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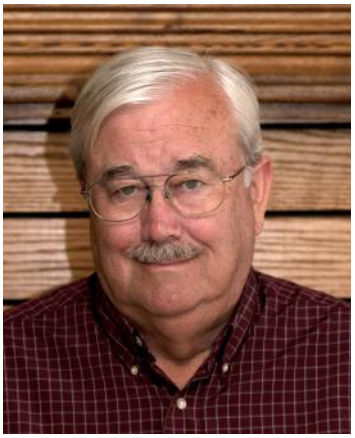
to promote, support, protect and expand the collection of mineral specimens and to further the recognition of the scientific, economic and aesthetic value of minerals and collecting mineral specimens.

Inside This Issue



President's Message
By William W. Besse

Hope you all had a productive summer whether it was field collecting, research or both. We are heading into fall with several good symposia ahead of us in Washington, Pennsylvania, and New Mexico. See https://www.friendsofmineralogy.org/symposia/ for details. I would like to say we will have good symposia in 2020 but we yet to have any listed on our website. This year the listings were off by one-third but hopefully more groups will let us all know about their plans for 2020.

We will be holding elections for the National Board of Directors in a few months. If you have anyone you feel would be good to have on the board, please contact the Nomination Committee: Erin Delventhal, Chris Whitney-Smith, and Linda Smith

The Tucson show is just around the corner in February. Hard to call it just a show since it is almost 60 shows in one concentrated event taking place over a month. Well, add a couple Friends of Mineralogy items to your agenda if you are coming in February:

* National General Meeting, a meet and greet where chapter representatives can tell the assembled members what they have been doing and what the future holds

Hotel Tucson City Center, 475 N Granada Ave, Tucson, AZ 85701,
Tuesday, February 11, 4:00 – 6:00 P.M.

*National Board Meeting

Country Inn & Suites, 705 N Freeway, Tucson, AZ 85745
(I-10 frontage Road, between Speedway and St. Mary's, on the west side of the freeway),
Saturday, February 15, 7:00 – 10:00 A.M.

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The Stephenson (Michael Finger) and LKA Emeralds, Hiddenite, Alexander County, NC Go On Public Exhibit in New York City.

Emeralds Elite (emeraldselite.com) from Little Rock, AR announced on September 12, 2019 that the LKA and Stephenson "Michael Finger" emeralds will be going on public exhibit in honor of their respective 35th- and 50th-year of discovery. These two giant emeralds will be showcased in the "Magnificent Emeralds: Fura's Tears" exhibit at the Wilensky Gallery, New York City.

Since their discovery, the 1,686.3-carat LKA and 1,438-carat Stephenson emerald crystals have always been in the hands of private ownership, and they remained unseen, safely secluded for decades, until now.

Regarding the upcoming exhibit, "The significance of having half of the world's finest known emerald specimens [on exhibit] cannot be overstated," says Troy Wilensky, Managing Director of the Wilensky Gallery. "This has never occurred in the history of mineral collecting," says Wilensky. The Stephenson "Finger" emerald was discovered in 1969 and was last displayed publicly in the early 1980's. The LKA emerald, discovered in 1984, has never been publicly displayed.

The "Magnificent Emeralds: Fura's Tears" exhibit opens 11:00 AM – 6:00 PM, September 26 to December 30, 2019 at the Wilensky Gallery, 173 10th Avenue (corner of 20th street), New York city, NY 10011.

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Pyromorphite Llechwedd Helig, Mid Wales FOV 3 mm Photo David Roe

Via BMS Newsletter 2/19
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Minerals of the Penn/MD Materials Quarry, Fulton Township, Lancaster County, Pennsylvania, Part 2, Clinochlore, Zircon, and Monazite-(Ce)

Ronald A. Sloto, P.G.
West Chester University

INTRODUCTION

The Penn/MD Materials quarry, owned and operated by the H&K Group, produces aggregate from ultramafic rocks of the Baltimore Mafic Complex, known locally as the State Line Serpentinite District. This complex of ultramafic and associated gabbroic rocks is believed to be a remnant from the roots of an island arc complex formed about 490 to 510 million years ago (Smith and Barnes, 1998; Smith and Barnes, 2008).

All analyses were performed at the West Chester University Center for Microanalysis and Imaging, Research and Training (CMIRT). Imaging and chemical analyses were done using an FEI Quanta 400 environmental scanning electron microscope integrated with an Oxford AZtec X-ray energy dispersive spectrometer (SEM-EDS). Samples were unpolished and uncoated. A Bruker D2 Phaser powder X-ray diffractometer (XRD) was used to determine mineral species.

The author thanks the H&K Group and Jay Lang for access to the quarry.

CLINOCHLORE $(Mg,Fe)_6(Si,Al)_4O_{10}(OH)_8$

Clinochlore is the most common member of the chlorite group; it forms a series with chamosite. Clinochlore is the magnesium-rich end member, and chamosite is the iron-rich end member of the series. Clinochlore is a hydrothermal alteration product of pyroxene in serpentinite. Clinochlore forms thin to thick pseudohexagonal crystals. It can be foliated with flexible laminae, fibrous, granular, earthy, or massive.

Clinochlore is a common mineral at the Penn/MD Materials quarry occurring in a variety of forms and colors, mostly as anhedral to subhedral crystals (fig. 1). The color can be silvery gray, light green, dark green, light brown, or dark brown. Clinochlore exhibits a range in composition (table 1). Although some of the clinochlore can be light to dark brown (RS-3206 and RS-4331) and resemble vermiculite (fig. 2), it contains too little aluminum and too much silicon to be considered vermiculite. It also contains too little iron and too much magnesium to be considered chamosite. In addition, the X-ray diffraction patterns fit clinochlore much better than vermiculite or chamosite.

