



MNCA Website [dcmicrominerals.org](http://dcmicrominerals.org)  
**The Mineral Mite**



**Vol. 52 – No. 7**      **Washington D.C. – A Journal for Micromineralogists**      **September 2019**

**Sept 25 Time: 7:30 p.m. – 10 p.m.**  
**Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22204**

**Program: Virginia Mineral Project**

by David Fryauff, Vice president

Thomas Hale will be presenting the development of his new Virginia Mineral Project, VMP. He will discuss his journey into mineral collecting and how he became involved in Virginia mineralogy specifically. This will be a brief introduction and overview of his project and how our club can get involved. The VMP will be the focus of Mr. Hale's thesis for his graduate degree with the goal of updating and publishing a new book on *Minerals of Virginia* after more than 30 years! Join us on this night to learn more about this new statewide project that will bring VA rockhounds together and preserve the mineral history of the state. Article p. 9  
Workshop: Bring interesting micros.



**President's Message:**

by Dave MacLean

It's Happy and prosperous New Year MNCA, it's time to eagerly look at the summer finds, buys, and adventures. In addition to our meetings we can show off our craft at the NVMC show Saturday-Sunday November 23<sup>rd</sup> and 24<sup>th</sup>, 2019 at George Mason University.



We can demonstrate micromounting again at the GLMSMC show the third Saturday and Sunday of March 2020. Our annual highlight is our conference Friday afternoon - Saturday April 3-4, 2020 at the Holiday Inn in Alexandria. I look forward to seeing you.

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**Desautels Micromount Symposium**  
**October 11-13, 2019**

Location: Friends School of Baltimore  
5114 N. Charles Street Baltimore, MD 21210

Mineral talks, giveaway tables, silent auction, voice auction, sales, trading, lots of friendship  
Registration - Mike Seeds, [mseeds@fandm.edu](mailto:mseeds@fandm.edu)

**Photo of the Month**



**Photo of the Month:**

**Umohoite on green Zeunerite**, Mitutoyo stacking  
19 images. FOV 0.5 mm. Photomicrography by  
Michael Pabst. Article pages 3-5

## Micromineralogists of the National Capital Area, Inc.

### Previous Meeting Minutes: 6/26/19

by Bob Cooke, Secretary



President Dave MacLean convened the meeting at 8:05 PM, June 26<sup>th</sup>, 2019. Seven members were present: Bob Cooke, Dave Fryauff, Jeff Guerber, Dave Hennessey, Kathy Hrechka, Dave MacLean, Barry Remer. No past presidents or guests were present.

Minutes of the May 2019 meeting were approved as printed in the Mineral Mite.

Awards for the AFMS and EFMLS Bulletin Editors' Contest were presented to the following authors by Dave MacLean:

\*Kathy Hrechka, 1<sup>st</sup> Place, AFMS category Small Bulletins: The Mineral Mite

\*Kathy Hrechka, 2<sup>nd</sup> Place, EFMLS category Small Bulletins: The Mineral Mite

\*Kathy Hrechka, 10<sup>th</sup> Place, EFMLS category Original Education: American Museum of Natural History, New York, NY

\*Kathy Hrechka, Honorable Mention, EFMLS category Written Features: Celebration of Life: Dr Pete J. Dunn;

\*Kathy Hrechka, Honorable Mention, EFMLS category Original Non-Technical: Mysteries of the Hope Diamond Solved;

\*Michael Pabst, 5<sup>th</sup> Place, EFMLS category Original Education – Advanced: Rhodochrosite from Buck Hill and Hotazel

\*Michael Pabst, 6<sup>th</sup> Place, EFMLS category Original Education – Advanced: Benitoite and Pabstite;

\*David MacLean, 7<sup>th</sup> Place, EFMLS category Original Education: 45<sup>th</sup> Atlantic Micromounters Conference;

\*David Hennessey, Honorable Mention, EFMLS category Written Feature: NVMC/MNCA Joint Holiday Party.



**Announcements:** Dave Fryauff announced upcoming field trips.

**June 29:** Saturday, June 29<sup>th</sup>, we are booked for the National Limestone #1 (Middleburg) & #2 (Mount Pleasant Mills) quarries in Snyder Co. PA on Saturday, June 29<sup>th</sup> at 9 am in the Middleburg quarry office. These are popular and welcoming quarries and EFMLS clubs throughout the east coast have booked virtually all the other Saturdays in April, May, and June. Meet at the office parking lot of National Limestone Quarry #1, at 3499 Quarry Road, Middleburg, PA 17842. We will sign in and get a safety brief from our host, Mr. Eric Stihl and will work this quarry for 2 hours, then go over to National Limestone Quarry #2 at 217 Quarry Rd, Mount Pleasant Mills, PA 17853. Children age 10 with full standard safety gear and parent are permitted. RSVP to me.

