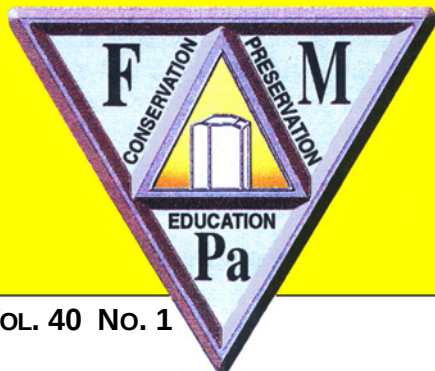




FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 40 No. 1

SPRING 2012

President's Message



The field trip was not only a lot of fun, but very successful! The morning broke clear and cold with a brisk breeze. About 15 members attended the outing to National Limestone Quarry, just outside of Mount Pleasant Mills, PA (see photographs on page 2). Many, if not

all, found nice specimens of wavellite, calcite, strontianite, and celestite. The pits up on Lime Ridge had the overburden removed. This made digging and just searching the waste piles for wavellite very productive. I saw many fine specimens come from these areas. Members traveled good distances to get here for this event, one as far away as Tennessee - makes me wonder where the rest of you were?

Meanwhile, down in the quarry, other members were filling up on calcite crystals along with strontianite, and small, but some very nice pieces of celestite that were discovered in one boulder. Later, some of the members got permission to visit the quarry at Middleburg. All in all, it was a fine day to collect as the weather warmed up. I look forward to seeing you all on our next field trip.

In other Chapter news, the Board met at my house February 25th to plan the coming year. There were other members in attendance who volunteered to assist us with Field Trips, and planning the Symposium for November 3rd & 4th at Franklin and Marshall College, in Lancaster, PA. There will be a silent auction, a give away table, a few dealers, and 4 or 5 speakers. There will be a Field

Trip on Sunday, Nov 4th. More to follow, as we put together this event. Check our website <<http://www.rasloto.com/FM/>> for updates and current information.

The Board voted Dave Glick to the Board at the February 25th meeting. Mr. Glick is also the Newsletter Editor. Welcome Dave, and thanks for your help! In other Board news, past-President Doug Rambo has stepped down from the Board as Treasurer. Doug has helped run this organization with me over the years. Other duties are precluding Doug from holding an office or Board position with us. Thanks Doug for your help! Ron Sloto will be stepping in as our new Treasurer. Ron also maintains our website as Webmaster and also serves on the Board.

If you got an email about the field trip that's great – if you didn't or you received a snail mail letter, it means we don't have an email address for you or the one we have is incorrect – Please get your email to me at Pieche@verizon.net or drop me a line, I'll be happy to add it to the list.

If you haven't paid your dues for 2012, **this will be your last newsletter**. If you have any doubt as to whether you're paid up or not, you may contact me.

Arnold Mogel
President FMPA Chapter

Our DUES are:

\$15.00 for Seniors (62 and over) - also
\$15.00 for students
\$20.00 for regular members

Dues may be sent to:

Friends of Mineralogy PA Chapter Inc.
P.O. Box 158
Friedensburg, PA 17933-0158

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SAVE THE DATE

**FM-PA FALL SYMPOSIUM
and FIELD TRIP
NOVEMBER 3 - 4, 2012
Franklin & Marshall College
Lancaster, PA**



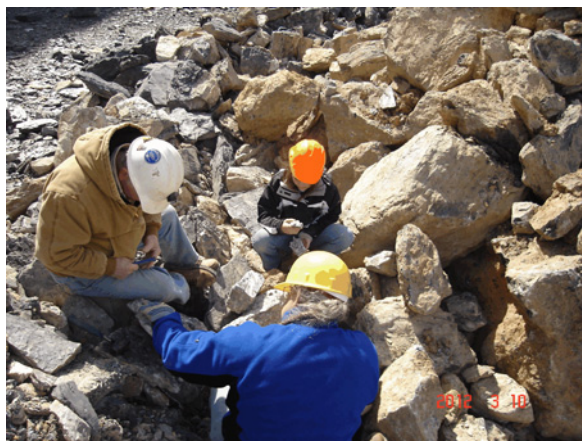
Road and excavated material at wavellite locality on Lime Ridge, above the quarry on National Limestone Co. property. Photo by Jim van Pelt.



The main pit at National Limestone Quarry, Mt. Pleasant Mills. Photo by Jim van Pelt.



Members Eugene Deible (left) and Ed Echler dig for wavellite specimens. Photo by Arnold Mogel.



Arnie Mogel (left), Duff Gold and daughter Abbey Gold (top) look for plates of calcite crystals in the quarry. Photo by Jim van Pelt.



The Board and other volunteers met on February 25th. From left: Doug Rambo, Richard Condon, George Rambo, Ron Sloto, Arnold Mogel, Jim Stauffer, David Glick, Bill Kochanov. Photo by Cathy Mogel.

Remembering Floyd Faux **A Collector with Character**

by Pen Ambler

Floyd Faux, a long time resident of Bethlehem, was an active and enthusiastic mineral collector for over 50 years. During this time he collected and acquired enough mineral and fossil specimens to fill the basement and attic of his home, plus fill a three-car garage. In the middle of this extensive accumulation, Floyd had a collection of museum quality specimens. Through study and association, he developed an encyclopedic knowledge of mineralogy.

Floyd remembers that he started collecting minerals as a boy, but when he went to college, his mother threw his collection out. It wasn't until 1932 that he got back into collecting as a serious pastime. During his long years as a collector, he developed active relationships with George Gehman of Lehigh University, Allen Heyl of U.S. Geologic Survey, Arthur Montgomery of Lafayette College, Richmond Meyers of Moravian College, Bill Heacock and others. In the mid-1930's, Floyd became Secretary for the newly formed Rocks and Minerals Club of Lehigh Valley. During the early 1950's, he was one of the leaders of the newly formed Mineralogical Society of Pennsylvania. He, also, helped found the Pennsylvania Earth Sciences Association in 1964.

He enjoyed sparking the enthusiasm of youngsters in elementary schools when he gave presentations on minerals and fossils. He particularly liked to awe them by showing the specimens that would fluoresce and phosphoresce under an ultra-violet light.