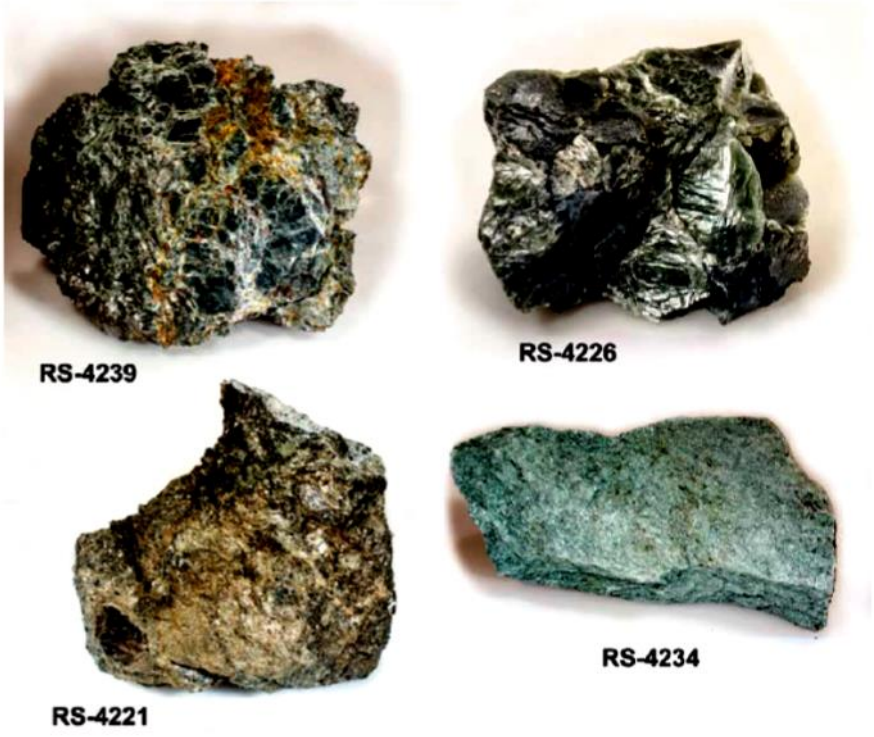

Figure 1. Clinochlore from the Penn/MD Materials quarry.

Figure 2. Clinochlore from the Penn/MD Materials quarry, 7 cm. Sloto collection 3206.

All samples listed in table 1 were verified as clinochlore by XRD. The brown clinochlore contained more iron than the silvery gray and green clinochlore. Some of the clinochlore contained potassium, possibly substituting for magnesium, and some contained titanium. One sample (RS-4234 in fig. 1) was light green, very soft, fine grained, and slippery, resembling fine-grained talc; it contained trace nickel and chromium.

A dike of clinochlore was exposed on the north side of the quarry several years ago. The dike was several feet across and contained dark green (RS-4239 in fig. 1) and soft, dark brown clinochlore (RS-4221 in fig. 1). However, this material was unsuitable for aggregate, and the dike was backfilled and is no longer accessible.

ZIRCON $Zr(SiO_4)$

Zircon is a silicate mineral (zirconium silicate); however, hafnium is almost always present in quantities ranging from 1 to 4 percent, and rare-earth elements may be present. Zircons were found in the dark brown, fine-grained clinochlore (RS-4221 in fig. 1) in the dike described above. They were identified as zircon by their orange fluorescence.

The zircons occur as small (4 mm or less), transparent, orange crystals and fragments (fig. 3). The zircons described here were provided by Tom Pankratz, who separated them from the clinochlore. Analysis by SEM-EDS (table 2) shows that the zircons contained 0.81 to 2.09 weight percent hafnium.

Figure 3. Zircon crystals from the Penn/MD Materials quarry. Crystals are 4 mm or less in length. Collected by Tom Pankratz.

Table 1. Results of X-ray energy dispersive spectrometer (EDS) analysis of 12 clinochlore specimens from the Penn/MD Materials quarry. Values are mean values in weight percent.

Sample ID	Description	O	Mg	Al	Si	Fe	K	Mn	Ti	Ni	Cr
RAS-3179	Dark green	48.13	21.54	7.19	17.42	2.96	2.48		0.27		
RAS-3206	Large, light brown crystal	48.33	11.52	8.19	16.96	8.55	4.64		1.81		
RAS-4103	Dark brown, fine grained	47.44	13.20	8.41	15.86	10.79	3.05	0.26	0.99		
RAS-4204	Silvery gray	50.28	19.12	7.18	17.02	5.18	0.17		1.14		
RAS-4205	Light brownish green	53.80	21.95	3.25	17.91	2.76			0.35		
RAS-4220	Silvery gray	53.52	23.77	1.70	19.18	1.65			0.18		
RAS-4221	Dark brown, fine grained	47.27	12.25	7.73	15.59	8.90	7.11	0.24	0.92		
RAS-4226	Silvery gray; associated with semi-transparent antigorite	50.20	22.52	3.12	21.64	2.03			0.48		
RAS-4227	Silvery gray	50.74	24.13		23.60	1.53					
RAS-4234	Soft, light green, fine grained	51.40	20.84	5.82	15.97	5.34	0.12			0.42	0.09
RAS-4237	Silvery gray; associated with picrolite	48.21	23.68	0.36	21.87	5.88					
RAS-4239	Dark green; from the dike	50.93	22.87	4.13	19.44	2.30			0.32		

Table 2. Results of X-ray energy dispersive spectrometer (EDS) analysis of five zircon specimens from the Penn/MD Materials quarry. Values are mean values (except zircon 3) in weight percent.

	Zr	Hf	O	Si	Mg	Ca	Ti	Fe
Zircon 1	50.11	1.23	32.91	14.83		0.43	0.26	0.24
Zircon 2	46.94	1.04	36.85	14.19	0.29	0.71		
Zircon 3	48.40	1.00	36.22	14.16		0.22		
Zircon 4	44.27	0.81	41.26	13.39		0.28		
Zircon 5	44.56	2.09	35.51	14.42	0.93	1.95	0.56	

MONAZITE-(Ce) (Ce,La,Nd)(PO_4)

Monazite is a phosphate mineral containing rare-earth elements. There are at least four different kinds of monazite, depending on the dominant rare-earth element; the most common is monazite-(Ce). The chemical formula for monazite indicates that cerium, lanthanum, and neodymium can substitute for one another in the mineral's structure. Other rare-earth elements and thorium may be present, and substitution of silica (SiO_2) for phosphate also occurs. The first element listed in the parenthesis is the rare-earth element with the greatest percentage in the mineral; monazite-(Ce) is enriched in cerium. Monazite is part of several solid-solution series with other minerals.

Monazite-(Ce) was identified during analysis of dark brown, fine-grained clinochlore (RS-4221 in fig. 1). While imaging and analyzing the clinochlore, grains of other minerals were apparent. A solid state (backscatter) detector was used to produce an SEM image (fig. 4) that showed the other minerals as bright white grains standing out in contrast to the dark clinochlore. Backscattered electrons are high-energy electrons originating in the electron beam that are reflected or back-scattered out of the specimen interaction volume by elastic scattering interactions with specimen atoms. Heavy elements (high atomic number) backscatter electrons more strongly than light elements (low atomic number) and appear brighter in the image. Backscatter electron detectors are used to highlight contrast between areas with different chemical compositions.

