

# FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

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## Phoenixville Field Trip April 15

Friends of Mineralogy - Pennsylvania Chapter announces a mineral collecting field trip, with thanks to the Delaware Mineralogical Society for their invitation and information:

**If you plan to attend,  
Please RSVP by April 8 to  
Joe Marchesani  
Jmarch06@comcast.net**

**Field Trip: Pickering Valley Golf Course  
Phoenixville, PA  
Date: April 15, Saturday; 9:00 - 1:00**

### The Site:

There are 3 old lead mines on the property of the Pickering Valley Golf Course. The golf course allows collecting at these sites. You have to walk across the golf course to get to the sites, but the sites themselves are in woods and overgrown for the most part. It's best to collect before leaf-out and mosquito-out.

While moving about and collecting we must not distract golfers. Try to stay "out of sight" as much as possible. Collecting at these sites is difficult. They have been well picked over for 50 or more years and you've got to dig deep to find specimens. And there's absolutely no guarantee the site you pick to dig will have any collectable minerals. Tom Pankratz dug two pretty big holes last November and got one thumbnail specimen. No doubt about it, this is probably the toughest site we'll ever go to. But it is an old classic site and if enough of us go, somebody will hit it rich and hopefully share.

### The Wheatley Mine

Mindat lists (<https://www.mindat.org/loc-4075.html>) 37 species and varieties. These workings represent the consolidation of several earlier workings on the same deposit (Wheatley lode). It was a lead-silver mine. Mining took place from 1851 to the 1860's (owned by Mr. Charles Moore Wheatley) and again from 1917 to 1920 (Eastern Mining & Milling Co.). The rock here is adamellite, a granitic intrusive rock of Precambrian age;

the mineralization is Triassic period or earlier). Mines include the Wheatley, Brookdale and Phoenix mines.

### The Chester County Mine

The second largest mining operation within the Phoenixville mining district, located just to the west of the Wheatley Mine, which was the largest. Mindat provides a detailed history and lists 8 species <https://www.mindat.org/loc-10041.html> Mining took place in 1847-1854, and again in 1918-1920 (the South West Chester County Mine), which was the last mining activity in the district.

### The Brookdale Mine

Mindat lists (<https://www.mindat.org/loc-8890.html>) 22 mineral species. This was a lead mine and one of the "Wheatley mines," on the Wheatley lode, worked from October 1852 to about 1865. According to Gordon, the Brookdale Mine was about 1/2 mile southwest of the Wheatley Mine.

**Minerals** found at the 3 sites include:

Anglesite	Cuprite
Chalcopyrite	'Limonite'
Galena	Vanadinite
Pyromorphite	Brochantite
Ankerite ?	Descloizite
'Chlorite Group'	Malachite
Goethite	var: Argentiferous Galena
Quartz	Calcite
Aragonite	Dolomite
Chrysocolla	Mimetite
Hematite	var: Auriferous
Silver	Chalcopyrite
Aurichalcite	Cerussite
Copper	Erythrite
Hemimorphite	Pseudomalachite
Sphalerite	var: Ferroan Dolomite
Azurite	<i>Chalcanthite</i> ?
Covellite	Fluorite
Hydrozincite	Pyrite
Sulphur	Wheatleyite
Baryte	Wulfenite

## More from post-Symposium Cornwall trip



Stilbite pocket, approximately 3 inches across, found by Mike Royal on the Iron Valley Golf Club field trip, November 6, 2016, Cornwall, PA.

Photo by Mike Dunton.

## Another Use for Rocks

Chapter member and earth science teacher Dan Leppold authored an article entitled "Stein Beer: Last Call" in the December 2016 issue of Brew Your Own magazine. In making stein beer, hot rocks are used to heat the wort. The full article can be found at <https://byo.com/stories/issue/item/3499-stein-beer-last-call>



A hot chunk of Pennsylvania Triassic diorite hits the wort.  
*D. Leppold photo*

### Visit the FM-PA Facebook page, Created by Treasurer Ron Sloto

<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.

## Board of Directors News

At its November 5 meeting, the Board voted to create a Family Membership category with the fee set at \$25 per year. This is now included in our membership application, available at <http://www.rasloto.com/FM/>

Anyone knowing of old localities that might be productive for field trips is asked to contact Joe Marchesani (see page 4).

It's never too early to plan for our annual symposium. If you could give a presentation on Pennsylvania mines or minerals, or a related topic of interest to our Chapter, or know of someone who might, please contact Joe Marchesani (see page 4).

