Micromineralogists of the National Capital Area, Inc.

MNCA Website www.dcmicrominerals.org

The Mineral Mite

Vol. 54 – No. 9 Washington D.C. – A Journal for Micromineralogists Nov 2021

In person / Zoom Meeting Nov 22 Time: 7:30 p.m.

Program: Rutherford Mine

submitted by Tom Kim, Pres No VA Mineral Club

Scott Duresky of Charlottesville, Virginia will discuss minerals extracted from the Rutherford Mine (now closed) in pegmatite near Amelia Courthouse in south-central Virginia. He will show photo-micrographs, some from previously unreported species, taken by his colleague Michael Pabst, one of the most accomplished mineral photomicrographers in the Southeast. Scott's biography is on page 2.

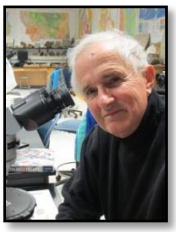
Note: MNCA will partner with NVMC, due to Thanksgiving. Join NVMC at King's Park Library, 9000 Burke Lake Rd, Burke, VA 22015 at 7:30pm. Pre-meeting dinner at 6:30, TBD. Scott will be presenting in-person, but we'll stream his presentation on Zoom. Either way, please join us.

Mystery Photo of the Month

Clue: Shinkolobwe Mine, Shinkolobwe, Kambove Dist., Katanga, Democratic Republic of the Congo FOV=1.5mm. by Pete Chin solve inquiry on page 2.

President's Message:

by Dave MacLean



"Good by Knowlton Mine site:" You have been most generous in providing copper and other minerals and wonderful etch materials to me and others since 1969. About ten years ago or so you showed signs of exhaustion. The fruitful pile of amygdaloidal copper ore was taken away about five years ago. Your largest waste rock pile became road gravel in the 1970's. The waste rock piles on the Mass City, MI side of the ridge to the SE became road gravel in 1984-5. About three years ago similar waste rock piles toward the Caledonia Mine became road gravel.

When my son, Gordon and I came in July 2021, we found the mine exhausted, not even etch material, a micro or thumbnail to collect. The brother and sister mines in the UP Michigan have suffered or will soon suffer the same fate.

We saw extensive road gravel making operations on both sides of the ridge. We could probably buy a truckload of gravel. As we were about to leave, an employee of the gravel makers suggested we prospect in the Minnesota Mine (active 1846-1865 and then tribute mined until the 1890's) dumps near Rockland, MI. Its dumps were hauled away in 1960-62 to rebuild US 41 nearby. The Rockland, MI Historical Museum showed a diagram of the extensive underground workings of the Minnesota Mine. This mine produced a 420-ton mass of copper which required months of chiseling into pieces for removal. "Goodbye Knowlton Mine site."

Nov 22 Program: Rutherford Mine

Scott Duresky is a member of the MNCA and the Richmond Gem and Mineral Society whose other interests include amateur astronomy and element collecting. He is a self-taught Mineralogist, who with fellow MNCA member Michael Pabst, has over the last seven years done intensive research on the Rutherford Mine. Until the mine closed in 1998, it was one of the most important places in the United States for collecting rare-earth minerals and world-class spessartine garnets. His research follows in the tradition of published papers dating back to 1883 and is the first to feature analytical techniques which have been developed in the last two decades. It is the most comprehensive research done since the late 1990's and will likely be the last.

His presentation features photomicrographs taken by Michael Pabst, including those from previously unreported species, as well as the newly confirmed members of the recently organized Microlite Group. The presentation was a collaborative effort, including Tony Nikischer of Excalibur Minerals and Dr. Mike Wise of the Smithsonian Institution, and was the basis for the research completed in 2020 with the extensive collection of Rutherford Mine material at the Lora Robins Gallery of Design from Nature on the campus of the University of Richmond.

Previous Meeting Minutes: 10/27/21

by Bob Cooke, Secretary

Since no business meeting was held at our October 27th meeting, there are no minutes to report.

Previous Program Review: 10/27/21

by Kathy Hrechka, Editor

Abstract: An Introduction to Mineral Evolution
Patrick Rowe, Los Alamos, New Mexico was our featured speaker via Zoom. Patrick explained how Earth's near-surface mineralogy has diversified over more than 4.5 billion years from no more than a dozen preplanetary refractory mineral species (referred to as "ur-minerals" by Hazen et al., 2008)) to ~5,000 species.

Biography: Patrick Rowe is the Vice President for the Los Alamos Geological Society and the Chairmen for Paleontology for the Rocky Mountain Federation of Geological Societies. He has multiple engineering backgrounds including mining and petroleum engineering. With a father that was a geologist, he has been involved in collecting mineral specimens since a small boy. He currently works at the Los Alamos National Laboratory as a project engineer. While he still collects cabinet specimens, for the last several years his collecting focus has been on micro-minerals.

Nov Mystery Photo of the Month

by Pete Chin, Honolulu, Hawaii
The mystery mineral for November is a rare uranium mineral **Gauthierite** from the Shinkolobwe Mine, Shinkolobwe, Kambove District Katanga, Democratic Republic of the Congo. The associated mineral is Skldowskite.