On long field trips across North America, Floyd discovered many people with similar enthusiasm for the hobby. He collected anecdotes and shared them when he talked with other collectors and with neophytes to encourage them to pursue collecting and the chance of discovering new minerals or a superb pocket of crystals somewhere over the next hill or down the next trail.

Another road Floyd used to inform collectors was by writing articles for newsletters and magazines. One article was found in *Rocks and Minerals*, November 1935, with a report entitled *Aragonite at Allentown, Penn.* by F. R. Faux. This had to do with workmen at the Ziegenfuss Quarry at Allentown blasting into an

underground cave. Allen Heyl visited the quarry and reported many beautiful formations and several successive chambers, each beautifully covered with stalactites and arborescent formations. At present (1935), the main chamber is in the process of destruction leaving two small chambers as yet untouched. There were nine rooms in all, each connected by a small alley or natural tunnel.

A favorite quotation was "There's always something to be learned, and you have 86,000 seconds a day to learn it."

Celestine for Pennsylvania State Mineral

from Royce Black

Editor's note: Although the facebook page is titled "state rock," they are indeed working toward having it designated the state mineral. Activity has continued since the note below was posted in January; the Facebook page reports on a meeting in Harrisburg on April 3.

I am a 6th grade student at Commonwealth Connections Academy. I did a science paper on what would I like to have as a state rock/mineral, and I was excited to find that there was none already listed. So, I am on a journey to get Celestine named as the Pennsylvania State Mineral. I am working with Representative Stephen Bloom to start a resolution, and he has explained the steps involved. I am currently in the 'lobbying' step. I am drumming up state wide support of my intent to have Celestine become the state mineral.

On the link below, is my facebook page, and clicking on 'like' is a vote in favor of my quest!! Also on my page, is a link to my science paper <http://user.pa.net/~dkblack/index.html> that I wrote for this assignment. <http://www.facebook.com/pages/PA-State-Rock-Celestine/221235861288507>

Would you be interested in helping me? Would you pass the message on to [others] to help support me?

Thank you,

Royce Black

Deb Black

Mineral Notes...

PLATINUM GROUP MINERALS NEW TO PENNSYLVANIA

By Ron Sloto

A recent paper by Smith and Barnes (2011a) described several minerals new to Pennsylvania containing platinum group elements: ruthenium (Ru), rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), and platinum (Pt). The minerals occur in the chromite deposits of the State Line District serpentinites in Chester and Lancaster Counties. Their existence was determined using scanning electron microscopy/energy dispersive spectrometry analysis (SEM/EDS). The minerals were identified from 36 polished sections made from 24 chromite ore samples collected from mine dumps and outcrops.

The 34 minerals listed below occur as microscopic grains in massive or banded chromite (Smith and Barnes, 2011b).

Arsenopalladinite $\text{Pd}_8(\text{As}, \text{Sb})_3$
 Braggite $(\text{Pt}, \text{Pd}, \text{Cu}, \text{Ni}, \text{Ir})\text{S}$
 Erlichmanite $(\text{Os}, \text{Ru}, \text{Ir})\text{S}_2$
 Ferronickelplatinum $(\text{Pt}, \text{Ir}, \text{Pd})_{.53}\text{Ni}_{.24}\text{Fe}_{.23}$
 Godlevskite $(\text{Ni}, \text{Fe})_9\text{S}_8$
 Hollingworthite $(\text{Rh}, \text{Pt}, \text{Ir})\text{AsS}$
 Irasite $(\text{Ir}, \text{Rh}, \text{Pt})\text{AsS}$
 Iron $(\text{Fe}, \text{Co}, \text{Ni}, \text{Ir}, \text{Pt})$
 Kotulskite $(\text{Pd}, \text{Ni}, \text{Cu}, \text{Co}, \text{Pt})_3(\text{Te}, \text{As}, \text{S}, \text{Bi})$
 Laurite $(\text{Ru}, \text{Os}, \text{Ir})\text{S}_2$
 Majakite PdNiAs
 Malanite $\text{Cu}(\text{Pt}, \text{Ir}, \text{Rh}, \text{Ni}, \text{Cu})_2\text{S}_4$
 Melonite $(\text{Ni}, \text{Pd})\text{Te}_2$
 Menshikovite $\text{Pd}_3\text{Ni}_2\text{As}_3$
 Naldrettite $(\text{Pd}, \text{Ni})_2\text{Sb}$
 Nickeline $(\text{Ni}, \text{Co})(\text{As}, \text{Sb})$
 Omeiite $(\text{Os}, \text{Ru}, \text{Ir})(\text{As}, \text{S})_2$
 Orcelite $\text{Ni}_{5-x}\text{As}_2$ where $x=0.23$
 Palladoarsenide $\text{Pd}_2(\text{As}, \text{Sb})$
 Stibiopalladinite $(\text{Pd}, \text{Cu}, \text{Ni})_5\text{Sb}_2$
 Platinum (Pt, Ir)
 Polydymite $\text{Ni}^{2+}\text{Ni}^{3+}\text{S}_4$
 Ruarsite $(\text{Ru}, \text{Ir}, \text{Os}, \text{Ni})\text{AsS}$
 Shandite $\text{Pb}_2(\text{NiCu})_3(\text{S}, \text{As})_2$
 Sobolevskite $(\text{Pd}, \text{Pt})(\text{Bi}, \text{Te}, \text{As}, \text{Sb})$
 Sperrylite $(\text{Pt}, \text{Ir})\text{As}_2$
 Stibiopalladinite $(\text{Pd}, \text{Cu}, \text{Ni})_5\text{Sb}_2$ and/or
 $(\text{Pd}, \text{Cu}, \text{Ni})_7\text{Sb}_3$?
 Tellurobismuthite $\text{Bi}_2(\text{Te}, \text{As})_3$

Telluropalladinite Pd_9Te_4
 Tetraferroplatinum $(\text{Pt}, \text{Ir})_{.49}(\text{Fe}, \text{Ni}, \text{Cu}, \text{Co})_{.51}$
 Tulameenite $(\text{Pt}_2, \text{Cu}, \text{Ni})\text{Fe}$
 Vincentite $(\text{Pd}, \text{Ni})_3\text{As}$
 Vysotskite $(\text{Pd}, \text{Pt}, \text{Ni}, \text{Cu})_{.45}\text{S}_{.55}$
 Wustite FeO

The two minerals listed below were reported from ferrogabbro in the Interstate 83 roadcut at Reeser's Summit in York County by Smith and Barnes (2009).

