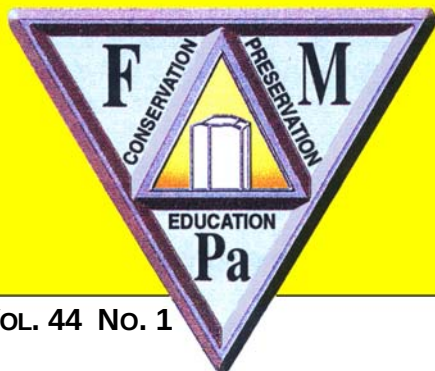




FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 44 No. 1

SPRING 2016

President's Message Field Trips and More

from Joe Marchesani

Hello friends. It looks like we have another great year of collecting ahead of us in 2016. The three field trips planned for this spring are coming together quite nicely. Please note, all field trips are weather permitting, and are subject to last hour cancellations.

The first field trip is to **Middleburg Quarry** in central Pennsylvania, on **April 16th**, 2016. Current plans are to meet owner Eric Stahl at the Mount Pleasant Mills Quarry entrance at 10:00 a.m., then commute over to Middleburg Quarry. This is a trip co-sponsored by Delaware Mineralogical Society. Be aware... last year there was a detour due to a bridge being out between Mt. Pleasant Mills and Middleburg. Instead of taking Rt. 104, we had to go to Rt. 15 and up to Rt. 522, just above Selinsgrove. This bridge may still be out. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

The second field trip is to **Brandywine Springs** in Delaware, on **May 7th** 2016 at 9:00 a.m., where we will meet with the Delaware Mineralogical Society at Brandywine Springs County Park, famous for sillimanite. See page 2 for details. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

The third trip is to **Brinton's Quarry**, New Street, West Chester, PA **May 14th** 2016 at 8:00 a.m. where we will meet again with the Delaware Mineralogical Society through the gate to the left. Collecting here is limited to 25 specimens this year. No quarrying permitted. RSVP to Joseph Marchesani Jmarch06@comcast.net or 609-433-5129 (leave a message).

Including the Fall 2016 symposium, there are two potential field trips planned but not yet in the books for Fall 2016... a TBD September trip and the symposium trip in November. There is more to come on this in future newsletters.

We are hoping to have a Board of Directors meeting sometime this spring, possibly mid-May before Memorial Day weekend, though as of press time a date has yet to be established.

These are hard economic times, and membership dues remained unchanged again this year. The simple structure is \$20 for an individual membership and \$15 for students and seniors (over 62). There are no family memberships.

If you are working on anything interesting or know of somebody who is, consider making a presentation at the annual FM-PA Symposium at Franklin and Marshall College this year. Usually and unofficially, it is held the first full weekend of November. And if you are aware of an interesting collection locality, step up and sponsor a trip!



Pennsylvania Geology

The Pennsylvania Geological Survey's magazine, *Pennsylvania Geology*, can be found on their web site; volume 45 number 4 is now available at <http://www.dcnr.state.pa.us/topogeo/publications/>

State Geologist Dr. Gale Blackmer provides an editorial on "Holes in the Ground." There is also an interview covering her background and her thoughts on the Survey's work, and her goals as State Geologist.

"An updated version of the *Directory of Nonfuel-Mineral Producers in Pennsylvania* has been released as Open-File Report OFMR 15-01. This is the most recent version of a report that has been updated many times since its initial release fifty years ago (O'Neill, 1965). The directory can be accessed in two formats: as a tabular listing and as an interactive web mapping application." The interactive application is illustrated in two color figures.

This and most other Survey publications are available for download from the Publications web page listed above.



Delaware Mineralogical Society/
FM-PA Field Trip
May 7, 2016
Brandywine Springs County Park

The Delaware Mineralogical Society (DMS) together with Friends of Mineralogy, PA Chapter will host a field collecting trip to BRANDYWINE SPRINGS PARK on May 7, 2016. This trip is for DMS members only and members of FM-PA. This site is principally known for rather large specimens of the metamorphic mineral sillimanite, the Delaware State mineral. Also found at this site is smoky quartz associated with sillimanite, garnets may be panned from the Red Clay Creek, and ringing quartzite.

Here's a report of a previous trip.

We started the day at Brandywine Springs Park. Brandywine Springs Park is famous for both having the only natural cave in Delaware and large specimens of the state mineral sillimanite. We met in the parking lot, walked across the baseball fields and into the woods to the large sillimanite boulder that's slated to be moved to the Delaware Museum of Natural History (since moved). Though significantly weathered and moss and lichen covered on its exposed surface, it gave everyone a good idea of what the mineral looks like 'in the wild'. It's not as easy to identify and find sillimanite as one might imagine.

We then hiked down to the cave. The cave is at the boundary of the Wilmington Complex and the Wissahickon Formation and 3 rock types meet here; quartzite, amphibolites and a soft schist. The schist has eroded to make the cave which is about 5' wide and 5' deep. The quartzite is particularly dense and produces a nice 'ring' when thumped with a hammer.

We then hiked to Hyde Run creek to search for sillimanite. Ken found the first specimen in route to the cave, and more were found by Jose, John, Mary Ann and Tom in the creek. Jose also captured a bull frog...amphibolite and amphibian kinda sound alike? Several more specimens were found on the hillside above the creek so everyone got one for their collection (Note: permission must be obtained to collect in the park).

And now some more information:

1. This trip is mostly looking closely and picking up rocks. Bring no tools other than perhaps a hoe-like scraper. There is no digging at this site. If you create a hole by dislodging a specimen, refill the hole. Don't bring a hammer as there's no breaking of rocks either. This is a 'leave no trace' trip.
2. Bring water boots; sillimanite is most frequently found in Hyde Run (a few feet wide, inches deep) and on the gravel bars in adjacent Red Clay Creek (wider and deeper).
3. Bring a pan: there's lots of garnet sand along Red Clay Creek. This garnet can also be collected with a strong rare earth magnet held inside a plastic bag. You'll also get a lot of iron oxide which can be removed later by tumbling (garnet >> harder than iron oxide).
4. Meeting time and location will be sent at a later date to registered participants.
5. Do not collect at this site on your own. It is a New Castle County Park and collecting without permission is forbidden.
6. The site is shady and there are few mosquitoes (I've never seen one, but no doubt writing this will bring out legions). The walk from parking to collecting is about 100 yds across a grass field then down a ravine on well-hiked paths. On the way you'll see some of the biggest tulip poplars I've ever seen.
7. Participants will be asked to sign a Liability Waiver.
8. Only 1 specimen is allowed per participant. If you find 2, either gift one to somebody less fortunate or return it to the wild. Please keep just 1 specimen...thank you. (for example, since I already have 1 I will keep none, but I might share a few).
9. If you find one, show your buddies. You'd be surprised how hard it is to 'see' sillimanite covered in mud. I will bring a specimen to help 'train' your eyes. Not all sillimanite looks like fibrolite; some is surprisingly 'feldspar-looking'.

Please send photographs of field trip action and Pennsylvania specimens for publication in this Newsletter! See "From the Editor" on page 3.

- David Glick, Editor

Friends of Mineralogy National Newsletter

The next FM National Newsletter will be out soon, and will be e-mailed to FM-Pa members for whom we have an e-mail address. Older issues may be available at <<http://www.friendsofmineralogy.org/newsletters.html>>.

National newsletter editor Beth Heesacker invites articles (as does this Chapter Newsletter). The next deadline for the FM National Newsletter is March 29th, and next after that should be June. - *Editor*

40 Years Ago in the FM-Pa Newsletter

The Spring 1976 Newsletter included a biography of Charles Moore Wheatley (1822- 1882), "author unknown." The Chapter's Spring Roundup was being planned for early May at Penn State, with presentations by geology professors, an auction including some minerals from the Arthur Montgomery collection, and a Sunday field trip led by Mineral Museum curator David Snell. *The Mineralogy of Pennsylvania 1965 - 1975*, updating Montgomery's 1922-1965 volume with approximately 50 new species for the state, was nearing completion; the call was out for "pictures of old time collecting areas, collectors and minerals" for publication in the book.

You can enjoy this and other past Newsletters on the website <http://www.rasloto.com/FM> thanks to the efforts of webmaster Ron Sloto.

Classifieds

FOR SALE: Microscope & Accessories, Mineral Specimens, Crystal Models.

----- **UPDATE - FEBRUARY 2016** -----

See the listing at www.nittanymineral.org/beall.pdf which has been **updated** to reflect the current list of specimens available. Those already sold since the 2014 listing have been removed, and some additional specimens and other items have been added. The Meiji binocular microscope set up for photomicrography with trinocular head, zoom, photo eyepieces, iris diaphragm to control depth of field, two-arm fiber optic illuminator with focusing ends, anti-vibration table, etc., is still available. Contact Frank & Gail Beall, 724-789-7290.

110 Years Ago in The Mineral Collector Localities were hidden even then

The March 1906 issue continued the Directory of the Mineral Localities in and around Philadelphia. Having completed the "in" Philadelphia localities in an earlier issue, the authors (Elmer Bengé and Edgar T. Wherry) embarked on the "around" category, and found "The reports for the most part were not so definite and for many localities we had no personal knowledge to fall back upon, and it was impractical in the majority of cases, at least, for us to make visits as we could and did do with the Philadelphia County localities; country roadside exposures or washouts, fields on Mr. So-and-So's farm or at such and such a mill on some creek, are very often unaccompanied by more definite directions, and when you consider that Mr. So-and-So may have moved or "passed his checks," and that the mill may have burned down or changed its name, it is at once apparent that very many opportunities for errors were presented; however, we fortunately have several maps, one of which gives the names of all the farm owners, the mill, the school, and church sites, many quarries and mines and other information not usually found on maps, this has been very valuable in supplying data deficient in the reports."

The report that month was on Upper Bucks County, with many of the localities being in Triassic shales.

From the Editor

David Glick

THANK YOU to everyone who has been providing material for the Newsletter! Everyone else - join the fun! **Please provide materials for the next issue by June 15, 2016.** Feel free to contact me at xidg@verizon.net, or 814-237-1094 days and evenings. **Mail can be sent to** 209 Spring Lea Dr., State College PA 16801.

Materials related to Pennsylvania mineralogy, collecting or collectors are invited for this newsletter: articles, long or short; announcements from FM-PA committees; photographs of specimens, field localities, collections, etc.; reports on publications about PA minerals or by PA authors, or actual book reviews; or other items within the mineralogy and mineral collecting areas of interest. **Photographs** should be of good resolution (at least 1000 pixels across) without much JPEG compression, so that they will look good in print. Please provide captions including photographers' names.

We are producing four issues each year; **your material is needed** to make them worthwhile!. If you know people who have interesting material, please encourage them to submit it.