## South Penn Rock Swap & Sale SPRING SWAP - MAY 6, 2017

South Mountain Fairground, west of Arendtsville, PA on Route 234. For GPS, use address: 615 Narrows Road, Biglerville, PA 17307

Admission \$1, Students Free. Sponsored by Central Penn & Franklin County Rock & Mineral Clubs.

Contact: [tsmith1012@comcast.net](mailto:tsmith1012@comcast.net)

## Lower Bucks County Rock & Mineral Club Earth Science Show & Sale May 13

New Location: Christ United Methodist Church, 501 Wistar Rd., Fairless Hills PA 19030

### Art Small Collection:

Please be sure to mark your calendar for our Earth Science Show & Sale on May 13, 2017. We have recently acquired an older mineral collection that will be sold at the club table for very reasonable prices. There are many Florida, New England, New Jersey, New York, North Carolina, Pennsylvania, etc. and worldwide localities many of which are no longer accessible. So mark your calendar and spread the word.

## 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

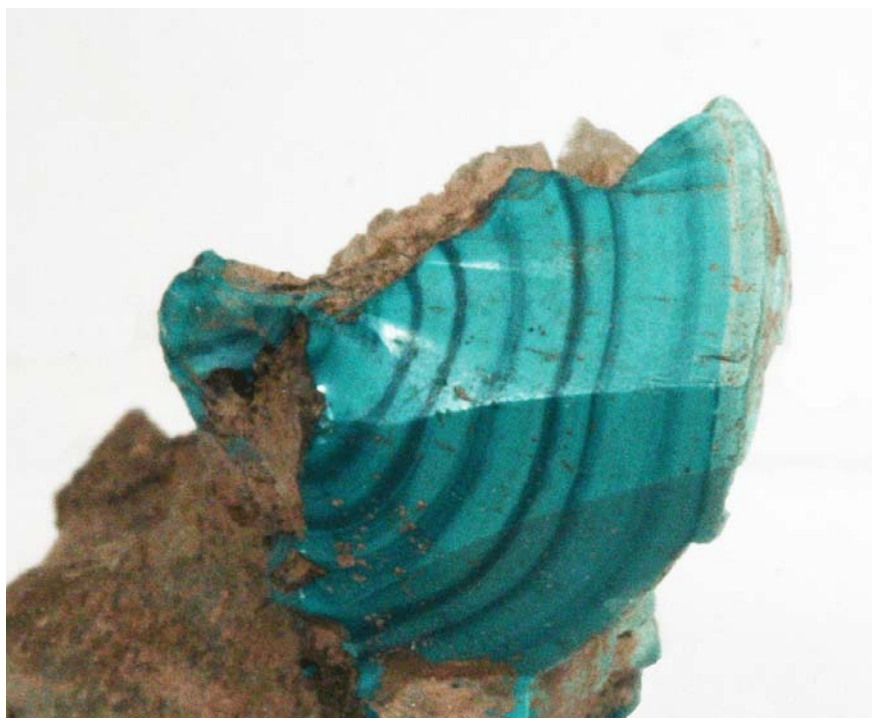
## Banded Pseudomalachite from the Perkiomen Mine Whim Shaft, Audubon, Montgomery County, Pennsylvania

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

The Perkiomen mines consisted of four shafts on or near the Audubon Mill Grove Estate in Audubon, Montgomery County, Pennsylvania: the Ecton mine, the Perkiomen mine whim shaft, the Perkiomen mine (also known as the new Perkiomen Mine), and the Wetherill mine (also known as the old Perkiomen or United mine). The precise date that lead ore was discovered on the Mill Grove property has not been firmly established. Local tradition holds that lead ore was discovered before the Revolutionary war, perhaps as early as the 1730s. Reports concerning a lead mine at Audubon were published in several newspapers in 1804. The Perkiomen mines were last worked in 1858.

The whim shaft was located at 40° 07' 50" N latitude and 75° 26' 21" W longitude. The shaft was 492 feet deep and was connected with the Perkiomen mine at the 60- and 120-foot levels. The location is now a residential development, and the shaft and dumps no longer exist.

