Some Pennsylvania Microminerals
by Steve Stuart of Bethlehem, Pennsylvania

Steve will introduce his photography setup and technique, followed by a gallery of 50-60 images of Pennsylvania micros that he has accumulated since moving to the state in April of 2017.

Biography: Steve Stuart, Bethlehem, PA: Steve is a retired fire protection and risk management consultant, since January 2016. He and his wife moved to Bethlehem, Pennsylvania in April of 2017, from Detroit, Michigan. His childhood interest in chemistry, nature and minerals was rekindled in 1995 when he started to collect fluorescent mineral. In the late 1990s, he bought a stereo microscope, which opened a whole new world for him. Steve posted his first photo to Mindat in 2004, and now has over 2,500 images on Mindat. He has attended the Atlantic Micromount Conference since 2017. Steve is a member of the Canadian Micromineral Association, and has edited their newsletter, the MicroNews, since 2016. Zoom host is Mark Kucera in New York

Photo of the Month:

President’s Message:
by Dave MacLean

Our zoom meeting programs for 2020 have been informative and interesting. I remember the micro mineral tour of old mines from MW Nevada to Las Vegas, the mineral exploration account in Central Alberta, what’s new at the Smithsonian, Minerals of the State of Victoria, Australia, Scott Braley’s micro mineral collecting trips to two small, long abandoned mines in New Mexico, a mineral and museum tour in the Russian Federation and colorful history and minerals in another abandoned mine in New Mexico. The persons attending these zoom talks included MNCA members and a large audience of persons from the USA, western Europe, Canada, and Australia. Zoom programs can keep us together and participate if each of us signs into the programs. Enjoy them

I believe that covid-19 will keep all of us wearing our masks, complying with social distancing six feet apart and avoiding crowds inside including family members living outside our homes until Fall 2021. Hopefully enough of us will be vaccinated to allow in person meetings by Fall 2021. In the meantime, be safe; wear a mask, comply with social distancing, and avoid crowds even those of family outside our households.

Notice: Our Atlantic Micromounters’ Conference will be held via Zoom, Saturday April 10, 2021. By Kathy Hrechka, Conference Chair

Strontianite from National Limestone Quarry #2, Snyder County, PA. 2mm FOV. Photomicrography by Steve Stuart
Previous Meeting Minutes: 12/23/20
By Bob Cooke, secretary

There was no business meeting, therefore nothing to report.

Treasurer’s Report:
by Michael Pabst
Michael recommended that no dues be collected for 2021, since our meeting place at the nature center has been closed since March of last year.

Announcing officers of MNCA 2021
President – Dave MacLean
Vice President – David Fryauff
Secretary – Bob Cooke
Treasurer – Michael Pabst

Editor’s Note: Awards from the American Federation
Congratulations Jeff Guerber & Michael Pabst!

Previous Program Review: 12/23/20

“An Introduction to the Minerals of Victoria, Australia”

Steve Sorrell from Melbourne Australia “wowed” our MNCA audience of forty-six viewers via Zoom for our December club program. We noted that much of his photomicrography of minerals were amazing, stacked as many as 180 frames. His presentation was not only historical, but it also contained unusual microminerals from locations “down under.”

Steve has had a keen interest in minerals for over 30 years and held the position of Vice President of the Mineralogical Society of Tasmania for many years. He is an enthusiastic collector, and enjoys photographing minerals (particularly micro minerals), and drawing or painting mineral specimens. He is the editor of the “Monthly Mineral Chronicles”, now into its third year, and has compiled the “What’s New” section in recent editions of the Australian Journal of Mineralogy.

Steve is very active on Social Media, and in particular, the Mineral Hub established on MeWe (mewe.com/i/stevesorrell2). All mineral collectors are welcome. Recently retired, his current venture is the production of photo-rich mineral locality guides. Flinders (Victoria) and Spring Creek (South Australia) have already been published, and Lake Boga (Victoria) is currently in progress. Details can be found here - https://sorrellpublications.com.