Orange **Gauthierite** crystals with "puff ball" crystal aggregate of yellow Sklowdowskite. FOV = 7 mm. photomicrography by Pete Chin

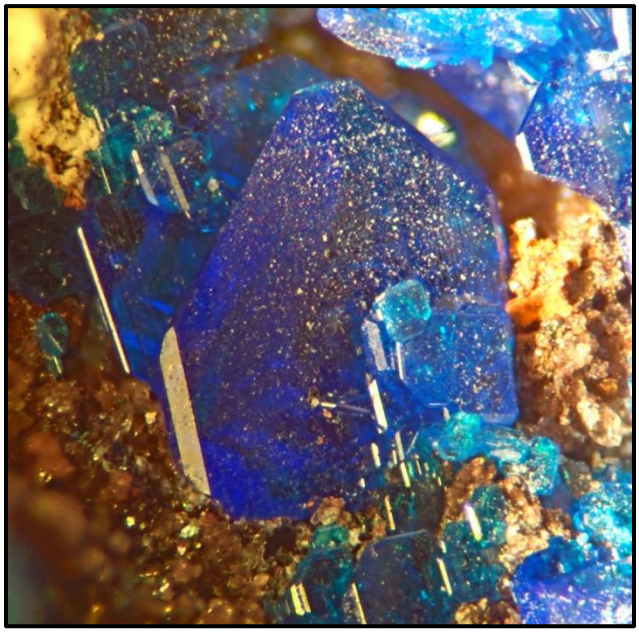
Diaboleite and Chloroxiphite

by Michael Pabst PhD, Treasurer

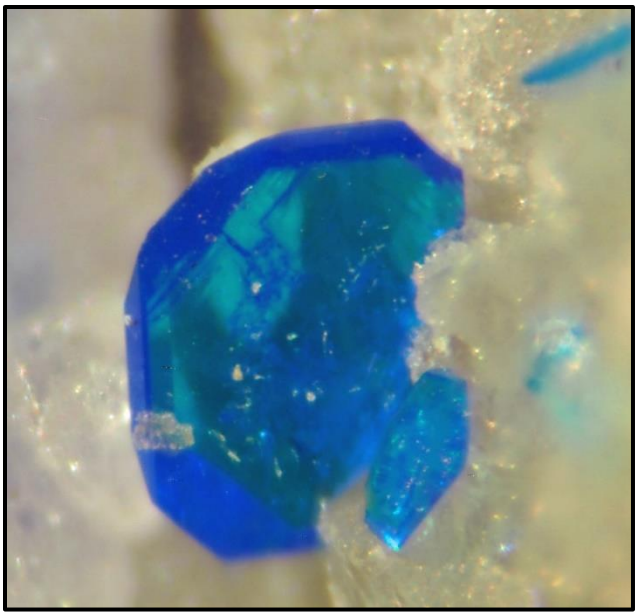
Diaboleite:

Diaboleite $Pb_2CuCl_2(OH)_4$ has a color like Boleite. The name comes from Greek διά, "dia", apart or distinct from Boleite. The name is not related to Diablo (devil). Diaboleite is not found in Baja California, but it is found as a beautiful mineral from the Tiger area of Arizona, where it is associated with Boleite and Pseudoboleite, but not with Cumengeite. The type locality for Diaboleite is Mendip, Somerset, England. There is an excellent review article on the Tiger area in the Mineralogical Record: Bideaux RA, Famous mineral localities: Tiger, Arizona. *Mineralogical Record* **11**:155-181 (1980).

This article describes two paragenetic sequences found at Tiger: the Normal Sequence and the rarely found Anomalous Sequence. Diaboleite and the associated minerals described in this article arise in the rare Anomalous Sequence, which is what makes Tiger so special as a locality for rare and beautiful minerals.

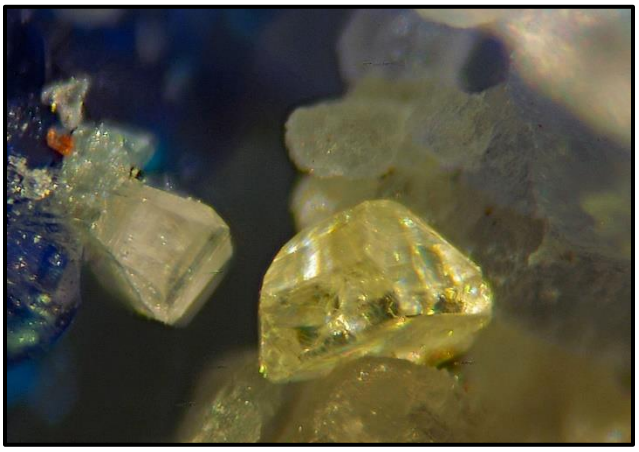


Diaboleite, Mammoth-Saint Anthony Mine, Tiger, Pinal County, AZ. FOV 2.5 mm. Photo by Michael Pabst, using stereomicroscope, stacking 21 images (#275). (White speckles are not dust, they will not wash off.)



Diaboleite, Mammoth-Saint Anthony Mine, Tiger, Pinal County, AZ. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 7 images (#672).

This specimen of Diaboleite (#672) also features some other nice crystals, which, unfortunately, I cannot identify. Perhaps the yellow crystal is Chromium-rich Leadhillite. The colorless crystal could be regular Leadhillite or Anglesite or Matlockite or?? I welcome suggestions:



White and yellow unknowns on the Diaboleite specimen from the Mammoth-Saint Anthony Mine. FOV 1.2 mm. Photo by Michael Pabst using stereomicroscope, stacking 16 images (#672).

