



MNCA Website dcmicrominerals.org

The Mineral Mite



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Washington D.C. – A Journal for Micromineralogists

June 2018

Atlantic Micromounter's Conference III – Herwig Pelckmans "Topaz" p. 12

June 27 Time: 7:30 pm – 10 pm

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

Program: The Great Oxidation Event Diversity of Colorful Mineral Species

By Dave Fryauff, Vice president

We will view a Dvd presentation of Dr. Robert Hazen talking about his research in the mineral evolution, which focuses on the changing diversity and distribution of mineral species through 4.6 billion years of history. Hazen is a senior staff scientist at the Carnegie Institution's Geophysical laboratory and a Clarence Robinson Professor of Earth Science at George Mason University. Workshop to follow.



Photo of the Month



Rhodochrosite with Quartz and Tetrahedrite, from the Sweet Home Mine, Alma, Park County, Colorado. Specimen from the Smithsonian Museum of Natural History. FOV approximately 10 cm? Photo taken in the Blue Room by Kathy Hrechka Article pp 9-10

President's Message:

By Dave MacLean

I saw the movie RBG Ruth Bader Ginsburg last night. What impressed me was her absolute dedication to the law and equality for women. I observed that the persons who enter the Micromounter Hall of Fame are for the most part healthy and in their 70's, 80's and 90 or so.



Having a passion and interest in the world about you is a major element in good health and longevity. I see this passion and many years in ours and many other hobbyists, artists, and others. Perhaps those who avidly pursue our craft obtain good health as a result.

Speaking of passion for our craft we look in quarries, road cuts, and other places for micros. Several times when I ask what you found in the regolith, gravel, at the bottom of the cliff, road cut etc. I get an answer "I did not look there." Perhaps nature has liberated those zircons, etc., from those granitic or schistose cliffs and slopes all for the collecting. So good hunting for the summer. In September let's share our finds. Happy hunting



"Amazing Grace" for Dr. Pete J. Dunn pp 4-5

Micromineralogists of the National Capital Area, Inc.

Previous Meeting Minutes: 5/23/18

By Bob Cooke, Secretary

President David MacLean called the meeting to order at 7:45 PM on May 23, 2018. No past presidents were in attendance. Eight members were present: Gary Christmas, Bob Cooke, Dave Fryauff, Dave Hennessey, Kathy Hrechka, Dave MacLean, Michael & Karen Pabst. Jeff Guerber attended as a guest. Dave MacLean presented an AFMS BEAC honorable mention award to Michael Pabst for his Adult Article: "Stichtite"



Dave also presented EFMLS BEAC awards in the following categories:

Bulletin Editors Hall of Fame: Kathy Hrechka

Original Educational Articles:

5th place Michael Pabst "Chromian Wulfenite"

6th place Michael Pabst "Lindgrenite and Szenicsite"

Non-Technical Articles

8th place David MacLean "Tiny Minerals in Big Rocks: The Microminerals of Granitic Pegmatites"

10th place Alec Brenner "Lab Notes: Aussie Edition"

10th place David MacLean "Merelaniite and the Associated Minerals of the Merelani Tanzanite Deposit"

Written Features

Honorable Mention Kathy Hrechka "50th Golden Anniversary of MNCA Atlantic Micromounters' Conference"

Honorable Mention Kathy Hrechka "Smithsonian's Smart Phone Geo Cart"

The EFMLS acknowledged Kathy Hrechka's service of over 10 years as MNCA's bulletin editor of *The Mineral Mite* by inducting her into The Decade Club.

Editor's Note: I wish to thank each of our club members for contributing articles to *The Mineral Mite* in 2017. I have always said "the newsletter is our club's newsletter, not mine". With that philosophy, look where we are today.

Thank you for your generous contributions, Kathy

Minutes continued

Kathy Hrechka reviewed the financial accounting of the Atlantic Micromounters Conference in April. Everyone agreed the 2018 AMC was a total success, due most significantly to the presentations, minerals, and chocolates provided by our guest speaker, Herwig Pelckmans of Antwerp, Belgium.

Kathy informed the group of tentative plans for the 2019 AMC. Dates are April 5 & 6, 2019. Renowned mineral author Robert J. Lauf has been contacted and will hopefully be our guest speaker.

Michael Pabst provided a treasurer's report and indicated that \$250 has been sent to Dr. Kearns at JMU and another \$300 will be sent soon as MNCA's contribution to JMU and in appreciation of micromounts provided by Dr. Kearns to MNCA. Dave Hennessey announced that Dr. Kearns will be the featured speaker at the next meeting of the Mineralogical Society of DC on June 6. Meeting adjourned at 8:10 PM.

