

Nittany Mineralogical Society Bulletin

Nittany Mineralogical Society, Inc., meeting in State College, Pennsylvania
Contact information on back page

February, 2018

Visit our web site: www.nittanymineral.org

Editor (see back page):

David C. Glick

February 21st meeting:

A Historical Perspective of X-ray Techniques for Quantitative (and Qualitative) Analysis and the Foundations of Electron Microscopy

by

Katherine L Crispin, Ph.D.

EPMA and Quantitative Analysis

Materials Characterization Lab, Penn State

Our February meeting will be held Wednesday the 21st in room 114 (the large auditorium) Earth & Engineering Sciences Building on the west side of the Penn State campus in State College, PA. Maps are available on our web site.

6:45 to 7:45 p.m.: Social hour, refreshments in the lobby

7:45 to 8:00 p.m.: announcements, questions, etc.

about 8:00 p.m.: featured program

The event has free admission, free parking, and free refreshments, and is open to all; parents/guardians must provide supervision of minors. Bring your friends and share an interesting evening!

Technology today is able to give precise quantifiable results for determination of material composition. There is a long history of scientific breakthroughs and developments that made this possible, which was accompanied by a stepwise progression of serious (and silly) experiments from the 1600s to today that brought us into the modern era of EDS and WDS techniques. This talk covers everything from the discovery of electrons to creating vacuum environments to detection and utilization of x-rays. The techniques discussed are a mainstay for modern analysis of minerals and related synthetic materials. *



James Hillier (left) and Albert Prebus at work on the first North American electron microscope

Minerals Junior Education Day Saturday, April 7, 2018

Frank Kowalczyk will be coordinating NMS's 23rd Annual Minerals Junior Education Day. It is set for Saturday, April 7, at Central Pennsylvania Institute of Science & Technology at Pleasant Gap, the same location as the last few years. Please save the date and volunteer to help with one of the stations at the event.

At this event, kids get an empty egg carton when they check in, then go to a series of stations, each concerning a different aspect of mineral properties, rocks, fossils, etc. They learn about the topic from a demonstration or discussion, and receive a properly labeled specimen or educational item related to the topic, so they gather a whole collection in their egg carton. There is also a sales table with kid-friendly prices. **Registration for kids to attend will open in mid-March.**

We are **seeking volunteers** to help with various aspects of the event. We also welcome advance donations of identified minerals, tumble-polished material, fossils, books, etc. which can be sold at child-friendly prices. To volunteer or get more details, **please contact Frank J. Kowalczyk:**
frank.j.kowalczyk@gmail.com
or 814-404-9854. *

Volunteer Needed for Registration Coordinator

A particular need for Minerals Junior Education Day help is for a registration coordinator to organize records of the payments and registration data that are received in the three weeks or so leading up to the event. Almost all registrations are now done online, only a few by phone. If you might be able to help, please e-mail Ellen at [<nittanymineral.org@gmail.com>](mailto:nittanymineral.org@gmail.com).

Weather Cancellation Policy

In case we experience active winter weather on a meeting date, our policy is to cancel the meeting only if evening classes at Penn State have been cancelled. That cancellation is publicized in the usual radio and TV service announcements.



Penn State notes that weather-related cancellation / closing information can be found at WPSU-FM, the news site <<http://news.psu.edu/>>, and <<http://www.facebook.com/pennstate>>



- Editor

ATTENDING THE FEBRUARY MEETING?

Donations of **a few high quality, labeled door prize specimens** are invited.
Your donated snacks will be welcomed.
Bring a friend!

Geo-Sudoku

by David Glick

This puzzle contains the letters EFILOPRTU. One row or column includes a Pennsylvania mineral of interest. As usual, if you've read this issue, you've seen the word, or a variation of it. Each block of 9 squares, each row, and each column must contain each of the nine letters exactly once. The solution is on page 8.