UPCOMING EVENTS

See www.mineralevents.com for more

April 2-3, 2016: Philadelphia Mineral Treasures & Fossil Fair, by Phila. Min. Soc. & Del. Valley Paleo. Soc. Lulu Temple, 5140 Butler Pike, Philadelphia PA

April 9-10, 2016: Gem, Mineral & Jewelry Show, by Saucon Valley Lions Club. Saucon Valley Senior High School, 2100 Polk Valley Rd., Hellertown PA.
www.sauconvalleylions.org/SVLC_Gem_Show.htm

April 16-17, 2016: North Rocks! North Museum Gem, Mineral, Fossil & Jewelry Show. Farm & Home Center, 1383 Arcadia Rd., Lancaster PA. Sat. 10-5, Sun. 10-4.
<http://www.northmuseum.org/events/>

April 16-17, 2016: Monongahela Rockhounds Gem, Mineral and Fossil Show. Skyview Hall, West Mifflin Vol. Fire Co, #4, 660 Noble Dr., West Mifflin, PA
www.monongahelarockhounds.org/events.php

Apr. 23-24, 2016: Franklin NJ Show & Sterling Hill Super Dig
www.njesa.org/spring-mineral-show.html
www.sterlinghillminingmuseum.org/superdig/index.php

April 30 - May 1, 2016: Treasures of the Earth Show & Sale, by Mineralogical Soc. of Northeastern PA. Oblates of St. Joseph, 1880 Highway 315, Pittston PA. Sat. 10-5, Sun. 10-4.
www.msnepa.org/gem---mineral-show.html

May 14-15, 2016: World of Gems & Minerals Show, by Berks Mineral. Soc. Leesport Farmers Market, Rt 61, Leesport.

May 21, 2016: The Earth Science Show & Sale, by Rock & Mineral Club of Lower Bucks County. First United Methodist Church, 840 Trenton Road, Fairless Hills, PA, 9a.m. - 4 p.m.
www.mineralevents.com/flyers/2016lowerbucks1.pdf

June 4, 2016: Spring Mineralfest, by Penna. Earth Sciences Assoc., Memorial Park, Poplar St., Macungie, PA Sat. only, 8:30 - 3:00. <http://www.mineralfest.com/>

Sept. 17-18, 2016: Central Pennsylvania Rock & Mineral Club Gem, Mineral and Jewelry Show. Zembo Shrine, 2801 N. 3rd St., Harrisburg PA
www.rockandmineral.org/annualshow.htm

October 1, 2016: Autumn Mineralfest, by Penna. Earth Sciences Ass'n. Macungie Memorial Park, Poplar St., Macungie PA. Sat. only, 8:30-3:00.
www.mineralfest.com

DONATIONS WELCOMED

The FM-PA Chapter is a 501(c)(3) nonprofit organization; donations are gratefully accepted and may be deducted from your federal income tax. Donations of any size help to offset the general operating costs of the Society, helping to keep dues low.

FM on the WWW

Please explore the FM-PA web site at
www.rasloto.com/FM/

National News

National FM newsletters, links to other chapters, and much more can be found on their web site:
www.friendsofmineralogy.org

Friends of Mineralogy Pennsylvania Chapter Directory of Officers

OFFICERS and BOARD OF DIRECTORS members

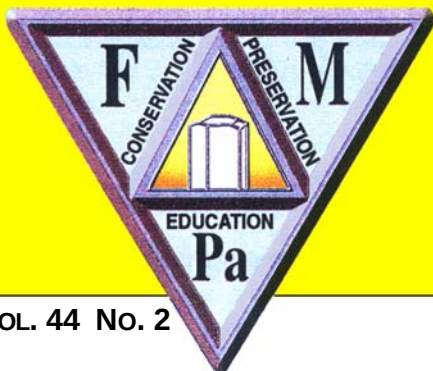
President	Joe Marchesani
Vice President	Dianne Soccio
Treasurer	Ron Sloto
Secretary	David Glick
	William Kochanov
	Bill Stephens

Members can find Board contact information in the Newsletter which they receive directly.

COMMITTEE CHAIRS

Membership Chair	Ron Sloto
Symposium Chair	
Field Trip Chair	
Web Manager	Ron Sloto
Newsletter Editor	David Glick
Grants Chairman	David Saja

Friends of Mineralogy Pennsylvania Chapter Web Site: <http://www.rasloto.com/FM>



FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 44 No. 2

SUMMER 2016

H&K Penn/MD Materials Quarry Collecting Trip for Members Saturday, September 10

from Joe Marchesani

Please note, all field trips are weather permitting, and are subject to last hour cancellations.

Our Chapter has a field trip set for 9:00 a.m. Saturday September 10 at The H&K Group's Penn/Maryland Materials Quarry, Peach Bottom, Lancaster County, PA. This quarry is extremely close to, with similar geology and mineralogy to, the Cedar Hill Quarry (Stoltzfuss Quarry of decades past) on which more has been published. Both are in the State Line Chromite District.

Signing up with Joe Marchesani is required - e-mail Jmarch06@comcast.net

Provide the name of each person in your group. No children - all those attending must be at least 18 years of age. Joe will e-mail a response saying you are confirmed to attend. For possible sign-up by text, see article at right.

The trip is limited to 40 FM-Pa members. If you have signed up and later find that you will not attend, contact Joe as soon as possible and tell him, so that someone on the waiting list can go. Please DO NOT BE A NO-SHOW.

On Saturday September 10 2016, confirmed attendees meet at the quarry by **9:00 a.m.**

Safety protocols: each person MUST HAVE a hard hat (manufacture date no older than 3 years), safety boots, safety glasses, safety visibility vest, and gloves; and stay alert and use caution and common sense while on the property. No children under 18 years of age.



President's Message

from Joe Marchesani

Hello,

The end of the year approaches, and what a hectic one it has been. This end of year brings us at least two awesome U.S presidential candidates to choose from (once again), and better yet, we first have our State Line Quarry (Haines & Kibblehouse) field trip on September 10th (see article at left) and the symposium/ field trip November 5th and 6th. The H&K state line field trip has a hard attendance cap of 40; mandatory RSVP to Jmarch06@comcast.net. If you do not have email, find someone who does. You may try texting, but make sure you get a reply back from me, or text again, 'cause they seem to disappear (there is this software system on the smartphone called a "Marshmallow", and I have yet to figure out what a Marshmallow does to make a "smartphone" so smart).

The theme for this year's November 5 **symposium** at F&M in Lancaster is **Pennsylvania Mining & Mineralogy**. Speakers are already lining up. Our F&M host Stan Mertzman will be giving the first presentation, followed by others. About halfway through, we break for lunch. If you or anybody you know is interested in giving a presentation, please feel free to contact any FM-PA board member. This year, there is a home football game against John Hopkins, so it may be best to arrive early to obtain a better parking location. There will be a silent auction, and anybody interested in being a vendor can contact Ron Sloto, or any board member. If it is at all possible for you to pre-register for the symposium, do so. Pre-registration makes the head count easier.

I certainly hope to see most of you out on the H&K trip in September. It has been quite a while since we have received permission to enter this quarry.

All the best,

Joseph Marchesani, President
Friends of Mineralogy, PA Chapter
P.O. Box 22702
Trenton, NJ 08607-0702
(609) 433-5129



National Limestone

Middleburg Quarry Trip,

April 16, 2016

by Joe Marchesani

We arrived by 10 a.m. On the way, it appeared to be opening day for fishing. Not being much of a fisherman, I say fishing rather than “opening day- Trout” or “open season” or any other saying that may come to mind. That being said, cars were lined up along the stream to Middleburg Quarry from the southerly route. It was early, and my mind was on Middleburg Quarry, and only slightly aware of a disgruntled fisherman shooting his neighbor. (Relax, it didn’t happen.)

So, we arrived at Middleburg early... by maybe an hour. Eric showed up shortly thereafter (I was early due to the long commute and heavy- footed 4cyl- Honda Accord and 70mph speed limit). And Eric was typical Eric. For those that don’t know Eric, let me explain. Imagine showing up at Heaven’s gate EARLY; and confronting St. Peter ... You say to St. Peter, “I don’t know what to do and I don’t know where to go”. Well, there is where Eric comes in.... Eric is the most nonchalant, easy-ist going person you would ever want to meet! He will guide you through the most complicated visit in the easy-ist manner, then walk away confident that he is in the knowledge that you will do well thereafter... and so we did. Eric is a Mormon, and is very proud of his heritage as one. He teaches Sunday school, and pleasantly orates to you prior visiting his business.

There was a fresh quarry blast this day. However, the blast proved unfruitful (we were hopeful for some fresh fluorite). So we moved along to the regular program. Some went after the fluorite in the calcite veins, others went after calcite crystals, others went after flowstone, yet others went after tools left behind by others. It was a fast paced day for sure!... and someone got some free tools from what I understand. Whomever got them, say “Thank You” to Bill Stevens, who lost his hammer as he was returning a hammer. Go figure!

So we collected. Eric informed us that we were the first group of the 2016 season in Middleburg (Thank you, Elise Juers). We shared the day with Delaware Mineralogical Society. Out of about 40 people, 5 at most were FM-PA members, but hey- who is counting? Everybody had a great time, and will continue to do so. It is wonderful to share these opportunities with others, while they still exist.



FM-Pa and DMS collectors at Middleburg.

J. Marchesani photo.



Middleburg Quarry, from the rear of the upper level looking toward the east. A. Mogel photo.



Looking toward the upper levels at Middleburg Quarry.

J. Marchesani photo.

A small group left Middleburg around 1:00pm and headed for Mount Pleasant Mills (MPM). We hung around there and dug, and dug, and dug... We hoped to hit that vein of wavellite that was left behind, but it



FM-Pa members digging at a wavellite area, Mount Pleasant Mills. *J. Marchesani photo.*



Wavellite found at Mount Pleasant Mills.

J. Marchesani photo.

never happened,. We left MPM aware that maybe it had been played out, and a backhoe may be necessary (or a fresh hole) prior to future visits.

James (Jim) Stauffer is noted on this visit. Although lacking collection, Jim brought enough MREs (Meal Ready to Eat) from his "Good Ole Days" to share with everyone interested. I picked up three...Actually two for the kids but Jim insisted I have one for myself. This was my first MRE. So, I had to try. First, the heater thing didn't work, so I used the microwave. Second, some meals spark if you don't remove the cover, and I didn't know that. Then we ate. It was edible, and I salute our troops. Although the meal is not at all romantic, it will satisfy caloric intake, and comes with all the flavorings necessary. Thanks Jim! We ate our MREs and made our salute!

The advice going forward for MPM is to rent a backhoe AND an operator. Know where to dig, and keep it simple.

All the best, and keep the hammer down!

Joseph Marchesani, President, FM-PA



PA Chapter Board Meeting



Vice President Dianne Soccio, Board member Bill Kochanov, President Joe Marchesani, past President Arnold Mogel, Secretary David Glick. *Photo by Aidan Soccio-Knapp.*

Friends of Mineralogy - Pennsylvania Chapter held a Board of Directors meeting on May 21 at the home of Arnold and Cathy Mogel in Schuylkill Haven, PA.

The principal discussion was about the November symposium. Attendance was up a little last year and we hope to continue that trend; we should advertise to professional groups such as AEG and HAGS, as well as all the regional clubs as we did last year. Joe has been in contact with Stan Mertzman; the usual rooms are reserved for us. We will invite specific vendors, as well as having the usual silent auction of donated material. The possibility of additional activities, such as a standard auction, was discussed. Some possible speakers were discussed and we will be looking for others who can present interesting talks on the theme of Pennsylvania Mining and Mineralogy.