**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

Previous Program Reviewed: 5/23/18

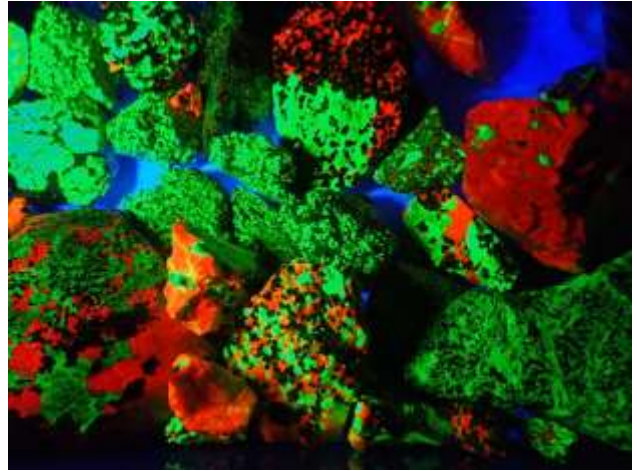
By Bob Cooke, Secretary

In the program following the meeting, Kathy Hrechka presented pictures from the memorial service for Dr. Pete Dunn which was held at Sterling Hill Mining Museum on May 19th. She also showed photos of her visit to the Franklin Mineral Museum. Dave Fryauff then gave a presentation on the geology in the region of the Sterling Hill and Franklin mines in northern New Jersey. His talk included a description of the events in the Sterling Hill "Big Dig" and the Franklin Mineral Show. Michael Pabst, David Fryauff and Kathy Hrechka demonstrated UV fluorescence of several minerals, to include some from Ogdensburg. Turn to next page for photos of the meeting.

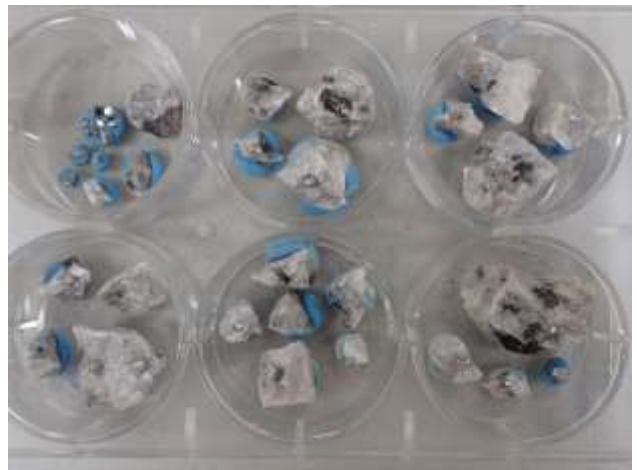
Previous Program Reviewed - Photos



Kathy's Ogdensburg Fluorescence



Dave Fryauff, Vice president viewing Sterling Hill microminerals



Lollingite from Passac Pit, D. Fryauff collection 2015



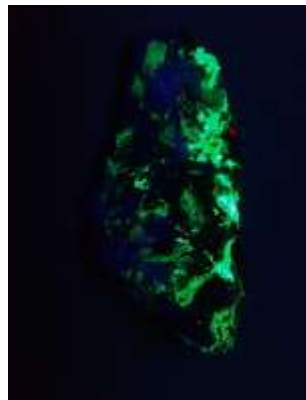
**Celebration of Life Dr. Pete J. Dunn
1942-2017 - Ogdensburg, New Jersey**

By Kathy Hrechka, Editor

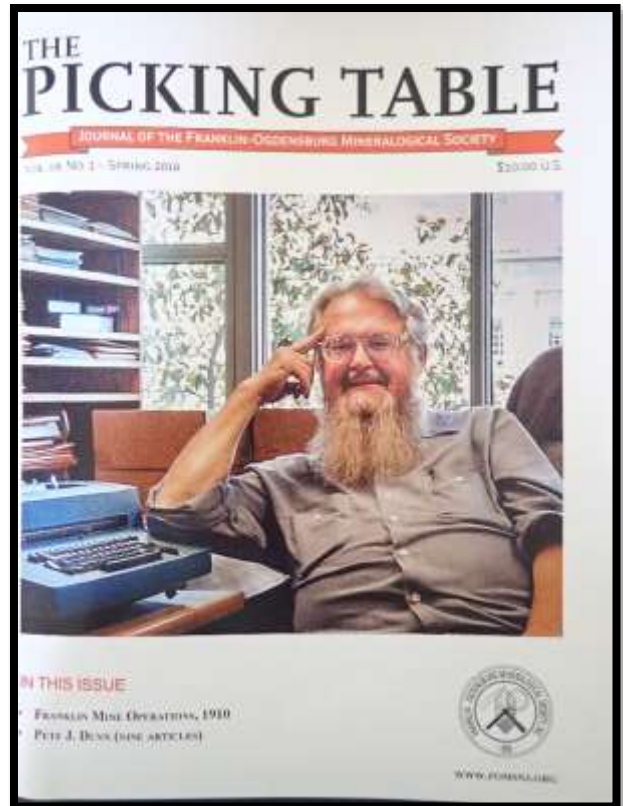
Among his final requests, Pete wished to be cremated and his ashes scattered at the Sterling Hill Mine in Ogdensburg, NJ, where he focused much of his professional life describing many new minerals from the prolific Franklin-Ogdensburg deposits.