Analysis of the mineral grains showed them to be, in decreasing order of abundance, monazite-(Ce), a titanium-iron oxide (ilmenite or an alteration product of ilmenite), and zircon. Cerium was the most abundant rare-earth element (table 3). Most mineral grains were

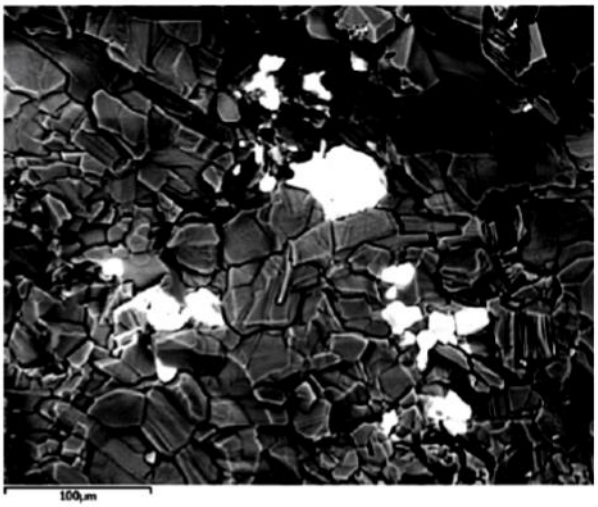

Figure 4. Backscatter scanning electron microscope image of dark brown, fine-grained clinochlore from the Penn/MD Materials quarry. Magnification is approximately 660 X.

Figure 5. Backscatter scanning electron microscope image of monazite-(Ce) from the Penn/MD Materials quarry. Magnification is approximately 2100 X.

anhedral, but one mineral grain (fig. 5) showed somewhat of a crystal shape. Rare-earth elements present included cerium (Ce), lanthanum (La), neodymium (Nd), praseodymium (Pr), and promethium (Pm) (table 3). In addition, thorium (Th) was detected in three mineral grains. Silver occurred in trace amounts in most mineral grains. Some silica substituted for phosphate in all samples.

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Smith, R.C. II, and Barnes, J.H., 1998, Geology of Nottingham County Park: Pennsylvania Geological Survey, 4th ser., Trail of Geology 16–009.0, 41 p.

Smith, R.C. II, and Barnes, J.H., 2008, Geology of the Goat Hill Serpentine Barrens, Baltimore Mafic Complex, Pennsylvania: Journal of the Pennsyl-vania Academy of Science, v. 82, no. 1, p. 19-30.

Table 3. Results of X-Ray energy dispersive spectrometer (EDS) analysis of monazite-(Ce) from the Penn/MD Materials quarry. Values are in weight percent.

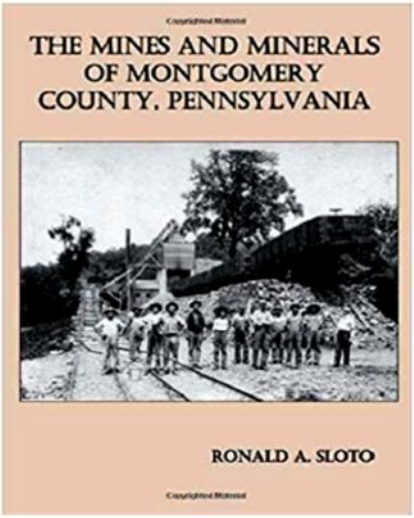
Sample ID	O	Si	P	Ag	La	Ce	Pr	Nd	Pm	Th
R2-1-Spectrum 1	50.53	19.80	0.30		4.41	15.34	1.82	7.79		
R2-1-Spectrum 3	33.89	4.51	9.93		13.57	27.85	2.63	7.63		
R2-1-Spectrum 4	30.54	6.68	9.56	0.29	15.28	29.60	1.90	6.15		
R2-2-Spectrum 15	28.01	6.11	6.42		15.09	31.24	2.51	8.64	1.04	0.93
R2-3-Spectrum 19	30.94	4.51	10.92	0.23	14.93	29.25	2.41	6.63	0.19	
R1-5-Spectrum 21	31.54	7.58	9.50	0.15	13.01	28.59	2.40	6.67	0.55	
R1-5-Spectrum 22	38.32	2.66	12.61	0.20	11.43	25.20	2.43	6.75	0.40	
R2-4-Spectrum 27	42.28	7.62	5.92	0.84	0.48	25.68	3.63	3.76	0.05	9.74
R2-4-Spectrum 29	31.09	5.83	9.72	0.99	13.55	29.25	2.53	6.80	0.25	
R1-8-Spectrum 31	39.36	2.40	12.71	0.32	12.26	25.39	1.66	5.80	0.11	
R1-8-Spectrum 32	29.01	5.66	6.53	0.20	12.50	34.74	3.29	8.08		
R1-8-Spectrum 33-36 [1]	33.92	4.19	9.67	0.17	12.46	29.12	2.54		0.05	

[1] Average of three spectra.

Montgomery County book now available

Ron Sloto has followed up his Chester County and Berks County books with one covering Montgomery County. It is now available from Amazon.com.

The Mines and Minerals of Montgomery County, Pennsylvania, provides a comprehensive description of the mining history and mineralogy of the county. It pulls together over 300 years of mining and mineral history under one cover. It is richly illustrated with 510 figures — old and new photographs, old maps, mine surface plans and cross sections, and photographs of minerals from museum, university, and private collections. Many of the old photographs have never been published before. This book describes nearly 200 mines and mineral localities. It includes



the known history of each mine and locality and a list of reported minerals. The locations are shown on a set of USGS topographic maps. Because many of the mines had several names over the course of their history, a comprehensive cross-index is provided. An extensive bibliography also is included. One hundred twenty six mineral species have been reported from Montgomery County, plus an additional 13 mineral species that were reported, but not verified. Extensive coverage is provided for the two most prolific mineral localities in the county—the Perkiomen-Ecton lead-copper-zinc mines near Audubon and the Kibblehouse (Perkiomenville) quarry in Perkiomenville.

Via Pennsylvania Chapter Newsletter Summer 2019

Auglaize, Junction, Paulding Co. Plant Survey Report

By Johan Maertens

mr.calcite at live.com

Field trip report

Date of Survey: June 15, 2019

Locality: Auglaize, Junction, Paulding Co., Ohio

Dr. John Medici presented "Some Auglaize Quarry Mineral Collecting, 1968 to Date" during the 7th Annual Friends of Mineralogy Midwest Mineralogical Symposium. That exited me and while much collecting happened during the easier access years (and stronger muscles and stable footing John?), one never knows and has to experience the site in person.

It happens. While I was researching and writing this contribution and wanted to make it a Mercedes class article by "digging a little deeper" (Mercedes stars are common in crystals), I was overtaken by the Rolls Royce class article by FoM-MW members Ken Bladh and John Medici (Medici, Auglaize). They did a great job in documenting collecting experiences and minerals gathered at the Auglaize locality. Their detailed and well document article got me in the Rolls-Royce Spirit of Ecstasy.

Prior to the trip, I found several purchased Auglaize specimens, in my calcite collection. I had never visited the Auglaize locality before and was not aware of its (local) fame. It was one of those would-like-to but hard-to-walk-in places. Fortunately, I moved to Ohio and joined the local Friends of Mineralogy chapter. My calcite samples provided me with a flavor and reference of what could be found. Research on the internet added more opportunities.

I packed several regional calcites in a flat and Randy Marsh was so kind to identify some calcites from Ohio and Indiana. Some unknowns remain. Joe Vasichko, where are you? You remain elusive.