**July 20,** 8 AM Contrary Creek, Lake Anna, Louisa County, Virginia. Attendees may pan for pyrite, magnetite, and gold in the creek. Meet at the US rt 522 bridge that crosses Contrary Creek about 3 miles north of the town of Mineral. See Dave Fryauff for further details. (Invitation to this trip is courtesy of Dave Lines of the Southern Maryland Rock and Mineral Club.)

**September 29,** 8 AM. Kyanite collecting at the Willis Mountain Mine, Sprouses Corner, Farmville District, Buckingham Co., Virginia. This trip is sponsored by the Shenandoah Valley Gem & Mineral Society.

**September 2,** 9 AM – 5 PM 62nd Annual Franklin-Sterling Gem & Mineral Show.

The meeting adjourned at 8:30 PM.

### Previous Program Reviewed: 6/26/19

by Bob Cooke, Secretary

**Alain Martaud “French Fluorite Mines & Mining” a DVD from the Dallas Symposium 2018**  
France is a longtime mining country. The exploitation of fluorite began in the late 1800s. A century later, in 1975, France ranked as the third largest fluorite producing country in the world. Alain took us on a tour to some of the best 900 known fluorite veins of France.

## Umohoite and Calcurmolite

by Michael Pabst PhD, Treasurer

I recently acquired an intriguing specimen from Tony Nikischer of Excalibur Minerals in Charlottesville. So, I have decided to interrupt the flow of articles on manganese minerals to show you my new little treasure. The minerals on this specimen feature uranium and molybdenum, two metals that we have looked at in earlier articles. These minerals can be found at two neighboring localities: Mas d'Alary, Lodeve, Hérault, Occitanie, France, and Rabejac, Le Peuch, Hérault, Occitanie, France.



**Umohoite** from these localities is a red uranyl molybdate  $(\text{UO}_2)\text{MoO}_4 \cdot 2\text{H}_2\text{O}$  and **Calcurmolite** is a yellow calcium uranyl molybdate  $(\text{Ca},\text{Na})_2(\text{UO}_2)_3\text{Mo}_2(\text{O},\text{OH})_{11} \cdot n\text{H}_2\text{O}$ . Umohoite is triclinic but with all three angles close to  $90^\circ$ . Calcurmolite is monoclinic with  $\beta = 90.12^\circ$ . If you could see the individual crystals, they would probably look orthorhombic, but with both minerals, the individual crystals that form the balls are too tiny to discern their shapes.

I had long coveted similar specimens pictured on Mindat. For example, here is a link to a photo by Stephan Wolfsried, showing Umohoite, Calcurmolite, Uranophane and possible Baryte or Nováčekite-I from Rabejac: [www.mindat.org/photo-605331.html](http://www.mindat.org/photo-605331.html). And here is a particularly luscious photo by Yannick Vessely, from Mas d'Alary, showing Calcurmolite, Umohoite, Uranophane- $\beta$ , Baryte, and probable small Nováčekite-I: [www.mindat.org/photo-422038.html](http://www.mindat.org/photo-422038.html).

My specimen also features green indistinct crystals that the label identifies as Zeunerite. Zeunerite is a green copper uranyl arsenate  $\text{Cu}(\text{UO}_2)_2(\text{AsO}_4)_2 \cdot 12\text{H}_2\text{O}$ . Some nice Zeunerite is found at Rabejac, as shown in a stunning photo by Stephan Wolfsried: [www.mindat.org/photo-719057.html](http://www.mindat.org/photo-719057.html). It's possible some of the green material might be Cuprosklodowskite  $\text{Cu}(\text{UO}_2)_2(\text{SiO}_3\text{OH})_2 \cdot 6\text{H}_2\text{O}$ , which is found at Rabejac, where it looks like Conichalcite: [www.mindat.org/photo-511685.html](http://www.mindat.org/photo-511685.html). Another possibility is Deloryite

$\text{Cu}_4(\text{UO}_2)(\text{MoO}_4)_2(\text{OH})_6$ , a green uranium molybdate that is found at Cap Garonne Mine, but not reported at Rabejac: [www.mindat.org/photo-777076.html](http://www.mindat.org/photo-777076.html).