The Sterling Hill Mining Museum honored Pete's request, at his Celebration of Life on May 19, 2018. Friends, including myself gathered at the Christensen Pavilion with Dick Bostwick presided. Remembrances of Pete were enjoyed by friends including Jack Stosez, Herb Yeates, Tony Nikischer, and Maureen Verbeek. Pete's ashes were spread while bagpipes played "amazing grace" in the quarry. Pete's memorial was sponsored by the Sterling Hill Mining Museum and arranged by Maureen Verbeek.

The reason I attended the memorial was because Pete once sent me a personal letter explaining how minerals were named, including his article from The Mineralogical Record, volume 19, Sept-Oct 1988. I also ran into him on occasion at the Smithsonian's Museum of Natural History while we volunteered there. Sterling Hill has also been on my bucket list for years, and I knew I would be welcomed by Dr. Earl Verbeek, curator of the Franklin Mineral Museum. Pete Chin from Oahu, HI also told me to attend. Chin could not attend due to Pele's wrath on the Big Island.

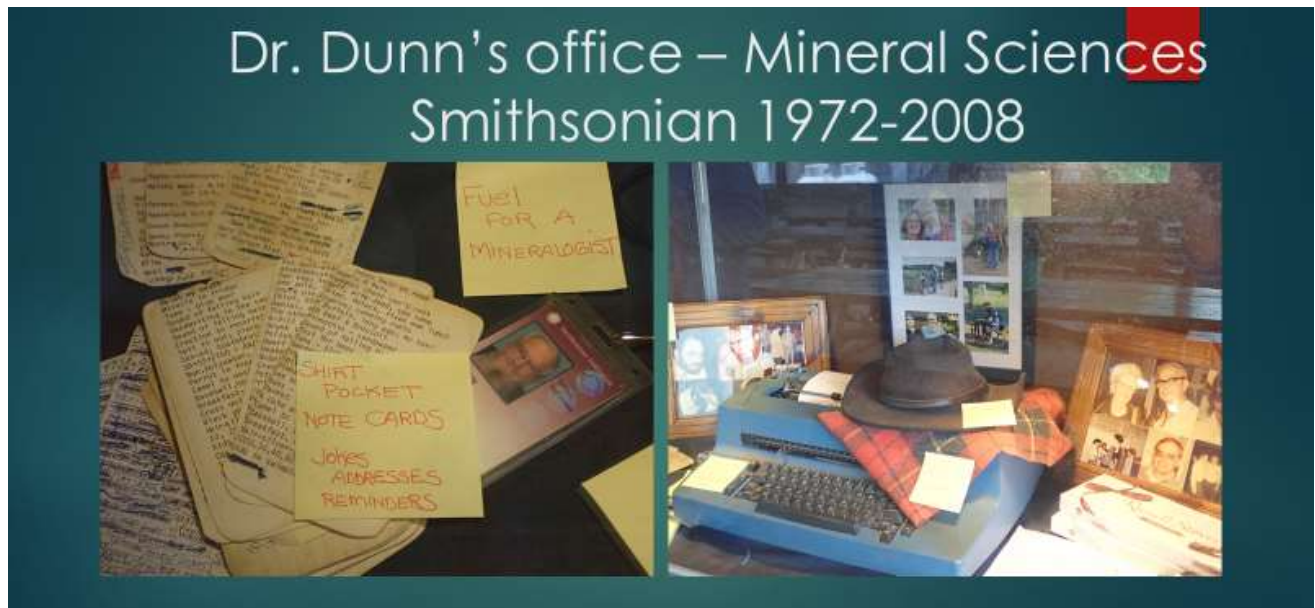


Petedunnite, willemite, calcite, microcline, quartz
Franklin mining district, New Jersey
Left photo natural light, Right photo shortwave UV
Gift to Kathy Hrechka by Van Fleet, Mifflinburg, PA