The attendees gathered in the garage/workshop for sign up and safety briefing. The location was fitting, as the morning had substantial chance for rain, and we got intermittent drizzle to rain. Well, the weather did not bother me too much while in the quarry, but the drive home to Cincinnati was at times white knuckle, with heavy downpours and poor visibility starting when we signed out from the quarry.

I started on a bad note, when my car refused to start in the quarry parking lot. Like the whole battery was dead. We received the foreman's cell phone number for emergencies and I texted him my situation. After he guided the collectors in the quarry, he returned and jump started the car and I joined the group, who was well spread out by then. Still puzzling, as I got no cell phone reception in the pit.

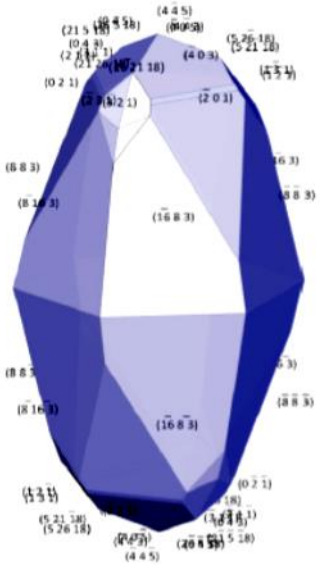
Collectors could roam most of the single level pit and search in rock piles, the muck pile and rows of broken rocks.

I drove up to the rows of hydraulic hammered broken boulders. Usually these are quite fresh with opportunities to find interesting specimens. Because of the rain, I left most gear in the car and walked light.

There were many rocks with stylolite exposures and others with fossils (bulbous hemispherical stromatoporoids (mainly of laminated and tabular forms, up to 2 feet tall), cemented agglomerates coral and shell fragments). The rows were reasonable but not overly productive, yet provided a nice sample of many types of rocks of the facies exposed in the quarry.

With a large group present, it is impossible to visit everyone to see what they collected and I share my experience.

One 2-foot diameter boulder of light brown limestone did not scare me and opaque white calcite filled fissures dotted with sphalerite hinted at the promise of open spaces. This boulder survived blasting, moving, tumbling, hydraulic hammering and now the pounding of my sledge. What are the chances of finding specimens intact? Some luck was with me (I favor my skill) and the boulder split in several pieces along the calcite filled fissures, exposing more sphalerite crystals and vugs with colorless transparent calcite crystals up to 32mm tall. They are different from the usual honey colored crystals growing in vuggy limestone. These calcites are dominant bipyramidal with double rhombohedron terminations and extra steeper rhombohedron and scalenohedral modifications. Modelling the crystals is a work in progress; current status exhibited here.



The sphalerite is brown with a reddish hue with some crystals approaching a golden brown, and translucent to opaque. The subhedral to anhedral clusters of sphalerite crystals are always attached to the brown host rock and are up to 70 mm long. All of them are fractured, and acid etching of the host calcite results in sphalerite pieces and fractured crystals. In other rocks, sphalerite was found on chert surrounded by massive calcite. Special was a banded chert crust enclosing calcite and sphalerite.

Another large boulder exposed a 20cm wide vein with white opaque massive calcite and yellow translucent to Iceland spar clear transparent massive calcite cores. This calcite luminesces and phosphoresces weak white under short wave ultraviolet exposure.

Chert nodules in limestone, have voids containing colorless transparent drusy and micro quartz crystals, 1 to 2 mm individual and smaller. Some boulders contained chunks of pale to white fragmented fossilized coralline debris conglomerates (wackestone?) (up to one foot) with chert crusts and dissolution vugs after corals, replace by a druse crystallized quartz core or lining. In the same rows of broken boulders, I collected several specimens with a green earthy material in limestone vugs, especially in a hard, light-grey limestone that is similar in appearance to unglazed porcelain (porcellanite?). The green material also appeared, in a nice color contrast, on colorless calcite. This is probably glauconite. Carlson (Carlson, Ohio Minerals) lists glauconite from western Ohio and the shallow marine origin of the rock adds to the probability for this visual identification.

During a dry spell (literally and figurative) I moved to the muck pile. There I found small calcite crystal clusters, colorless transparent with a typical Auglaize shape. Few of the prized zoned fluorite (colorless cubes around a purple cubic core) were found. Some collectors, including Jay Medici located boulders with vugs containing brown and small iridescent purple fluorite crystals. One has a good day at Auglaize if one finds the ever-elusive iridescent fluorite. Prize-holding boulders were concentrated in the blast pile.

Randy Marsh showed a calcite crystals cluster (30 mm) in the Auglaize morphology tradition, translucent with a honey hue.

For a first-time visit, I found specimens of most reported minerals (except marcasite and dolomite). I am grateful for access to this locality and the help from collectors in providing identification. The Auglaize Quarry is reluctant to give up her specimens, and John and Ken's Auglaize quarry article spanned decades and many trips. Driving away half soaked from sweat or drizzle with some nice calcites makes my month!

Acknowledgments

Thank you, Reggie Rose and Jeff Spencer for coordinating the field trip.

Thank all participants for excellent safety and collecting behavior.

Thank you, Shelly Company for facilitating access for the survey.

References

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Medici J., Bladh K., The Auglaize Quarry. The Mineralogical Record Vol 50(4), pp. 399-427 , 2019

Figures - All specimens, pictures by and copyright to Johan Maertens, except where noted

Figure 1 - Auglaize Quarry, muck pile collecting

Figure 2 - Calcite crystal, 32 mm

Figure 3 - Fluorite (picture/collection Bob Dewitt)

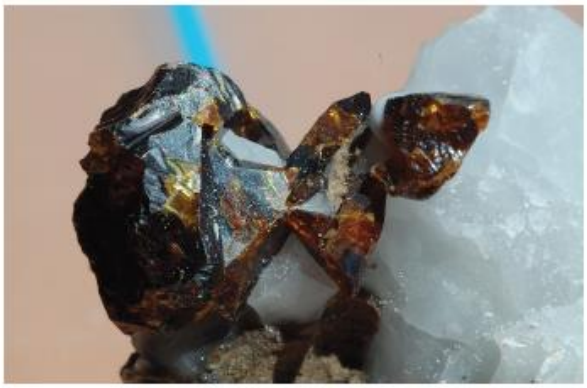

Figure 4 - Sphalerite (35 mm view)

Figure 5 Quartz (25 mm view)

Figure 6 Stylolite (100 mm view)

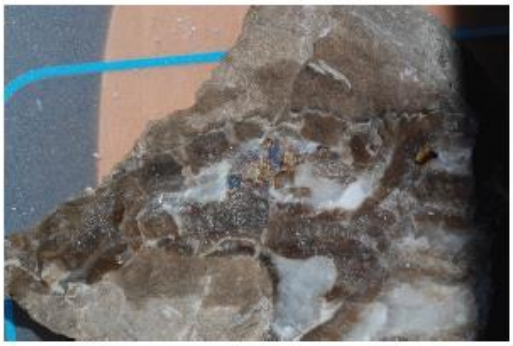

Figure 7 Chert, sphalerite, calcite (135mm view)

Via Midwest Chapter Newsletter 9-10/19

United States Pollucite Localities with Primary Citations

Dittrich (2017, p. 24-33) in his Ph.D. thesis created a worldwide list of pollucite occurrences. The United States localities were extracted from his publication, revised and updated for this listing by M. I. Jacobson

United States of America

Arizona

Independence Mine, White Picacho District, Arizona. Anthony et al. (2005, p. 155) mentions the possibility that this pegmatite contains pollucite but it is not confirmed. No specimens are known.