Sudburyite $(\text{Pd}, \text{Ni}, \text{Cu})_{.49}\text{Sb}_{.51}$ or $\text{Pd}_{.49}(\text{Sb}, \text{As})_{.51}$
 Ungavaite $(\text{Pd}, \text{Cu}, \text{Pt})_4(\text{Sb}, \text{As}, \text{S})_3\text{Pd}_4(\text{Sb}, \text{As})_3$

The two minerals listed below were reported from the State Line District serpentine barrens in Chester and Lancaster Counties by Smith and Barnes (2008).
 Baddeleyite $(\text{Zn}, \text{Hf})\text{O}_2$
 Osmium (Os, Ir)

References

- Smith, R.C., II, and Barnes, J.H., 2008, Geology of the Goat Hill serpentine barrens, Baltimore Mafic Complex, Pennsylvania: *Journal of the Pennsylvania Academy of Science*, v. 82, no. 1, p. 19–30, available online at <<http://www.dcnr.state.pa.us/topogeo/pub/geology.pdf>>.
- Smith, R.C., II, and Barnes, J.H., 2009, Sudburyite, safflorite and other microminerals in the platinum-group element enriched ferrogabbro, York Haven Diabase, Reesers Summit, York County, Pennsylvania: *Pennsylvania Geology*, v. 39, no. 1, p. 6-15, available online at <<http://www.dcnr.state.pa.us/topogeo/pub/pageolmag/pdfs/v39n1.pdf>>.
- Smith, R.C., II, and Barnes, J.H., 2011a, Geochemistry and mineralogy of platinum group elements in some chromite occurrences in the State Line District, Chester and Lancaster Counties, Pennsylvania: *Pennsylvania Geology*, v. 41, no. 3/4, p. 3-13, available online at <<http://www.dcnr.state.pa.us/topogeo/pub/pageolmag/pdfs/vol41no3-4.pdf>>.
- Smith, R.C., II, and Barnes, J.H., 2011b, Platinum group minerals sampling and analytical methods and tables, available online at <<http://www.dcnr.state.pa.us/topogeo/pub/pageolmag/pdfs/supplement.pdf>>.

John H. Way

Long-time FM-PA member John H. Way, Ph.D., died on February 21, 2012, at age 68, as reported in The Patriot-News on February 23 (search at <<http://obits.pennlive.com/>>) and in the Lock Haven Express on March 2 <<http://www.lockhaven.com/page/content.detail/id/537358/>>. A professional geologist, he had worked at Pennsylvania Geologic Survey, then taught at Lock Haven University for about 20 years, retiring as professor of geology in 2004.

John was also active outside the university, bringing his geologic expertise to community affairs and environmental concerns, particularly ground water resources. He led field trips and gave talks to inform the public about geological principles, proper collection of data, and application of the scientific method.

At the time of this writing, his “Bald Eagle Geoeeducational Services” web site is still available at <<http://www.baldeaglegeotec.com/BEgeoedHP.htm>>. The web site includes informative sections about Hyner View State Park, Fossils at Red Hill, *Arthropycus alleghaniensis* (trace fossil of burrows in sediment), Why is there a bald spot on Bald Eagle Mountain?, and A Citizen’s Guide to Water Resources in Clinton County, PA. - Editor

Recently in PA Geology Magazine

The Pennsylvania Geologic Survey’s magazine, Pennsylvania Geology, went online-only in 2009 and is available as a PDF from their web site at <http://www.dcnr.state.pa.us/topogeo/pub/pageolmag/magindex.aspx>

The final issue for 2011 (volume 41, numbers 3/4) is now available. It includes an 11-page, illustrated article by Robert C. Smith II and John H Barnes on platinum group elements in Chester and Lancaster Counties (among them are some minerals new to Pennsylvania, as noted in the article on page 4 of this Newsletter). The National Coal Resources Data System, and the possible ending of its Pennsylvania component due to lack of funding, are described in an article by Leonard Lentz. The 2010 book *Pennsylvania Crude - Boomtowns and Oil Barons* is reviewed by John Harper; it’s a “coffee table book” including photographs of the oil region and its historic industry. Eight new Survey staff members are introduced, and others who received 25-year longevity awards relate some interesting stories. New publications include bathymetric maps of lakes in four state parks, and an Open-File Bedrock Geologic Map of the McCoysville Quadrangle, Juniata, Mifflin, and Perry Counties. - Editor

Editor’s Message

by David Glick

As many already know, some of the biggest news this season is that National Limestone Co. and its **Mount Pleasant Mills** and **Middleburg Quarries** are up for sale. I believe that FM-PA and a long list of other clubs and collectors owe a huge **thank-you to owner Eric Stahl** for his many years of collector-friendly operation, including our recent field trip. He is doing his best to accommodate field trip requests which are now coming in from clubs far and wide. It would be wonderful if new owners would continue that policy!

I appreciate the supportive comments I’ve received about the last issue, and the interesting recollections that came along with them. Martin Anne pointed out that in addition to the previous Newsletter editors who I mentioned, Don Schmerling should be remembered for his efforts as the first editor and for spreading the word about the Chapter. I’ve been thinking that one way to maintain the value of over 40 years of effort by all of the writers and editors would be to convert the entire run of Newsletters to a searchable digitized file. I’m not ready to start this project yet, but if you would consider loaning a good set of the early Newsletters or have other comments, I’d be happy to hear from you.

Materials related to Pennsylvania mineralogy are invited for this newsletter: articles, long or short; announcements from FM-PA committees; photographs of specimens, field localities, collections, etc.; reports about books or articles published 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 (1000 pixels across) without much JPEG compression, so that they will look good in print. We are producing four issues each year; your material is needed to make sure they have some substance. If you know people who have interesting material, please encourage them to submit it.