Screen shots by Kathy Hrechka

Continued next page
The Granites
Lake Hopatcong
Orthoclase
Na/K/Al-Si-O
cell

Width: 3.3 mm
Stack of 50

The Granites
Lake Hopatcong
Orthoclase
Na/K/Al-Si-O
cell

Width: 3.3 mm
Stack of 50

The Granites
Lake Hopatcong
Orthoclase
Na/K/Al-Si-O
cell

Width: 3.3 mm
Stack of 50

Miscellaneous Minerals...
Spodumene
LiAlSi2O6

Width: 5 mm
Stack of 50

Miscellaneous Minerals...
Varia-Glas
Tetrahedrite
Cu5FeS4

Width: 3.5 mm
Stack of 50

Alluvials...
Lake Bethlehem, Canebrake
Zinnwaldite
Zn5(Sb2O6)

Width: 19 mm

Alluvials...
Bell's Beach
Zinnwaldite
Zn5(Sb2O6)

Width: 3 mm
Stack of 25

Other Phosphates...
Brown Hill Quarry, Assam Hills
Car nahelite
Sr5(PO4)2(OH)3

Width: 3.5 mm
Stack of 75
Pyrostilpnite
by Michael Pabst PhD, Treasurer

My last article concerned the silver antimony sulfide, Pyrargyrite. Pyrargyrite is a beautiful mineral, and we saw some photos showing its deep red color. There is a rarer polymorph of Pyrargyrite that is orange, Pyrostilpnite. Both minerals have the same chemical formula: \( \text{Ag}_3\text{AsS}_3 \), but different crystallography. Pyrargyrite is trigonal \( 3/m \) ditrigonal pyramidal, whereas Pyrostilpnite is monoclinic \( 2/m \) prismatic, \( \beta = 117.087^\circ \).

The first photo shows Pyrargyrite and Pyrostilpnite together in the same tiny pocket of a specimen from the Nabob Mine. These crystals are both similarly tiny, so you can see and compare the colors well.

Pyrostilpnite on Pyrargyrite, Van Silver Claims, Whistler, British Columbia, Canada. FOV 1 mm. Photo by Michael Pabst, using stereo microscope, stacking 7 images. (Pabst #808)
Pyrostilpnite continued

There are magnificent photos of Pyrostilpnite on Mindat. Because my collection is limited in fine examples of Pyrostilpnite, and because my specimens are really tiny, you should click on the links below to properly appreciate this beautiful silver mineral. (Not to mention that these photos are the product of great photographers.) With this list, I have spared you the trouble of scrolling through 90 specimens on Mindat. To be fair, there are other good photos, but here are some of my favorites:


https://www.mindat.org/photo-217330.html (minID D3V-WGT) from St Andreasberg, Goslar District, Lower Saxony, Germany. Photo by Christian Rewitzer.


https://www.mindat.org/photo-847193.html (minID 0P6-W3N) from the Clara Mine. Photo by Michael Förch.

https://www.mindat.org/photo-51760.html (minID FF2-FTF) from the Van Silver Property, Brandywine Creek, Vancouver Mining Division, British Columbia. Photo by Ty Balacko.

Here below is one last photo, borrowed from Matthias Reinhardt on the German website, Mineral Atlas:
(I show the photo because I was unable to provide a direct link, but here is a link to the Pyrostilpnite page:)

Pyrostilpnite (orange) and Pyrargyrite (red) from the Claus Friedrich Mine, St. Andreasberg, Goslar, Germany. FOV 1.5 mm. Photo by Matthias Reinhardt.

Pyrargyrite and Pyrostilpnite are antimony-dominant silver minerals. They each form a series with corresponding arsenic-dominant silver minerals, Pyrargyrite with Proustite and Pyrostilpnite with Xanthoconite. Proustite and Xanthoconite will be our next topics.
Minerals Talk Live: 1pm Wednesdays
Jordi Fabre, “Friends of Minerals Forum”
Barcelona, Spain on December 16, 2020 a recap
by Kathy Hrechka, editor

Each Wednesday at 1pm Bryan Swoboda, Blue Cap Productions in Honolulu, Hawaii has been moderating various mineral persons of interest on Zoom. On December 16 he featured Jordi Fabre from Barcelona, Spain. Jordi is the founder of Fabre Minerals, as well as creator of the website Friends of Minerals Forum, beginning on Aug 07, 2006.