A lustrous, bright green, banded mineral (fig. 1) from the whim shaft was acquired by the author in 2016. The specimen, which originally came from the Joe Varady collection, likely was collected by Varady on the whim shaft dumps. It was labeled as malachite. This specimen was analyzed as part of a study of green and blue-green minerals from the Perkiomen mines. It was analyzed by scanning electron microscope/energy dispersive X-ray spectroscopy (SEM-EDS). The analysis was done on an FEI Quanta 400 environmental scanning electron microscope integrated with an Oxford INCA 400 X-ray energy dispersive spectrometer at the West Chester University Center for Microanalysis and Imaging, Research and Training. The sample was the unpolished, uncoated specimen shown in figure 1. Analytical accuracy of unpolished, uncoated samples is approximately  $\pm 5$  percent. Eighteen spectra were



**Figure 1.** Pseudomalachite from the Perkiomen mine whim shaft, Audubon, Montgomery County, Pennsylvania, 7mm.

obtained from two areas on the sample. The average elemental analysis in weight percent is presented in table 1. The analysis indicates that the mineral is pseudomalachite, a copper phosphate (malachite is a copper carbonate).

Pseudomalachite from the whim shaft was verified by John H. Barnes of the Pennsylvania Geological Survey (Smith, 1978, p. 197-200). It was described by Smith as translucent dark-bluish-green, botryoidal crusts and hemispheres with a radial, fibrous habit (Smith, 1978, p. 197).

**Table 1.** Results of energy dispersive X-Ray spectrometer (EDS) analysis. Values are mean values in weight percent. Mean values represent the average of 18 measurements.

P	Cu	O	Calculated formula
10.89	59.95	29.16	$\text{Cu}_5(\text{PO}_4)_2(\text{OH})_4$

### REFERENCE

Smith, R.C., II, 1978, The mineralogy of Pennsylvania, 1966-1975: Friends of Mineralogy Pennsylvania Chapter Special Publication No. 1, 304 p.



## 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 10, 2017.** 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.

### 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.

## UPCOMING EVENTS

See [www.mineralevents.com](http://www.mineralevents.com) for more

**March 25-26, 2017:** Che-Hanna Rock & Mineral Club Annual Show. [www.chehannarocks.com](http://www.chehannarocks.com)

**March 25-26, 2017:** Gem- Mineral & Jewelry Show by Franklin County Rock & Mineral Club. Hamilton Heights Elem. School, 1589 Johnson Rd Chambersburg, PA. Sat. 10-5, Sun. 10-4.

**March 25 -26, 2017:** Show and sale by Philadelphia Mineralogical Society & Delaware Valley Paleontological Society, Lu Lu Temple; 5140 Butler Pike; Sat. 10-5, Sun. 10-4; [www.philamineralsociety.org](http://www.philamineralsociety.org)

**April 29-30, 2017:** 45th Annual Gem & Mineral Show with Outdoor Swap, by New Jersey Earth Science Ass'n, Franklin School, 50 Washington Ave., Franklin, NJ 07416. Sat. 9 a.m. - 5:30 p.m.; outdoor swap 8 a.m. - 5 p.m. Sunday 10 a.m. - 5 p.m.; outdoor swap 9 a.m. - 5 p.m. <http://www.njesa.org/spring-mineral-show.html>  
Contact: Sterling Hill Mining Museum, (973)209-7212

**May 6, 2017:** South Penn Rock Swap, by Central Penn & Franklin County R&M Clubs. See page 2.

**May 13, 2017:** Earth Science Show & Sale, by Rock & Mineral Club of Lower Bucks Cty. See page 2.

**May 20-21, 2017:** 49th Annual "World of Gems and Minerals" Rock, Mineral, Fossil and Jewelry Show, by Berks Mineralogical Society. Leesport Farmers Market, Leesport, PA.

**June 3, 2017:** Spring Mineralfest by PESA, Macungie, PA. Sat. only 8:30 -3:00. <http://www.mineralfest.com/>

**June 16-17:** Annual Show by Lancaster County Fossil and Mineral Club, Solanco Fairgrounds, Hoffman Building; 172 South Lime St.; Fri. 12-8, Sat. 10-5.

### FM on the WWW

Please explore the FM-PA web site at  
[www.rasloto.com/FM/](http://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](http://www.friendsofmineralogy.org)

## Friends of Mineralogy Pennsylvania Chapter Directory of Officers

### OFFICERS and BOARD OF DIRECTORS members

President	Joe Marchesani	Jmarch06@comcast.net	(609) 433-5129
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### COMMITTEE CHAIRS

Membership Chair	Ron Sloto	rasloto@aol.com	(610) 469-0626
Symposium Chair			
Field Trip Chair			
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Grants Chairman	David Saja	dsajas1984@gmail.com	(216) 231-4600 x3229

Curator, Cleveland Museum of Natural History

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