My specimen is from the locality at Rabejac, where the following yellow uranium minerals are also found:

\*Rabejacite  $\text{Ca}(\text{UO}_2)_4(\text{SO}_4)_2(\text{OH})_6 \cdot 6\text{H}_2\text{O}$   
[www.mindat.org/photo-82872.html](http://www.mindat.org/photo-82872.html).

\*Uranophane  $\text{Ca}(\text{UO}_2)_2(\text{SiO}_3\text{OH})_2 \cdot 5\text{H}_2\text{O}$  monoclinic 2-sphenoidal [www.mindat.org/photo-714823.html](http://www.mindat.org/photo-714823.html).

\*Uranophane- $\beta$   $\text{Ca}(\text{UO}_2)_2(\text{SiO}_3\text{OH})_2 \cdot 5\text{H}_2\text{O}$  monoclinic 2/m [www.mindat.org/photo-199199.html](http://www.mindat.org/photo-199199.html).

\*Nováčekite-I  $\text{Mg}(\text{UO}_2)_2(\text{AsO}_4)_2 \cdot 12\text{H}_2\text{O}$  triclinic [www.mindat.org/photo-231950.html](http://www.mindat.org/photo-231950.html).

At Mas d'Alary, there is also

\*Deliensite  $\text{Fe}^{2+}(\text{UO}_2)_2(\text{SO}_4)_2(\text{OH})_{21}(\text{H}_2\text{O})_7$  orthorhombic [www.mindat.org/photo-112085.html](http://www.mindat.org/photo-112085.html).

My specimen contains several white or light-yellow tiny microcrystals that might include some of the above minerals. Baryte  $\text{BaSO}_4$  is also a possibility. At Shinkolobwe, red Umohoite is associated with yellow Vanmeersscheite  $\text{U}^{6+}(\text{UO}_2)_3(\text{PO}_4)_2(\text{OH})_6 \cdot 4\text{H}_2\text{O}$ : [www.mindat.org/photo-653711.html](http://www.mindat.org/photo-653711.html).

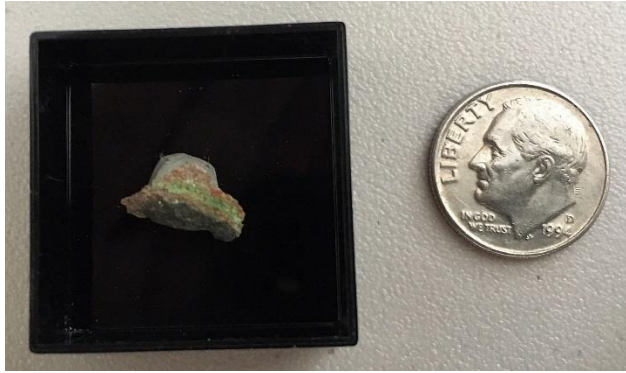
Except for Shinkolobwe, Umohoite from other localities, including the type locality (Freedom No. 2 Mine, Marysvale District, Plute County, Utah) is black or green, and not particularly attractive. Here is a photo of green Umohoite from Kazakhstan: [www.mindat.org/photo-152945.html](http://www.mindat.org/photo-152945.html), which is nice.

This article will feature my Umohoite specimen exclusively. And because there is only one specimen, but it is an interesting and colorful specimen, we are going to zoom-in with increasing magnification. The photos start with the entire specimen, which is only 12 mm in its longest dimension, and zoom down to a single red ball of Umohoite with a FOV of just 0.25 mm. The first photo showing the entire specimen next to a dime was taken with my iPhone. I took all the other photos with an Olympus OM-D E-M5 Mark II camera, either with the Olympus 60 mm macro lens (FOV 11 to 3 mm), or through a stereomicroscope (FOV 10 to 1 mm), or with a Mitutoyo lens and bellows (FOV 2 mm to 0.25 mm).

So, here we start on the next page with an overall view of the specimen, just to get a feeling for the tiny size:



**Umohoite and Calcurmolite continued**



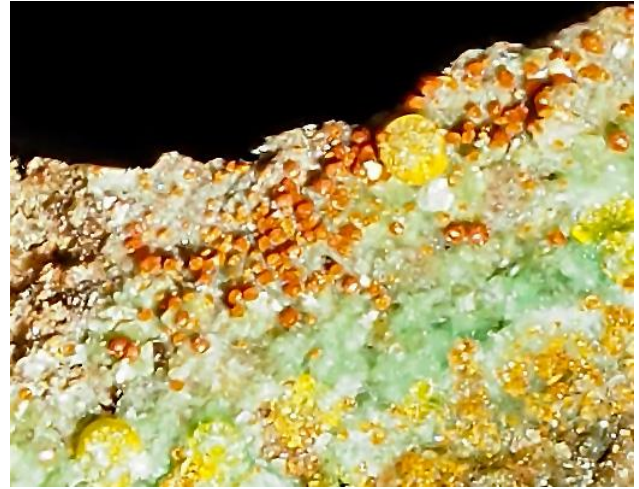
Umohoite specimen in black micromount box with a dime for scale. The diameter of the dime is 17.91 mm officially. The box is 28 mm on a side. The longest dimension of the specimen is 12 mm. I took this photo with my iPhone camera.