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Diaboleite and Chloroxiphite

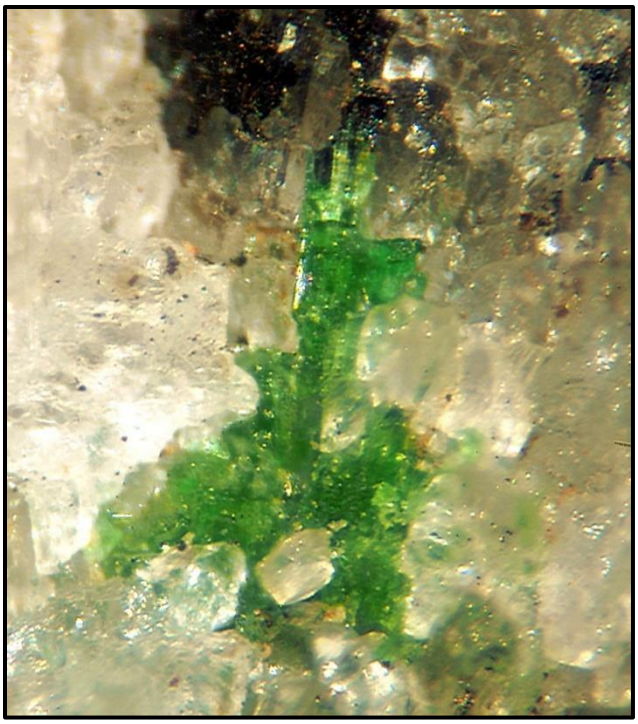
Most museum specimens of Diaboleite show intergrown crystals damaged by collision and extraction. For example, here is a chunk of Diaboleite from an exhibit case of Arizona minerals at the 2016 Tucson show:

Diaboleite from Mammoth-Saint Anthony mine, Tiger, Pinal County, AZ. Photo by Michael Pabst, using Canon COOLPIX S6800 pocket camera, taken 11 February 2016. Specimen is probably about 2 inches wide.

This larger specimen above, although rare and valuable, is aesthetically challenged, in my opinion. I prefer the tiny transparent well-formed crystal of Diaboleite on a nice white background in the photo above of my specimen #672. There are many small and beautiful Diaboleite crystals in the world. Here are some beautiful photos from Mindat showing nice Diaboleite crystals:

From a Greek slag:
www.mindat.org/photo-203806.html.
From the Mammoth-Saint Anthony Mine:
www.mindat.org/photo-994739.html.
From the Mammoth-Saint Anthony Mine:
www.mindat.org/photo-1126026.html.
From the Mendip area of England:
www.mindat.org/photo-254912.html.
From Cornwall in England:
www.mindat.org/photo-1149101.html.
From Chile: www.mindat.org/photo-852369.html.
From Italy: www.mindat.org/photo-870528.html.
From Germany:
www.mindat.org/photo-728911.html.

Chloroxiphite:
Besides Diaboleite, another lead copper oxychloride, Chloroxiphite, is also found at Mendip Hills, Somerset, England, which is the type locality for both. Chloroxiphite $Pb_3CuO_2Cl_2(OH)_2$ is reportedly dull olive green, but if you have a nice microcrystal, it has a good green color and transparency. The name comes from the Greek χλωρός chloros green and ζιφος ziphos a blade or sword, alluding to its color and crystal habit. Specimens of Chloroxiphite are usually found embedded in Mendipite $Pb_3O_2Cl_2$. My specimen below (#172) comes from the Merehead Quarry, Mendip Hills, Somerset, England, and it features a matrix of Mendipite.



Chloroxiphite on Mendipite from Merehead Quarry, Mendip Hills, Somerset, England. FOV 1 mm. Photo by Michael Pabst, using stereomicroscope, stacking 14 images (#172).

All the other basic lead copper chlorides we have looked at recently (Boleite, Cumengeite, Pseudoboleite, and Diaboleite) are blue, but Chloroxiphite is green. If you compare their formulas, only Chloroxiphite has oxygen in addition to hydroxyl groups. Therefore, Chloroxiphite might be considered more oxidized.

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This color difference might resemble the process where blue Azurite slowly transforms to green Malachite on exposure to air. Here is another example of Chloroxiphite from Mendip: www.mindat.org/photo-1145543.html.

In earlier literature, another name appears, Percylite. Percylite has been discredited as mixture of Boleite, Pseudoboleite, Diaboleite, etc.

In the next article, we will look at silver halide minerals.

James Madison Univ Mineral Museum

adapted from JMU website

The Mineral Museum at JMU reopened its doors on October 29 with Drs. Cindy & Lance Kearns welcoming over two hundred mineral enthusiasts.

"For those who are familiar with the science of mineralogy you will see many things of interest; for those of you not so heavily invested in mineralogy you will see beauty, color, shape that you never dreamed possible coming from the earth," said **Dr. Lance Kearns**, museum curator and retired JMU geology professor.

The Peter L. Via Collection, which has 378 individual specimens on display from 24 states and 39 countries, is one of four collections on display at the Mineral Museum, including a collection of fluorescent minerals. Overall, the museum holds more than 1,770 cataloged specimens from five different collections, including Via's. It is home to the definitive Virginia Mineral Collection.

Through the years the museum has worked closely with and been supported by active mineralogy societies including the Shenandoah Valley Gem and Mineral Society, the Gem and Mineral Society of Lynchburg, the Roanoke Valley Mineral and Gem Society, The Micromineralogists of the National Capital Area, the Mineralogical Society of the District of Columbia, the Northern Virginia Mineral Club, the Gem, Lapidary and Mineral Society of Montgomery County, Maryland and the Southern Maryland Mineral Club. Dr. Kearns thanked each geology club personally.

Admission to the museum is free. Information on planning a visit, including location, parking, and tours, can be found at j.mu/minerals.

Grand Opening of the New James Madison University Mineral Museum October 29th 4:30pm Success!