Please provide materials for the next issue by June 10, 2012. Future deadlines will be September 20 (for the final issue before the November 3 symposium) and November 10 (reporting on the Symposium and requesting dues payments by December 15). Thank you!

Feel free to contact me (xidg@verizon.net, or 814-237-1094 days and evenings, or 209 Spring Lea Dr., State College PA 16801) to provide material or discuss any of this.

UPCOMING EVENTS

April 19-22, 2012: Rochester Mineralogical Symposium. Rochester, NY. www.rasny.org/MineralSymp.htm

April 28-29 2012: New Jersey Earth Science Ass'n Gem & Mineral Show by FOMS, NJESA & Sterling Hill Mining Museum. Franklin Borough School, 50 Washington Av., Franklin, NJ.

May 12, 2012: South Penn Rock Swap - SPRING SWAP by Franklin County & Central PA Rock and Mineral Clubs. South Mountain Fairgrounds, 1.5 miles West of Arendtsville, PA on Route 234. Sat only, 8 a.m. to 3 p.m.

May 19-20, 2012: "World of Gems and Minerals" by Berks Mineralogical Society. Rt 61, 7 miles South of I-78, Leesport Farmers Market, Leesport PA. Sat 10-5, Sun 10-4.

May 31-June 2, 2012: Rock, mineral & fossil yard sale by Tom Smith, 10 Roger Ave., 2.1 miles N of the center of Shippensburg, just off Rt 696. Thurs. evening 6-8, Fri & Sat 8-1. 717-552-6554 or tsmith1012@comcast.net

June 2, 2012: Spring Mineralfest by Pennsylvania Earth Sciences Association. Macungie Memorial Park, Macungie, PA. Saturday only 8:30 - 3:00. www.mineralfest.com

Sept 15-16, 2012, Eastern Federation of Mineralogical and Lapidary Societies Convention, and Central Pennsylvania Rock and Mineral Club Annual Show, Harrisburg.

October 27, 2012: South Penn Rock Swap - AUTUMN SWAP by Franklin County & Central PA Rock and Mineral Clubs. South Mountain Fairgrounds, 1.5 miles west of Arendtsville, PA on Route 234. Sat only, 8 a.m. to 3 p.m.

Nov 3-4, 2012: FM-PA Symposium & Field Trip, Franklin & Marshall College, Lancaster, PA. ❄

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

DONATIONS WELCOMED

The 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.

Friends of Mineralogy Pennsylvania Chapter Directory of Officers

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Treasurer	Ron Sloto
Secretary	James D. Stauffer

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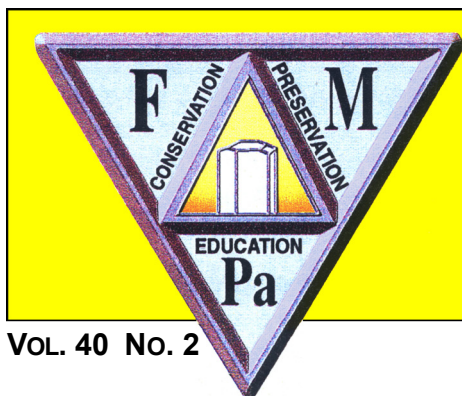
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FRIENDS OF MINERALOGY

Pennsylvania Chapter

NEWSLETTER

VOL. 40 No. 2

SUMMER 2012

President's Message

I hope everybody is enjoying the Summer! Cathy and I have just returned from a visit with our Grandson in Missouri. We took him geode-hunting, and did a little caving as well.

The Symposium is fast approaching. We have several great talks lined up. I'll be able to report to the membership- in the near future - on the topics. While on our recent vacation, I was able to obtain a rare and interesting treat. This treat was a "Cornwall Reference Collection" and it was assembled while the Cornwall Mine was still active. This will be on display at the November Symposium this year.

I also obtained several, nice Grace Mine specimens as well. Both of these collections were put together by Mining Engineer Milt Leet and Professor Art Montgomery. I think you'll enjoy seeing the collection and getting a bit of history about it. For those of you who are especially interested in Cornwall Minerals, this is a "Don't-miss."

I'm sorry to report that we have not been able to sponsor more field trips this year. Quarry after quarry has turned a deaf ear to our requests – I hope to have better news in the future. I like to collect specimens as all of you do. If anyone has a quarry contact or special quarry you think the group might like, give us the contact information, and we'll take it from there.

This past Spring, I stopped by the Rochester Symposium, and ran into several members while there. We had a good time. The talks were interesting and informative. I would recommend this symposium to anyone.

I also went to the Berks Mineral Show in Leesport, PA, this past Spring. For some reason, things were a bit slow. Several dealers and private collectors had many nice specimens for sale. You really need to put this show



on your "list of things to do" next spring. We need to support each other, and try to build that sense of camaraderie again!

The Symposium for the FM Chapter will be held again this year at F&M College in Lancaster, PA. On Saturday, November 3, doors open at 8:30 AM. We will have a Give-Away table, a Silent Auction, and a number of dealers (limited). Bring a donation for the auction, and material for the give-away table.

Pre-registration forms will be on the Chapter website in late September (<http://www.raslo.to.com/FM/>). The Board will be meeting in late September to finalize Symposium plans.

'Till then - enjoy the summer!

Arnold Mogel
President FMPA Chapter

From the Editor

David Glick

Please distribute the enclosed Symposium flyer to those who might be interested. Contact me if you want more.

Materials related to Pennsylvania mineralogy are invited for this newsletter: articles, long or short; announcements from FM-PA committees; photographs of specimens, field localities, collections, etc.; reports about books or articles published 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 (1000 pixels across) without much JPEG compression, so that they will look good in print. We are producing four issues each year; your material is needed to make sure they have some substance. If you know people who have interesting material, please encourage them to submit it.

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The Man Who Found Time

book review by Doug Klieger

The Man Who Found Time by Jack Repcheck, (W. W. Norton, 2003): This is a book that every rock enthusiast would enjoy. It is a biography of James Hutton, the eighteenth century Scottish scientist who established that the earth was “unknowably old,” and not 6000 years old as avowed by Biblical scholars of the day. Hutton first presented his discoveries in 1785, in a paper presented to the Royal Society of Edinburgh. Various papers and a book followed to no avail. In essence, Hutton argued that the earth came to be as it is through a very slow process of erosion, sedimentation, subsidence, rock formation, and uplifting. He correctly surmised that internal heat fueled the process. Only close friends and fellow members of the Scottish Enlightenment agreed with Hutton.