Other topics included field trips, membership (we should reach out to universities to find interested persons), and publicity, such as Facebook pages. The changes of officers at the National level were briefly discussed.

With thanks to Arnold for hosting the meeting, the group adjourned to examine Arnold's mineral collection.

-Editor

Planerite from Lime Ridge, Mount Pleasant Mills, Snyder County, Pennsylvania

By

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

Introduction

The Lime Ridge locality is famous for its spectacular specimens of green wavellite, and other phosphate minerals have been reported to occur there. The locality is along an unimproved road south of the National Limestone quarry about 0.45 mile northwest of Mount Pleasant Mills at about 40° 43' 30" N latitude and 77° 01' 26" W longitude. The locality is on the eastern end of a long, narrow hill labeled Lime Ridge on the U.S. Geological Survey Richfield 7.5-minute topographic map (not to be confused with the village of Lime Ridge in Columbia County). The locality is accessible from the quarry, which is owned by Eric Stahl. Mr. Stahl allows mineral clubs to collect in both the quarry and the wavellite locality, by prior arrangement. The wavellite locality is in the Keyser and Tonoloway formations, undivided. Wavellite and other phosphate minerals are found in veins in a brown siliceous sandstone.

Analysis

A specimen approximately 6 cm by 3 cm from Lime Ridge labeled "turquoise" was furnished by Steve Carter. The mineral is a pale blue-green crust on a brown, coarse-grained sandstone matrix with small, rounded, white quartz pebbles (fig. 1). An analysis of the mineral was done at West Chester University. Images were captured with an FEI Quanta 400 environmental scanning electron microscope (SEM) with a tungsten filament using a 20 kV accelerating voltage under low vacuum. The analysis was done with an Oxford INCA X-Ray Energy Dispersive Spectrometer (EDS) integrated with the SEM.

Under magnification, the planerite formed spherulites (figs. 2 and 3) approximately 90 micrometers (microns) across. Analysis of six points provided the average values in table 1. Silica is the most common impurity in planerite (Foord and Taggart, 1998).

Results

The analysis provided results that are very close to the ideal formula of $\text{Al}_6(\text{PO}_4)_2(\text{PO}_3\text{OH})_2(\text{OH})_8 \cdot 4\text{H}_2\text{O}$ for planerite given by Foord and Taggart (1998). The lack of copper indicates that the mineral is planerite. Although a trace (<0.02 weight percent) of copper is present, values less than 0.1 weight percent are suspect. Planerite, a mineral in the turquoise group, is an end member in a solid solution series with turquoise ($\text{CuAl}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 4(\text{H}_2\text{O})$).

Acknowledgments

The author thanks Dr. Fred Manson, Chief of the West Chester University Center for Micro analysis and Imaging, Research and Training, for his patient instruction and assistance. The author also thanks Steve Carter for supplying the specimen for analysis.

References

Food, E.E., and Touggourt, JE, Jr., 1998, A reexamination of the turquoise group: the mineral aheylite, planerite (redefined), turquoise and coeruleolactite: Mineralogical Magazine, vol. 62, no. 1, p. 93-111. (available at http://rruff.info/uploads/MM62_93.pdf)



Figure 1. Planerite from Lime Ridge, Mount Pleasant Mills, Snyder County, Pennsylvania, 6 cm. Steve Carter specimen.

Table 1. Results of X-Ray Energy Dispersive Spectrometer (EDS) analysis of planerite from Lime Ridge. Values are in weight percent. Average values represent the average of six points.

Element	Al	Si	P	Fe	Cu	O
Average	20.14	2.40	24.66	0.24	<0.02	52.56
Maximum	21.14	4.94	25.53	0.36	0.07	52.72
Minimum	19.27	1.25	22.93	0.15	0	52.46

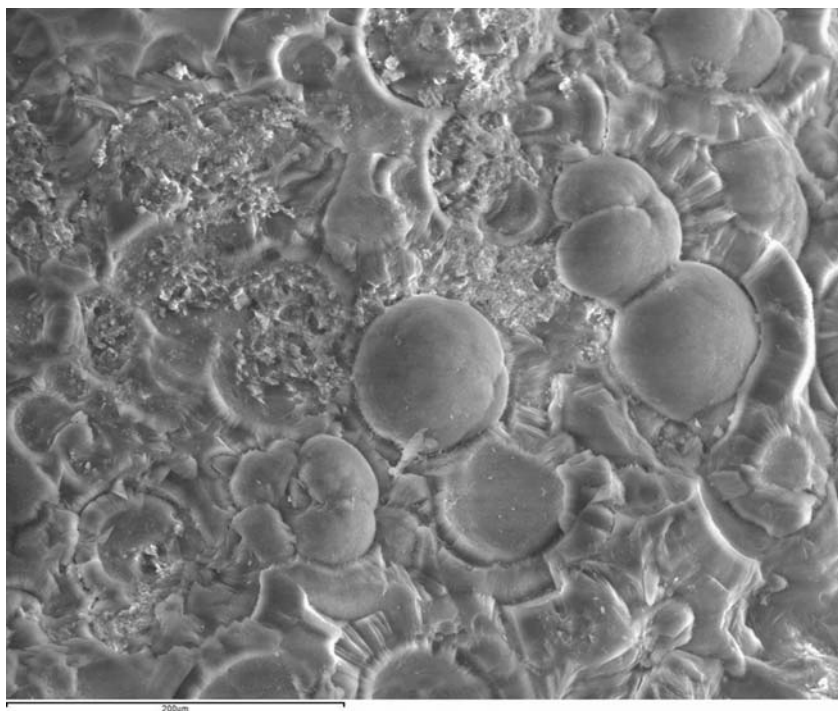


Figure 2. Scanning electron microscope image of planerite magnified approximately 500 times. Scale at bottom left = 200 μm.

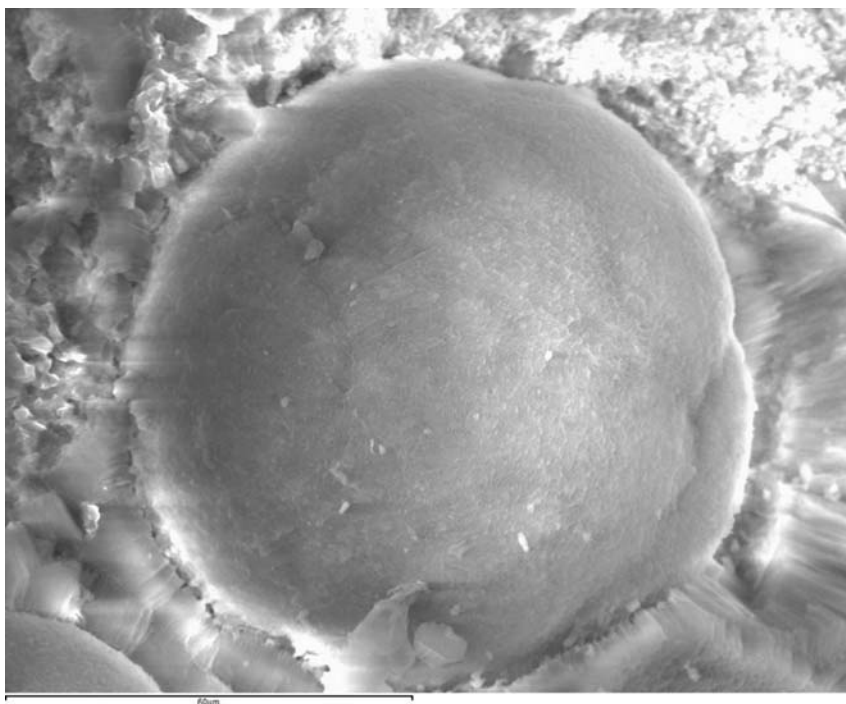


Figure 3. Scanning electron microscope image of planerite magnified approximately 2,200 times. Scale at bottom left = 60 μm.

Belemnite Collecting along the Chesapeake and Delaware (C&D) Canal, Year 2016

**by Joe Marchesani
and
Tom Pankratz**

Belemnites are the Delaware State fossil. They are found in a spoils bed along the C&D Canal. This particular spoils bed has recently been turned over by the Army Corps of Engineers, and collecting belemnites is especially fruitful now.

This IS NOT a club trip. It's a great place to go on your own.

The site is owned by the United States (you and me) and maintained by the Army Corps of Engineers. It's wide open to collecting. The keen-eyed collector will find much more there than belemnites. All kinds of Cretaceous fossils have been found in the area.....all marine critters.

This is a super great place for families....where else can you collect fossils and watch ocean liners go by? The site is a 5 +- acre sand box. But a warning....there are ticks in the brush. You can collect without going anywhere near the brush, but do give yourself a 'tick-check'.

Belemnites are the interior 'skeleton' of an ancient squid-like critter and look like brown to orange bullets (or just plain dirty). Most of what you find will be fragments. They range in size from fragments less than a quarter of an inch to 4 or 5 inches.

Directions:

The site is on the north side of the canal at the Delaware River end.

To get there, go south on DE 9 into Delaware City. Go through the only stop light there. Go a bit further south on DE 9 until you cross over a small bridge (if you go over the great big Reedy Point Bridge you have gone too far). Immediately after you cross the little bridge, turn right. This road will take you towards Fort Delaware and Fort DuPont State Park. Keep going past the park....go as far as you can and at the barrier turn left. This is a dirt road, but a good one. Go under the Reedy Point Bridge. Go just a bit further (maybe 100yds or so) and you'll see a dirt road angling off to your left.

Park somewhere there. Don't block the road ... there are a lot of folks fishing just a bit further on.

Walk up the 'angling' road, go under or around the barrier and continue up the little bit of a hill. I think there's another dirt road on your left in 10 yds or so....go up that road to the top of the berm and before you will be a great big plowed dirt area. You are there. Look anywhere there is free dirt.... you'll find belemnites...though you'll likely find more a bit further out the field where not so many people have collected. You can bring a ½ " wire screen and shovel to really load up, or just a lawn rake to move the sandy dirt just a bit to get the bazillions of belemnites that are hiding just below the surface. Well, perhaps I exaggerate a bit but it's not hard at all to collect dozens to hundreds. Screening an area about 3' square will yield hundreds from 0 to 1 foot down Don't dig deep, as is the temptation. The last stuff to come out was the Belemnites, they are on the surface, not at depth. So just keep raking with a lawn rake or sieve and shovel, and they will keep popping up.



Panorama of collecting area at C&D Canal by Joe Marchesani

What you really want to find is one that is bullet nosed on one end, hollow on the other and 6 or 7 inches long. That's as good as they get. Many have never found one, not even close.

What is interesting is the relationship of the Belemnites to the Oyster shells. It appears (hypothesis) that the Belemnites would burrow (hollow end) into the oysters perpendicular to the shell and eat them? maybe, which is why Belemnites and Oysters are found together (the hunter and the prey?).

Now some good news: Though belemnites can be found most everywhere, there is one area that is simply a bonanza.