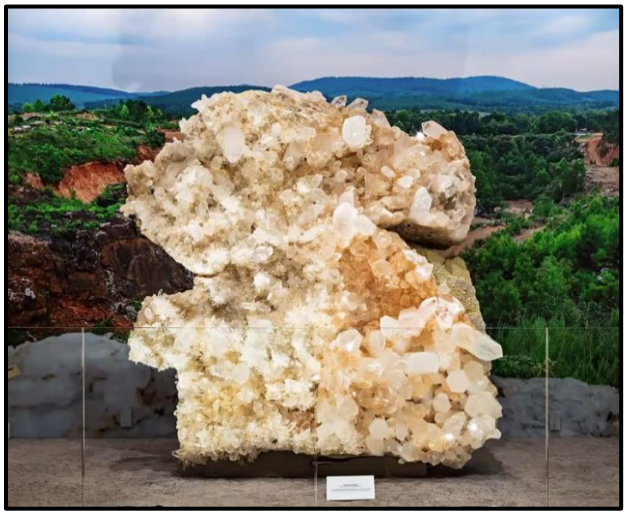
Gratitude to Drs. Lance & Cindy Kearns!

Smithsonian's Berns Quartz Unveiled

by Kathy Hrechka, Editor

Even though this is no micromineral, I imagine there are plenty of micro quartz crystals within the 8,000-pound specimen. Dr. Kirk Johnson, Sant Director of the Natural History Museum, officiated at the grand opening on October 27. Dr. Jeff Post gave a brief presentation about the value of quartz throughout history. He concluded by sharing a memory from fourth grade, holding a quartz crystal which was given to him by his teacher. He remembered that quartz crystal was from Arkansas.

Mr. and Mrs. Berns untied the blue ribbon to unveil their gift, the stunning slab of quartz crystals from the Coleman Mine, Ouachita Mountains in Arkansas. It is among the largest examples of quartz specimens on display in any museum in America. This display is located on the ground level by Constitution Avenue.



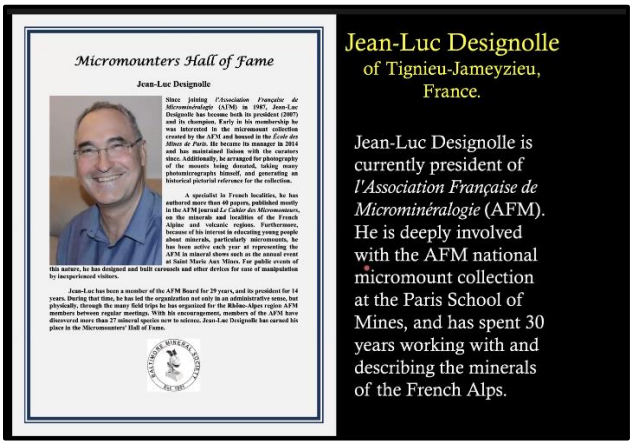
The following photos from behind the scenes, were shared at our recent annual Geology Gems & Minerals volunteer meeting, which was presented by Marion Le Voyer, Geology Educator from NMNH.

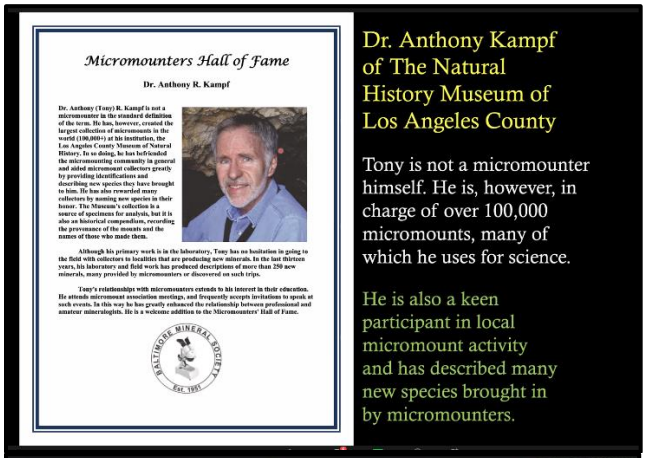
Dr. Mike Wise, Geologist in the Mineral Sciences department is observed searching for microminerals. He was our 50th Anniversary MNCA, Atlantic Micromounters' Conference speaker in 2017. Our club's favorite program was "Microminerals in Pegmatites".

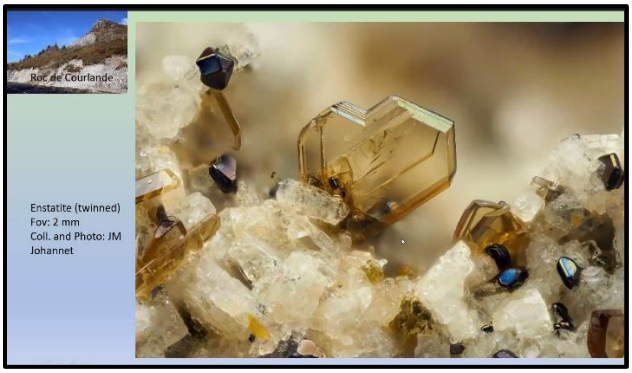
65th Annual Desautels Micromount Symposium Success on Oct 9, 2021

by Kathy Hrechka, Editor

The 65th Annual Desautels Micromount Symposium was held on Saturday, October 9th, 2021at 1 pm EDT via Zoom. Sixty attendees gathered to support two new inductees into the Hall of Fame. Quintin Wight welcomed viewers and gave a brief history of the original Hall of Famers. He also announced the awards, while Mike Seeds, Conference chair presented the plaques with a virtual handshake to the new honorees. Jean-Luc Designolle from France was the first to be inducted. Jean-Luc presented "Micromounts of the Sancy Massif". The second inductee was Dr. Anthony Kampf from California, who presented "The Journey from an Unknown to a New Mineral". A micromineral auction was held after both presentations, which made for a friendly virtual social time. It was difficult to leave the symposium, as fellow micromounters shared their mineral updates and requests to meet in person soon.