English speaking Friends of Mineral Forum
Users have posted a total of 58,022 messages.
Users have posted a total of 3,286 topics.
10,537 registered users
Images 90,960
Total forum views: 7,158,2473

Spanish speaking Friends of Mineral Forum
Users have posted a total of 147,879 messages.
Users have posted a total of 12,976 topics.
6,579 registered users
Images: 90,960
Total forum views: 146,551,285

Happy Holidays! All lectures are complementary to our geology community through the following individuals: LtR - Bryon Swoboda BCP, Jordi Fabre guest speaker, 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.

http://go.mineraltalkslive.com

www.Friendsofmineralsforum

Screen shots by Kathy Hrechka
Smithsonian’s Dr. Mike A. Wise: Pegmatites - Earth’s Most Amazing Rocks!
by Kathy Hrechka, Editor MNCA & Natural History’s GGM volunteer

Dr. Mike A. Wise gave an amazing presentation of his research in the department of mineral sciences at the Museum of Natural History to volunteers on Dec 15 via Zoom. His lecture featured a comprehensive understanding of pegmatites. While the museum remains closed, it was great to interact with Dr. Wise, through his program. We expressed our gratitude.

Above photo, Mike in his youth, researching...
The authors of the Splendid Sands calendar state on their webpage that they are: “educators with scientific backgrounds and a curiosity for the natural world. We enjoy collecting sand, analyzing the bits within, and sharing our art and discoveries.

Dr. Von D. Mizell-Eula researches the sand from Johnson State Park, Dania Beach, Florida Photo by Leo Kenney

Offshore are sandy shallows and three reef systems at ~300 yards off, nearly half-mile, and over two miles out. Beach contents are mostly dredged material from Pleistocene sources offshore. Biogenic grains include forams, coralline algae, sandy worm tubes, barnacles, micromolluscs, and interesting button-like bryozoans. Background grains are tiny quartz grains.

Adapted from the Wayne County Gem and Mineral Club News, Newark, NY January 2021
Home - WCGMC.ORG
www.SplendidSands.com

My Favorite Beach Sand Discoveries
by Kathy Hrechka, Editor

It is hard to imagine getting bored at a beach, but that is what happens to me at times. I began to observe the sand. Even though I am not a sand collector, it is all geology. When I observe these sands under my microscope, I realize how each beach is unique. Some samples that intrigue me include Cancun, Juno Beach in Florida, Bermuda, and the Big Island of Hawaii.

Cancun beach in Mexico: The main chemical composition of sand particles was confirmed to be calcium carbonate. This sand feels like sifted flour.

Juno beach in Florida: The main chemical composition of sand particles turns out to be quartz. Cell phone photomicrography by Kathy Hrechka

continued next page
Beach Sand continued

Bermuda’s Pink Sand Beach
The pink sand is made of red-shelled foraminifera, bits of coral, and crushed shell mixing with regular sand. Offshore Bermuda lies a coral reef, which thrives from the warm waters of the Gulf Stream.

Black Sand Beach, Hilo: Big Island of Hawaii
The famous “black sand” beaches of Hawaii were created virtually instantaneously by the violent interaction between hot lava and sea water. Olivine grains eroded from the lava.

"Current News on Scott Duresky's Rutherford Mine Research"
by Scott Duresky

With the recent identification of Oxystannomicrolite, joining Kenoplumbomicrolite as the second Microlite Group species currently known from only a single other worldwide pegmatite, Tony Nikischer of Excalibur Mineral has asked Scott and Michael Pabst of the MNCA to write an article about Scott's research for publication in Tony's Mineral News magazine.

