *Geology of the Shenandoah National Park, Virginia

Submitted by Bob Cooke

In addition to the field trips that are sponsored by local mineral clubs for mineral collecting, there are also field trips sponsored by educational organizations for teaching geology. The Annandale campus of the Northern Virginia Community College has three such trips scheduled for this fall.

GOL 135 - Field Studies in Geology

September 17 Class # 15264 Section 052N

Instructor, Kenneth Rasmussen

GOL 135-052N: Miocene Geology of Calvert Cliffs, MD. One-day field trip Sat., Sept. 17 (9 AM-6 PM); Rain date Sun., Sept. 18. Trip considers Miocene seas spread across Chesapeake Bay region ca. 10-20 million years ago. We visit Calvert Marine Museum collections, and study ancient sediments, stratigraphy, and marine environments preserved in the world-famous Calvert Cliffs - collecting fossils along the way. Additional $6 museum fee required. Specific Calvert County meeting place, time, and preparation will be sent via student VCCS email and Blackboard. Photos posted at: http://www.nvcc.edu/home/jbuecheler/Photos.html. For all questions contact Dr. Rasmussen: krasmussen@nvcc.edu

October 16 Class # 15265 Section 055N

Instructor, Kenneth Rasmussen

GOL 135-055N: Building Stones of the National Mall, Washington, DC. One-day walking tour Sat. Oct. 15 (9 AM-6:30 PM); Rain date Sun. Oct. 16. Trip considers over 20 DC National Mall sites, examining the geologic history and architecture of the National Mall, and the rocks used to construct the federal buildings and monuments there. Specific DC meeting place, time, and preparation will be sent via student VCCS email and Blackboard. Photos posted at: http://www.nvcc.edu/home/jbuecheler/Photos.html. For all questions contact Dr. Rasmussen: krasmussen@nvcc.edu

September 24 Class # 15810 Section 071N

Instructor, Callan Bentley

GOL 135 (071N) Geology of Shenandoah National Park, VA. One-day field trip Saturday, September 24, 2016, 8am-7pm. Rain date: Sunday, September 25, 2016. Important pre-trip logistical information and preparatory readings located online at http://www.nvcc.edu/home/cbentley/gol135.htm .

This field trip will examine the geology of the Shenandoah National Park in VA from the granites underlying Old Rag to the lava floods of the Catoctin Formation and include an overview of the tectonic setting of the Park including the formation of the Appalachians, an event that completed the assembly of the supercontinent Pangea. Students will be evaluated with a field trip report which will be completed after the trip itself. NOTE: This trip involves moderately strenuous hiking on forest trails. Meet in back of the CT building at 8:00 a.m.; Return by 7:00 p.m.

Additional information on the Shenandoah trip can be found at: http://www.nvcc.edu/home/cbentley/gol_135/shenandoah

These trips are each one credit hour and incur a tuition fee of $177. However, Virginia residents over age 60 can audit these classes for free on a space available basis. Details are at http://www.nvcc.edu/admissions/apply/seniors.html

I have taken several field trip classes as well as lecture courses under the senior citizen program and fully recommend them. The registration process can be confusing and seems to change frequently, but the end result in worthwhile. If the web site listed above isn't sufficient, please call me at (703) 451-1540 and we can discuss it further.

Shoebox Adventures: Gifts

By Mike Seeds
Adapted from *The Conglomerate, July 2016*

My friend saw me approaching and reached for a little paper bag. "Hey," he said. "I brought you something." There were a few micromounts in the bag, gifts from a pal. He is a talented artist and businessman, but he likes minerals and has a microscope, so he keeps an eye out for good micromounts, and we have developed the custom of giving each other little gifts now and then.

One of the advantages of collecting the little bits is that they make good gifts. They are not usually expensive and it is easy to accumulate a few good ones for friends. I know someone who collects micro coppers, and another collector who likes anatase. I have a friend who collects the Francon Quarry and another pal who likes micro minerals from the locations for which they were named. It's easy to put a micromount aside and think, "My friend will really like that one."

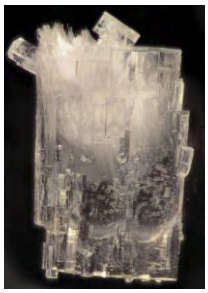
Micromounters are famous for their generosity, but it is built into the hobby. If you clean and trim a small rock you will get a bunch of lovely specimens. You will mount and keep a few for your own collection, but you will have leftovers much too nice to throw in the trash. You can put them on the giveaway table at the next micromounter's symposium, and you can save the best to give to friends. Giving micro gifts just happens.