California

Himalaya pegmatite, Mesa Grande District, San Diego County, California. Within a narrow pegmatite small anhedral masses were found with elbaite crystals in pockets (Foord et al. 1986). Rynerson (1967, p. 152) described the occurrence since he mined it before 1923. Pollucite specimen #20623 is in California Mining Bureau collection (Teertstra et al. 1998). A later discovery in 1998 was made during the mining by William Larson. Jim Means and Jeffrey Patterson observed and legally recovered additional material during Patterson's GPR survey to locate un-opened pockets. The material in 1998 was still exposed in an adit. The material sometimes contained engulfed glassy rubellite crystals.

Doc Trotter Claim (Pala View claim), Pala District, San Diego County, California.

Jahns and Wright (1951, p.42) only mentions that pollucite occurs in the pegmatite district. As a footnote, Jahns and Wright (1951, p. 31) credits the mention of pollucite to Adolph Pabst (1938, p. 229) in "Minerals of California," California State Division of Mines bulletin 113. Pabst (1938) also only provides an ambiguous statement that it occurs in the Pala district. Only Rynerson (1967, p. 165-166) describes the pollucite as at the "Doc" Trotter's claim in the Pala District circa 1923. John W. "Doc" Trotter, Sr. (b. 1871-d. 1934) was the mine foreman for several properties of Frank Salmons. His claim, which contained the pollucite, located just west of north of Salmons' general store in Pala, was most probably the Pala View claim, on the southern end of the Tourmaline Queen pegmatite vein on Queen Mountain. This claim was also known as the Sholder-Trotter mine (Weber 1963, p. 110).

Unnamed pegmatite occurrence, Volcan Mountains, San Diego County, California. pegmatite massive pollucite. Only mentioned in Pemberton (1983). No specimens known.

Little Three Mine, Ramona District, San Diego County, California. A miarolitic granitic pegmatite, Pollucite identified as daughter mineral in fluid inclusions (London et al. 2012, p. 1041) of some miarolitic cavity minerals.

Cryo-Genie Mine, Warner Springs District, San Diego County, California. In pegmatite as a 5 mm corroded crystal in cavity. Kampf et al. (2003, p. 163)

Colorado

Brown Derby no. 1 pegmatite, Quartz Creek Pegmatite District, Gunnison county, Colorado. A gently dipping, layered LCT pegmatite, one pod is exposed in the underground gallery, also referred to as Tunnel no. 2 (Elder 1998, p. 59-60). Murphy (1986, p. 99) noted its discovery in Tunnel no. 2, in a quartz-albite zone, in 1980 by Gary Schrock. First mentioned in Černý (1982, p. 423). The pollucite occurs as an anhedral, one foot pod in the wall of the lepidolite-elbaite gallery. It was still present in 2016. Teertstra (1991) provided an analysis as did Elder (1998). A specimen is in the Denver Museum of Nature and Science collection.

Connecticut

Ridgefield pegmatite, Fairfield County, Connecticut. Its occurrence is possible but probably not. No specimens known nor any evidence of lithium minerals in the pegmatite. Source of the pollucite hypothesis originated from Ron Januzzi of Danbury, Conn. and was orally reported to Richard Schooner (Schooner 1961, p. 60) and finally published in Januzzi (1963 , p. 68-69). No evidence known supporting this possibility.

Hollister prospect, Hartford County, Connecticut. Pegmatite. The possibility of pollucite from this pegmatite was noted by Januzzi (1976, p. 148) in Januzzi and Seaman (1976). No evidence known supporting this hypothesis.

Hewitt Gem Quarry (AKA Turkey Hill pegmatite, Herb's gem mine pegmatite, or Sawmill pegmatite) , Middlesex County, Connecticut. (Gardiner 1966, p. 21). Pollucite discovered in 1961 by lessee Herbert Hewitt. Mining since 2017 has recovered small ¼ pounds masses.

Strickland pegmatite, Collins Hill, Portland, Middlesex County, Connecticut, (Schooner 1959, p. 20; 1961, p. 60) discovered by Richard Schooner in 1954. Specimens in private collections and Webb Peoples Museum, Exley Science Center, Wesleyan University, Middletown, Connecticut, USA. granite pegmatite small masses. Teertstra (1991) has an analysis.

Walden Gem Quarry, Portland, Middlesex County, Connecticut. A well known lithium-rich pegmatite that produced gem pollucite (Seaman 1963, p. 355, 360; Stearns 1980; Vitali 1979). Specimen no. 107500 is in the Harvard Mineralogical Museum. Also described in Barton and Goldsmith (1968). Teertstra (1991) provided an analysis.

Maine

Greenlaw Quarry, East Mount Apatite District, Auburn township, Androscoggin, County, Maine, pegmatite. Thompson et al. (1998, p. 27; 2005) lists pollucite from the Greenlaw quarry and Maine feldspar quarry jointly without noting which one. King and Foord (1994) do not attribute pollucite to the Greenlaw quarry, only the Maine Feldspar quarry.

Maine Feldspar Quarry, East Mount Apatite District, Auburn township, Androscoggin County, Maine. pegmatite Hess et al. (1943, p. 32) described that a little pollucite was found but attributed the quarry to the adjacent Minot township which King and Foord (1994, p. 276) corrected.

Keith Quarry (merged into the Towne quarry by mining), West Mount Apatite District, Auburn township, Androscoggin County, Maine, pegmatite. King and Foord (1994, p. 276) attribute pollucite to the Keith quarry but their source, Fisher and Bernard. (1934, p.16), were more ambiguous; the quarry could be Keith, Greenlaw or Towne. Specimens known from Mt. Apatite but from which quarry is often not documented. The Greenlaw, Maine Feldspar, Keith, Towne, and Pulsifer quarries have been interpreted by some authors as all the same pegmatite. Perham's Mineral Store of West Paris sold Pulisfer quarry pollucite circa 1980s.

Bemis Stream prospect, Franklin County, Maine. A pegmatite outcrop that has never been mined (Thompson et al. 1998, p. 95; 2005). A reliable occurrence.

Tamminen pegmatite, Greenwood Township (Hess et al. 1943, p. 25) pollucite with some petalite. Pollucite analyzed in Richmond and Gonyer (1938). Also noted in Teertstra and Černý (1995), and Gatta et al. (2009).