T				U				F
				P	F			
R			T	O		E		
L				E				
	U		F		P			L
	F		R					E
			L					U
	I	O			U		F	
		U				T		

-Have a mineral word with 9 letters, none repeated, that hasn't been used recently in our Geo-Sudoku? Please submit it the Editor (see page 8).

Pete Dunn: Mineralogist and Author 1942-2017

It is with great sadness that I report the passing of Dr. Pete J. Dunn on November 8, 2017, two days short of his 75th birthday. Pete was a museum specialist and mineralogist in the Smithsonian's Department of Mineral Sciences from 1972 until he retired in January, 2008. Prior to his arrival at the Museum of Natural History, he was a curator in the Geology Department at Boston University and he served in the United States Air Force. He completed his Masters degree in mineralogy at Boston University and his Ph.D. in mineralogy/geology from the University of Delaware. During his time at the Smithsonian, Pete was internationally recognized for his research on the mineral collection that resulted in descriptions of 134 new minerals. He had a particular passion for the complicated and fascinating geology and mineralogy of the Franklin-Sterling Hill mining district in New Jersey, publishing more than 70 scientific papers and a nine volume monograph that are among the definitive scientific works for that locality for researchers, collectors and the public. In addition to his prolific research activities, Pete was the United States representative to the International Commission on New Minerals and Mineral Names for over two decades, and was associate editors for American Mineralogist, Mineralogical Record and Neues Jahrbuch für Mineralogie. Pete retired in January 2008 and immediately returned to the Museum as an Information Desk volunteer. He said that after so many years working behind the scenes, he wanted a chance to finally meet our visitors. He loved it, and rarely missed a day. My last conversation with Pete was at the visitor desk on the Friday before he died. Pete served as scientist and volunteer in the Museum of Natural History for 45 years. He was fascinated by minerals and thoroughly enjoyed helping lost museum visitors, but perhaps more than anything, he loved a good joke -always carrying in his shirt pocket index cards with punchlines to his favorites. His joyful, and very loud, laughter is now just a memory, but his many contributions to mineralogy and the Museum are forever part of a rich legacy.

Sincerely,
Jeffrey E. Post, Ph.D.
Chairman, Department of Mineral Sciences
Curator, National Gem and Mineral Collection
Smithsonian Institution

more...

Franklin-Ogdensburg Mineral Society reports that their meeting on May 19 will include a Pete Dunn memorial.

See other remembrances on the MinDat message board
<https://www.mindat.org/forum.php?read,6,423949,424105>

Newark Basin topic of 83rd Field Conference of Pennsylvania Geologists

from

Stephen Shank, Field Conference Secretary
PA DCNR - Bureau of Topographic & Geologic Survey

The October 4-6, 2018, Field Conference of Pennsylvania Geologists will focus on the Newark Basin in Pennsylvania and New Jersey. Trip leaders are Paul Olsen from Lamont-Doherty/Columbia, Martha Withjack and Roy Schlische from Rutgers, MaryAnn Malinconico from Lafayette, LeeAnn Srogi from West Chester and Frank Pazzaglia from Lehigh. The dates are October 4-6, the first weekend in October.

The headquarters will be the Homewood Suites in Center Valley, south of Allentown/Bethlehem and just off I-78. It is a brand new hotel that was built near the former Friedensville Zinc mine. 75 rooms have been reserved for the conference at a rate of \$102/night. A Springhill Suites/Marriot is also nearby. Registration for the conference should again run around \$250. Registration will begin August 1, 2018 at 9:00 a.m. [see the web site, <http://fcopg.org/>].

Editor's note: All prior Field Conference Guidebooks are available for download from their web site at <http://fcopg.org/history/guidebooks>.