Vanadinite on Barite Mibladen Mining Area, Morocco FOV: 1 mm. *Photo: Mike Seeds*

Another micromount in the bag was labeled "Malachite Rosasite Goethite" but it isn't the chemical composition that is impressive. It's the formation. The goethite is the matrix, of course, and somehow the malachite and rosasite have formed mushrooms. Seven tiny green mushrooms are scattered across the specimen standing up in a micro forest that hints that miniature fairies have just left and will return late tonight when the dew falls and the moon rises. Exactly what is malachite and what is rosasite isn't clear nor how the mushrooms formed, but they make an enchanting scene.

Malachite/Rosasite mushrooms stand only a millimeter high on this specimen from Mina Ojuela, Durango, Mexico *Photo: Mike Seeds*

The xonotlite on thaumasite specimen shown here turned up in a dealer's box and it was too beautiful to leave behind. The xonotlite ($Ca_6Si_6O_{17}(OH)_2$) is the snow white whiskers imbedded in the clear thaumasite and extending out of the crystal. Thaumasite is $Ca_3(SO_4)[Si(OH)_6](CO_3)*12H_2O$ and usually forms clear, colorless hexagonal crystals. In this case, the larger hexagonal thaumasite crystal has on its surface smaller hexagonal crystals. When I saw it in a dealer box, I had to give myself that gift. Luckily it cost only three dollars.



Xonotlite in Thaumasite WesselsMine, Kalahari Manganese Field, South Africa. The specimen is 4 mm high.

Findings from the 3rd Southeast Micromineral Symposium

By Steve Stuart, Editor of *Micro News*, the Canadian Micro Mineral Association, Ontario, Canada
Adapted from *Micro News*, September, 2016

Dr. Henry Barwood hosted the 3rd Southeast Micromineral Symposium in his classroom at Troy University, surprisingly located in Troy, Alabama. It took place from July 28 through July 30, 2016. He wrote a summary article for last month's CMMA Micro News. Here is an example of my findings.

Tan eggletonite on a lathe of **aegirine** from the "eggletonite dike", collected in the spring of 2016 from the 3M (Big Rock) quarry, Little Rock, Pulaski County, Arkansas. Material was contributed by Henry Barwood. FOV is about 3 mm. Image was processed with Zerene Stacker: DMap algorithm, 29 slices.

****

Note from Steve Stuart: I am saddened to inform all of you that Dr. Henry (Bumpi) Barwood passed away on Friday afternoon, September 9th, 2016 after undergoing a procedure to break up a large kidney stone. "Bumpi is survived by his wife, Jane, son Adam (Amy) and daughter Shelby. You can contact the family at hbarwood@troycable.net. Bumpi had the ability to find minerals, identify minerals, build equipment to study minerals and take wonderful microphotographs. Our mineral world has lost a giant in more ways than one."

New Images from Henry Barwood

Little ball of light pink **strengite** with **cacoxenite.** Coon Creek Mine, Arkansas. Old material from the 1980's . FOV is .5 X .5 mm. Imaged with a 300mm Canon telephoto and 23mm Nikon objective mounted in a tube configuration on a Canon 40D body. Stacked using Combine Z.

Cleaning out some old boxes and found a specimen of **cacoxenite,** etc. from the Coon Creek Mine in Arkansas. This would have been collected on one of the famous (or infamous) Coon Creek trips in the 1980's. Cacoxenite growing on beraunite completely pseudomorphed by goethite with a small group of strengite crystals. FOV is about 2 X 3 mm. Imaged with a 48mm B&L objective on a bellows mount. Canon 40D with a fluorescent ring light. Stacked using Combine Z.

American Federation of Mineralogical Societies

AFMS)
www.amfed.org

Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS)
www.amfed.org/efmls

Communication and Involvement Are the Keys to Our Success!

AFMS – Mid-Year Accomplishments

By Matt Charsky, President (Now Past President)
Condensed from the AFMS Newsletter June, 2016

At the half-way point of the AFMS fiscal year, I would like to point out some notable accomplishments that the AFMS can be proud of. Membership: Recently, I received from our Treasurer the membership numbers for 2015-2016 and 2014-2015. In alphabetical order they are:

Federation	2015-2016	2014-2015
CFMS	8,535	8,823
EFMLS	**9,398**	**9,038**
MWF	7,891	7,494
NFMS	6,153	6,241
RMFMS	8,517	7,837
SCFMS	3,821	3,694
SFMS	8,145	6,765
Grand Total	**52,460**	**49,892**

Conservation and Legislation: I realize the last thing anybody wants to do is to read the Federal Register, comprehend legislation like the Wilderness Act of 1964, or try to figure out the actions of Federal Agencies like the U.S. Forest Service or the Bureau of Land Management. Well if we want to keep our collecting areas open for today and the future, we need to speak up now and be heard! I want to commend the work of three Federations for their work behind the scenes on our behalf.