At the end of our photos of increasing magnification, there will be a photo with a Field-of-View (FOV) of 0.25 mm. That is the width of the letter I that begins "IN GOD WE TRUST" on the coin. The D for Denver is 1 mm wide. All photos below were taken by Michael Pabst. I recommend expanding the size of this PDF file to 200% on the screen to best see the photos.

Photos taken with Macro lens:



**Umohoite & Calcurmolite**, Rabejac, France, FOV 11 mm. Camera with 60 mm macro lens, stacking 11 images



Closer view by cropping the photo above. FOV 3 mm.

Photos taken with stereomicroscope



Umohoite & Calcurmolite, Scope stacking 9 images. FOV 10 mm. ("The Dinosaur?")

Continued next page



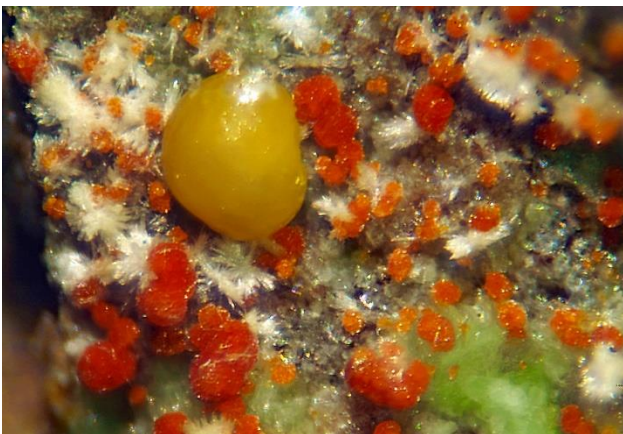
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**Umohoite & Calcurmolite**, scope stack 4 images. FOV 2 mm.



**Calcurmolite** wheel, scope stack 2 images. FOV 1 mm.



**Calcurmolite** ball with Umohoite, and white Uranophane (?), scope stack 6 images. FOV 1.5 mm.

Photos taken with Mitutoyo lens and bellows:



**Umohoite**, Mitutoyo stacking 9 images. FOV 0.7mm.



**Umohoite on green Zeunerite**, Mitutoyo stacking 19 images. FOV 0.5 mm.

Green plates of **Zeunerite** below and left of red **Umohoite** ball, capped with white **Uranophane**. Mitutoyo single image. FOV 0.25 mm.



In the next article, we will return to manganese minerals, but this Umohoite specimen was a delightful summertime diversion.



## Mineral Collecting Trio: Tom, David & Michael at Sanders Quarry 6/19

by Michael Pabst PhD, Treasurer



Tom Tucker and Dave Fryauff at the Sanders Quarry, Fauquier County, VA, on a field trip June 2019. Photo by Michael Pabst.

We did not find much of interest, just some minor calcite and chabazite, but see: [www.mindat.org/photo-548270.html](http://www.mindat.org/photo-548270.html).

On the way home, we stopped at Skyline Caverns near Front Royal, where, by good luck, the cave management had temporarily removed the anti-idiot protective screens from the cave formations to permit photographs for a new brochure. Here is a photo of the cave formations called “Anthodites”.



**Anthodites** on the ceiling in Skyline Caverns. FOV about 1 meter. Photo by Michael Pabst

## Mineral Collecting Field Trips:

by David Fryauff, Vice-president



This is not all, I hope.... I am working hard to generate field trip opportunities for us in several other new places....VA & PA...maybe WV too. I am working to restart our winter (Jan or Feb) field trip to the James Madison University Geology Department., Harrisonburg, VA.

Dr. Lance Kearns, our wonderful host for many years has retired from the department but continues to serve as the curator of the mineral museum. There will be a new location for the museum & department when January 2020 rolls in. I will provide additional updates as I learn more details. It will be great to have this JMU outreach program to the DMV clubs resume!!! Be safe, be smart, & good hunting!!!