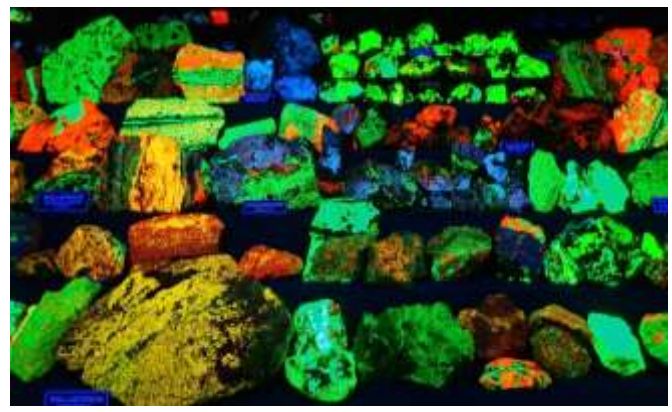
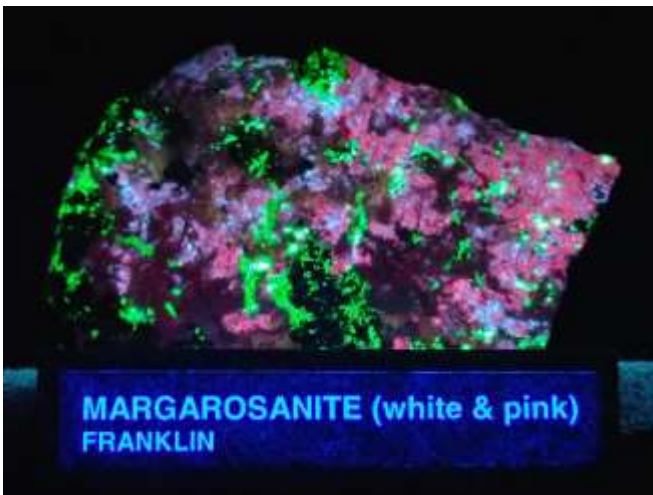
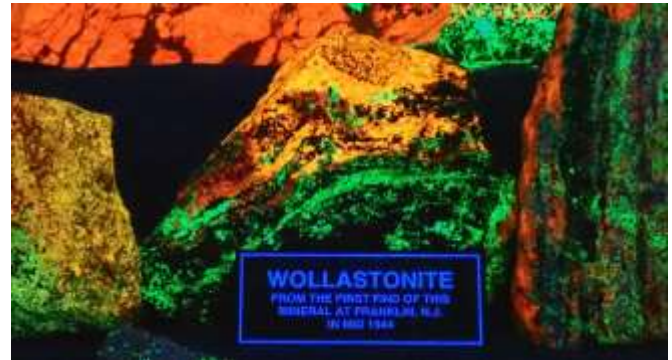
PowerPoint Presentation

By Kathy Hrechka MNCA 5-23-18



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**Dr. Earl Verbeek,
Curator Franklin
Mineral Museum**

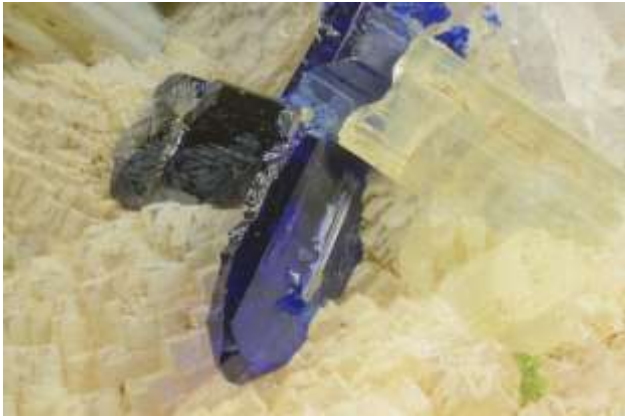


Fluorescence Room - Large Franklin rocks & minerals display under normal lighting

Same rocks & minerals display under UV lighting
Willemite (green), **Calcite** (red), **Wollastonite** (gold)

Azurite -Sterling Hill, Ogdensburg, NJ

By Pete Chin, PhD from Oahu, Hawaii



Azurite crystals with very pale green willemite crystals and yellowish green cuproadamite on white calcite crystals from 920 Stope, 340' Level, Sterling Hill Mine, Ogdensburg, NJ FOV = 5.0mm
Photomicrography by Pete Aloha Chin



Azurite with franklinite; same specimen FOV = 10.0 mm additionally showing modified black franklinite crystals
Photomicrography by Pete Aloha Chin

Pabstite

Barium Tin Silicate $Ba(Sn,Ti)(Si_3O_9)$ Hexagonal Cyclosilicate **Bright blue fluorescence**
Pacific Limestone Products Quarry (Kalkar Quarry), Santa Cruz, Santa Cruz Co., California Named after Adolf Pabst (1899-1990), California State Geologist
Year of Discovery: 1964



Pabstite under Shortwave and Visible light mindat



Pabstite under Shortwave UV light @mindat.org

Benitoite and Pabstite

By Michael Pabst PhD, Treasurer

Benitoite and Pabstite are two related minerals that respond only to short-wave ultraviolet light (SW), but not to long-wave ultraviolet light (LW). The new powerful LW LED flashlights, demonstrated by Bob Cooke at our last meeting in May, produce enough LW to activate minerals that usually show weak or no noticeable response to LW, such as the Willemite and Calcite from Sterling Hill, New Jersey. The new LW flashlight makes such rocks glow impressively in green and red. However, high intensity LW will not work for all minerals; some do require SW. Benitoite and Pabstite fall into this latter category.