Like the previously identified Kenoplumbomicrolite, Oxystannomicrolite has no Hydroxyl counterpart, so these EDS testing results may be considered as confirmed identifications.

<table>
<thead>
<tr>
<th>Element</th>
<th>Weight Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nb2O5</td>
<td>6.64%</td>
</tr>
<tr>
<td>SnO2</td>
<td>68.46%</td>
</tr>
<tr>
<td>Fe2O3</td>
<td>4.21%</td>
</tr>
<tr>
<td>Ta2O5</td>
<td>20.69%</td>
</tr>
</tbody>
</table>

In addition, Scott has been successful in persuading a Richmond collector to donate the finest Cassiterite crystal ever found in Virginia to the Lora Robins Gallery from Nature and was recently given a suite of minerals collected in the late 1950's for inclusion in the Rutherford Mine Research Collection which he is assembling.

Over the next couple of months, Scott expects that he will have the opportunity to examine material that came from the core of the pegmatite. Since the 1950's material has only received a cursory examination, he would be incredibly surprised if something unusual did not turn up, and in those instances, will continue to work with Tony Nikischer at Excalibur Mineral for any EDS testing results that might be necessary.

Again, anyone who has material from the Rutherford Mine are encouraged to consider making donations of their own by contacting Scott.
Scott Duresky’s phone (434) 882-3863

LORA ROBINS GALLERY of Design from Nature, University of Richmond, promotes an awareness and appreciation of nature.
Jennie Frances Smith

JULY 14, 1922 – DEC 18, 2020

by "Dignity Memorial", Houston, Texas

Jennie R. Smith passed away peacefully December 18, 2020 surrounded by family. A celebration of her life will take place in the Spring in Dixmont, Maine.

In lieu of flowers, the family suggests donations be made to Micromineralogists of the National Capital Area (MNCA) 270 Rachel Drive Penn Laird, VA 22846, or North Texas SNAP (Special Needs Assistance Partners) P.O. Box 3294 Grapevine TX 76099.

Born 7/14/22 in Clinton ME to Ralph and Fannie Runnels, one of five children. Jennie always wanted to be a teacher. Beginning with her childhood commitment to read every book in her small hometown library, Jennie was an avid reader consuming thousands of books in her lifetime. She attended Farmington State Teachers College where she earned her teaching degree. Jennie enjoyed teaching 3rd and 4th grades in Maine for several years. She married Paul E. Smith, living in Maine, South Dakota, 20 years in Park Forest, IL and 30 years in Fairfax, VA. They were married for 57 years and had two children, Woodrow and Paula. Jennie continued using her teaching and creative gifts through volunteering in children’s community theater, leading a junior stamp club, as a 4-H leader, starting an Earth Science Club, teaching silversmithing, helping ESL students and much more.

Jennie and Paul were enthusiastic rock, mineral and fossil collectors belonging to and serving in leadership in several mineralogical societies on the east coast. With her substantial writing skills and love of minerals, Jennie wrote A Guide to Understanding Crystallography to help the layperson understand the complex study of crystals. She loved all her family, teaching others at every opportunity, new adventures, traveling, the Washington Redskins, NASCAR, and peanut M & M’s. Jennie was a gracious, caring, and generous lady who was known for making everyone she spoke with respected, listened to and encouraged.

After her husband’s death, Jennie moved to Dallas, TX to be near her daughter, son-in-law and Texas grandchildren and lived there for the last 15 years in an active Senior community until she moved to Hurst, TX this past fall to live with her daughter and family. She died peacefully at home December 18, 2020 surrounded by the love of family. She was preceded in death by her husband, Paul; parents, Ralph and Fannie Runnels; siblings, Gladys, Everett, Carlton and Hope; and granddaughter Amanda. She is survived by her son Woodrow A. Smith; daughter Paula Baker (Michael); grandson Michael D. Baker (Devynn); great grandchildren Grayson Baker, Emily Baker; grandson Daniel R. Baker; granddaughter Elizabeth “Lisa” N. Baker; granddaughter Jenna Boller-Smith; sister-in-law Irene Smith; nieces, nephews, grand nieces and nephews and friends.