Harvard quarry, Noyes Mt, Greenwood Township. King and Foord (1994, p. 277) state that "pollucite is very scarce at the Harvard quarry." King (2019, personal communication) states that this is correct.

Emmons (Uncle Tom Mt.) pegmatite, Greenwood township (Hess, et al .1943, p. 25). 4,638 pounds of pollucite mined. Teertstra (1991) has analysis listed erroneously as Old Tom Mt. Pollucite still being mined at the quarry and collected from the dumps. Additional pollucite was uncovered in 2018 (Falster 2019) and presented as a poster in the PEG2019 symposium.

Mt. Rubellite pegmatite, Hebron township, Oxford County. Hess, et al. (1943, p. 29) noted that about 1 pound of pollucite recovered and analyzed in Wells (1891, p. 219). A granite pegmatite with small masses of pollucite as described by Bastin (1911, p. 74). Teertstra (1991) has analysis.

Dunton pegmatite, Newry Township, Oxford County, Maine (Hess et al. 1943, p. 15) reported 3,500 pounds of pollucite. Teertstra (1991) has analysis. Pollucite is also attributed to the nearby Crooker and Kinglet quarries, and Martin prospect on Newry Hill by King and Foord (1994, p. 275).

Cobble Hill pegmatite, Norway township, Oxford County,Maine (Hess, et al. 1943, p. 27) 100 pounds recovered but no specimens known nor further documentation.

BB (former BB #7 pit) pegmatite, Norway Township, Oxford County, Maine, An LCT pegmatite with small masses. Pegmatite also contains spodumene, gem elbaite and lithiophilite. This is the enlarged workings, circa 1995 of the pegmatite that had been referred to as the BB #7 pit. Teertstra (1991) has analysis.

Mt. Marie pegmatites, Paris township, Oxford county, Maine. Specimens known in several collections but no publication has documented the occurrence. Analysis of pollucite in Teertstra (1991, p. 104-108).

Rose quartz locality pegmatite, Newry township, Oxford County, Maine. pollucite in large masses, discovered circa 2017 by Michael O'Neal and Gary Freeman. No publication on discovery known. Specimens available from some mineral dealers. Analysis in Jacobson (2019, in press)

Black Mountain pegmatite, Rumford, Oxford County, Maine (Hess et al. 1943, p. 20). E. H. Bailey discovered the pollucite. See Foote (1896) and Francis (1985).

Bennett pegmatite, Buckfield township, Oxford County, Maine. Pollucite, some with spodumene and lithiophilite most recently mined by the Holden brothers 1993-4 and sold for specimens; 75 kilograms recovered. (Robinson et al. 1995, p. 479)

Dudley pegmatite, [aka Westinghouse company pegmatite, Lewis Ledge], Buckfield Township, Oxford county, Maine (Hess, et al. 1943, p. 24) 800 pounds of pollucite mined.

Owls Head Mt. pegmatites, Buckfield Township (Hess et al. 1943, p. 25). No additional information known.

General Electric pegmatites, Buckfield Township [3 east-west pegmatites], [aka Hodgeon Hill] (Hess et al. 1943, p. 23-24) about 3,000 pounds produces from the southern pegmatite. The same information is repeated in Barton and Goldsmith (1968, p. 93) with a location map. Pollucite still being found in 2016, in the southernmost pit of 3.

Mt. Mica pegmatite, Paris Township, Oxford County (Hess et al. 1943, p. 33) 800 pounds of pollucite recovered in 1910 by Loren Merrill. Mining by Gary Freeman after 2000, uncovered fist-sized masses and larger masses in several places underground associated with amblygonite and lepidolite. Circa 2009, some gem pollucite recovered in one pocket. Teertstra (1991) has analysis listed as Merrill mine.

Massachusetts

Barrus Farm pegmatite locality, Goshen, Hampshire County, Massachusetts. granite pegmatite irregular grains, very rare. Shaub and Schenk (1954). Pollucite fragments from. Ex. Benjamin Shaub and Mary S. Shaub collection, now in Harvard Mineralogical Museum #1337774.

Long Hill, Leonminster, Worchester County, Massachusetts. pegmatite small grains Richmond and Gonyer (1938). Teertstra (1991) has analysis listed as Leominster.

North Carolina

Ray Mica Mine, Spruce Pine District, Yancey, County, North Carolina (Miller and Allen. 2004., p. 5). Rare pollucite with green elbaite and amazonite, a muscovite class pegmatite with a mixed source rock signature. Pollucite information cited is based on an oral report by K. Wood in 1996.

McHone Mine pegmatite, Spruce Pine District, Mitchell County, North Carolina. rare pollucite. LCT pegmatite with spodumene, chlorophane variety fluorite and amazonite (Wise and Brown 2009).

South Dakota

Tin Mountain pegmatite mine, Fourmile area, Custer County, South Dakota. Two large pollucite masses underground only, associated with amblygonite, spodumene and cleavelandite. A highly differentiated LCT pegmatite. One carload of pollucite was shipped in 1928 (Schwartz 1929; Page et al. 1953, p. 197; Lincoln 1937, p. 31). Specimens in the South Dakota School of Mines Geology Museum, Rapid City and the Denver Museum of Nature and Science. Teertstra (1991) has analysis.

Wisconsin

Animikie Red Ace pegmatite, Fern, Florence County, Wisconsin. "…Pollucite occurs sparingly along the wall zone- country rock contact of the pegmatite as colorless clear or cloudy whitish grains …[that reach] a maximum of 5 mm in diameter" (Falster, et al. 1995, p. 42). The pegmatite is 600 m by 3 m in exposed extent (Falster et al 1995; Falster 1994). An analysis is also in Falster, et al. (1995, p. 61).

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From Your Editor

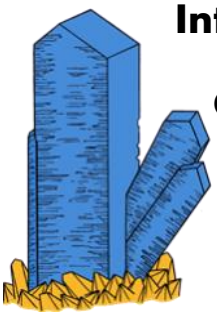
I invite all chapters and anyone from the Members At-Large to either email me their chapter newsletters or a President's report each quarter. Chapters would really like to learn from each other what is working for them or what exciting things are happening like field trips or presentations.

I request that they be emailed since I can store them in one location and not have to search around the internet for every chapter that posts theirs. Just add me to your email list. Beth Heesacker, heesacker@coho.net .

I also invite your pictures of your minerals to grace the pages of this newsletter.

Also please let me know if your President changes so I can keep the officers' page up to date.

Your articles can make this Bulletin a greater resource for mineral collectors around the world. Thank you in advance.