The opposition was of course the geological establishment of the day, men who believed that the earth as they knew it was formed by a half-dozen catastrophes

(the great flood being one). However, the book was read by Charles Lyell, the founder of modern geology. In 1830 Lyell published *The Principles of Geology*, in which, among many other ideas, he agreed with and presented new evidence for Hutton’s view. Interestingly, Charles Darwin read Lyell’s book during his voyage on the Beagle, and it is generally agreed that Lyell’s ideas influenced Darwin in his eventual presentation of the theory of natural selection.

The Man Who Found Time is also an excellent exposition of the Scottish Enlightenment and worth a read for this alone. The book reads easily and quickly without jargon. Hutton’s discovery of deep time prompts the author to place Hutton’s importance alongside that of Copernicus, Galileo, and Darwin. Read it and enjoy it.



Dickite on Quartz, from St. Clair, Schuylkill County, Pennsylvania. The quartz is a "fin" of crystals attached to the rock it came from at one small point; 11.75 x 7 x 9cm (w-d-h). From the collection of and photographed by John Passaneau.

SLAG MINERALS FROM HOPEWELL FURNACE NEW TO PENNSYLVANIA

by Ron Sloto

Hopewell Furnace, located in Berks County, was a cold-blast, charcoal iron furnace that operated for 113 years (1771 to 1883). Iron ore smelted at Hopewell Furnace was obtained from the Hopewell and Jones mines and contained elevated concentrations of trace metals. The iron ore contained abundant magnetite and accessory sulfide minerals enriched in arsenic, cobalt, copper, and other metals. Ore, slag, cast iron furnace products, soil, groundwater, stream base flow, streambed sediment, and benthic macroinvertebrates were sampled

by the Exton, Pa. office of the U.S. Geological Survey to determine the distribution of trace metals released to the environment from the historical iron smelter at Hopewell Furnace National Historic Site (Sloto and Reif, 2011).

A complimentary study conducted by the U.S. Geological Survey Reston, Va. office focused on the chemistry and mineralogy of the furnace slags (Piatak and Seal, 2012). The mineralogy of the slag was studied by optical microscopy, powder X-ray diffraction (XRD), scanning electron microscopy (SEM), and electron microprobe analysis (EMPA). The study identified several minerals in the slag not described before from Pennsylvania. They include:

Albandite MnS
Cristobalite SiO_2
Ferropseudobrookite $(\text{FeTi}_2\text{O}_5)$
Magnesioferrite (?) $(\text{Mg}_{0.8}\text{Mn}_{0.1}\text{Fe}_{0.1})(\text{Fe}_{1.9}\text{Al}_{0.1})\text{O}$
Melilite group $(\text{Ca},\text{Na})_2(\text{Mg}, \text{Fe}^{2+}, \text{Al}, \text{Si})_3\text{O}_7$
Monticellite
Mullite $\text{Al}_6\text{Si}_2\text{O}_{13}$
Oldhamite CaS

These minerals were formed in the high temperatures of the furnace, which commonly exceeded 1500 °C. Cristobalite, for example, is the high temperature polymorph of quartz that forms at temperatures above 1470 °C.

References

Piatak, N. M., and Seal, R. R., 2012, Mineralogy and environmental geochemistry of historical iron slag, Hopewell Furnace National Historic Site, Pennsylvania, USA: Applied



Hopewell Furnace building (restored) and grounds, photographed 17 October 2010 by Scott D. Welch Sdwelch1031, used under license: <http://creativecommons.org/licenses/by/3.0/deed.en>. For more on Hopewell Furnace, see <http://www.nps.gov/hofu/index.htm> and http://en.wikipedia.org/wiki/Hopewell_Furnace_National_Historic_Site

Geochemistry, v. 20, p. 623-643, available online at http://rasloto.com/FM/digibooks/Piatak&Seal_2012.pdf

Sloto, R.A., and Reif, A.G., 2011, Distribution of trace metals at Hopewell Furnace National Historic Site, Berks and Chester Counties, Pennsylvania: U.S. Geological Survey Scientific Investigations Report 2011-5014, 79 p., available online at <http://pubs.usgs.gov/sir/2011/5014/pdf/sir2011-5014.pdf>

Recently in PA Geology Magazine

The Pennsylvania Geologic Survey's magazine, Pennsylvania Geology, went online-only in 2009 and is available as a PDF file from their web site at <http://www.dcnr.state.pa.us/topogeo/pub/pageolmag/magindex.aspx>

The first issue of 2012 (volume 42, number 1) is now available. Articles are presented in memory of two recently deceased Survey geologists, Thomas A. McElroy (1949-2012) and John H. Way (1943 - 2012). Another article covers the life of Dean B. McLaughlin (1901- 1965), an astronomy professor who conducted geologic mapping for the Survey, particularly of Triassic rocks, during summers.

The new (2011) edition of the Directory of Nonfuel-Mineral Producers in Pennsylvania is introduced; it is available either as a PDF file or on a mapping application through the web browser on a computer. The history of the series of Directories is recounted, and several examples of using the on-line application are illustrated.

- Editor

UPCOMING EVENTS

Sept 14-16, 2012: Eastern Federation of Mineralogical and Lapidary Societies **Convention** (starts Friday Sept. 14), and Central Pennsylvania Rock and Mineral Club **Annual Show** (Sat-Sun, Sept. 15-16 at the Zembo Shrine), Harrisburg.

Including - on **Friday** Sept 14 - a reception honoring Frank M. Masters, Jr., 2:00 p.m. at the Masters Mineral Gallery at Elizabethtown College, Elizabethtown, PA. You will be treated to a display of world-class specimens, including a dazzling fluorescent display, donated by civil engineer, mineral collector, and philanthropist, Frank Masters. Bus leaves the Radisson Penn-Harris (Camp Hill) at 1:30, returning at 4:00.