FLEISCHER'S GLOSSARY UPDATED

The 2018 edition of Fleischer's Glossary of Mineral Species is now available from Mineralogical Record. See <https://mineralogicalrecord.com/books.asp>

FEDERATION NEWS

Nittany Mineralogical Society, Inc., is a member of EFMLS, the Eastern Federation of Mineralogical and Lapidary Societies, and therefore an affiliate of AFMS, the American Federation of Mineralogical Societies. We present brief summaries here in order to encourage readers to see the entire newsletters.

The **EFMLS Newsletter** is now being distributed electronically; a link is available on our web site www.nittanymineral.org. The February issue begins with information on the EFMLS Annual Convention, which will also be the AFMS Convention this year, to be held in Raleigh, North Carolina, April 6-8, with field trip April 9. Wildacres Workshops are coming up (Spring, May 21-27, and Fall, Sept. 4-10) and this issue includes registration form and class lists.

The **AFMS Newsletter** is available by the same methods. The February issue points out that the AFMS/EFMLS Convention is right around the corner - April 6! AFMS Endowment Fund tickets need to be purchased by March 25 (or on site); prizes are shown on the AFMS web site. President Sandy Fuller writes about maintaining club membership numbers, making membership attractive, and general interest in rocks & minerals versus participation in clubs. Identifying and mentoring members for club leadership positions may be aided by consistent review of responsibilities and open positions on each regular meeting's agenda.

The Federations encourage everyone to see the web sites for the complete Newsletters. There's a lot there!

-Editor

AFMS Endowment Fund Drawing Prizes

-see details and more prizes at
www.amfed.org/2018_AFMS_Endowment_Fund_Drawing.pdf



Framed fossil fish, *Diplomystus dentatus*
Donated by Richard Jaeger (RMFMS),
former AFMS President



Amethyst crystal slice on wood base
Donated by Suffolk Gem & Mineral Club (EFMLS)

John “Pen” Ambler 1936 - 2018

by David Glick, NMS President

We are deeply saddened to report that our friend, avid mineral collector and past NMS member John “Pen” Ambler died on January 14, 2018, at age 81. He is survived by his wife of 36 years, Trish, four step-children, fourteen grandchildren, and his brother Tom. An obituary is available at www.sorgefuneralhome.com

Pen was born January 28, 1936, in Williamsport. The obituary states, “Pen was a graduate of Mt. Lebanon High School, class of 1953; and Grove City College with a Bachelors of Science degree in Education. He retired with 18 years of service from the Blair County Office of Mental Health and Retardation; was self-employed with The Shepards Guide; prior to that he worked on survey corps with RMB Engineers in northern Indiana. He had been a teacher in Michigan City, IN; and he also worked for the Department of Public Assistance.” He was gratified that younger members of his family also followed a career in social services. Pen would want us to remember that his faith was central to his life. He attended Center City Church, Altoona, as well as First United Methodist Church, Hollidaysburg.

Pen founded the Blair County Rock and Mineral Club while living and collecting in the Altoona area. He then lived in the Harrisburg area for many years; he was



close to many of the most interesting mineral collecting areas of Pennsylvania, and was active in Friends of Mineralogy - Pennsylvania Chapter (first known as Region 3). The Fall 1973 issue of that Chapter’s newsletter contains an article on “Multi-colored fluorite at New Paris,” by professionals Robert C. Smith II and John H. Way Jr, which concludes, “Mr. Pen Ambler of Hollidaysburg brought this locality to our attention. It is through help such as his that we can better understand the geology of the Commonwealth.” He moved back to Blair County about seven years ago.

He also bought collections from others, so a large amount of material passed through his hands over the years. He donated significant numbers of specimens to Nittany Mineralogical Society, Delaware Mineralogical Society, and others.