Contact David [fryauffdj@gmail.com](mailto:fryauffdj@gmail.com)

## Vulcan Sanders Quarry in Warrenton

by David Fryauff, Vice-president

Vulcan Sanders quarry in Warrenton was lean, as Sam had warned, but it seems we all came away with nice chabazite specimens...some as big as your hand. One other thing that I only recently heard about and saw in a specimen I brought home from the Sanders quarry was a vug lined with quartz crystals...but these quartz crystals appear as just a top & bottom termination without any prism or elongation. Termed quartz-beta, they occur at very high temperatures and a few locations in the world; Dalnegorsk, Russia are famous for these. The specimen I have is just a crystal lined vug of about 3.5 cm and I can't take a good photo with my smart phone through the eyepiece of the microscope. If you are interested in this, and want to see some excellent photos, check out <https://www.geoforum.fr/topic/4533-quartz-beta/>  
Cheers, Dave

Photos on next page

**Vulcan Sanders Quarry continued**

Photos below include the quartz crystals as they appear with just a top & bottom termination without any prism or elongation. Termed quartz-beta, they occur at very high temperatures and a few locations around the world.



Quartz-beta



Quartz-beta



Quartz-beta

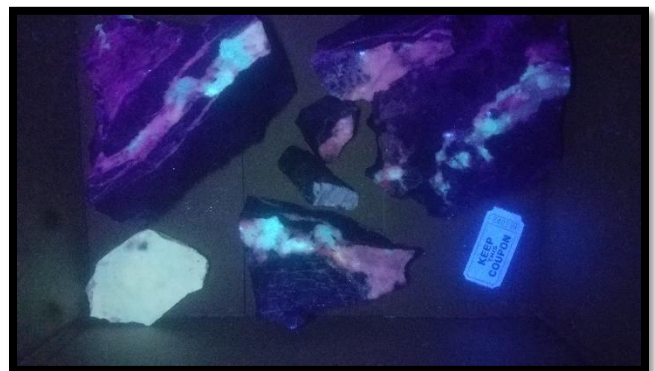
**PA-MD Serpentine Quarry in Lancaster County, Pennsylvania**

by David Fryauff, Vice-president

Our May 11th field trip to the Penn-MD serpentine quarry in Lancaster County, PA took us to the new, and deepest level of the quarry which presented us with a lot more brucite than I had seen on three previous collecting trips. Most of the brucite was clear to white micaceous thin layers...occasionally large pieces a half meter wide but only 1 cm thick. I found a boulder with pockets of white magnesite crystals and took some home. Under the scope there were greenish-yellow, hexagonal brucite crystals, 1-3 mm. Both the brucite and the magnesite gave fluorescent SW & LW response as shown in the attached photos. I will try to get us back into this quarry in October or November.



Brucite with white magnesite



Brucite with white magnesite under UV light



## Herwig Pelckmans Tours the Geology, Gems & Mineral Gallery 6/19

by Kathy Hrechka, Editor



I was delighted to notice a wandering visitor in the mineral gallery on June 22, 2019, Herwig Pelckmans. Our MNCA club members first met him while he was our featured conference speaker in 2018. We remember him for his expert talks, while bearing famous Belgium chocolates. He also donated his “Belgium survival pack”: Belgium cheese, beer, and chocolates to our club auction. Who could not forget Herwig?

He was in town for the Mineralogical Society of America Centennial (1919-2019) Symposium, which was held at the Carnegie Institution for Science Building in Washington, DC. Herwig is the current president of the Mineralogical Society of Belgium.

I was volunteering in the mineral gallery promoting “The Periodic Table of a Smartphone”, when we noticed each other. What a great surprise!



Photo courtesy of a museum guest.

## Tyrannosaurus rex Commemorative Forever Stamps First Day Issue 8/29/19

by Kathy Hrechka, Editor

(photos by Kathy)

On Aug. 29, the U.S. Postal Service debuted a new set of *T. rex* stamps in a dedication ceremony at the Smithsonian National Museum of Natural History in Washington, D.C. Dr. Kirk Johnson, Sant director Smithsonian NMNH welcomed Isaac S. Cronkhite, from the United States Postal services. Dr. Matthew Carrano, Curator of Dinosauria gave a short presentation. The featured guest was scientific illustrator, Julius T. Csotonyi of Vancouver, Canada who designed the stamps.

Julius spoke about how each stamp, features four colorful views of *T. rex*. Three of the stamps show how a *T. rex* may have looked during several stages of its life: as a downy newly hatched baby, a partly feathered teenager chasing a primitive mammal, and a muscular adult striding through a Cretaceous forest. In the fourth scene, an articulated adult *T. rex* skeleton looms over the much smaller skeleton of a young triceratops. Two of the stamps have a 3D affect while rotating them forward and back.