Interested in a wonderful resource for teaching children about minerals?
Check out the books and other resources at Diamond Dan Publications.
http://www.diamonddanpublications.net/

COLORADO CHAPTER UPDATE

http://friendsofmineralogycolorado.org/

40th Annual New Mexico Mineral Symposium

The New Mexico Mineral Symposium provides a forum for both professionals and amateurs interested in mineralogy. The meeting allows all to share their cumulative knowledge of mineral occurrences and provide stimulus for mineralogical studies and new mineral discoveries. In addition, the informal atmosphere allows for intimate discussions among all interested in mineralogy and associated fields. This year's featured speaker is Brad Cross and he will be speaking on agates from northern Mexico and southern New Mexico.

The symposium will consist of a day and a half of formal papers presented in 30-minute time blocks. Papers will tend to focus on mineral occurrences from New Mexico and adjacent states, including Mexico.

40th Annual New Mexico Mineral Symposium Schedule:

Friday, November 8, 2019

5:00 – 7:00 pm Friends of the Museum Reception – Headen Center (Bureau of Geology) atrium. Appetizers and Cash Bar
7:00 pm – ?? Informal motel tailgating and social hour, individual rooms – FREE

Saturday, November 9, 2019

8:00 am	Registration, Macey Center; continental breakfast
8:50	*Opening remarks,* main auditorium
9:00	*The New Mexico Mineral Symposium, a forty-year journey* – Peter Modreski
9:30	*Arthur Montgomery* – Raymond Grant
10:00	Coffee and Burrito break
11:00	*New Mexico pseudomorphs* – Philip Simmons and Erin Delventhal
11:30	*The New Cornelia mine, Ajo, Arizona – History and Minerals* – Les Presmyk
12:00 pm	Lunch
1:00	*Chalcopyrite disease and other incurable ore textures* – John L. Lufkin and Paul Barton
1:30	*Prehnite in Arizona: A significant new find* – Barbara Muntyan
2:00	*The Cresson Mine: The untold stories* – Steven Veatch and Ben Elick
2:30	*Mineral adventures in the Keeweenaw* – Tom Rosemeyer
3:00	Coffee break
3:30	*Goldfield Nevada: Short but sweet* – Nathalie N. Brandes and Paul T. Brandes
4:00	*An overview of the agates of northern Mexico and southern New Mexico* – Brad Cross (Featured Speaker)

5:30	Sarsaparilla and suds: cocktail hour, cash bar – Fidel Center Ballrooms
6:30	Silent Auction and Dinner followed by a voice auction to benefit the New Mexico Mineral Symposium – Fidel Center Ballrooms

Sunday, November 10, 2019

8:00 am	Morning social, coffee and donuts
8:50	*Welcome to the second day of the symposium and follow-up remarks*
9:00	*Fluorescent Calcite of Southwest New Mexico: Ultraviolet colors to rival Franklin, New Jersey* – Bruce Cox
9:30	*Columbian emeralds and their "oily" heritage* – David L. Stoudt
10:00	Coffee break
10:30	*New Mexico microminerals: Obscure, rare, and aesthetic species* – Ray DeMark, Michael Michayluk, and Tom Katonak
11:00	*The Blanchard Mine: the little mine that couldn't ore* – Erin Delventhal
11:30	*Aldridgeite and Kellynoids from the Kelly Mine* – Klaus Fuhrberger
12:00 pm	Lunch
9:00 am -	Silent auction, lower lobby, Macey Center, sponsored by the Albuquerque Gem & Mineral Club

The symposium is hosted by the New Mexico Bureau of Geology and Mineral Resources and held in the Macey Center on the campus of New Mexico Tech. The symposium is partly sponsored by the Friends of Mineralogy – National and Colorado Chapter as well as local clubs in New Mexico and the City of Socorro.

For more information, contact:
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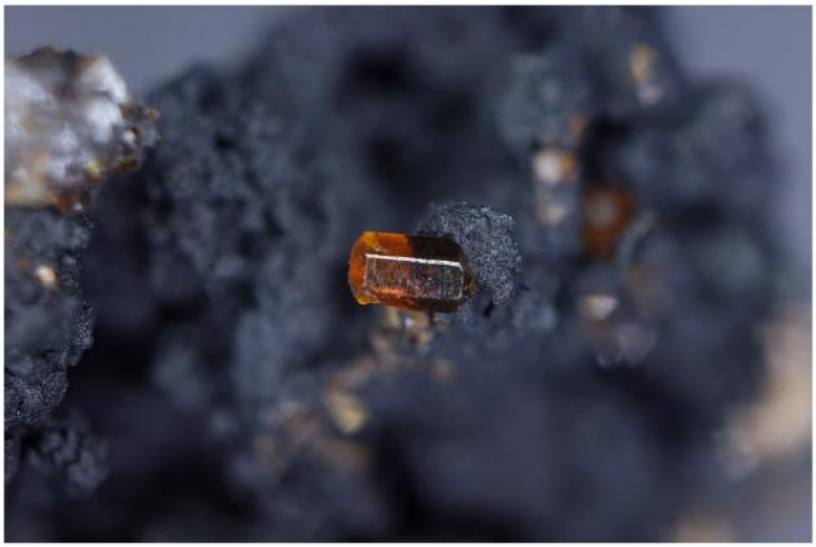

Mimetite Kintore Open Cut, Broken Hill FOV 3 mm Photo Steve Sorrell

A zoned mimetite from the Kintore Open Cut, Broken Hill, New South Wales by Steve Sorrell - a photograph with a hint of drama and mystery! And to continue the pyromorphite / mimetite theme we have a "lettuce sandwich" from Llechwedd Helig – a zoned pyromorphite. Taken with a Canon 5D Mk II, bellows and Plan 4X lens

Via BMS Newsletter 2/19
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MIDWEST CHAPTER UPDATE

www.fommidwest.org

It's Not Too Hot in South Rockwood – Reggie Rose

On July 13th an even two dozen FMers journeyed to South Rockwood, Michigan to visit our friends at Great Lakes Aggregates, just off the Lake Erie shore.

From an FM perspective the GLA quarry at South Rockwood gives us two famous memories - the first of those famous memories is burned into our minds and is one we do not covet; kiln-like temperatures like we experienced in 2016. The second famous memory, its deep blue watery celestine seen on the middle bench circa 2015, we do covet. Fortunately, then unfortunately, during this year's 2019 field trip we found neither memory.

Fortunately, the temperature was not too hot during our stay, but neither was the collecting. To say that the collecting was not too hot probably is not the proper way of expressing that it was just a quiet day at South Rockwood. Because the quarry was busy, we were relegated to the lower bench during our stay.

Ordinarily, when we move around and I have a chance to encounter a variety of collectors and their finds. On this trip, I spent most of our time in one area practicing extraction methods and watching our newsletter editor Tom Bolka and two nearby drill aficionados, past president Clyde Spencer and central Ohioan Jeff Schaumberg display their skills. There was not a variety of opportunities to move around and collect in different areas, because the first (and last) area of the day presented a good enough challenge. Celestine was present in copious amounts in thick "veins". But unfortunately, those copious amounts were positioned in the middle of huge boulders. Because of how the celestine was positioned in boulders, which neither saw nor drill could remove, nice display pieces in-matrix were hard to come by. Instead, the celestine veins came out of matrix in hand specimen sized chunks. One characteristic of this celestine was interesting, some of it had a gray cast to it. Very much unlike the clear to white and blue specimens we are accustomed to seeing.