Here's where it is.

1. I'll start where you park on the dirt road that parallels the canal. This road is dusty, sandy greyish in color.

2. You walk up the road that angles off to the left that I described previously. This road is reddish clay. About 30 or so steps up this road you come to a cable across the road that you go **under** or around.

3. You walk about 40 more steps up this red clay road and you'll see a road to your left. This road is 2" granite stone.

4. Walk up the stone road about 50 steps and you are on brown mud and can see the entire collecting field (5-10 acres)

5. This brown mud road branches left and right. Go right. This right road is clearly traveled on by heavy excavation equipment. You will now be walking towards the Delaware River...the C&D Canal will be on your right, 100 yards or so away.

6. On your left you will see a depression that has lots of reeds and weeds growing around it Keep walking on

the road towards the Delaware River until you pass this low area and the land to your left kind of levels off. Stop, and look about 45 degrees to your left. About 50yds away you will see a bunch of trees bulldozed into a pile. Go to this pile of trees. The ground all around this pile is simply full of belemnites. Even though it's trampled with a lot of footsteps, there remain a lot of belemnites on the surface. Raking brings out many, many more. There are also a lot of a couple of different kinds of clams here.

Tom Pankratz found his most complete belemnite, the biggest being 3 ½ ". Joe Marchesani found multiple 3-inchers around the same location. That 6-incher is elusive.

Now here is something funny (yes, amusing or funny like a clown), if I (Joe Marchesani) may say. While Joe is collecting, here comes a local guy...Corey is his name. We chat. Corey has no tools, while Joe has a hoe, shovel, screen, cart, ...etc.. all the stuff a pro could want....much like a fully funded Tornado chaser. Corey was offered a rake and any tools he wanted while on his walk back to collecting, As Corey, the local guy, declined Joe's offer and continued to walk back, Joe kept digging, and wondered how the local guy could be successful with only two hands? How? Shortly thereafter, here comes the local guy Corey, with three Belemnites in his hand. One at least four inches long that he collected in the sands using his fingers as a sieve. So, I asked him, where did you get that?

....Corey spilled the beans... The best spot to collect these Belemnites is in the dry sands along the retention basin (aka. "the depression"). Although we are not guaranteed to find a lot or many, what you do find is big



panorama continues



An ocean vessel passes through the canal next to the collecting area. *Joe Marchesani photo.*

and it is together in one piece. It will take an hour or so to find one, and it may be all you find, but it is more than worth the effort. I went back, put down the tools, and dug with hands ... and found mine. Touch is important here.

Tom Pankratz talked with one of the excavation guys and he said there are no plans to dredge and fill at the Belemnite site.

The excavation guy stated:

1. They are re-contouring the site,
 2. Clearing out brush and trees,
 3. And maybe doing some mining. Mining entails screen-sifting sand from gravel. The site across the canal has a big pile of 1-2" stones and bigger piles of 'sand'. It would be interesting to be there when a fossil-rich area was being mined. Or sieved.
- Good Hunting...



Belemnitella americana, the state fossil of Delaware. From Delaware Geological Survey web site, <http://www.dgs.udel.edu/delaware-geology/delaware-state-fossil-belemnite>

Albite Found at C.K. Williams Quarry

The Bulletin of Friends of Mineralogy, Vol. 46 no. 3, in its New Jersey Chapter Update, reprints part of an article from the New Jersey Chapter which appears on Mindat, <<http://www.mindat.org/article.php/2375/>>.

The article, A New Find of Albite from the C.K. Williams & Co. Quarry in Easton, Pennsylvania, by

Gary Moldovany, describes how the author and others found albite in a granitic pegmatite boulder at CK Williams Quarry, Easton, PA, in 2015. Albite was verified by X-ray diffraction. The article also provides a "list of minerals known to exist at the C.K. Williams & Co. Quarry Complex."

-Editor

Bulletin of Friends of Mineralogy

The newsletter of FM at the national level is now called the Bulletin of Friends of Mineralogy. Volume 46, number 3, came out recently and, along with all other recent issues, is available at <http://www.friendsofmineralogy.org/newsletters.html>. Some short articles of interest are included here, at right and on page 10.

Bulletin editor Beth Heesacker invites articles (as does this Chapter Newsletter). The deadline for the next issue of the national Bulletin is September 20th.

- Editor

FELLOWSHIP OF THE ROCK FM- New Jersey Chapter AUGUST 27 & 28, 2016

The New Jersey Chapter of the Friends of Mineralogy cordially invite all mineral/fossil/gem enthusiasts located in the state of New Jersey, Southern New York and Connecticut, Eastern Pennsylvania and Northern Delaware to a weekend of fellowship, comradery, SWAPPING and selling at the home of the Chapter's president located in Freehold, New Jersey. This is a FREE admission event where by participants will be required to donate a food item to help feed the group and have FUN swapping minerals and fossils and relaxing with fellow collectors. Pitch a tent and spend the weekend! We will feed you, keep you refreshed, take a dip in the poo! and meet other individuals who share a passion for mineral and fossil collecting.

This is a time where you can clean out the garage and basement and swap/sell your excess material for wants and desires you may have to increase your collection. There are no rules, except that we expect you to have two days of fun and relaxation.

FOR MORE INFORMATION, you can contact KC Dalby at fluoriteguy@gmail.com or contact us via FOMNJC@gmail.com. Also, follow us on Facebook.

Books on Minerals for Young Readers

from Bulletin of Friends of Mineralogy,
July 2016, v. 46 no. 3

So many mineral hobbyists and professionals started showing an interest in collecting minerals when they were very young. Fortunately, several books have appeared in the last few years that are written for younger readers.

Minerals, by Holly Cefrey, was written for four to eight year olds to learn that they are found in the earth, our homes, and even in our food. According to the author, "Young readers will learn about minerals: where they come from, how they grow, what we use them for." The book provides colorful photos, accessible text, and fun facts that make this book an ideal introduction for young readers. This book is part of the Rosen Publishing Group's Earth Rocks! Series, on minerals. ISBN: 978-14042337-82. Available from multiple booksellers.

A Quest for Shiny Purple Crystals: Johnny and Max's Rock Hunting Adventure, by Monica Rakovan (a professional geologist), is written for children between the ages of four to nine. The story, about a boy named Johnny, his dog Max, and his friend Sal is about the discovery of an important North American amethyst locality with a bent toward the presentation of fundamental information about minerals, mineral collecting, and geology. Written to be a learning experience as well as a fun story, the book emphasizes the use of proper terms, definitions, and especially safety. Published by The Arkenstone, Dallas, TX; it is available at www.iRocks.com.

Another mineral collecting story written for children between the ages of four to eight is *Julie the Rockhound*, by Gail Kowalski. The story chronicles the discovery of beautiful quartz crystals by a little girl named Julie in the back yard of her new house. Questions to her father about this treasure introduce the reader to many aspects of mineralogy and being a collector. Sylvan Dell Publishing, <http://www.sylvandellpublishing.com>.

Not specifically about minerals but another great Earth Science book for children is *Coprolite: A Really Crappy Story*. This is an educational picture book, written by Lori Gesch and illustrated by her and Michael Dunne. The subject is of course fossilized poo, and she delves into more science and scientific fact about that subject than one would ever dream possible, while at the same time entertaining the reader in this funny and thought-provoking book written in rhyme. Self-published, it is available through lithographie.org and Amazon.com

Free Software Tool Developed to Organize Mineral Collections

Innovative software has been developed to help manage your mineral collection. The software is available for free and allows one to self-curate specimens in a wide range of groups or sets using an inbuilt manager you control.

Some people are hesitant to reveal the contents of their collection by placing the information on or through other websites. However, alternatives to date have limited capabilities. This software was designed to include private space to chat with friends and experts about their specimens or mineral topics of interest. It also can print customized lists and labels from your database, the former of which can be particularly useful in documenting the collection for insurance purposes.

The software was developed by Colido GMBH, based in Oberhaching, Germany. It has been demonstrated for several years at the Munich Gem & Mineral show (Mineralientage Munchen), and more recently in Tucson at several satellite shows as well as the Tucson City Centre Hotel (InnSuites). During the Tucson show, anyone wanting a demonstration of the software received a free copy of the recent Munich Show's theme publication on *Precious Stones*.

Depending on the size of one's collection, a 250 MB version that provides ample space for a sizeable collection is available for free. A larger platform is available that comes with many additional features providing 2 GB of space, for either an annual subscription or nominal monthly fee. A 5 GB option is also available. For more information: www.Colido.de

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## New Website to Locate Gem, Mineral & Fossil Shows in the USA

Tom Loomis (Matrix Minerals) has developed a new mineral show website called [RockandMineralShows.com](http://RockandMineralShows.com) – RMS for short. 18 months in the making, RMS's purpose is to map out all FM & AFMS shows in the USA using an interactive Google maps interface.

Tom feels that RMS will greatly benefit our hobby by showing people where the shows are on a map in relation to other shows while they travel or plan out a trip. It will also show people where the rock shops, museums, fee-collecting areas, and club meeting places are located. The user will have the ability to plan their trips and vacations around regional shows from coast to coast. By selecting a date range and a geographic area such as a state or region, the mineral hobbyist can plan their trip around certain shows or other related activity.

To use the website, which is free, go to [RockandMineralShows.com](http://RockandMineralShows.com) and sign up. The site also will let subscribers list up to six items for sale so a gem and mineral club can raise funds, or just to provide an article about your club or other mineral-related topic on the RMS website.

To learn more: [RockandMineralShows.com](http://RockandMineralShows.com) or send an email to: [dakotamatrix@gmail.com](mailto:dakotamatrix@gmail.com) or [rms@rmsshows.com](mailto:rms@rmsshows.com)

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TUCSON MINERAL SYMPOSIUM CALL FOR PAPERS

The thirty-eighth annual symposium held in conjunction with the Tucson Gem and Minerals Show® will take place on Saturday, 11 February 2017. The symposium is cosponsored by the Tucson Gem and Mineral Society, the Friends of Mineralogy, and the Mineralogical Society of America. As a tie-in with the show, the symposium theme is the same as the show theme: *Mineral Treasures of the Midwest*. Presentations on descriptive mineralogy, classic and new localities, and related subjects are welcome. An audience of amateur and professional mineralogists and geologists is expected.

Anyone wanting to present a paper should submit a 200-300-word abstract to Julian C. Gray, juliangrocks@gmail.com or 503-647-2418. Presentations will be twenty minutes in length. Abstracts must be submitted by 31 August 2016.

Pennsylvania Geology

The Pennsylvania Geological Survey's magazine, *Pennsylvania Geology*, can be found on their web site; volume 46 number 1 is now available at <http://www.dcnr.state.pa.us/topogeo/publications/>

This and most other Survey publications are available for download from the Publications web page listed above.

In addition to a variety of geological articles, the new issue includes the crossword Geopuzzle number 1 by this Chapter's own William Kochanov.