While talking with Julius, I learned that he was approached to design dinosaur stamps by the museum while he was illustrating over fifty murals in the new “Journey Through Deep Time” exhibit. Julius is a well-known illustrator for numerous children’s books on dinosaurs, including by Smithsonian Books.



L-R Dr. Carrano, Julius Csotonyi, Dr. Kirk Johnson





## Virginia Mineral Project

*"Preserving history, one mineral at a time."*

by Thomas Hale, VMP coordinator

Hello! I thought I would reach out to you personally regarding my project that is being developed for Virginia. I would take the time to introduce myself and the project. Please feel free to read at your earliest convenience!

I'm a young (24-year-old) Virginia mineral collector who is actively involved in the mineral community and educational outreach in geoscience. I am working on developing a state-wide project on Virginia Minerals, known as the Virginia Mineral Project (VMP). I will be turning it into a master's/PhD degree at George Mason University with Dr. Julia Nord. The capstone project/thesis will be a new publication and update to the 1990 *Minerals of Virginia* book by Dietrich.

The VMP will collect and preserve stories and then share these stories, by utilizing advancements in technology to bring to life Virginia minerals and their history in ways that has never been done before. Through collaboration between universities, clubs, collectors, K-12 schools, government agencies, etc. we can develop a book that is made by the community, for the community. I want to bring in the cultural and personal aspects of mineral collecting to tell a deeper story of the state's mineral history over the last 100-150 years. Imagine seeing a classic specimen from the 1940's re-imagined with high quality images, online interactive educational facts, and stories about the discovery! Simply put, the VMP not only plans to record and preserve history but plans to revitalize old publications and share its knowledge across the state and to anyone interested in Virginia minerals.

Since June, I have been working hard to build partnerships under the VMP. The Richmond, Lynchburg, Roanoke, Northern VA, Tidewater, Shenandoah, and Northern Peninsula clubs are all aware and engaged with me. I have six lectures planned between now and November and will also be attending four events this fall to promote the project. On top of Julia Nord at GMU, I have secured

assistance with Lance Kearns, who I have worked with before and is wanting to be a part of the project, the Lora Robin's gallery and Richmond University, and the Geoscience Museum at Virginia Tech under Llyn Sharp. I will be reaching out to the DMME and other state agencies once I gather the appropriate clubs and community organizations. I have several key mineral collectors from Virginia such as Betsy Martin, Andy Dietz, Rudy Bland, Pete McCreary, etc. who are all working with me on this.

As someone who has lived in D.C. and was engaged with the State Department and political scene, I would love to be involved with more organizations in the area. D.C. has a special place in my heart. I think that your history in the state and proximity to Virginia would add a valuable network to this project. As much as this is my project, I am trying to create opportunities for involvement across multiple organizations.

With this said, I would love to speak with you and the other leadership about my project and ways we can work together over the next few years. I would love to come speak at one of your meetings and discuss things further. I'm an engaging and active speaker, so I do my best to combine photos, stories, and passion to discuss my project.

If you have any questions or would like to speak with me about this more in depth, then please feel free to reach out to me at (540) 529-4506. I would be willing to discuss this further with you!

Sincerely, Thomas N. Hale

**Virginia Mineral Project Coordinator**

P: (540)529-4506

E: [Virginiamineralproject@gmail.com](mailto:Virginiamineralproject@gmail.com)

### Preserving Virginia Mineral History Virginia Mineral History Matters...

History connects people to community – whether the community is a small town, the state, or a local gem and mineral society. Preserving these connections, and the stories that accompany them, is essential to maintaining and sustaining a new generation of Virginia rockhounds who value the culture and community that has been built over the years around our shared interest.

## Virginia Mineral Project continued

Whether you are a rockhound, educator, scientist, or nature enthusiast, you can appreciate the beautiful earth that we all share and the incredible stories of discovery, friendship, and adventures that has marked a legacy into our great state. Virginia has many famous and unique mineral occurrences with over 425 individual species being reported. The Virginia Mineral Project (VMP) seeks to tell these stories, by utilizing advancements in technology to bring to life Virginia minerals and their stories through collaborative projects, community programs, social media engagement, and photography databases in ways that have never been done before.