Benitoite: In my collection I have a specimen of Benitoite from San Benito County, California. (The full locality is California State Gem Mine, Santa Rita Peak, New Idria District, Diablo Range, San Benito County, California.) The specimen is a miniature about 42 mm wide. It also features good crystals of Neptunite, $\text{KNa}_2\text{LiFe}^{2+}_2\text{Ti}_2\text{Si}_8\text{O}_{24}$, which are black (maybe very deep red), and crystals of Joaquinite-(Ce), $\text{NaBa}_2\text{Ce}_2\text{FeTi}_2[\text{Si}_4\text{O}_{12}]\text{O}_2(\text{OH},\text{F})\cdot\text{H}_2\text{O}$, which are brown. Benitoite, $\text{BaTi}(\text{Si}_3\text{O}_9)$, is a blue cyclosilicate that glows bright blue in SW.

Visible Light:



Benitoite (blue), **Neptunite** (black) and **Joaquinite** (brown, small) with some white **Natrolite** and pale green **Actinolite** as matrix. This Visible Light is a combination of a 100W incandescent bulb (illegal), and a LED gooseneck lamp from IKEA. Exposure was 1/160 second at F5.6, stacking 15 shots. Specimen is 42 mm wide.

Photography courtesy of Michael Pabst

With the new LW flashlight there is little response, perhaps a faint red. (My flashlight appeared in the mail on the day I drove to the Nature Center for our meeting. But the visible light cut-off filter has not yet arrived, so a little visible violet light gets through.) With my old-fashioned UV light (plug-in 110V), I get no response from the LW, but a bright blue response from SW. (This old light does have a functional cut-off filter.) All the photos were taken with my Olympus OM-D E-M5 Mark II camera with 60 mm Macro lens.

New LW UV Flashlight:



Violet glow is because the visible light cut-off filter has not arrived. Expose 1.3 seconds, F5.6. Stack 15.

Long Wave:



Filtered LW. Exposure 5 seconds, F5.6. Stacking 14 shots.

Short Wave:



Filtered SW. Exposure 2.5 seconds at F5.6. Stacking 22 shots.

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Pabstite: Pabstite is the tin analog of Benitoite, $(\text{Ba}(\text{Sn},\text{Ti})(\text{Si}_3\text{O}_9))$. Pabstite also responds only to SW. Pabstite crystals are crude, and nearly invisible except in SW. Some samples of Pabstite from Russia contain almost pure tin, but specimens like this contain about 25% titanium. Locality: Kalkar Quarry, Santa Cruz County, CA.

Visible Light:



Exposure 1/160 second at F5.6. Stacking 16 shots. Specimen is 45 mm wide. (Nothing to see.)

LW UV Flashlight:



Exposure 1 second at F5.6. Stacking 14 shots. (Nada)

LW:



Filtered LW UV. Exposure 1 second at F5.6. Stacking 16 shots. (Nothing)

Short Wave:



Filtered SW UV. Exposure 1 sec at F5.6. Stacking 15 shots. (Aha!)

The newly available super-intense LW UV flashlights are well-made, and they produce abundant LW UV. They make rocks glow that were never before observed to glow in LW. But some minerals respond only to SW, and they don't respond to LW, no matter how intense. A SW LED flashlight is not currently available. Such a device will require a breakthrough in LED technology, and it might cost a lot.

The LW flashlights with accessories sell for about \$60. A complete kit (flashlight, cut-off filter installed, battery and charger) can be purchased from:

<https://www.midnightminerals.com/product-page/convoy-s2-365nm-nichia-zwb2-filter-lw-led-flashlight-battery-charger>.

More background:

<https://www.naturesrainbows.com/single-post/2017/03/01/365nm-Flashlight-Torch-The-Most-Significant-Innovation-in-UV-Mineral-Lights-in-Years>.

Last words: *Don't forget eye protection.* Especially with a visible light cut-off filter installed, the LW flashlight seems weak *until* it is pointed at something fluorescent like bright white paper, but the UV is intense and dangerous to the eyes. Always wear glasses, and never stare at the beam. Keep away from children and dummies.