It announces a new Open-File Report (OFMI 16-03.0), A guide for the geologic tourist to the Northern Extension of the York County Heritage Rail Trail, by Jeri L. Jones, York County Department of Parks & Recreation, and Rose-Anna Behr, Bureau of Topographic and Geologic Survey. It is available from the publications section of the website <<http://www.dcnr.state.pa.us/topogeo/publications/pgs/pub/openfile/index.htm>>. ❄

Please send photographs of field trip action and Pennsylvania specimens for publication in this Newsletter! See "From the Editor" on page 12.

- David Glick, Editor

Mineralogical Record - Axis Online Journal

Mineralogical Record occasionally publishes *Axis*, a free journal, at <<http://www.minrec.org/journal.asp>>. A new article this summer is "A Guide to the Mineralogical Record Website" by Wendell E. Wilson.

Field Conference of Pennsylvania Geologists

The conference will meet October 6-8, 2016, in Indiana, PA, with the theme *Energy and Environments: Geology in the "Nether World" of Indiana County, Pennsylvania*. See <<http://fcopg.org/>> for information as it becomes available. Guidebooks from all 80 past Conferences can be downloaded from <<http://fcopg.org/history/guidebooks>>.

Mineral Portraits



This Barite rose was given to me by a friend who lives in Oklahoma. Barite roses are also known as desert roses.

Barite roses were formed during the Permian Period, 250 million years ago, when western and central Oklahoma was covered by a shallow sea. As the sea retreated, barite precipitated out of the water and crystallized around grains of quartz sand. Iron oxides give the stones a reddish color.

Submitted by Cindy Schmied

DONATIONS WELCOMED

The FM-PA Chapter is a 501(c)(3) nonprofit organization; donations are gratefully accepted and may be deducted from your federal income tax. Donations of any size help to offset the general operating costs of the Society, helping to keep dues low.

Classifieds

FOR SALE: Microscope & Accessories, Mineral Specimens, Crystal Models.

----- UPDATE - FEBRUARY 2016 -----

See the listing at www.nittanymineral.org/beall.pdf which has been **updated** to reflect the current list of specimens available. Those already sold since the 2014 listing have been removed, and some additional specimens and other items have been added. The Meiji binocular microscope set up for photomicrography with trinocular head, zoom, photo eyepieces, iris diaphragm to control depth of field, two-arm fiber optic illuminator with focusing ends, anti-vibration table, etc., is still available. Contact Frank & Gail Beall, 724-789-7290.

From the Editor

David Glick

THANK YOU to everyone who has been providing material for the Newsletter! Everyone else - join the fun! **Please provide materials for the next issue by September 15, 2016.** Feel free to contact me at xidg@verizon.net, or 814-237-1094 days and evenings. **Mail can be sent to** 209 Spring Lea Dr., State College PA 16801.

Materials related to Pennsylvania mineralogy, collecting or collectors are invited for this newsletter: articles, long or short; announcements from FM-PA committees; photographs of specimens, field localities, collections, etc.; reports on publications about PA minerals or by PA authors, or actual book reviews; or other items within the mineralogy and mineral collecting areas of interest. **Photographs** should be of good resolution (at least 1000 pixels across) without much JPEG compression, so that they will look good in print. Please provide captions including photographers' names.

We are producing four issues each year; **your material is needed** to make them worthwhile!. If you know people who have interesting material, please encourage them to submit it.

UPCOMING EVENTS

See www.mineralevents.com for more

Sept. 17-18, 2016: Central Pennsylvania Rock & Mineral Club Gem, Mineral and Jewelry Show. Zembo Shrine, 2801 N. 3rd St., Harrisburg PA. Sat. 10-6, Sun. 10-5. www.rockandmineral.org/annualshow.htm

Sept. 24-25, 2016: 60th Annual Franklin-Sterling Hill Mineral, Gem and Jewelry Show, by FOMS and Franklin Mineral Museum. Franklin Bor. School, 50 Washington Av., Franklin NJ. <http://spmom3.wix.com/franklin-gem-mineral>

October 1, 2016: Autumn Mineralfest, by Penna. Earth Sciences Ass'n. Macungie Memorial Park, Poplar St., Macungie PA. Sat. only, 8:30-3:00. www.mineralfest.com

October 21-23, 2016: Eastern Federation of Mineralogical and Lapidary Societies Convention & Show, Rochester, NY. <http://www.rochesterlapidary.org/show/>

November 5-6, 2016: FM-PA Chapter Symposium (Saturday) and Field Trip (Sunday). Franklin & Marshall College, Lancaster, PA. <http://www.rasloto.com/FM/>

March 4-5, 2017: Earth Science, Gem and Mineral Show by Delaware Mineralogical Society. NEW LOCATION: U. Del. Wilmington campus, Arsht Conference Center, 2800 Pennsylvania Ave (Rt. 52), Wilmington DE 19806. Sat 10-5, Sun. 11-5. Info and coupons at www.delminisociety.org

FM on the WWW

Please explore the FM-PA web site at
www.rasloto.com/FM/

National News

The Bulletin of Friends of Mineralogy, links to other chapters, and much more can be found on their web site:
www.friendsofmineralogy.org

Friends of Mineralogy Pennsylvania Chapter Directory of Officers

OFFICERS and BOARD OF DIRECTORS members

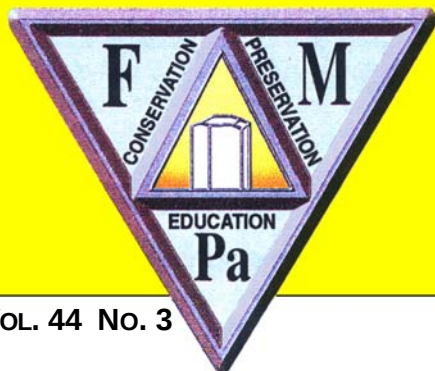
President	Joe Marchesani
Vice President	Dianne Soccio
Treasurer	Ron Sloto
Secretary	David Glick
	William Kochanov
	Bill Stephens

Members can find Board contact information in the Newsletter which they receive directly.

COMMITTEE CHAIRS

Membership Chair	Ron Sloto
Symposium Chair	
Field Trip Chair	
Web Manager	Ron Sloto
Newsletter Editor	David Glick
Grants Chairman	David Saja

Friends of Mineralogy Pennsylvania Chapter Web Site: <http://www.rasloto.com/FM>



FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 44 No. 3

FALL 2016

Friends of Mineralogy - PA Chapter Symposium on Pennsylvania Mining and Mineralogy

Mineral Collecting Enthusiasts Meet and Learn
November 5 - 6, 2016

Franklin and Marshall College, Lancaster, PA

Please Join Us!
You May Register At The Door

The Friends of Mineralogy – Pennsylvania Chapter will hold our 2016 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 (doors open at 8:30 a.m.). On Sunday, a field trip for those registered for the symposium will provide an opportunity for mineral collecting.

The program planned for the symposium includes these presentations:

Robert Kulp: Dunite in the Serpentinites of the Pennsylvania-Maryland Chrome Mining District;

Ryan Mathur, PhD: Cenozoic mineralization ages for sulfides and calcite in Pennsylvania;

Stan Mertzman, PhD: Hawaiian minerals and geology (Pennsylvania students' experience);

Bill Stephens, PG: Lapidary Grade Agate and Other Semi-Precious Gemstones from the Penn-MD Serpentine Quarry, Lancaster County, PA.

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. Professional geologists can receive professional development hours for lecture attendance. 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 is planned for a location 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.

Registration: \$25 for non-members, \$15 for current FM-Pa members; free for students with student ID. Please register in advance or at the door; a form is available on the web site.

Donations of specimens, books, collecting equipment, etc., for the silent auction and giveaway table are greatly appreciated. The silent auction covers a significant portion of the symposium's expenses and helps keep registration costs low.

Parking note: The parking lot closest to our event in the Hackman Physical Sciences Building will fill early because of a home football game at noon. That parking lot can be entered across the intersection from Iron Hill Brewery and Restaurant at 781 Harrisburg Ave, Lancaster, PA 17603. The best alternative would be to park on the street west of the College (Race Ave. or State St.), for the shortest walk to the building.

The web site will have any updates and a registration form:
<http://www.rasloto.com/FM/>

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Please provide material for the Winter Newsletter by December 10. See page 10.

Invitation to Petrified Wood Collecting Trip Odessa, Delaware

The Calvert Marine Museum Fossil Club has invited our Chapter members to participate in their John Wolf Memorial Trip:

“Saturday, November 26, 2016. Meet up 9:45-10:00 AM at the park & ride across from a WaWa at 690 Middletown Odessa Road, Middletown, DE 19709. We'll move on to the farm in Odessa to walk the fields and collect petrified wood (cypress from the Pleistocene, probably 1.5-2 million years old). No special equipment is necessary; in fact, you should leave your tools at home so that we do not do anything to cause erosion on this no-till farm. Here's a link to a nice [illustrated] write up about one of our trips to a nearby site: <http://viewsofthemahantango.blogspot.com/2011/08/petrified-wood-from-delaware.html>> “

FM-Pa members should **sign up** for this trip with Joe Marchesani <jmarch06@comcast.net> by Saturday November 19th.

UPDATE ON C&D Canal Belemnite Collecting Article September 11, 2016

By Larry Loyko

Inspired by the article in the summer newsletter, I made an expedition to the site. As of about 10 AM on 11 Sept, you cannot access the location by traveling south on Route 9 through Delaware City. The "small bridge" has been closed for what appears major repairs. I know, because I arrived at that bridge when the highway department was just about to put up the barricades. Their trucks were already blocking one traffic lane on the bridge when some local policemen arrived. I showed them the Newsletter and they were kind enough to safely escort me across the bridge and then pointed my way to the collecting site. They advised that to get back home, I would need to take the high Reedy point bridge, which is Route 9 southbound, and eventually pick up U.S. 13 northbound, then Route 1 for an eventual junction to I-95.

To now access the site, take U.S. 13 south, crossing over the canal on its own high bridge. Look for the Route 9 north detour signs. If you know the back roads,

or have a good detailed roadmap, take the Port Penn Road (a left turn off of U.S. 13) to Port Penn on Route 9. This turn-off is right where you can see the tollgates where the adjacent Route 1 becomes the toll road southbound. Turn north onto Route 9 and on reaching the Reedy Point bridge you will see barricades. The bridge is actually open to reach the facilities on the south end of Delaware City. Go over the bridge and at its north end you arrive at the barricaded "little bridge". Make a sharp 180° left turn and you will be on the road described in the newsletter as "immediately after you cross the little bridge, turn right." Follow the rest of the Newsletter instructions to the collecting site.

On reaching the canal, I turned left onto what I call the "towpath road" that is alongside the canal. Shortly after passing under the high bridge, I found the upward-inclined, 45° left turn gravel road to the collecting site. There is a set of swing gates painted yellow, and a well-worn footpath around them made by fossil hunters. I did not park on the "tow-path road" because it is narrow and single lane. Instead, I parked just onto the bottom end of the inclined road. It is wide enough to do so safely.