**What is the VMP?** Much of Virginia's mineral history — stories, specimens, photographs, historical items, documents and videos — is held within the homes and minds of collectors across the state. Over time, these collections pile up and many people worry about how to preserve and pass them on as they get older. National institutions such as the Smithsonian Museum of Natural History and state institutions such as the Department of Mines, Minerals, and Energy (DMME) and the Virginia Museum of Natural History (VMNH) no longer have the capacity, storage, or manpower to support a state-wide effort to protect and preserve Virginia minerals and the stories behind them. Years ago, successful publications such as “*Virginia Minerals*” and “*Minerals of Virginia*” inspired future generations to get out and collect, educate, preserve and share their adventures with their community. These incredible works are still utilized by today's collectors, but most of these publications are outdated and do not utilize today's advancements in technology to create new innovative ways of reaching out to the collecting community and the broader public. Imagine seeing a classic specimen from the 1940's reimagined with high quality images, online interactive educational facts, and stories about the discovery! Simply put, the VMP not only plans to record and preserve history but plans to revitalize old publications and share its knowledge across the state and to anyone interested in Virginia minerals and geology.

**So how do we protect and preserve Virginia Minerals?** The Virginia Mineral Project (VMP) proposes increasing private and public support for Virginia

mineral preservation, recovery, outreach and education, while maintaining and building new relationships with State and Federal institutions that already contain mineral specimens and historical documents from across the state. This initiative set forth by the VMP will seek to achieve the following goals:

- Preservation operations to protect historical records from harm and loss and record them for public use, including photographic digitization projects, collection management and recovery, and audio/video interviews with collectors.
- Initiatives to use these historical records in creative ways to convey the importance of state and community history, including the development of a social media outreach page, online educational resources, teaching materials for K-12 and college students, and guest lectures at clubs and organizations across the state about the VMP and promoting the new generation of collectors

**The End Goal:** Through collaborative efforts, engagement, and support from the rockhounding community, the VMP will produce a *Minerals of Virginia* book based off the old literature from Richard Dietrich. The last *Minerals of Virginia* was published 30 years ago (1990), making this book a major update in mineralogy within the state. The book will retain the mineral index information with counties and minerals to be found but will also provide a personal and historical approach to Virginia minerals in a first for the state. High quality photographs, stories from collectors, unique documents, and famous minerals will be included in the publication. The publication will strive to create a complete picture of the state's mineral heritage by incorporating everyone who has played a role in the mineral history of the state. Once the publication is released, the VMP will continue to run social media and community outreach programs to promote Virginia minerals for years to come.

**Funding the VMP:** The VMP is the primary research work of Thomas Hale under the academic advising of Dr. Julia Nord at George Mason University. This is the capstone project and thesis of Mr. Hale's master's degree and will be supported through research and grant funding.

Continued next page



While this will cover most of the official costs and logistical items, the VMP will actively seek out sponsors and donors to help continue the longevity of the project. Currently, the primary fees include gas to travel to sites for preservation and data collection and collection management funds. Most of the initial costs will be low and will focus on time and travel as most locations will be across various cities in Virginia. Thanks to technology, sharing data and information can be easily done without cost, so there are opportunities to discuss ways to share information without travel costs.

**Getting involved:** If you have stories, documents, or information you would like to share with the VMP, then you can email us at: [virginiamineralproject@gmail.com](mailto:virginiamineralproject@gmail.com). If you would also like to be a part of the VMP or become a supporter of our effort, then please feel free to write us a short email regarding your interest in the project and we will be happy to have you take part in this historic initiative for the state! Social media accounts will be created in the future, and if you or someone you know are interested in monitoring and assisting with these sites, then email us. The best part about our initiative is its accessibility to the public! Since history can be found anywhere, our project is not just limited to the outdoors. If you have disabilities or have mobility concerns, then you are still able to become a valuable resource for our project and we will be more than willing to work with you to find ways to stay engaged in the ongoing project. We welcome any and all support!

"The Virginia Mineral Project (VMP) is looking for official sponsors and funding opportunities to support the initial phase of data collection and project outreach between the months of January and August 2020. Funding requests include photography equipment, personal travel and funds, and marketing and advertising material. The data (photographs, stories, specimens) collected over the eight months will be used as the primary source of information for the publication of a new *Minerals of Virginia* book based off the old literature from Richard Dietrich. The book will be developed under the supervision of Dr. Julia Nord at George Mason University as part of a Master's/PhD thesis for Mr. Hale starting Fall of 2020. If you have photographs, stories, specimens, etc. from famous locations in the state then please email [virginiamineralproject@gmail.com](mailto:virginiamineralproject@gmail.com).