Pen breaking boulders to find ruizite, Cornwall PA, summer 2008. *Photo courtesy of Trish Ambler.*



Pen testifying at the State Capitol, 1993, in favor of naming celestine Pennsylvania’s state mineral. *Photo courtesy of Trish Ambler.*

Pen enjoyed the camaraderie of collecting and was enthusiastic in helping collectors who were new to the hobby or new to a collecting site, regardless of age. At his funeral, his grandchildren related how they looked forward to being old enough to receive a starting mineral collection as a gift from Pen. He was active in the community; the Facebook page of Fort Roberdeau, the Revolutionary War lead mine site near Altoona, states, "Volunteering at the Fort, Pen shared his knowledge and passion for geology, the sinkhole and the lead mines with school groups. Pen encouraged his grandson, Aaron Kuhn, to do his Eagle Scout project at Fort Roberdeau. The project included benches along the walking trail and five interpretive panels. Pen researched background information and located images for the panel installed at the sinkhole. This panel will educate Fort visitors about local geology for years to come."

We are compiling more information for a version of this article in the FM-PA Chapter Newsletter planned for later in March. Readers are invited to provide their remembrances to David Glick, Editor (see page 8). *

WILDACRES IS ON THE HORIZON

by Steve Weinberger, Wildacres Chair

From EFMLS News, February 2018

Our Eastern Federation offers several wonderful opportunities for its members during the year in addition to our annual convention and associated club sponsored show. One, actually two of these, are the EFMLS Workshops at the fabulous Wildacres Retreat in Little Switzerland, NC.

In spring our speaker will be Helen Serras-Herman, the world renowned glyptographer (gemstone carver) and jewelry designer. Helen will give six wonderful talks during the week and you'll have a chance to spend time with her and her lovely husband Andy. The dates for this session are May 21-27 and the cost (including room and board) is \$425.00 per person.



Purple and green fluorite collected in 1973, New Paris, PA. 16 cm. D. Glick collection, ex-Pen Ambler, ex-Ed Carper. *D. Glick photo.*



Some specimens brought by the family to Pen's funeral service. Note celestine from Meckley's Quarry, lower left. *E. Echler photo.*

We're currently still working on our speaker for the fall session - the person we're expecting is currently rearranging his schedule so that he can attend. We're sure that you'll be delighted when you learn who it is. And like Helen and Andy, you'll get to spend the week at Wildacres getting to know him and learning from his six talks. Like spring, registration is \$425 per person.

A full list of classes being offered for both sessions can be found elsewhere in this issue.

Do register as early as possible giving us your 4 preferred classes since space in all is limited and the earlier you register, the better your chance at obtaining your 1st choice.

I look forward to seeing you "on the mountain" in either spring or fall.

April 2018 EFMLS / AFMS Convention and Show

Raleigh, North Carolina

Friday, April 6 Sunday, April 8

Field trip - Monday, April 9

Hosted by the Tar Heel Gem & Mineral Club

We're delighted to welcome members of AFMS affiliated and Eastern Federation clubs to Raleigh, NC for the annual convention of both federations. We're planning on an interesting and fun weekend in a beautiful part of the country which many of you may not yet have visited.

The host hotel for the convention is

The Embassy Suites by Hilton, Raleigh Crabtree
4700 Creedmoor Rd, Raleigh, NC 27612
Phone: (919) 881-0000

A block of rooms has been set aside, but you must call the hotel directly to make room reservations. Let the reservations clerk know that you are with the EFMLS Convention (or Tar Heel Gem & Mineral Club) to obtain the group rate. This rate is good for Wednesday, April 4 through Monday, April 9.

Various registration forms will be available on the EFMLS and AFMS web sites very soon.

Schedule of Events:

Thursday, April 5:

9:00 am - AFMS Uniform Rules Meeting
10:30 am - AFMS Annual Meeting followed by the AFMS Scholarship Foundation meeting.
3:00 pm - ALAA annual meeting
6:30 - 8:30 pm - AFMS Cracker Barrel

Friday, April 6:

Tar Heel Gem & Mineral Club Show
Noon - Buffet Lunch at hotel restaurant (fee)
2:30 pm - Field trip to a local museum (tentative)
7:00 pm - EFMLS Annual Meeting

Saturday, April 7

Tar Heel Gem & Mineral Club Show
6:00 pm - Awards banquet social hour with cash bar
7:00 pm - Awards Banquet with EFMLS Auction

Sunday, April 8

Tar Heel Gem & Mineral Club Show
8:30 am - Breakfast with the Editors and Webmasters

Monday, April 9

Field trip to Hiddenite, NC. Fee \$20 per person.