Photomicrography by Michael Pabst

Rhodochrosite

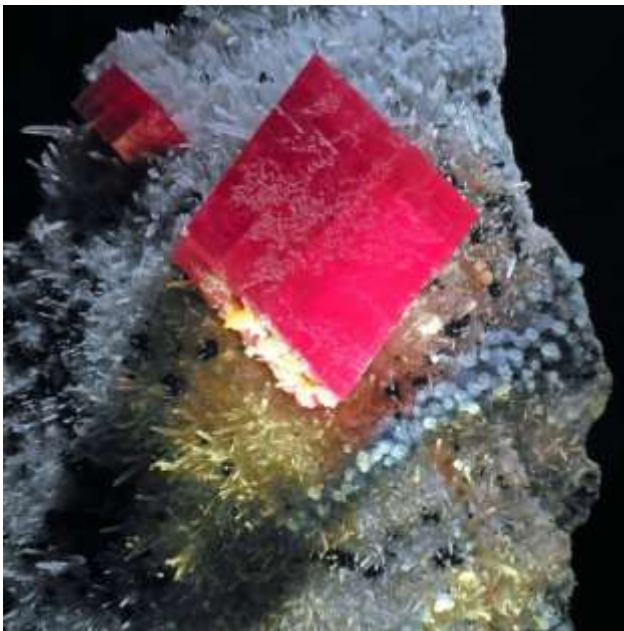
By Michael Pabst PhD

The Most Magnificent Manganese Mineral Must be Rhodochrosite. We will have several articles on Rhodochrosite and other manganese minerals, and we could have saved the best for last, but life is short, so view Colorado Rhodochrosite first!



Rhodochrosite, manganese carbonate, MnCO_3 , is, happily, an abundant mineral, with a large variety of habits, which would make it collectable, even if it were not so beautifully colored. But the color—Wow! From soft pinks in smaller crystals to raspberry red in the famous museum pieces. If other elements sneak in, Rhodochrosite can be orange, tan or brown. Iron wrecks the color. Rhodochrosite forms series with Calcite (CaCO_3) and with Siderite (FeCO_3), so the color of Mn^{2+} can be diluted in some specimens.

It would be hard to choose the best Rhodochrosite specimen in the world, but a contender would have to be the “Alma King” shown below. This piece is so photogenic that I got an excellent picture with my little pocket camera. Of course, it helped that the Denver Museum of Nature and Science displays it beautifully.



Rhodochrosite description in next column

Rhodochrosite (red) with Apatite (blue) and Quartz (colorless). Sweet Home Mine, Alma, Park County, Colorado. Photo by Michael Pabst, taken June 2016. Field-of-View (FOV) 380 mm (15 inches wide). Crystal is 15 cm (6 inches) on each edge. This specimen is called the “Alma King”, and it lives at the Denver Museum of Nature and Science. (You can see another photo of this specimen on Mindat (minID 970-2FY) at <https://www.mindat.org/photo-457849.html>.)

On our excursion to Denver in 2016, we also visited the Colorado School of Mines in Golden, Colorado, where my little pocket camera captured another wonderful specimen from the Sweet Home Mine.



Rhodochrosite, Tetrahedrite, Quartz from Sweet Home Mine, Alma District, Park County, Colorado. FOV ~10 cm. Photo by Michael Pabst.

And, look again at our Photo-of-the-Month, which shows the magnificent specimen of Sweet Home Rhodochrosite hiding in the Blue Room at the Smithsonian Museum of Natural History.

Continued next page

Rhodochrosite continued

My observant readers will have noted my prejudice in favor of microminerals over their larger counterparts, because of the greater beauty of microminerals, *usually*. Every rule has exceptions, including Rhodochrosite, where you need a bigger crystal to get the saturated raspberry red color. (The hue of these big specimens can vary depending on the lighting, from red to red-violet.)

I do have my own little specimen of Rhodochrosite from the Sweet Home Mine, shown below. Being little, its color is pink. But it shows the typical rhombohedral habit of Rhodochrosite from this locality. Rhodochrosite is a member of the Calcite Group, and so it crystallizes in the Trigonal System: $\bar{3}m$ - Hexagonal Scalenohedral. As we will see in future articles, Rhodochrosite has many forms beyond simple rhombohedrons.

Like Calcite, Rhodochrosite has perfect cleavage, so we could repeat the famous Calcite experiments of René Just Haüy, by dropping a Rhodochrosite crystal again and again, and getting smaller and smaller rhombohedrons. Do not be alarmed, I am proposing only a "Thought Experiment". Haüy's Law of Rational Indices does not need further experimental confirmation with valuable Rhodochrosite specimens.



Two views of a specimen of Rhodochrosite on Quartz below are from the Sweet Home Mine, Alma, Park County, Colorado. Photos by Michael Pabst. FOV 7 mm, with the long edge about 3 mm, or less than one-hundredth of the size of the Alma King at 380 mm. (Taken with Olympus E-M5 Mark II camera with 60 mm macro lens, stacking 14 photos with CombineZP.)