Saturday 2:00 p.m.: EFMLS Endowment Fund **Auction** at the Zembo.

Saturday evening: the Special Guest Speaker after the banquet dinner will be **Robert Beard**, Professional Geologist and Senior Contributing Editor of Rock & Gem Magazine. He is the author of soon to be released "Rockhounding Pennsylvania and New Jersey," published by Globe-Pequot Press.

Convention Information

<http://www.amfed.org/efmls/conventioninformationhbg2012.pdf>

Forms <http://www.amfed.org/efmls/conventionp.htm>

Show Information & vendor list:

<http://www.rockandmineral.org/annualshow.htm>

October 6, 2012: Autumn Minerafest by Pennsylvania Earth Sciences Association. Macungie Memorial Park, Macungie, PA. Saturday only 8:30 - 3:00.
www.minerafest.com

October 27, 2012: South Penn Rock Swap - AUTUMN SWAP by Franklin County & Central PA Rock and Mineral Clubs. South Mountain Fairgrounds, 1.5 miles west of Arendtsville, PA on Route 234. Sat only, 8 a.m. to 3 p.m.

Nov 3-4, 2012: FM-PA Symposium & Field Trip, Franklin & Marshall College, Lancaster, PA. ✱

FM on the WWW

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

National News

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DONATIONS WELCOMED

The 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.

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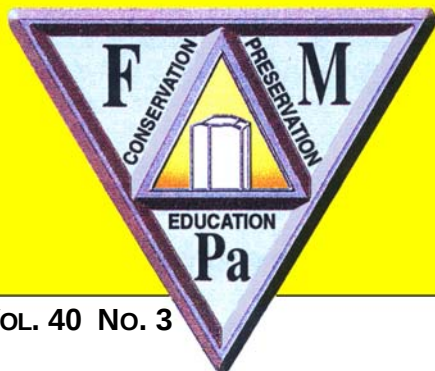
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FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 40 No. 3

FALL 2012

Symposium Program Announced Mineral Collecting Enthusiasts Meet and Learn

November 3-4, 2012

Franklin and Marshall College, Lancaster, PA
Please Register in Advance

The Friends of Mineralogy – Pennsylvania Chapter will hold our 2012 symposium and field trip on the first weekend in November. Mineral collectors in attendance on Saturday will hear five talks by experts on Pennsylvania minerals, geology and mining. On Sunday, those registered for the symposium may participate in a mineral collecting field trip (see President's Message at right). Safety equipment is required.

The program planned for the symposium includes:

Bob Donley, co-author:
Cornwall Mines (Arcadia Press)

Ron Sloto, US Geological Survey:
The Marcellus and Utica Shale Gas Play in Pennsylvania

William Kochanov, Pennsylvania Geological Survey:
Occurrences of tosudite and associated sulfide minerals in the Anthracite region of Pennsylvania

LeeAnn Srogi, West Chester University:
The Birdsboro Diabase Sheet

Howell Bosbyshell, West Chester University:
The age of detrital zircon from the Wissahickon Schist and Gneiss, southeast Pennsylvania and northern Delaware: Implications for regional tectonic history

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, and refreshments. 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**.

Field Trip Saturday November 10

At present I am making arrangements with Martin limestone for a collecting field trip to Denver Pa (AG Kurtz) for November 10th from 8 a.m. till 12 noon. Full safety gear and **strict rules** will apply for this trip – the quarry invited us as a "test" group – need I say more?

Details will be forthcoming later this month – this field trip is a "members only" - have your 2012 membership cards with you. You must **preregister** for this field trip - email me at Picoche@verizon.net or call 570-739-4034. - Arnie

President's Message

The 2012 Fall Symposium is fast approaching!



November 3rd and 4th is just around the corner!

The FM Board and Symposium Committee members held a joint meeting on September 9th to put together the final touches on this year's events. We have lined up several speakers who, I believe, will make an excellent

and informative day for members and guests alike.

Anyone wishing to sell Mineral Specimens may contact: Fred Stohl 732-341-3553 or email flstohl@yahoo.com

The Symposium will be held again this year at Franklin and Marshall College, in Lancaster, Pennsylvania. It will be in the Hackman Physical Sciences building, just off the Harrisburg Avenue entrance. Registration will be outside Room 119 - please enter the lower level off the sidewalk coming from the parking lot.

Doors will open at 8:30 a.m. The first lectures will begin at around 9:00 a.m.

FYI - There is a college football game scheduled for Saturday, Nov 3, so parking may be tight around the lunch hour; however, several restaurants are within walking distance.

F&M College has a web site with driving direction and campus map. The Hackman Building is # 30. We have this information on our website, with additional instructions as to where to park and enter the building: <http://www.rasloto.com/FM/>
[http:// www.fandm.edu](http://www.fandm.edu)

Along with our guest speakers, there will be some dealers present. We also include a Silent Auction, Give-Away Table, and of course, we will be providing refreshments!
continued on page 2

For the last several years, the proceeds from this silent auction have helped to support your Symposium. Please feel free to bring a donation for the Silent Auction & Give-Away Table!

I was recently able to obtain a rare and interesting treat which will be on display at the Symposium. This treat was a "Cornwall Reference Collection," assembled by Mining Engineer Milt Leet and Professor Art Montgomery while the Cornwall Mine was still active. For those of you who are especially interested in Cornwall minerals, this is a "Don't-miss."

The Sunday following the Symposium (Nov. 4), we always have a field trip. This year, it will be either to a quarry in Berks County or a quarry in the Lancaster area. Negotiations are still underway but it looks like Dyer Quarry near Birdsboro, Pa. Details will be given at the symposium. Sunday field trips seem to present their own set of unique challenges.....

We've enclosed a **REGISTRATION FORM** along with this newsletter for your convenience. If you need additional forms, they may be printed from our website: <http://www.rasloto.com/FM/>

For the professional geologists who attend:
we offer development hours towards license renewal.

COME EARLY STAY LATE

Enjoy the symposium! Hope to see you all there!

Arnold Mogel
President FM PA. Chapter

From the Editor

David Glick

Please distribute the enclosed Symposium flyer to those who might be interested. Contact me if you want more.