THE TAR HEEL GEM & MINERAL CLUB PRESENTS



THE FORTY SECOND ANNUAL CAPITAL AREA GEM & MINERAL SHOW

Kerr Scott Building, Fairgrounds, Blue Ridge Road, Raleigh, NC

April 6, 7 & 8 2018

*FREE
PARKING*

Friday 3:00 – 8:00

Saturday 10:00 – 6:00

Sunday 10:00 – 5:00

*FREE
ADMISSION*

CLUB AREAS

Geodes

Hospitality

Silent Auction

Demonstrations

Fossils

Findings

Gemstones

Rough Material

Ring Sizing

Finished Jewelry

Mineral Specimens

Mineral Identification

DMS Second Annual Geology Symposium 2018

Arsht Hall, University of Delaware
2700 Pennsylvania Avenue
Wilmington, DE 19806

Saturday, March 3, 2018, 12 PM - 5 PM
Sunday, March 4, 2018, 11AM - 4 PM
(Seating is limited to 40-60 per room.)

Dr. Ian Saginor, Forensic Geologist, Federal Bureau of Investigation (FBI), formerly of Keystone College Saturday, March 3rd Room 224-12:30 PM -1:45PM

RED BERYL: The Hunt for the Rarest Gemstone on Earth

Diamonds are found in dozens of countries spread over five continents, but gem quality red beryl is found in only one place on Earth. When a journalist, a doctor, and a geologist set out to find it, things don't go according to plan. Come hear a story about danger, true love, and the rarest gemstone most people have never heard of.

Dr. Stanley A. Mertzman, Professor of Geology, Franklin & Marshall College
Saturday, March 3rd Room 225 2:00- 3:15 PM

"SOME LIKE IT HOT!"

Natural and Artificial Magma and Lava: What Mount Shasta Volcano in Northern California and the Armstrong World Industries Plant in Millwood, West Virginia Have in Common

Russ Losco, MA, PG, CPSS, adjunct instructor at West Chester University and Delaware County Community College
Saturday, March 3rd Room 224 3 : 3 0 PM – 4:45 PM

A Traveler's Guide to the Geology of Costa Rica

Costa Rica, known for its beauty, diversity, friendly citizens and peaceful nature, stands in stark contrast to the geologically violent origins. The country was and continues to be born of powerful tectonic collisions, earthquakes and volcanic eruptions. Come take a journey with me from the Caribbean lowlands across the Talamanca Cordillera to the Pacific coast as we explore active volcanoes, karst features, beaches, faults and waterfalls.

Sandy Schenck, Geologist, Delaware Geological Survey
Sunday, March 4th Room 225 12 : 00 PM – 1:15 PM

100 YEARS OF WISSAHICKON – What's in a Name

The Wissahickon Formation was first named over 104 years ago by Renowned Geologist Florence Bascom. Since first recognized and mapped in our area, the Wissahickon has been recognized throughout the piedmont of the Appalachians, and more recently subdivided into various terranes based on age relations and subtle variations in mineralogy. The Wissahickon and its affiliates are well known for large garnets and other interesting collectible minerals in our area.

Bill Stephens, PG, Stephens Environmental Consulting, Inc., DMS VP of Programs
Sunday March 4th, Room 224 1:30 PM to 3:00 PM

Preliminary Evaluation of the Mount Pleasant Mills Wavellite Occurrence, National Limestone Quarry, Mount Pleasant Mills, Snyder County, PA

Spectacular Wavellite crystals occur at this quarry on the south crest of the mountain where the Ridgely member of the Old Port Formation crops out. This site is a favorite collecting spot of the DMS and other clubs. The site is otherwise unknown in the literature, and the quality of specimens rivals that of world renowned classic localities in Arkansas. And many fluoresce. Come see!