Sand from Hiroshima

by Fred Haynes, Editor of Sand Times, Newark, NJ

On August 6th, 1945, the United States detonated a 5-ton nuclear weapon over Hiroshima, Japan. The result helped end WW2 in the Pacific Arena as Japan surrendered less than one month later, but it was devastating to the city of Hiroshima and the immediate surroundings. Approximately 100,000 Japanese perished in the blast and about 5 square miles of the city were basically obliterated as ground temperature reached above 1800º C in the firestorm that followed. Images of the area immediately after the bombing and resulting firestorm indicated that very little of the buildings that had been there remained. But anyone who has taken a science class knows that matter cannot be created or destroyed. So where did the material from all those buildings go? Scientists think they have found the answer. After melting in the original firestorm generated from the blast it refroze as fine particles in the atmosphere and fell along the Japanese coastline. And a team of scientists working with sand from the beaches just a few kilometers away reported finding it just 2 years ago (Wannier et. al., 2019a). In their landmark paper, the authors claim to present the first description of fallout debris from a nuclear explosion in an urban environment

Motoujina Peninsula, Hiroshima, Japan: The researchers collected their sand from the intertidal zone of several beaches on Motoujina peninsula such as the one in the front left of this photo from Google Maps. The region lies just south of the rebuilt city of Hiroshima which can be seen in the background.
The epicenter of the Hiroshima nuclear detonation is less than 6 kilometers away in the upper left of this view. (From Google Maps)

The researchers sieved sands from several Hiroshima area beaches into 7 size fractions from granules to very fine sand. Each size separate was then meticulously inspected. The majority of sand grains were subangular quartz and milky feldspar with subordinate biotite and other mafic grains from the Cretaceous age granite that constitutes the bedrock around Hiroshima. But there also was a significant component of spherical and filament shaped grains that were clearly not of local geologic origin.

These grains, called Motoujina Fallout Debris (MFD) by the researchers, were generally shiny, rounded, and glassy and were easily distinguished from the grains of the host sediment. Sand grains identified as MFD were meticulously separated from geologically derived sand grains. The authors identified and point counted six different types of MFD based on optical microscopy and chemical composition as determined by SEM/EDA analysis. From a macroscopic sand description, it seems they can be combined into two main groups: spherical globules and filament-shaped glass. Aluminum, silica, and calcium dominated the chemistry of the amorphous glass material, with some also showing appreciable iron content. They also found a mullite-anorthite microcrystal assemblage consistent with formation temperatures exceeding 1800º C (Wannier et. al., 2019a). Mullite is a rare aluminum silicate mineral ($3Al_2O_3 \cdot 2SiO_2$) that has a melting temperature of 1840ºC.

Spherules and filaments from the fine fraction of one of the sand samples from Hiroshima Bay from Wannier, et. al., 2019b

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Sand from Hiroshima continued

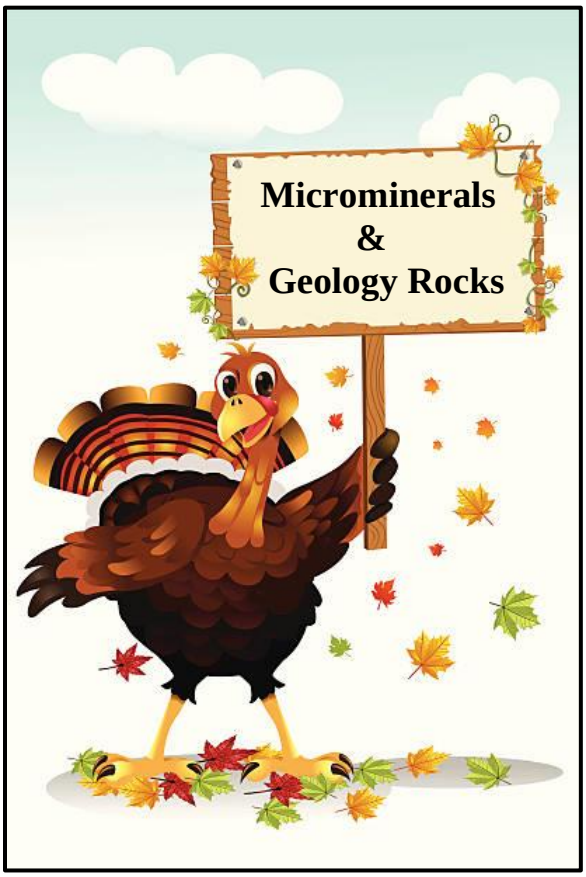
How abundant were MFD in the Hiroshima beach sand? The coarse sand fraction contained the highest percentage of MFD as ~2.5% of the grains. WCGMC Sand Times July - September 2021 page 8 counted from coarse sand were identified as fallout debris. By comparison only 1.6% of grains in the fine-grained sand size fraction were logged as MFD. Even more interesting was the variation in the morphology of the grains of fallout debris.