Newsletter editor Tom Bolka saved the day from being mired as a monomineralic experience when he found and extracted pieces where celestine had some nice little honey-colored calcite point friends.

If this report is in error, and you had a banner day, please let the field trip chair know, because not only will photos of your finds make for a more interesting report, but you will also find fame and fortune.

MISSISSIPPI VALLEY CHAPTER UPDATE

Your Report could be here!

NEW JERSEY CHAPTER UPDATE

https://fomnj.wordpress.com/

Your Report could be here!

PACIFIC NORTHWEST CHAPTER UPDATE

www.pnwfm.org

The PNWFM Symposium will be held October 18 -20 at the Red Lion Hotel in Kelso, Washington. The theme this year is, "Specimen Mines of the West".

Speaker List:

Virgil Lueth
- The Chino Mine, New Mexico
- The Magdalena Mining District, New Mexico

Alex Homenuke
- The Highland Bell Mine, British Columbia
- The Keno Hill - Galena Hill Area, Yukon

Les Presmyk
- The Red Cloud Mine, Arizona
- The Pioneer District, Arizona

Erin Delventhal
- The Blanchard Mine, New Mexico

PENNSYLVANIA CHAPTER UPDATE

www.rasloto.com/FM/

Friends of Mineralogy – Pennsylvania Chapter

http://www.rasloto.com/FM/

SYMPOSIUM ON PENNSYLVANIA MINING AND MINERALOGY

Mineral Collecting Enthusiasts Meet and Learn

Symposium November 2, 2019 Field Trip November 3
Franklin and Marshall College, Lancaster, PA
Please Register in Advance

The Friends of Mineralogy – Pennsylvania Chapter will hold their 2019 Symposium and field trip on the first weekend in November. Mineral collectors in attendance on Saturday will meet in the Hackman Physical Sciences Building at Franklin & Marshall College, Lancaster, PA., to hear several talks by experts on minerals, geology and mining in Pennsylvania and beyond. On Sunday, a field trip for those registered for the symposium will provide an opportunity for mineral collecting at H&K Group's Penn/MD Materials Quarry in Lancaster County.

The program planned for the symposium includes these presentations:

Bill Stephens, PG: Amethyst Occurrences in Southeastern Pennsylvania – Classic Locales and Recent Discoveries.
Ron Sloto, PG: Minerals of the Penn/MD Materials Quarry, Fulton Township, Lancaster County, Pennsylvania
Peter Heaney, PhD: Making the Case for Celestine as the Pennsylvania State Mineral
Karenne Snow: Minerals and their Type Localities

Other possibilities being developed include: Dating calcite veining in rocks from Pennsylvania – What it Means

All interested mineral collectors are invited to register and attend. As usual, select mineral dealers will be present, and there will be a silent auction, give-away table, refreshments, and plenty of opportunities for visiting with fellow enthusiasts. Lunch is available at restaurants within walking distance. Please see the web site http://www.rasloto.com/FM/ for details, updates, and the registration form.

The mineral collecting field trip on Sunday, 9:00 a.m. – noon, is planned for H&K Group's Penn/MD Materials Quarry near Peach Bottom, PA, where a variety of minerals may be available. Details will be given at the symposium. The trip is open only to symposium registrants. Safety equipment will be required.

Dates: Saturday & Sunday, November 2-3, 2019
Location: Saturday, Nov. 2: Hackman Physical Sciences Bld., F&M College, Lancaster, PA
Sunday, Nov. 3: collecting trip, H&K Group's Penn/MD Materials Quarry, Peach Bottom, PA
Registration: $25/person for non-members, $15/person for current FM-Pa members;
free for students with student ID.
Please register in advance; a form is available on the web site.
Professional Geologists: lecture attendance qualifies for Professional Development Hours toward license renewal.
Web Site: http://www.rasloto.com/FM/
Contact: Joe Marchesani e-mail: Jmarch06@comcast.net

SYMPOSIUM & FIELD TRIP

Friends of Mineralogy - PA Chapter November 2-3, 2019 Lancaster, PA

Hackman Physical Sciences Building (parking lot off Harrisburg Pike), Franklin & Marshall College

Symposium for mineral enthusiasts on **Saturday Nov. 2** Doors open 8:30 a.m.; Symposium 9:00 - 4:00
Sales by Select Dealers – Silent Auction – Give-away Table – Meet Fellow Collectors
Experts will speak on the theme: **Pennsylvania Mining and Mineralogy**

Peter Heaney, PhD	**Bill Stephens, PG**	**Karenne Snow**	**Ron Sloto, PG**	Other possibilities being developed include:
Penn State	Stephens Environmental	Philadelphia Mineralogical Society	West Chester University	
Making the Case for Celestine as the Pennsylvania State Mineral	Amethyst Occurrences in Southeastern PA - Classic Locales and Recent Discoveries	Minerals and their Type Localities	Minerals of the Penn/MD Materials Quarry, Fulton Township, Lancaster County, Pennsylvania	Dating calcite veining in rocks from Pennsylvania - What it means

Registration (form on web site): Current members $ 15.00/person Non-members $ 25.00 Students with student ID free
Professional Geologists: lecture attendance qualifies for Professional Development Hours toward license renewal
Field Trip Penn/MD Materials Q., Peach Bottom PA **Sunday Nov. 3** Open only to symposium registrants.
Visit our web site for details, registration form, changes and updates: **www.rasloto.com/FM**

SOUTHERN CALIFORNIA CHAPTER UPDATE

Your Report could be here!

NATIONAL MEMBERS "AT-LARGE"

Your Report could be here!

Would someone like to speak up for the "at-large" members?
Needs, wants, comments?

FM AFFILIATES

The Friends of Mineralogy is a long-time affiliate of The Mineralogical Record magazine. The magazine was founded in 1970 by John White, who was at that time a curator in the Mineral Sciences Department of the Smithsonian Institution. With the initial help of a financial backer, Arthur Montgomery, White succeeded in launching and bootstrapping the fledgling publication to the point where it was marginally self-sustaining. After seven years as editor and publisher, White stepped aside for a new Editor, Wendell Wilson.

Since then the Mineralogical Record has grown steadily in size, quality and prominence, thanks to the contributions of over 700 authors, photographers, artists, advertisers and donors. It has become a collective labor of love on the part of the entire mineralogical community worldwide. It is the only journal to have a new mineral species named in its honor (minrecordite), and it is the only journal to have received the Carnegie Mineralogical Award. Subscriptions, back issues, books and a variety of free databases are available online at www .Mineralogical Record .com.

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AGI american geosciences institute
connecting earth, science, and people

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