I walked all the way up the inclined road, not taking the "brown mud road" branching to the right. I looked across this vast open area that consisted of very irregular, mounded ground covered in knee-high scrub brush. In the distance were tops of some of the mounds laid bare by fossil hunters. I chose to explore here, being careful not to dig into the ground that was already worked over. I dug into a low bank so as to undermine the scrub brush. I noticed the sandy soil to be in layers, some full of gravel, some mostly sand. The fossils were just under the surface, no more than a foot or so down, in the more gravelly material. The long, hot, dry spell of weather made the soil easy to dig and sift. I used only a shovel and a home made screen box able to hold 3 shovels of dirt.

Each such load yielded plenty of Belemnite fragments, mostly small pieces, and once in a great while, one 2 to 3 inches long. The day was hot and sunny, and by 3 PM, I was satisfied in gathering fragments to half fill a small cloth pouch. Remarkably, I did NOT collect any ticks! At this location, I suggest using only a shovel and a screen. Working with only a rake (which I tried) was too slow and labor intensive.

GOOD LUCK, HAVE FUN

LARRY LOYKO, F.M. MEMBER

Actinolite, Augite, and Titanite from the Rock Hill Quarry, East Rockhill Township, Bucks County

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

Introduction

The abandoned and flooded Rock Hill quarry is located on the southwest side of Rock Hill in East Rockhill Township, Bucks County, at 40° 24' 18" N latitude and 75° 17' 56" W longitude. The quarry is in the Haycock diabase sheet. The quarry was abandoned in the 1980s by the General Crushed Stone Corporation. General Crushed stone was later acquired by Hanson Aggregates Pennsylvania, Inc.

The diabase in the quarry was cut by numerous mineralized veins. The minerals in the veins were nearly always massive and coarsely crystalline. Most of the veins generally were less than 3 inches wide. In the late 1970s, a vein was exposed on an upper bench in the west end of the quarry that contained open space over a length of several yards. The vein contained a white, asbestiform amphibole and a dense, matted amphibole. The vein also contained light yellowish green, almost white prehnite crystals and green titanite crystals. With the exception of the mineralized veins and the single titanite-bearing occurrence, secondary minerals were very sparse (<http://www.mindat.org/loc-46795.html>). The titanite occurs as a bright to dark green crystals in a soft, light green fibrous matrix (fig. 1). Some crystals appear almost gemmy.

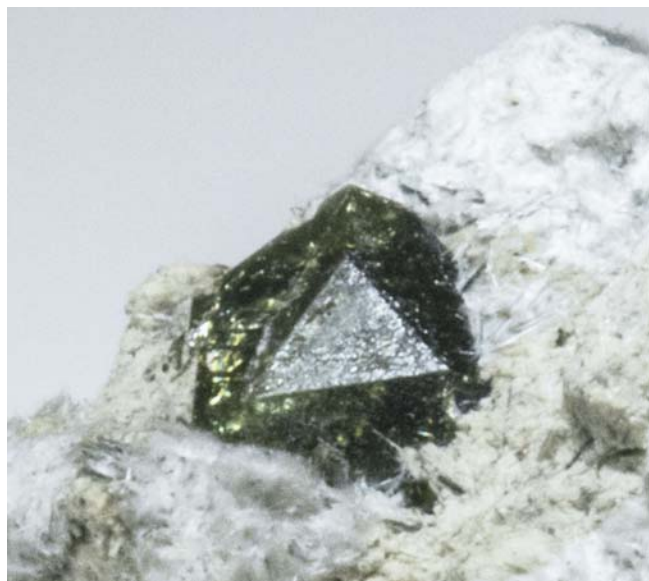


Figure 1. Titanite crystal from the Rock Hill diabase quarry, East Rockhill Township, Bucks County, 4 mm. Steve Carter collection.

Analysis

Nearly identical specimens from the Rock Hill quarry in various collections are labeled as actinolite or augite. For this study, three specimens in my collection (RS-148, RS-3295, and RS-3515) were examined. They were obtained by trade or purchase. Analysis was done at the West Chester University Center for Microanalysis and Imaging, Research and Training.

Two of the specimens, RS-3295 (fig. 2) and RS-3515 (fig. 3), were analyzed by X-ray diffraction (XRD). Powdered samples were analyzed using a Bruker D2 Phaser X-ray diffractometer. DIFFRAC.EVA software was used for peak analysis. It was apparent from the XRD patterns that the green minerals were a mixture, rather than a single species. The solid white mineral in RS-3295 gave a definitive XRD pattern for prehnite.



Figure 2. Actinolite, augite, and prehnite from the Rock Hill diabase quarry, East Rockhill Township, Bucks County, 6 cm. Sloto collection RS-3295.



Figure 3. Actinolite and augite from the Rock Hill diabase quarry, East Rockhill Township, Bucks County, 7 cm. Sloto collection RS-3515.

Both specimens were then analyzed by scanning electron microscope/energy dispersive spectrometer. Images were captured with an FEI Quanta 400 environmental scanning electron microscope (SEM) with a tungsten filament using a 20 kV accelerating voltage under low vacuum. The analysis was done with an Oxford INCA X-Ray energy dispersive spectrometer (EDS) integrated with the SEM. Samples were uncoated whole rock samples. Analytical accuracy of uncoated whole rock samples is approximately +/- 5 percent. The SEM showed two different forms on each specimen—a fibrous form (fig. 4) and a more solid or platy form (fig. 5). Both forms were mixed on the same specimen. Chemical analysis by EDS showed that the fibrous form was actinolite, and the platy form was augite (table 1).

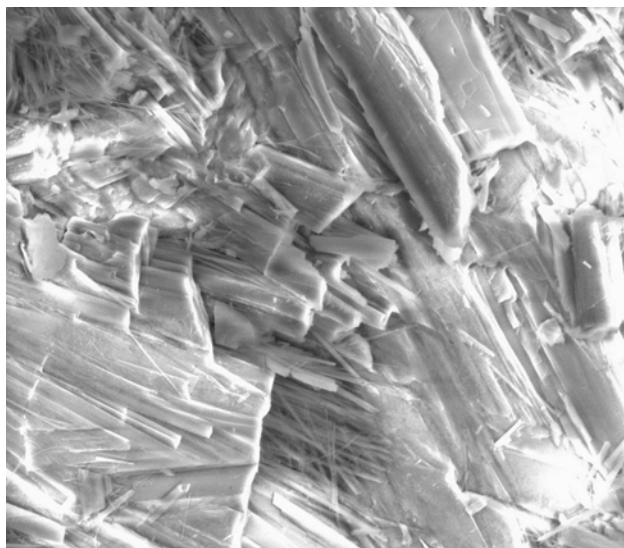


Figure 4. Scanning electron microscope image of actinolite from the Rock Hill diabase quarry, East Rockhill Township, Bucks County. Magnification is approximately 2,000 X. Sloto collection RS-3295.

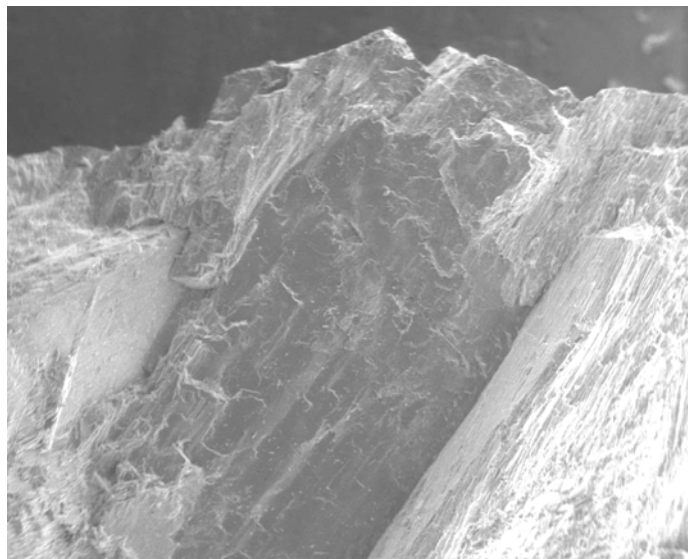


Figure 5. Scanning electron microscope image of augite from the Rock Hill diabase quarry, East Rockhill Township, Bucks County. Magnification is approximately 60 X. Sloto collection RS-3295.

A third specimen (RS-148) consisted of small, dark green titanite crystals in a matrix of a soft, densely packed, light green, fibrous mineral. Chemical analysis by EDS indicated that the fibrous matrix (fig. 6) is actinolite, var. byssolite (table 1). Chemical analysis by EDS (table 2) showed that the titanite (CaTiSiO_5) contains measurable concentrations of chromium and vanadium (table 2).

Table 1. Results of X-Ray Energy Dispersive Spectrometer (EDS) analysis of three vein-filling minerals from the Rock Hill diabase quarry, East Rockhill Township, Bucks County (RS-148, RS-3295, and RS-3515). Values are in weight percent. Mean values represent the average of n measurements.

		Na	Mg	Al	Si	Ca	Ti	Fe	O
Augite n=18	Mean	0.33	8.41	0.99	24.78	16.09	0.15	6.20	43.05
	Minimum	0.00	7.21	0.52	20.05	13.38	0.02	2.96	40.23
	Maximum	0.62	9.91	1.60	26.55	22.68	0.39	14.05	44.39
Actinolite n=46	Mean	0.17	9.29	1.31	25.71	9.52	0.13	10.39	43.49
	Minimum	0.57	11.22	4.99	27.51	12.78	0.32	19.01	45.03
	Maximum	0.00	6.75	0.43	20.62	6.88	0.00	6.81	39.59
Actinolite, var. byssolite n=5	Mean	0.09	7.15	2.17	23.63	10.97	0.08	13.91	42.00
	Minimum	0.14	7.93	2.57	24.97	12.89	0.11	20.70	43.12
	Maximum	0.03	5.82	1.28	20.13	9.67	0.05	11.70	39.05

Table 2. Results of X-Ray Energy Dispersive Spectrometer (EDS) analysis of titanite from the Rock Hill diabase quarry, East Rockhill Township, Bucks County (RS-148).

	Si	Ca	Ti	V	Cr	Fe	O
Spectrum 1	14.81	20.29	21.65	0.53	0.66	1.47	40.58
Spectrum 2	14.48	20.82	21.44	0.52	0.76	1.62	40.36
Spectrum 3	14.47	20.65	21.76	0.60	0.79	1.26	40.46
Spectrum 4	13.56	21.17	22.51	0.52	0.82	1.30	40.11
Spectrum 5	13.75	21.24	22.29	0.48	0.64	1.46	40.13
Spectrum 6	12.80	21.90	22.66	0.65	0.77	1.48	39.75
Spectrum 7	13.93	20.91	22.10	0.48	0.76	1.65	40.18
Mean	13.97	21.00	22.06	0.54	0.74	1.46	40.22
Minimum	14.81	21.90	22.66	0.65	0.82	1.65	40.58
Maximum	12.80	20.29	21.44	0.48	0.64	1.26	39.75

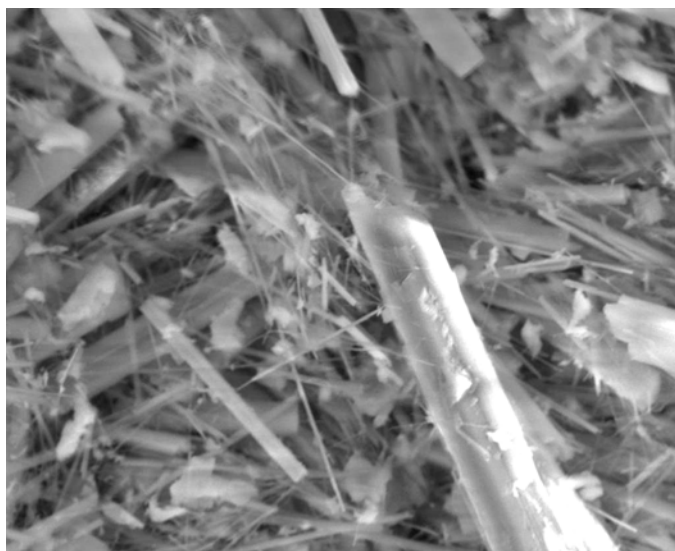


Figure 6. Scanning electron microscope image of actinolite, var. byssolite, from the Rock Hill diabase quarry, East Rockhill Township, Bucks County. Magnification is approximately 2,000 X. Sloto collection RS-148.