Optical microscopy images of selected Motoujina fallout debris (Figure 2 from Wannier et. al., 2019a). (A) Vesicular glass shard, (B) clear, vesicular glass spherule, (C) large glassy spherule with fused smaller spherules, (D) bent vesicular glass filament, (E) glass filaments complex, (F) amalgamated opaque spheroids (opposite views of the same specimen), (G) tray content, fine sand fraction of one rich sample, (H) complex, amalgamated opaque particle (opposite views of the same specimen), (I) fused and cemented opaque spherules covered with a thin glass layer, (J) agglomerated, melt-covered debris, (K) larger spherule with fused smaller spherules, all covered by an opaque surface melt, (L) rubber-like debris, (M) ferro-magnetic debris with a cratered surface, (N) meta-sediment debris with patches of glass melt, (O) melt-covered meta-sediment debris with magnetic, half spherical body. White scale bar: 1 mm; red scale bar: 0.5mm; yellow scale bar: 0.2mm. I wonder how many arenophiles have samples of sand from the beaches near Hiroshima? And for those who do, I wonder if anyone has looked for Motoujina Fallout Debris? Similar "fallout" spherical sand grains have been documented adjacent to meteorite impacts where melted (or shocked) rocks have been thrown great distances, such as tektites and impact glasses. However, to the best knowledge of the authors of these papers, the MFD found near Hiroshima record the first documented example of anthropogenic fallout from the detonation of a nuclear blast.

References: Wannier, M.M.A, de Urreiztieta, M., Wenk, H-R., Stan, C.V., and Tamura, N., 2019a, Fallout melt debris and aerodynamically shaped glasses in beach sand of Hiroshima Bay, Japan, in Anthropocene, vol. 25, March 2019

Wannier, M.M.A, de Urreiztieta, M., Wenk, H-R., and Tamura, N., 2019b, Fallout debris from the Hiroshima atomic cloud of August 6, 2021, Abstract: Goldschmidt Conference of 2019 Wikipedia entries on Hiroshima atomic cloud of August 6, 2021, Abstract: Goldschmidt Conference of 2019 Wikipedia entries on Hiroshima

The article is adapted from Sand Times, Wayne County Gem and Mineral Club, Newark, New Jersey Fred Haynes, Editor vol. 2, no. 4 2021



Friends of Mineralogy Virginia Chapter FMVA

by Thomas Hale, President

FMVA, YMC, and FM-National participated in a virtual lecture for MSA's Mineral Day 2021.

Thomas and Tom Girton met with a Loudon County science teacher to discuss collaboration on a class mentorship program. 80 students are expected to participate, with 25 smaller groups. Students will work on issues related to Virginia mineral resources and the use of minerals in everyday life. This will be a year-long project. Please reach out if you are interested in working with us or would like to learn more.

Our *Fall Rock Out Event* will be on November 7th in Ashland, Virginia. Please let us know if you plan to join us. RSVPs are required. Everyone in this email, if local, is welcome to participate. FMVA encourages our affiliate and partner organization representatives to join us!

The **VAST Annual PDI** will be held virtually on Tuesday, Wednesday, and Thursday November 16-18, 4:00pm - 9:00pm. The In-person section will be held at JMU on Friday afternoon and Saturday November 19-20. Check out the VAST website for more information.

Participants from the Rockhounding 101 course participated in the Willis Mountain trip. This was a primer trip before the course goes to another quarry for their main field trip. Many of the participants were excited and have expressed deep interest in joining local clubs and engaging deeper with the hobby. The next course will open in early winter 2022.

Several members of the FM-Virginia board attended the JMU Museum Grand Opening event on Friday, October 29th.

Thomas H. met with Andrew Stinson, one of the Educational Outreach Co-Chairs for the JMU Geology Club to discuss Spring 2022 collaboration. FMVA will present at JMU's seminar series in Spring and the club plans to coordinate some events and student engagement with FMVA.

The VMP has released its Fall 2021 newsletter: The big news is that a New York publisher has reached out to work with the team to complete a test chapter by Spring 2022. This will focus on industry and the Northern Virginia Traprock quarries. The document will be useful for teachers, students, and all citizens of the Commonwealth interested in learning about their state mineral resources.

The Department of Mines, Minerals, and Energy (DMME) has changed their name to Virginia Energy. Searching key words for mineral-related content in Virginia comes back with a 404 error. There is no redirect link. We advise using this link for the direct database.

The 2021 Rockhounding 101 class will be visiting the Holston River Quarry in November. Thanks to Rob at VTCA and the quarry manager Chip Dunstan of Salem Stone Corp. for making this happen!

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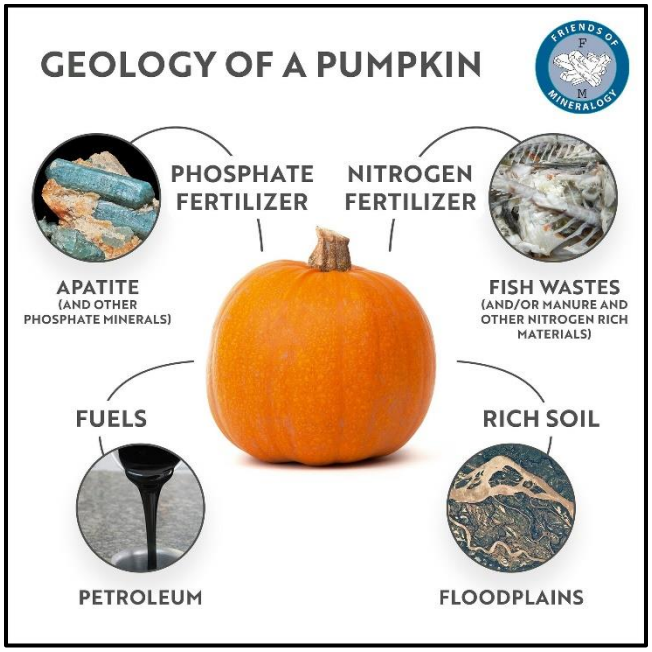
FMVA continued

The FM National Outreach Committee just released the "Geology of a Pumpkin" for Halloween! Feel free to share with your organizations, clubs, and friends! Post is linked but a PNG has been attached below.