Note: Micromineralogists of the National Capital Area club members remember Jennie being club president in 1978-79 and 1991-92. Jennie also taught crystallography from her book “Understanding Crystallography” which was a special publication of the Rochester Mineralogical Symposium in 1991.

Kathy Hrechka gives credit to Jennie for becoming a micromineral collector herself. In 1984 Kathy attended a local geology show, where people were viewing minerals under the microscope. It was Jennie & Paul, and Fred demonstrating micromounting, who invited Kathy to join a couple of local clubs, including the Micromineralogists of the National Capital Area. Kathy remembers carpooling with the Smiths to JMU for special geology workshops with Dr. Lance Kearns. Jennie was considered the educator, while creating slide shows for the club programs, archived by the Eastern Federation of Mineralogical Societies.
Dave Hennessey remembers Jennie Smith fondly, not from MNCA for he was not yet a member when Jennie and Paul were active members, but from shared membership in other local clubs, the Gem and Mineral Hunters (now defunct Prince William County club) and the Northern Virginia Mineral Club. Jennie agreed to give a crystallography class to members in the Gem and Mineral Hunters club and for six Saturdays (one for each crystal system) eight gathered at a member's home where she taught them about axes of symmetry, mirror planes, Miller indices, etc.

Jennie taught Dave all he knew about crystallography, which was much less than all she knew about crystallography. He still has the Crystallography book which she authored and autographed for him with the wry comment "you know the unautographed copies are much rarer than the autographed copies". Dave values his autographed copy and uses it regularly. Dave recently shared an email with another former Gem and Mineral Hunter members, Diane Nesmeyer, who said it simply, "Another great one has moved on to the great collecting grounds in the sky". She said it exactly right. Jennie was one of the greats.

Kathy Hrechka along with many club members received micromineral holiday cards from the Smiths.
The AFMS bulletin is normally published monthly except January, July, and August by the American Federation of Mineralogical Societies. Each Regional Federation Club is entitled to receive three (3) copies of the AFMS Newsletter. These are usually sent to the President, Federation Director and Editor. Subscription Information, Distribution Questions and address changes should be sent to the AFMS Central Office.

The Rock & Gem magazine is recognized as the official magazine of the AFMS.

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: Zoom
January 2021

6: Mineralogical Society of the District of Columbia - MSDC 7:30 Zoom
www.mineralogicalsocietyofdc.org

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

25: Northern VA Mineral Club – NVMC meeting
7:30 Zoom www.novamineralclub.org

27: Micromineralogists of the National Capital Area, Inc. - MNCA 7:30pm Zoom
www.dcmicrominerals.org

April 10: Atlantic Micromounters’ Conference will be held via Zoom. Details will be published on our club website, www.dcmicrominerals.org by Kathy Hrechka, Conference Chair

April 17: Rochester Mineralogical Symposium will be hosted via Zoom this year.
GeoWord of the Day and its definition:

**Amazonian** the youngest system of rocks and the period they represent in the geologic stratigraphy of the planet Mars. Named after Amazonis Planitia, a broad lowland area in the northern hemisphere of Mars which contains relatively smooth, moderately cratered plains that are among the youngest material units on Mars (Tanaka, 1986). See also: **Hesperian; Noachian**.

**lindackerite** (lin-dack-er-ite) A light-green or apple-green triclinic mineral: (Cu,Co)$_2$(AsO$_4$)$_2$(AsO$_3$OH)$_2$•10H$_2$O. It may contain a little nickel or cobalt.

**lomonosovite** (lo-mo-no-sov-ite”) A dark cinnamon-brown to black or rose-violet triclinic mineral: Na$_5$Ti$_2$O$_7$(Si$_2$O$_7$)(PO$_4$). Cf: **murmanite**.

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/wordoftheday@agiweb.org](http://envirotechonline.com/wordoftheday@agiweb.org)