Materials related to Pennsylvania mineralogy are invited for this newsletter. We are producing four issues each year; your material is needed to make sure they have some substance.

Please provide materials for the next issue by December 15, 2012. Feel free to contact me at xidg@verizon.net, or 814-237-1094 days and evenings. Thank you!

UPCOMING EVENTS

Sept. 29-30, 2012, Franklin - Sterling Hill Mineral, Gem & Jewelry Show, by FORMS and Franklin Mineral Museum, New Jersey, at Franklin Borough School, 50 Washington Avenue.

October 6, 2012: Autumn Minerald Fest by PESA, at Macungie Memorial Park, Poplar Street, Macungie, PA. Saturday only, 8:30- 3:00. <http://www.mineraldfeast.com/>

October 27, 2012: South Penn Rock Swap - AUTUMN SWAP by Franklin County & Central PA Rock and Mineral Clubs. South Mountain Fairgrounds, 1.5 miles West of Arendtsville, PA on Route 234. Sat. only, 8 a.m. to 3 p.m.

October 27, 2012: "Ultraviolation" Fluorescent Mineral Show, by the Rock & Mineral Club of Lower Bucks County. First United Methodist Church, 840 Trenton Rd, Fairless Hills, PA.

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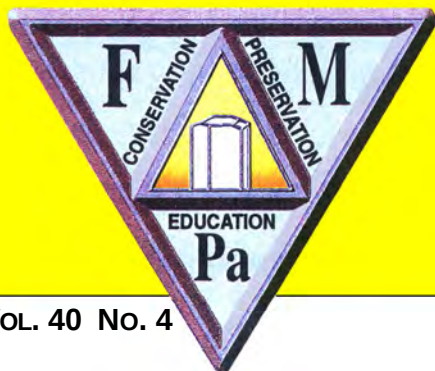
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FRIENDS OF MINERALOGY Pennsylvania Chapter NEWSLETTER

VOL. 40 No. 4

WINTER 2012

Members assist in publication of new mineral from New Jersey

Doug and George Rambo and John Ebner were involved in work supporting the publication of a new mineral, ferrolaueite. Doug reports that he contributed a map to the article, and the authors analyzed material from the George and Doug Rambo micromount collection as well as photographing specimens. The article begins with an interesting "short history" explaining events between final approval of ferrolaueite by IMA in 1988 and the 2012 publication of the article written in 1989-1990. It appears in the current issue of the Australian Journal of Mineralogy, with the following abstract:

Segeler, Curt G., Moore, P.B., Dyar, M. D., Leans, F. and J.A. Ferraiolo (2012): Ferrolaueite, a new mineral from Monmouth County, New Jersey, USA. *Australian Journal of Mineralogy*, 16(2), 69-76.

ABSTRACT

Ferrolaueite, $\text{Fe}^{2+}(\text{H}_2\text{O})_4\text{Fe}^{3+}_2(\text{H}_2\text{O})_2(\text{OH})_2(\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$, is a new mineral structurally related to laueite. It occurs as a minor constituent with ferrostrunzite, beraunite, cacozenite and glauconite in marl banks along My Creek near New Egypt, Monmouth County, New Jersey.

Crystals are up to 200 μm in length, are light brown to orange-brown, have a hardness of 3, good cleavage on $\{100\}$ and $\{010\}$, and its density is 2.515 g/cm^3 . The optical characters are: $\alpha = 1.610$ (1), $\beta = 1.665$ (1), $\gamma = 1.692$ (1) and $2V = 68^\circ$; pleochroism: X = brown, Y = yellow and Z = light brown. The unit cell parameters are: $a = 5.34$ (8), $b = 10.63$ (8), $c = 7.21$ (8) $\text{\AA}$, $\alpha = 107.35^\circ$, $\beta = 111.26^\circ$ and $\gamma = 71.27^\circ$. The five strongest X-ray lines [d in $\text{\AA}$, (I/I_0), (hkl)] are: 6.56, (10) (001), 3.28 (10) (002), 9.87 (9) (010), 4.96 (8) (020), 3.97 (6) (-110). Crystal forms are $b\{010\}$, $M\{1-10\}$, $c\{001\}$, $a\{100\}$ and $m\{110\}$.

The mineral name and data were approved by the IMA Commission on New Minerals and Mineral Names (CNMNMN) [now the Commission on New Minerals, Nomenclature and Classification (CNMNC)] prior to publication (IMA 87-046a). Ferrolaueite is the Fe^{2+} - analogue of laueite, $\text{Mn}^{2+}(\text{H}_2\text{O})_4\text{Fe}^{3+}_2(\text{H}_2\text{O})_2(\text{OH})_2(\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$.

Issue 16(2) is not yet listed on the Journal's web site at <http://www.mineral.org.au/pubs/ajm.html>. Additional data and a photograph of a triclinic crystal are available on Mindat.org, <http://www.mindat.org/min-6939.html> -Editor

President's Message

Ah! The Symposium for 2012 has come and gone. Two field trips were conducted, as well, this November - one to Dyer's Quarry in Berks County, and the following weekend to AG Kurtz, just south of Denver PA. Over all, the Symposium and both field trips were well-attended. We had 45 altogether (members and non-members) for Saturday's Symposium. The field trip boasted close to another 20 members for each of the trips. I really would like to see more members attending our events. I am hoping to again have a field trip to Cornwall in 2013, along with at least two other quarry visits.



The field trip boasted close to another 20 members for each of the trips. I really would like to see more members attending our events. I am hoping to again have a field trip to Cornwall in 2013, along with at least two other quarry visits.

Please pay your dues for 2013, if you've not already done so: \$15 for Seniors age 62 and older - Regular membership \$20 - Students \$15. Check should be made out to:

Friends of Mineralogy Pennsylvania Chapter
and mailed to:

P.O. Box 158
Friedensburg Pa. 17933

Please check out the website for both updated info and information on the Chapter's activities at <http://www.raslo.to.com/FM/>. Ron Sloto continues to update information on the Chapter regularly and there's a great section on Digital books for PA Mineralogy. If you missed a newsletter, Ron also has several listed for your review.