First, the California Federation (in particular, John Martin, our Conservation and Legislation Chair) for getting the word out on terms like wilderness areas, national monuments, and environmental study areas and how they affect and limit our ability to collect minerals and fossils.

Editor's note: Matt Charskey lives in Arlington, VA and is a member of numerous local geo clubs. Matt's entire article may be found on The American Federation Website www.amfed.org.

Geology Events:

September:

24-25: 52nd Annual Atlantic Coast Gem, Mineral, Jewelry & Fossil Show Gem Cutters Guild of Baltimore; Howard Co. Fairgrounds West Friendship, Maryland gemcuttersguild@gmail.com

24–25: 60**th Annual Franklin-Sterling Gem & Mineral Show**; Franklin Mineral Museum; Franklin School, 50 Washington Ave, Franklin, NJ; Sat 9–5, Sun 10–4; Outdoor Swap: Sat 7:30–6, Sun 10–5; adults $7, children 6–16 $4

26: NVMC - Northern Virginia Mineral Club Member Geology Auction Meeting 7:30–10 pm

28: MNCA Meeting: The Journey of Diamonds presented by Kathy Hrechka 7:30-10pm Long Branch Nature Center, Arlington, VA

October:

5: MSDC = Meeting Meet in lobby of the Museum of Natural History at 7:45pm to go to Cathy Kerby room for geo meeting.

14-16: 60th Annual Paul Desautels Micromount Symposium. Friends School of Baltimore, 5114 North Charles Street, Baltimore, MD beginning at 7:30 pm Friday evening the 14th and extending until noon on Sunday the 16th. Details may be found on page 11 of *The Mineral Mite*.

21-23 EFMLS Eastern Federation Meeting Convention. Host club: Rochester Lapidary Society Rochester, NY www.rochesterlapidary.org/show.

Mar 31–Apr 1, 2017 AtlanticMicromounters' Conference SpringHill Suites Alexandria, VA

Mark your Calendar: 60th Annual Paul Desautels Micromount Symposium October 14-16, 2016

By Mike Seeds, Conference chair

The 60th Desautels Micrmount Symposium will take place at The Friends School of Baltimore, 5114 North Charles Street, Baltimore, MD beginning at 7:30 pm Friday evening the 14th and extending until noon Sunday 16th.

Friday 14: 7:30pm Registration, dessert & coffee 8pm Fellowship – informal attendee presentations.

Saturday 15: at 3pm: Micromounters Hall of Fame Induction Ceremony: Robert Rothenberg and Randolf Rothchild. Robert Rothenberg will present "Collecting at Stoutameyer Branch, VA".

Saturday 15: at 7:30pm: Presentation "A Tribute to Randy Rothchild" by Mike Seeds, Al Pribula, LouD'Almonzo, Steve and Carolyn Weinberger.

Sunday 16: at 10:30am Michael Pabst will present "Copper Silicates of Arizona"

There will be giveaway tables, dealers, a silent auction and a voice auction. Lunch on Saturday will be provided. There will be plenty of mineral talk and mineral trading.

The program and registration materials are available on the Baltimore Mineral Society web site.

Register promptly to reserve your spot at
http://www.baltimoremineralsociety.org/theconglomerate.html

Photo: Mike Seeds, PA & Jim Hurlbut, Denver, CO

Micromineralogists of the National Capital Area
Meeting: The 4th Wed. of each month 7:30 -10 p.m.
Long Branch Nature Center, (Except Easter & Dec.)
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, dbmaclean@maclean-fogg.com
Vice Pres: David Fryauff, fryauffd@yahoo.com
Secretary: Bob Cooke, rdotcooke@verizon.net
Treasurer: Michael Pabst, Michaeljpabst@yahoo.com
Editor/ Historian: Kathy Hrechka, kshrechka@msn.com
Website: Julia Hrechka, dcmicrominerals@gmail.com
Conference: Kathy Hrechka, kshrechka@msn.com

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 2016
$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 5th of each month.
***The Mineral Mite* will be emailed on 10th.**
No newsletter July/August

AFMS Editor's Awards

First Place 2011 - Mini Bulletins
Second Place 2013 - Small Bulletins
Fourth Place 2016 – Small Bulletins

September inputs:
*Bob Cooke
*Michael Pabst
*Mike Seeds
*Steve Stuart
*Kathy Hrechka