Summary

Two specimens of vein-filling material from the Rock Hill diabase quarry in East Rockhill Township, Bucks County, were examined by XRD and SEM-EDS. The green vein-filling material is an intergrown mixture of actinolite and augite. The associated massive, hard, white mineral is prehnite. A third specimen examined was titanite in an actinolite, var. byssolite, matrix. The green color of the titanite likely is caused by presence of chromium and/or vanadium. ❄

FM-Pa Treasurer Ron Sloto has created an

FM-PA Facebook page:

<https://www.facebook.com/pages/Friends-of-Mineralogy-Pennsylvania-Chapter/1174230635931641>

Members and friends are invited to *Like* the page, post, and generally provide a good level of activity.

Please **send photographs** of field trip action and Pennsylvania specimens for publication in this Newsletter! See "From the Editor" on page 10.

- David Glick, Editor

Haines & Kibblehouse Group Penn/MD Materials Quarry Fall 2016 Field Trip by FM-PA and DMS

By Joe Marchesani and David Glick

From contributions by

Dave Fordyce

Mike Dunton

Kim Yepremian

The Penn/MD Materials Division of Haines & Kibblehouse Group hosted members of Friends of Mineralogy - PA Chapter and Delaware Mineralogical Society at their Penn/MD quarry in southern Lancaster County. The clubs were very grateful for this cooperation.

By 8:45 a.m. on Saturday, September 10, there were quite a few cars of members of the two clubs lined up waiting to enter. Once inside the gate and through the preliminaries, we were escorted down to the bottom level of the quarry and had free rein almost everywhere. The bottom level was impressively large, with collecting piles spread all over, so all the collectors dispersed quickly.

This was not the first time it was noted that collecting in this quarry can be hot! It was a very hot day for September; the air temperature was at least 94 degrees at 11:00 in the morning. The sun beat down on the quarry walls and floor, adding perhaps another 15 degrees; mineral collectors were positioned for being gently cooked. It was a day when cold liquid refreshments and sunscreen were among the most important collecting tools.



Penn/MD quarry photos by Mike Dunton

Williamsite, a gemmy variety of antigorite (a member of the serpentine group), has been found here before. Some serpentine tending toward gemmy was found on this visit. There was plenty of picrolite, hydromagnesite, and the attractive blue nakauriite.

Probable magnesite and deweylite were collected. This quarry is notable for bands of magnetite in the serpentine, and several of these were found. Some material fluorescing white in short-wave ultraviolet light was found, and will be identified.

Kim Yepremian writes, "We spent most of our time breaking up a very large deweylite & hydromagnesite boulder. The hydromagnesite is a beautiful, minty, blue-green color. If it weren't 110 degrees in the quarry bottom, I would have loved more time there. Hoping we get a chance to go back some day!"

See also page 9: Notes on Minerals from the Pa.- Md. Materials Quarry, by Allen V. Heyl, 1996.



Chalcedony

M. Dunton photo



A large band of magnetite

M. Dunton photo



A variety of specimens collected at Penn/MD. *M. Dunton photo*



Serpentine

K. Yepremian photo



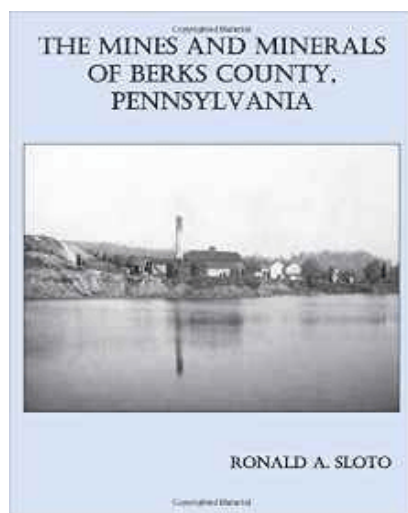
Deweylite and hydromagnesite

K. Yepremian photo



Deweylite and hydromagnesite

K. Yepremian photo



***Mines and Minerals of Berks County* Published**

A new book, *The Mines and Minerals of Berks County, Pennsylvania*, by FM-Pa member Ron Sloto, has just been published. Berks

County is the home of many famous and world-class mineral localities – the Jones Mine, Fritz Island Mine, and Grace Mine — to name just a few. This new 443 page book pulls together over 200 years of mining and mineral history under one cover. It is richly illustrated with 653 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. An extensive bibliography is included. The *Mines and Minerals of Berks County, Pennsylvania* describes over 500 mines, quarries, and mineral localities. It includes the known history of each mine and locality and a list of reported minerals. Their 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. The book is available from Amazon.com (https://www.amazon.com/Mines-Minerals-Berks-County-Pennsylvania/dp/1537512579/ref=sr_1_2?ie=UTF8&qid=1475259151&sr=8-2&keywords=sloto) or just search Amazon for Sloto).

It joins two of Ron's other books on the mining history and mineralogy of southeastern Pennsylvania, *The Mines and Minerals of Chester County, Pennsylvania*, and *The Mines and Minerals of Chester County, Pennsylvania Color Image Supplement* (for those who did not get the initial printing which included color images). Both are available from Amazon.com.

BREAKING NEWS: Celestine for Pennsylvania State Mineral

Pennsylvania House of Representatives has passed Bill 564, which would adopt celestine as Pennsylvania's official state mineral. Most of the story transpired since our last issue. Progress in the House can be seen at <http://www.legis.state.pa.us/cfdocs/legis/home/bills/>; in "By Bill Number" enter HB564. The bill next needs to be introduced and passed in the Senate, and then signed by the governor.

Chapter member Mike Dunton alerted us to an article in the Pocono Record published September 24: <http://www.poconorecord.com/news/20160924/rock-hounds-push-for-celestine-as-state-mineral>. It describes how members of the Che-Hanna Rock & Mineral Club in Sayre, PA, encouraged their state representative, Tina Pickett, to introduce the House bill. This followed activity several years ago which was championed by sixth grader Royce Black. The article also mentions support from Lancaster County Fossil and Mineral Club, and mineral collector and radio personality RJ Harris.

-Editor

Collector and Professor Henry Barwood

Dr. Henry Barwood was widely known among Friends of Mineralogy members and other collectors. He died on September 9 from post-operative complications of a kidney stone removal. "Dr. Barwood was a professor at Troy University, Troy, AL, where he taught geology and earth science. His passion was microminerals and he was very active in the micro community," writes Lori Carter, Georgia Mineral Society webmaster at <http://www.gamineral.org/memorial/barwood.html>.

His son and collecting partner Adam Barwood informed the collecting community: "I'm really devastated. I lost my collecting buddy and the best dad that ever existed on earth. I've flown all night from L.A. to Troy to help my mom sort things out. My dad's wishes were for a Viking burial at sea over the Mariana Trench, but short of that he just wished to be cremated, so he'll be cremated in Dothan, Alabama. He hated funerals and didn't want one so there will be no service."

-Editor

20 Years ago in FM-PA: from

"F.M., Pa. Chapter Newsletter Vol. 24, No. 2, Summer, 1996"

Allen V. Heyl: Notes on Minerals from the Pa.- Md. Materials Quarry

In answer to the editor's questions about some interesting minerals found at the 1995 Fall Symposium Field Trip to the Pa.-Md. Materials Quarry, in the "State-Line" Serpentine, Allen writes (the editor has added the footnotes):

"Just a note to answer your questions on the Pa.-Md. Materials Quarry. The chunks of black, crystalline, very magnetic mineral are almost certainly titanomagnetite. This variety of magnetite is common in chunks and lumps near the chromite bodies. It was found in drilling by the U.S. Bureau of Mines around Wood's Mine in the World War II period. The lustrous magnetite that occurs just east of the Red Pit is probably titanomagnetite (see p. 769 of our chromite-serpentine report¹). The only one deposit known to have been worked for this ore is the Rock Springs Iron Mine, near the Red Pit, Lancaster County². It never had much value, as it was a lousy iron ore.

We have found, at Wood's Mine, the yellow, thin, tabular mineral you mention, but it was not worked on mineralogically, and I don't think anyone knows what it is. I have a sample in my collection. Two somewhat similar tabular, yellow-brown to red-brown minerals, which I think were first described at Cedar Hill Quarry are pyroaurite and desautelsite. The Line Pit Mine, Cedar Hill Quarry, and Wood's Mine have all of these minerals, according to Martin Anné and Don Schmerling, and I've seen them collected at the two mines. Is there someone who could work on this yellow, unknown mineral? Sounds like the new quarry is a great collecting place.

I'm going to buy a copy of the *Mines of the Dillsburg, Pa., Area*³ book as soon as I can. I found some nice grossular garnet at one of the old Dillsburg Mines on my last fall trip."

1. Pearre, N.C. and Heyl, A.V., Jr., 1959, The History of Chromite Mining in Pennsylvania and Maryland, *Pa. Geological Survey, 4th Ser., Inf. Circ. 14*.
2. _____, 1960, Chromite and Other Mineral Deposits of the Piedmont Upland of Maryland, Pennsylvania, and Delaware, *U.S. Geological Survey Bulletin 1082-K*, loc. 36, on plate 41.
3. *Mines of the Dillsburg Pa., Area*, by Robert F. Gayman and Jay L. Lininger [available in 2016 from Amazon.com].



Older "Picking Table" issues as PDFs

as reported by Mike Dunton

Franklin-Ogdensburg Mineralogical Society, Inc., publishes 'The Picking Table' twice a year. Issues prior to 2009 are now available free from their web site, http://www.fomsnj.org/Picking_Table.aspx

In 'The Picking Table Issues' table on the left side, scroll down; click on an issue to bring up a PDF link on the right side. You can also search the index for a particular subject, get the list of issues, then download the issue.

Classifieds

FOR SALE: Microscope & Accessories, Mineral Specimens, Crystal Models.