Some Upcoming Shows and Meetings

Our web site <http://www.nittanymineral.org> has links to more complete lists and details on mineral shows and meetings around the country. See www.mineralevents.com for more/

March 3-4, 2018: Delaware Mineralogical Society Gem, Mineral & Fossil Show, Theme: "Favorite Finds." U. Delaware - Wilmington Campus - Arsht Hall, 2800 Pennsylvania Ave. Wilmington DE 19806 Sat 10-5, Sun 11-5. Map, coupons, poster, etc., at www.delminsociety.net SYMPOSIUM TALKS! See page 7.

March 24-25, 2018: 40th Annual Mineral and Fossil Show, by Franklin County Rock & Mineral Club. Hamilton Heights Elem. School, 1589 Johnson Rd. Chambersburg PA 17202. Sat 10-5, Sun 10-4.

March 24-25, 2018: Philadelphia Mineral Treasures and Fossil Fair, by Phila. Min. Soc. & Delaware Valley Paleo. Soc. LuLu Temple: 5140 Butler Pike, Plymouth Meeting, PA 19462 <http://www.phillyrocks.org>

March 24-25, 2018: 49th Annual Gem and Mineral Show sponsored by the Che-Hanna Rock & Mineral Club. Wysox Vol. Fire Co Social Hall, 111 Lake Rd; Wysox, PA www.chehannarocks.com

April 6-8, 2018: EFMLS / AFMS Annual Convention & Show, Raleigh NC. See page 6.

May 12, 2018: South Penn Rock & Mineral Swap & Sale, by CPRMC & Franklin Cty RMC. South Mtn Fairgrounds, 1.5 mi NW of Arendtsville off PA 234 (for GPS: 615 Narrows Rd., Biglerville PA 17307). Sat. Only, 8-3.

Geo-Sudoku Solution

T	O	I	E	U	R	P	L	F
U	E	L	I	P	F	O	R	T
R	P	F	T	O	L	E	U	I
L	R	P	U	E	T	F	I	O
O	U	E	F	I	P	R	T	L
I	F	T	R	L	O	U	P	E
P	T	R	L	F	E	I	O	U
E	I	O	P	T	U	L	F	R
F	L	U	O	R	I	T	E	P

-Have a mineral word with 9 letters, none repeated, that hasn't been used recently in our Geo-Sudoku? Please submit it the Editor (see next column).

Visit us at www.nittanymineral.org

INVITE A FRIEND TO JOIN THE SOCIETY

The Nittany Mineralogical Society prides itself on having among the finest line-up of speakers of any earth sciences club in the nation. Everyone is welcome at our meetings. If you'd like to be part of our Society, dues are \$20 (regular member), \$7 (student rate), \$15 (seniors), \$30 (family of two or more members, names listed). Those joining in March or later may request pro-rated dues. Your dues are used for programs and speakers, refreshments, educational activities, Bulletins, and mailing expenses. Please fill out a membership form (available at www.nittanymineral.org), make checks payable to "Nittany Mineralogical Society, Inc." and send them in as directed, or bring your dues to the next meeting.

We want to welcome you!

CONTACT INFORMATION

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The **Bulletin Editor** will welcome your submissions of articles, photos, drawings, cartoons, etc., on minerals, fossils, collecting, lapidary, and club activity topics of interest to the members. Please contact:

David Glick E-mail: xidg@verizon.net
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State College, PA 16801-7226

Newsletter submissions are appreciated by the first Wednesday of the month. Photographs or graphics are encouraged, but please do not embed them in word processor files; send them as separate graphics files (TIF, or good to highest quality JPEG files, about 1050 pixels wide, are preferred). Please provide captions and name of photographer or artist.