This little crystal of Rhodochrosite in my collection cost \$5, according to a tiny tag on the box; and I might have been given a discount. We can ask whether the Alma King specimen is worth a million times more? I am afraid the answer is YES. After all, the volume (and weight) of the Alma King crystal is more than 2 million times the volume of my micro crystal. I believe that the museum would turn down an offer of \$2 million. And you won't get my little crystal for \$5 either.

In the next article, we will look at Rhodochrosite from other localities, and observe some other crystal habits.

Rhodochrosite on Quartz below are from the Sweet Home Mine, Alma, Park County, Colorado.
Photomicrography by Michael Pabst.



**45th Annual Atlantic Micromounters’
Conference Review #III: April 6-7, ‘18**

By Dave MacLean, President

**Featured speaker; Herwig Pelckmans from
Antwerp, Belgium - Topic: “Topaz and Friends”**

Topaz $Al_2(SiO_4)(F,OH)_2$ is a hard orthorhombic mineral found mainly in granites and rhyolites. The name “topaz” comes from "topazion". The oldest reference to topazion is from a Greek geographer who wrote about a transparent gemstone that was found on Zabargad, a remote Island in the Red Sea. But the only gemstone ever found on that island is peridot. So, in the beginning, “topazion” was a name used for peridot. Later on, a variety of other minerals such as citrine were often called topazion because of similar appearance.

The first unambiguous description of topaz dates from 1744 and was written by Henckel, in an article on the famous Schneckenstein locality (in Germany). Topaz is the state gemstone for Utah and Texas. The Thomas Range in Utah is a major source of topaz crystals in rhyolite and a fun place to go collecting. There is no fee to dig there, so access is free!

Topaz belongs to the orthorhombic crystal system (a,b,c axes perpendicular but a,b,c dimensions unequal). Topaz crystals have 3 two-fold axes and 3 mirror planes and thus have the most symmetry in the orthorhombic crystal system. Crystals can be rhombic bipyramids or pyramidal. Striations parallel to the c axis are common and typical for the species. Natural topaz is colorless, brown, pink, blue or yellow. Colored topaz fades to colorless in sunlight. Topaz can be made blue by heating and radiation. Topaz has perfect cleavage perpendicular to the c axis. It's the reference mineral for hardness 8 on the hardness scale of Mohs. The largest topaz crystal on display weighs 270 kg and was found in Brazil.

Goldschmidt, Atlas der Krystallformen Vol. 8, 1922 describes crystal forms of topaz and many other minerals.

Herwig Pelckmans showed slides of many different minerals from localities in Austria, Belgium, Germany, Slovakia, Sicily, USA (California, Indiana, Upper Michigan, Arizona), Ojuela (Mexico), Bolivia

and Brazil. Minerals with crystal symmetries like topaz include aragonite, copper pseudomorphs after aragonite, brookite, goethite, marcasite, sulphur, hemimorphite, and variscite.



Herwig Pelckmans with his wife Christine, Sterling Hill, Ogdensburg, NJ *Photo courtesy David Fryauff*



John, Herwig, Hillar, Kathy, and Karen: Chocolates!



Leonidas chocolates “Belgium’s Finest”



GeoWord of the Day and its definition:

birefringent (bi-re-frin'-gent) Said of a crystal that displays *birefringence*; such a crystal has more than one *index of refraction*. Syn: *birefractive*; *birefracting*.

syngenite (syn'-ge-nite) A colorless, white, or pale yellow monoclinic mineral: $K_2Ca(SO_4)_2 \cdot H_2O$. It is the K analogue of koktaite.

All terms and definitions come from the [Glossary of Geology, 5th Edition Revised](#).

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

UV Flashlight Recommendation

By Bob Cooke, Secretary

In anticipation of the UV demonstration that Michael Pabst organized for the May 23 MNCA meeting, I brought along a recently acquired Torcia 365 ultra-violet flashlight. Several people at the meeting commented that the long wave UV light generated by this flashlight is intense, especially when considering the size of the flashlight. I was asked to provide additional information for The Mineral Mite.



I acquired the flashlight at the GLMS-MC mineral show in March from Tom Kottyan of The Mineral House in Bucyrus, Ohio. It came with two rechargeable lithium-ion batteries (BRC18650 3000 mAh 3.7 Volt) and a charging device for \$60 total price. The device features latest design LEDs to generate the UV and uses a special glass filter to block most of the visible light that's generated along with the UV. The "365" in the model name refers to the wavelength (365 nm) of the generated light.

Tom Kottyan can be reached at 419-562-4152 or email at ThemineralHouse@netzero.net. The flashlight is marketed by Way Too Cool and a list of other dealers can be found at <http://www.fluorescents.com/dealer.html>.