NEW WEBSITE NOW ONLINE! Please let us know what you think about FMVA's new website! We would love to hear your thoughts and feedback. If you notice issues, just reach out to us. This will expand and grow with new partnerships and activities. https://friendsofmineralogyvirginia.org

IMPORTANT: The VMP has been working behind the scenes for the last few months strengthening the Virginia mineral community and establishing relationships with new affiliates and industry partners. Over the last year, our social media group has attracted **10.5K Virginian's** who share a passion of rockhounding and wanted to stay in touch throughout the pandemic.

FM-Virginia has been the primary organization hosting virtual speaker series and providing outreach and social media engagement. If you want to stay up to date with the VMP outside these newsletters, then please join the FMVA mailing list via Mailchimp: REGISTER HERE.

In addition, FMVA and its committees (including VMP) provides a weekly briefing for our affiliates and industry contacts interested in information and progress on the multiple ongoing initiatives. FMVA has recently updated its website, so make sure to check it out!

Announcement: The Richmond Gem and Mineral Society will host a rock swap on November 13th.
Friends of Mineralogy Virginia FMVA is a non-profit organization dedicated to promoting and expanding the study of mineralogy and the hobby of mineral collecting. Learn more about FMVA and follow us on Social Media: Facebook Instagram

https://www.friendsofmineralogyvirginia.org/
Email: friendsofmineralogy.virginia@gmail.com
Thomas Hale is the founder and President of FMVA.

FRIENDS OF MINERALOGY - Pennsylvania Chapter
SYMPOSIUM November 13, 2021 Lancaster, PA
FIELD TRIP November 14

Symposium for mineral enthusiasts on **Saturday Nov. 13, 2021**
Hybrid Symposium - **ONLINE** or **IN PERSON** at
Bright Side Opportunities Center, 515 Hershey Ave., Lancaster, PA 17603
Talks by knowledgeable speakers on **Pennsylvania Mineralogy and Geology**
Sales by Select Dealers - Silent Auction – Give-away Table – Conversation
Registration: watch for registration form on our web site
Professional Geologists: Professional Development Hours available for lecture attendance

For newsletters and field trips during the year, please join our chapter!
See "Join FM" on the web site

Field Trip Location to be announced. **Sunday Nov. 14** Open only to symposium registrants.
Watch for details, registration form, changes and updates on our **web site:**
www.rasloto.com/FM

Richmond Gem & Mineral Society 29th Annual Swap November 13 9am – 3pm

submitted by Andy Dietz, Ashland , Virginia

Just wanted to let you know that Jason Smith, Micro Dealer, has signed up for two sales tables at our swap on Saturday, November 13th from 9-3pm. He told me that he would be bringing the Dan Benke collection for sale! I hope this would be an enticement for members of the micro societies to attend and pick up some great material from this collection. **Location:** Ridge Baptist Church Meeting Hall, 1515 East Ridge Road, Richmond, VA 23229

NORTH OR SOUTH OF RICHMOND Use I-95 to Exit 79 to I-64 West (North of Richmond City). Leave I-64 at Exit 181A (South) on Parham Road. Proceed south on Parham Road for about 1.5 miles and turn left onto East Ridge Road. The Ridge Baptist Church and Meeting Hall are 400 feet on the right, across from Kroger's Grocery. Meeting hall is the white building at the rear of the parking lot. There is ample parking in front of the Meeting Hall. EAST OR WEST OF RICHMOND Use I-64 to Exit 181A (South) and follow the directions at left. Ridge Baptist Church Meeting Hall, 1515 East Ridge Road, Richmond, VA 23229 FREE ADMISSON Open to all children and adults (from novice to expert) to swap or purchase various mineral, gem, jewelry, fossil, shell, and lapidary items. Free items for kids and a raffle. Food and beverages are available at nearby restaurants. Restroom facilities are available in the building

Micromineral News from Australia October 19th recap: Douglas Merson

by Kathy Hrechka, Editor

Steve Sorrell from Melbourne, Australia hosts a program every other Tuesday at 5pm (EDT) with various geology persons of interest at their micromount meeting. You can sign up for Steve's programs, and meet new presenters, while enjoying friendly faces within our geology community around the globe.

Steve's next meeting is on Nov 16 at 3pm EDT

steve@sorrellpublications.com

The Micromount Club Facebook group has been meeting on Zoom every other week, hosted by Steve Sorrell in Australia. All presentations are available through the following link:

https://www.youtube.com/playlist?list=PLwdOHcjmducFKcDw8d2qgAoEEEB0M7vht

Mineral Talks Live: Nov 3 recap

by Kathy Hrechka, Editor

Bryan Swoboda, Blue Cap Productions in Honolulu interviewed Dr. Virgil Lueth, the Senior Mineralogist/Economic Geologist and Director of the Mineral Museum at the New Mexico Bureau of Mines & Mineral Resources. Virgil took viewers on a virtual tour of the museum.

Fluorite from the Hansonburg District, Socorro County, New Mexico Photo by Jeff Scovil. Photo Courtesy of New Mexico Mineral Museum.

To join: Register in advance for future webinars: http://go.mineraltalkslive.com/register After registering, you will receive a confirmation email containing the link joining the webinar on Zoom.