### GeoWord of the Day and its definition:

**archerite** (arch'-er-ite) A colorless or buff tetragonal mineral occurring in cave deposits:  $H_2(K,NH_4)PO_4$ .

**cronstedtite** (cron'-stedt-ite) A trioctahedral Fe-rich phyllosilicate based on a 1:1 T-O layer approximately 7Å thick composition is  $(Fe^{2+},Fe^{3+})_3OH_4(Si,Fe^{3+})_2O_5$ . Cronstedtite occurs as jet-black crystals in a wide variety of layer stacking sequences, primarily in low-temperature hydrothermal sulfide veins. A member of the *serpentine* group.

**orcelite** (or-cel'-ite) A metallic hexagonal mineral:  $Ni_{5-x}As_2(x=0.23)$ .

**sulfide enrichment** Enrichment of a deposit by replacement of one sulfide by another of higher value, as pyrite by chalcocite.

**tectonosphere** (tec-ton'-o-sphere) The zone or layer of the Earth above the level of isostatic equilibrium, in which crustal or tectonic movements originate. Rarely used. Cf: *crust [interior Earth]*.

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](http://envirotechonline.com)

### The Chesapeake Gem & Mineral Society Auction - Oct 11, 2019

Date: Friday, October 11th, 2019

Time: 7:30 pm (viewing at 7:00 pm)

Place: Westchester Community Center

2414 Westchester Ave., Oella MD 21043

Items that can be found are Gemstones, Cutting rough, Jewelry, Minerals, Fossils, Books, Magazines, and Lapidary equipment.

<[chesapeakegemandmineral.org](http://chesapeakegemandmineral.org)>

## Micromineralogists of the National Capital Area, Inc.



**American Federation of  
Mineralogical Societies**

(AFMS)  
[www.amfed.org](http://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"

Address maintenance and mailing labeling are the responsibility of the AFMS Central Office. All Central Office Steve Weinberger PO Box 302 Glyndon, MD 21071-0302

<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)  
Material in this Newsletter may be duplicated for non-commercial purposes provided credit is given this publication and the author.



**Eastern Federation of  
Mineralogical and  
Lapidary Societies**

(EFMLS)  
[www.amfed.org/efmls](http://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:**

#### **September 2019**

**4: 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](http://www.mineralogicalsocietyofdc.org)

**9: The Gem, Lapidary and Mineral Society of  
Montgomery County, Maryland - GLMS-MC**  
7:30 pm - Rockville Senior Center, 1150 Carnation  
Drive, Rockville, MD  
[www.glmsmc.com](http://www.glmsmc.com)

**20: 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](http://www.glmsdc.org)

**23: Northern VA Mineral Club - NVMC meeting**  
7:30–10pm Long Branch Nature Center  
625 South Carlin Springs Road in Arlington, VA  
[www.novamineralclub.org](http://www.novamineralclub.org)

**25: 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](http://www.dcmicrominerals.org)

**Micromineralogists of the  
National Capital Area, Inc.**

Geology club  
Meetings 4th Wed monthly; no July/Aug  
7:30 pm - 10pm  
Long Branch Nature Center  
625 S. Carlin Springs Road  
Arlington, VA 22206  
\* Spring Symposium

[www.dcmicrominerals.org](http://www.dcmicrominerals.org)





## Micromineralogists of the National Capital Area, Inc.

### You Know You're a Rockhound if:

- Your garage is so full of rocks that the car won't fit in.
- You collect interesting specimens, including the brown unknown ones, just in case they might turn out to be something special.
- You've ever dumpster dived at a tile store or marble warehouse.
- The sign on the side of the road says, "Falling Rock" and you pull over to wait.
- You like to examine the rocks in your driveway.
- You treasure ancient, fossilized animal dung.
- You spend hours searching the ground while everyone else around you gets bored.
- You have ever had to respond "yes" to the question, "What have you got in here, rocks?"
- Your collection of beer cans and/or bottles rivals the size of your rock collection.
- You have ever uttered the phrase "have you tried licking it" with no innuendos intended.
- Your rock garden is located *inside* your house.
- You have ever found yourself trying to explain to airport security that a rock hammer isn't really a weapon.
- You consider a "recent event" to be anything that has happened in the last hundred thousand years.



### 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, dbmaclean@maclean-fogg.com  
Vice Pres: David Fryauff, fryauffdj@gmail.com  
Secretary: Bob Cooke, rdotcooke@gmail.com  
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](http://www.amfed.org/efmls)

\* American Federation of Mineralogical Societies  
(AFMS) [www.amfed.org](http://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
- \* Thomas Hale