I couldn't find technical information about this device on the WayTooCool website, but Midnight Minerals (another of the WTC dealers) provides quite a bit of sales and technical information at <https://www.midnightminerals.com/product-page/wtc-torcia-365nm-nichia-zwb2-filter-lw-uv-led-flashlight-battery-charger>

Mail Order Business

By Bob Cooke, Secretary

Decades ago, I tried purchasing minerals by mail and was disappointed. (Note: this was before the advent of the web) Although the dealer was reputable (and is still in business) the minerals I received just didn't measure up to what I imagined after reading the printed advertisements.

Fast forward to the present day. I recently needed some micromount boxes and ordered a bunch from my standard supplier, Sauktown Sales www.sauktown.com. While perusing their website, I was reminded that they also sell minerals. Since I was already paying mailing fees for the micromount boxes, I rationalized the purchase of a few mineral specimens. I was quite happy with what I received. Now, some of that emotional response may have been since I was risking only \$1 to \$5 on each micromount, and not getting my hopes up with thumbnails at significantly greater costs. In any event, the micromounts I received were very interesting crystals and worth the cost. You may want to check out the website for Sauktown.



Micromineralogists of the National Capital Area, Inc.



**American Federation of
Mineralogical Societies**

(AFMS)
www.amfed.org



**Eastern Federation of
Mineralogical Societies**

(EFMLS)
www.amfed.org/efmls

AFMS Purpose: 2018

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

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

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

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<central_office@amfed.org> 410-833-7926
Content – Letters Editorial Comments – Submissions
Any communication concerning the content or format of the newsletter should be sent to the Editor: Carolyn Weinberger PO Box 302 Glyndon, MD 21071-0302
<editor@amfed.org> 410-833-7926

Deadline is the 1st of each month preceding publication (i.e. April 1 for the May issue)
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**Communication and Involvement
Are the Keys to Our Success!**

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

Geology Events:

June

25: Northern Virginia Mineral Club meeting
7:30–10pm Long Branch Nature Center,
625 South Carlin Springs Road in Arlington, VA

**27: MNCA - Micromineralogists of the National
Capital Area meeting** 7:30–10pm Long Branch Na-
ture Center, 625 South Carlin Springs Road in Arling-
ton, VA www.dcmicrominerals.org

No geo meetings in July or August

HAWAIIAN VOLCANO OBSERVATORY STATUS REPORT U.S. Geological Survey

Activity Summary by phone: (808) 967-8862
Subscribe to these messages:

<https://volcanoes.usgs.gov/vns2/>

Webcam images: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_webcams.html

Photos/Video: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_chronology.html

Lava Flow Maps:

https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_maps.html

Overview of Kīlauea summit (Halema'uma'u) and East Rift Zone (Pu'u Ō'ō) eruptions:
<https://volcanoes.usgs.gov/volcanoes/kilauea/extra/background.pdf>

Editor's Note: I enjoy these updates from USGS.

Micromineralogists of the National Capital Area, Inc.

EFMLS Fall Wildacres Workshop Speaker: Alfredo Petrov Sept 3-9, 2018

By Steve Weinberger



It's not too early to register for the Fall 2018 EFMLS Workshop at Wildacres. Our speaker-in-residence is none other than noted mineralogist Alfredo Petrov. He's a mineral dealer, world traveler, and excellent speaker. We know you'll enjoy spending the week "on the mountain" with Alfredo and all the other participants.

Tuition, including room and board is \$425 for the entire week. Your only additional expenses will be for the materials you use during your classes plus whatever you chose to spend at our always fun auction and in the canteen each evening. (They sell a great selection of ice creams and other snacks, postcards, warm sweatshirts and jackets, etc.).

Sleeping quarters are in comfortable double occupancy bedrooms, each with private bathroom. If you come by yourself, you will be assigned a roommate for the week - or if you come with a friend, you can indicate whether you would wish to room with that person or not. Husbands and wives (or *significant* others) are automatically assigned together. Meals are served family style in the very pleasant dining hall and group meetings are held in the comfortable North Lodge meeting room. We hope that you will join us for what promises to be an outstanding week of fun and learning "on the mountain".



Questions; contact Suzie Milligan, Registrar at <smilligan@stny.rr.com> 607-687-5108, or Pam Bryant, Wildacres Director <pjbryant6@juno.com> phone 804-457-4698

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.

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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 \$15 (single) or \$20 (family)
Payable to MNCA - Michael Pabst, Treasurer
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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

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



* Dave Fryauff
* Bob Cooke
* Michael Pabst
* Pete Aloha Chin
* Kathy Hrechka
* Dave MacLean
* Herwig Pelckmans