Mineral Museum at the New Mexico Bureau of Mines & Mineral Resources

Note: The New Mexico Mineral Symposium will be held on Nov 12-14, 2021, at the Macey Center, New Mexico Institute of Mining & Technology Socorro, New Mexico. Dr. Jeff Post from the Smithsonian will be the featured speaker.

Each month, on the first Wednesday at 1pm EDT Bryan Swoboda, Blue Cap Productions in Honolulu, Hawaii presents various mineral persons of interest on Zoom. All MLT lectures are complementary to our geology community through Dr. Rachel Alanzo Perez from the Mineralogical & Geological Museum at Harvard University, and Dr. Eloise-Gaillou, curator of the Mineralogy Museum Paris School of Mines in France representing the Society of Mineral Museum Professionals SMMP. Each program is recorded, so you can view archived speaker topics.

http://go.mineraltalkslive.com

American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

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

2021 Purpose of the AFMS: To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary, and related subjects, and to sponsor and provide ways to coordinate the work and efforts of all interested persons and groups; to sponsor and encourage the formation and international development of Societies and Regional Federations and thereby to strive toward greater international good will and fellowship.

Congratulations! **Matt Charsky** Arlington, Virginia was recently voted as 1st Vice President of the American Federation, representing the EFMLS.

University of Arizona Alfie Norville Gem and Mineral Museum at the Historic Pima County Courthouse, Is Now Open!
By S. Kaminski, Mineralogical Society of Arizona

A new gem, and mineral museum has opened in Tucson, Arizona. The University of Arizona Alfie Norville Gem & Mineral Museum (UAANGMM) is located within the historic Pima County Courthouse, an iconic and historic building of magnificent Spanish Revival architecture in the heart of Tucson
*Full article published in the AFMS News Sept 2021

Celebrating 50 years!
The Rock & Gem magazine is recognized as the official magazine of the AFMS.
Free archived downloads
Rock & Gem Magazine Archive : Free Download, Borrow, and Streaming : Internet Archive

Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS)
https://efmls.org

Communication and Involvement Are the Keys to Our Success!

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

Local Geology Club Meetings:

November 2021
3: Mineralogical Society of the District of Columbia MSDC 7:30 Zoomwww.mineralogicalsocietyofdc.org

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

15: The Gem, Lapidary and Mineral Society of Washington, DC - GLMS-DC meeting
www.glmsdc.org

17: The Baltimore Mineral Society BMS
7pm www.baltimoremineralsociety.org

22: Northern VA Mineral Club – NVMC meeting
7:30 pm - **Hybrid in person / Zoom**
We are partnering with MNCA. We will meet at King's Park Library, 9000 Burke Lake Rd, Burke, VA 22015 at 7:30pm. Please join all at a pre-meeting dinner at 6:30pm. The restaurant location is to be determined.
www.novamineralclub.org

22: Micromineralogists of the National Capital Area, Inc. - MNCA 7:30pm at King's Park Library, 9000 Burke Lake Rd, Burke, VA 22015
Hybrid in person / Zoom
Note: We are partnering with NVMC due to Thanksgiving. We will meet at King's Park Library, 9000 Burke Lake Rd, Burke, VA 22015 at 7:30pm. Please join all at a pre-meeting dinner at 6:30pm. The restaurant location is to be determined.
www.dcmicrominerals.org

GeoWord of the Day and its definition:

abelliite an emerald-green trigonal mineral: $(Cu,Zn)_2Zn(As,Sb)O_4(OH)_3$.

alstonite (al'-ston-ite) A variously colored triclinic mineral: $BaCa(CO_3)_2$. It is the pseudo-orthorhombic polymorph of barytocalcite and paralstonite. Syn: *bromlite.*

Alstonite Brownley Hill Mine, Nenthead, Alston Moor, Eden, Cumbria, England, UK www.mindat.org

crystallization differentiation the progressive change in composition of the liquid fraction of a magma as a result of the crystallization of mineral phases that differ in composition from the magma. The process may be *equilibrium crystallization* or fractional crystallization or some combination of the two.

All terms and definitions come from the Glossary of Geology, 5th Edition Revised.
GeoWord of the Day is brought to you by:
EnviroTech!
envirotechonline.comwordoftheday@agiweb.org
AGI was founded in 1948, under a directive of the National Academy of Sciences It is a not-for-profit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

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

MNCA Purpose: To promote, educate and encourage interest in geology, mineralogy, and related sciences.
President: Dave MacLean
Vice President: David Fryauff
Secretary: Bob Cooke
Treasurer: Michael Pabst
Editor/Historian: Kathy Hrechka
Website: Kathy Hrechka
AMC Conference: Kathy Hrechka

The society is a member of:
* Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) www.efmls.org
*American Federation of Mineralogical Societies (AFMS) www.amfed.org affiliation

Dues: MNCA Membership **Dues 2022**
$15 (single) or $20 (family) donations
MNCA - Michael Pabst, Treasurer
270 Rachel Drive
Penn Laird, VA 22846

Editor's Note: By Kathy Hrechka
Send your articles and photos to your editor.
Club Article Deadline is 1st of each month.
***The Mineral Mite* will be emailed by 5th.**
No newsletter July/August

Inducted into Editor's Hall of Fame – 2018
EFMLS Trophy 2021 Small bulletins

Newsletter inputs:
*Dave MacLean
*David Fryauff
*Michael Pabst
*Kathy Hrechka
*Thomas Hale
*Pete Chin
*Andy Deitz
*Tom Kim
*Scott Duresky