----- UPDATE - FEBRUARY 2016 -----

See the listing at www.nittanymineral.org/beall.pdf which has been **updated** to reflect the current list of specimens available. Those already sold since the 2014 listing have been removed, and some additional specimens and other items have been added. The Meiji binocular microscope set up for photomicrography with trinocular head, zoom, photo eyepieces, iris diaphragm to control depth of field, two-arm fiber optic illuminator with focusing ends, anti-vibration table, etc., is still available. Contact Frank & Gail Beall, 724-789-7290.

FOR SALE: Wide-ranging, good-sized **collection**; concentration on a nice variety of mineral crystals but also metallic specimens, several types of hematite, some gemstones and rough for cabbing or faceting, volcanic material, fossils. Most fairly small, most purchased from dealers through the years. Prefer to sell the collection as a whole, although sale of certain subsets (hematite, quartz, gemstones, or fossils) is possible. Located in Burnham, PA. Contact Mike, <mikerockcutter@aol.com> or 814-571-9672.

DONATIONS WELCOMED

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From the Editor

David Glick

THANK YOU to everyone who has been providing material for the Newsletter! Everyone else - join the fun! **Please provide materials for the next issue by December 10, 2016.** Feel free to contact me at xidg@verizon.net, or 814-237-1094 days and evenings. **Mail can be sent to** 209 Spring Lea Dr., State College PA 16801.

Materials related to Pennsylvania mineralogy, collecting or collectors are invited for this newsletter: articles, long or short; announcements from FM-PA committees; photographs of specimens, field localities, collections, etc.; reports on publications about PA minerals or by PA authors, or actual book reviews; or other items within the mineralogy and mineral collecting areas of interest. **Photographs** should be of good resolution (at least 1000 pixels across) without much JPEG compression, so that they will look good in print. Please provide captions including photographers' names.

We are producing four issues each year; **your material is needed** to make them worthwhile!. If you know people who have interesting material, please encourage them to submit it.

UPCOMING EVENTS

See www.mineralevents.com for more

October 29, 2016: Fall Rock Swap & Sale, by Central Penn. & Franklin Cty. R&M Clubs. South Mountain Fairgrounds, west of Arendtsville PA on Rt 234 (for GPS: 615 Narrows Road, Biglerville, PA 17307). \$1.00/person, table for Swappers: \$5.00/table. Sat. only, 8-3. Contact: tsmith1012@comcast.net

November 5-6, 2016: FM-PA Chapter Symposium (Saturday) and Field Trip (Sun). Franklin & Marshall College, Lancaster, PA. See p. 1 and <http://www.rasloto.com/FM/>

November 12, 2016: Lancaster County Fossil and Mineral Club Show. Trinity Reformed United Church of Christ, 450 W Main St., Mountville PA. 17554. Sat. 9:00 - 4:30.

November 19-20, 2016: Northern Virginia Mineral Club 25th Annual Show, Fairfax, VA. Student Union II Bldg., George Mason Univ.; Adults \$6, Seniors \$4, Teens (13-17) \$3, Children 12 & under FREE; Dealers, Exhibits, Door Prizes, Silent Auction. Sat. 10-6, Sun. 10-4; <http://www.novamineralclub.org/events/2016-show>

March 4-5, 2017: Earth Science, Gem and Mineral Show by Delaware Mineralogical Society. NEW LOCATION: U. Del. Wilmington campus, Arshat Conference Center, 2800 Pennsylvania Ave (Rt. 52), Wilmington DE 19806. Sat 10-5, Sun. 11-5. Info and coupons at www.delminsociety.org

FM on the WWW

Please explore the FM-PA web site at
www.rasloto.com/FM/

National News

The Bulletin of Friends of Mineralogy, links to other chapters, and much more can be found on their web site:
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Friends of Mineralogy Pennsylvania Chapter Directory of Officers

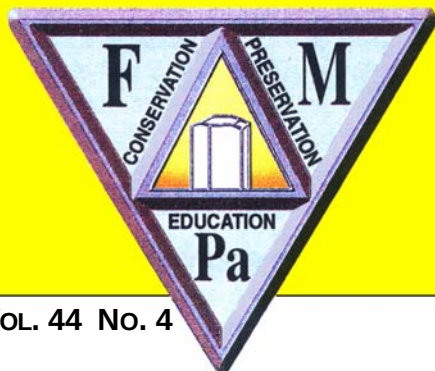
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Vice President	Dianne Soccio
Treasurer	Ron Sloto
Secretary	David Glick
	William Kochanov
	Bill Stephens

Members can find Board
contact information in the
Newsletter which they
receive directly.

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Membership Chair	Ron Sloto
Symposium Chair	
Field Trip Chair	
Web Manager	Ron Sloto
Newsletter Editor	David Glick
Grants Chairman	David Saja



FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 44 No. 4

WINTER 2016

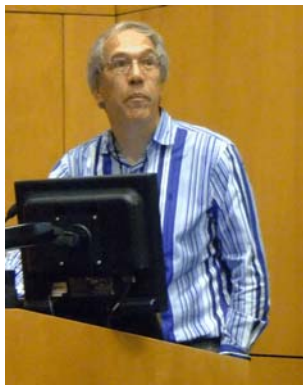
Another Rewarding Pennsylvania Chapter Symposium and Field Trip by Dave Glick

Our Chapter's annual Symposium was held on the first weekend in November at Franklin & Marshall College, Lancaster, PA. We heard several talks by experts on minerals, geology and mining in Pennsylvania and beyond. On Sunday, the field trip to Iron Valley Golf Club property at Cornwall, PA, provided an opportunity for mineral collecting.



Chapter President Joe Marchesani had led the efforts to organize the symposium. He welcomed the participants and introduced the speakers.

Stan Mertzman, professor and our host at F&M, spoke on Spring Break in Hawaii, AKA: Volcano Boot Camp for F&M Mineralogy-Petrology Students.



Robert Kulp, PhD student at West Chester University, spoke on The Dunite occurrence in the Serpentinities of the Pennsylvania - Maryland Chrome Mining District (2014 photo).



Ryan Mathur, head of the Geology Department at Juniata College, included SEM micrographs of a variety of pyrite morphologies in his presentation on Cenozoic mineralization ages for sulfides and calcite in Pennsylvania.

Bill Stephens, PG: Lapidary Grade Agate and Other Semi-Precious Gemstones from the Penn-MD Serpentine Quarry, Lancaster County, PA.



(Photos on this page by D. Glick)
(Article and photos continue on page 2)

There's Still Time to Pay Dues

This newsletter is being sent to all members who were paid for 2016. If you have not yet paid your dues for 2017, there's still time to pay so that your membership benefits, including delivery of this newsletter, will not lapse. Please be sure to provide any updates to your contact information, such as a new e-mail address; the member data sheet is available at the chapter web site www.rasloto.com/FM/ under "Join FM." Rates are \$20 for full membership, \$15 for students and seniors (over 62). Checks should be made out to "Friends of Mineralogy, PA Chapter" and mailed to the Membership Chairman:

Ron Sloto
PO Box 13
St. Peters PA 19470

Please remember to provide updates to Ron whenever your contact information changes. -Editor

FM-PA Symposium Cornwall Field Trip November 6, 2016

Participants are invited to submit the specific sites at which they found specific minerals, as a reference for future collecting. Contact the Secretary (see p. 4) for a Google Earth KMZ file of annotated locations.



The group met in the parking lot and picked up golf carts.
D. Glick photo.



Serpentinite, magnetite, chalcopryite, and magnesite.
Scale bar is 5 cm. *W. Kochanov photo.*



Serpentinite near approach to hole #11.
W. Kochanov photo.



Serpentinite near approach to hole #11.
W. Kochanov photo.



Green andradite garnets in meta-conglomerate.
Scale bar is 5 cm. *W. Kochanov photo.*



One of the collecting areas of exposed mine dumps at Iron Valley Golf Club. *D. Glick photos & digital compositing.*

Dick Wright, 1936-2016

from obits.pennlive.com

Founding President and lifetime board member of the Pennsylvania Council of Professional Geologists (PCPG), Richard "Dick" Eugene Wright, 80, of Hershey, passed away on December 26, 2016 in Arden Courts of Susquehanna.

He championed the Pennsylvania state requirement for professional geologists to be licensed; he held license number one. Dick was the owner and founder of R. E. Wright Associates, Inc., Earth Resources Consultants; he was a member of the First United Methodist Church in Hershey and the Hershey Rotary Club, and civically active through the years in many other organizations. He was also a very devout and active Alumnus of Franklin & Marshall College, in both athletics and education.

Dick was a graduate of Hershey High School "Class of 54" and received his bachelor of Science in Geology at Franklin & Marshall College in Lancaster, PA, his Master's degree in Geology from Brigham Young University in Provo, Utah, and did Predoctoral studies in Earth and Planetary Sciences at the University of Pittsburgh.

Funeral services were December 30, 2016; interment was in the Hershey Cemetery. Contributions be made to the "Dick and Gwen Wright Endowed Scholarship Fund" c/o F&M College, PO Box 3003, Lancaster PA 17604-3003. This was established in 1987 through a gift from Richard and Gwen Wright, and is used to provide scholarship funds for students who have established a record of noteworthy academic achievement and have demonstrated financial need. - See more at: <http://obits.pennlive.com>

Mineralogical Record's Axis Online Journal

Mineralogical Record occasionally publishes *Axis*, a free journal, at <<http://www.minrec.org/journal.asp>>. We have not previously mentioned the compilation of "Legal Nuggets" columns, posted earlier this year. There are seven essays published in the Mineralogical Record magazine by the late Judge Francis Allegra between 2008 and 2012:

Fragile Minerals and the TSA
The Taxman Cometh
Collectors, Investors and Dealers
"My Word is My Bond"
Specimen Defamation
Warranties
Estate Planning for Your Collection

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Classifieds

FOR SALE: I am preparing to sell a large percentage of my worldwide collection and thousands of Pennsylvania specimens, many self collected and old classics. There's plenty of variety, and plenty for different levels of collector interest. Anyone interested should call to set up an appointment. Thanks,
Skip Colflesh, Hershey, PA
phone 717-805-2027

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See geologymuseum.rutgers.edu/

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- - - **AND A Symposium** with a variety of topics and speakers; watch for details.

March 25-26, 2017: Franklin County Rock & Mineral Club Annual Show, Hamilton Heights Elementary School, 1589 Johnson Rd, Chambersburg PA Sat 10-5, Sun 10-4.
Flyer at www.mineralevents.com

March 25-26, 2017: Che-Hanna Rock & Mineral Club Annual Show, NEW LOCATION: Wysox Volunteer Fire Company, 111 Lake Rd., Wysox, PA; Sat. 9-5, Sun. 10-4; \$3.00, \$1.00, under 8 free; 48th Annual Show. Club members exhibits, museum exhibits, lapidary demonstrations, door prizes. Kids' scavenger hunt. Kids mini mine. Fluorescent show. Geode-cutting. Dealers selling minerals, fossils, jewelry, lapidary; www.chehannarocks.com

June 3, 2017: Spring Mineralfest, Macungie, PA. Sat. Only, 8:39-3:30, Macungie Memorial Park, Macungie PA. <http://www.mineralfest.com/>

October 21-22, 2017: EFMLS Convention & Show, Bristol, Connecticut.

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