I want to thank those members who helped with the Symposium this year. It made the day go smoother. It made the symposium really a pleasure for me, and I hope for those who attended the events of November 3rd & 4th. I also need to say thanks to those who donated the many quality specimens and items to the silent auction, as well as the bidders who bid for them.

That's about it from here -

Enjoy the Holidays - Merry Christmas and have a Happy New Year - see you on the Spring Field trip!

Arnold Mogel, President FM PA. Chapter

2012 Symposium: Selected Topics on Pennsylvania Mineralogy and Geology



Friends of Mineralogy - Pennsylvania Chapter members and guests convened at Franklin & Marshall College in Lancaster on Saturday, November 3, 2012, for the annual Symposium.

Dr. Stan Mertzman, our host and Department Head of Earth and Environment at F & M, welcomed those attending and gave a brief orientation.

Chapter President Arnold Mogel began the symposium and announced some schedule updates. The authors scheduled to make a presentation on Cornwall Mines were unable to attend. The schedule was rearranged with extra time for lunch and visits to the silent auctions, mineral dealers and displays down the hall.



Ron Sloto presented a wide-ranging talk on The Marcellus and Utica Gas Plays in Pennsylvania, covering the history of gas drilling in the Appalachians, gas and non-gas liquid reserves, and the horizontal drilling and hydraulic fracturing which are the key to the current production of "tight" gas reserves in the Marcellus shale and deeper Utica formations.

Dr. Lee Ann Srogi of West Chester University spoke on The Morgantown Sheet: Tectonics, mineralogy, and geology of a rock resource. This early Jurassic intrusive in a failed rift valley includes the diabase at Dyer Quarry, our field trip site. Collectible minerals there and elsewhere in the area were noted.



Bill Kochanov's topic was Occurrence of tosudite and associated sulfide minerals in the Anthracite Fields of Pennsylvania. The blue clay mineral is found in quartz-pebble conglomerate, and in fractures in sandstone along with quartz crystals; it is primarily hydrothermal but possibly also diagenetic. It may also be found with sphalerite in quartz veins.

Dr. Howell Bosbyshell of West Chester University spoke on The age of detrital zircon from the Wissahickon Schist and Gneiss, southeast Pennsylvania and Northern Delaware: Implications for regional tectonic history. He included updates on nomenclature of parts of the Wissahickon and related formations.



*Photos by D. Glick
except as noted.*

Arnold Mogel displayed part of a “Cornwall Reference Collection,” assembled by Mining Engineer Milt Leet and Professor Art Montgomery while the Cornwall Mine was still active.

On Sunday, participants met at the Dyer Quarry, Birdsboro, Pa., a well-known collecting locality now owned by James J. Anderson Construction Company, Inc. Calcite, chabazite, riebeckite, and opal were among the minerals found.



Chabazite and calcite, 35 mm across.
Ed Echler photo and specimen.



The group gathers before entering Dyer Quarry.

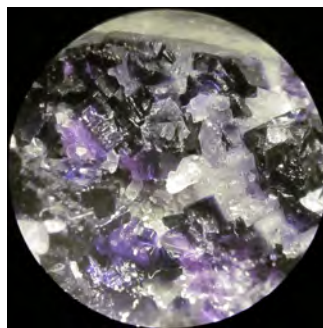


Brilliant blue opal at Dyer, still wet a few minutes after being exposed by cracking a boulder. Approximately life size, 4 inches (100 mm) across.

AG Kurtz Quarry Field Trip November 10, 2102

A week after the symposium, FM-Pa members met at the A.G. Kurtz Quarry near Denver, Pa., now owned by Martin Limestone. The company is testing a new program of hosting collecting groups; our visit was made possible by two employees who volunteered to spend the morning with the group in the quarry.

Delaware Mineralogical Society's web site has a review by Bob Asreen of the quarry and its minerals: <http://www.delministry.net/kurtz.htm>



Fluorite crystals from A.G. Kurtz Quarry, each approx. 1.5mm across.
Ed Echler photo and specimen.



180-degree panorama in A.G. Kurtz Quarry, Denver, PA.

D. Glick photos and digital editing.

From the Editor

David Glick

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 about books or articles published 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 (1000 pixels across) without much JPEG compression, so that they will look good in print. We are producing four issues each year; **your material is needed** to make sure they have some substance. If you know people who have interesting material, please encourage them to submit it.

Please provide materials for the next issue by March 10, 2013. Feel free to contact me at xidg@verizon.net, or 814-237-1094 days and evenings (especially Thurs-Sat.) . Thank you!

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UPCOMING EVENTS

Jan. 12, 2013: Old Time Rock Swap. Denver Recreation Center, Spruce & 9th, Denver PA. Trade only, no sales, no cash exchanged, no admission charge. Table rental \$5 or bring your own. Sat. only, 9-4. Contact Dennis Buffenmeyer at buff1@ptd.net 717-336-3356.

Jan. 26, 2013: Rutgers Geology Museum Open House, Scott Hall (Room 123 & others), 43 College Ave., New Brunswick, NJ 08901. Four lectures, mineral sale, mineral ID, make & take stations for kids (all ages), hands-on activity stations for kids (ages 8 and up). Free. See schedule & details at <http://geologymuseum.rutgers.edu/news.shtml>

March 2-3, 2013: Earth Science Gem & Mineral Show by the Delaware Mineralogical Society. Delaware Technical & Community College, Newark, DE.

March 9-10, 2013: North Jersey Gem, Mineral & Fossil Show, by North Jersey Mineralogical Society. Pope John II Center, 775 Valley Road, Clifton, NJ. 10am-5pm. Door prizes, Refreshments, Free Specimens for all kids, All indoors, Free parking. www.nojms.webs.com

March 23-24, 2013: Che-Hanna Rock & Mineral Club, Inc, Show. Athens Twp. Vol. Fire Hall, 211 Herrick Ave., Sayre, PA. www.chehannarocks.com

May 4-5, 2013: Annual Treasures of the Earth Show and Sale, by Mineralogical Society of Northeastern Pennsylvania. Oblates of St. Joseph, 1880 Hwy 315 Pittston, Pa 18640

May 18-19, 2013: World of Gems and Minerals, by Berks Mineralogical Society. Leesport Farmers Market Banquet Hall, Rte 61 Leesport, Pa.

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