January 21st meeting:

Rare and Unusual Minerals Associated with Pennsylvania Mine Fires

by

Dr. Barry Scheetz
Penn State

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

6:30 to 7:30 p.m.: Social hour, refreshments in the lobby
7:30 to 8:00 p.m.: Announcements, questions, answers
about 8:00 p.m.: featured program

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

Mine fires throughout the coal mining regions of Pennsylvania were quite common. At one point the Commonwealth had in excess of 250 burning sites. Today this number has been reduced to 45 active mine fires. Mine fires offer a unique set of circumstances of extremely high temperatures, high air flow and the chemistry of coal minerals and overburden mixtures that are exposed to these excess thermal regimes. The result is a set of mineral species that would not necessarily form in any other environment. This presentation offers a look these mineral species and introduces new species that heretofore have not been reported in Pennsylvania.

Events of interest for youths and families:

Exploration-U State College: Community Science Night

from their web site
http://science.psu.edu/outreach/exploration-u

Exploration-U State College will be held on Tuesday, March 24th, 2015 from 6-8 pm at the State College South High School Cafeteria.

Formerly known as “Space Day” and “Bio Days,” Exploration-U: State College is a free, one-day event for the general public in State College. In collaboration with State College area school district teachers and students who come to display work and interest in science, technology, engineering, and math (STEM), the Penn State faculty, undergraduate and graduate students showcase their research or general science topics with hands-on activities for families and children. Each year, over 600 people attend this 2 hour STEM extravaganza! Youths groups also attend, such as scouts, 4-H, and community organizations are invited to explore STEM fields.

Funds for this event originally came from NASA, which provided support for astronomy-themed presentations. However, this program is now funded through other means. These costs includes accommodating the planetarium and food.

Response for this event is always overwhelmingly positive, with numbers of participants growing each year.

EMEX: Saturday March 28

Penn State Earth & Mineral Sciences Exposition

Sign up later in January: http://www.ems.psu.edu/emex

Annual Open House. Penn State’s College of Earth & Mineral Sciences' EMEX 2015 will take place on March 28, 2015 from 7:45 a.m. to 2:00 p.m. All high school students, current Penn State students, and transfer students who are considering an EMS major are invited to attend. Discussions, College tours, demonstrations, and speakers.

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 reports that WPSU-FM and Penn State Live <http://live.psu.edu/> are “the official sources for weather-related delay or cancellation advisories at Penn State’s University Park campus.”

- Editor

ATTENDING THE JANUARY MEETING?
Donations of labeled door prize specimens are invited. Your donated snacks and drinks will be welcomed. Bring a friend!
John Passaneau Memorial Jan. 24

Memorial services for late NMS member John Passaneau will be conducted at The State College Evangelical Free Church, 1243 Blue Course Dr., State College PA 16801 on Saturday January 24, 2015, at 1:30 p.m. Dr. Andrew Sicree will speak on behalf of NMS; he was present with John when NMS was founded in 1994. Other scheduled speakers include representatives from Nittany Amateur Radio Club, Penn State Physics Department, and two close friends. There will also be time allotted for spontaneous memorials from others.

Donations in John’s memory may be made to the Nittany Amateur Radio Club, PO Box 614, State College PA 16804, or to NMS. Our own memorial article appeared in the November issue of this Bulletin.

- Editor

In memory of
Irene E. Smith

NMS recently received a donation from Robert C. (Bob) Smith, II, in honor of his mother, Irene E. Smith, who died in 2013 at the age of 98. Bob is retired from Pennsylvania Geologic Survey, and may be best known to collectors as the author of *The Mineralogy of Pennsylvania 1966-1975* (Special Publication No. 1, Friends of Mineralogy, Pennsylvania Chapter, 1978).

Bob writes: She began mineral collecting in 1953. The majority of her collecting was in Pennsylvania, New Jersey, and Ontario. Some of her mineral collecting credits include finding a 20 cm+ quartz var. amethyst vug in basalt at Summit, NJ, and the fluorescent sodalite var. hackmanite and scapolite var. wernerite locality itself near Messines, Quebec. (Not bad without having an ultraviolet light along!) The hackmanite thoroughly confused and disappointed her son, Bobby, as it faded from rich purple red to colorless within a few minutes of exposing to sunlight. Only on returning home to Pennsylvania did they find that the color was reversible (tenebrescent) and that much of what they had collected was beautifully fluorescent. With the aid of local residents, she also tramped out several localities new to collectors such as a lead-barite mine, a mercury mine, and a phosphate mine near Burridge, Ontario. Unfortunately, many of these were located in swamps and visited long after the reintroduction of beavers into the area by James Park, 1877-1971, had made the area a perfect habitat for mosquitoes.

Mineral Collecting:
Before Zero to the 16th Century

by Andy B. Celmer,
EFMLS Historian
from
EFMLS Newsletter
52:3,
January, 2015

Hello Dear Friends,

Let’s chat about mineral collecting and where it all began. Picking up pretty rocks goes far back in our family tree. Further back in time still is the avocation of Magpies and other birds to collect shiny objects. So collectors go way back. Mineral collecting for Medicinal and Mystical Purposes is recorded on clay tablets about 2,100 B.C.E. (Before the Common Era) and may be some of the earliest mineral collections. Ancient texts speak of Treasures and items of wonder belonging to the rulers of the world. The only grunts collecting minerals would be the miners themselves. All those collections have been lost to the sands of time and mineral collecting did not advance for a Long Time.

We credit this lack of progress to Aristotle (384-322 B.C.E.) and if you were paying attention to my other articles, you know he liked to figure things out using pure thought, without the need to collect, study or test an object. A Natural Philosopher pursued this line of reasoning at the time. Therefore there is no need for a collection of plants, animals or minerals; you can divine the answer with your intellect.

“But wait Andy B,” you say, “What about Pliny the Elder?” You are correct! Pliny the Elder 23-79 A.C.E. (After the Common Era) wrote a more than 150 Volume work that contained all known
knowledge of that time. Some disciplines addressed include; botany, zoology, astronomy, geology and mineralogy. His "Natural History" contains numerous inventions and processes, which stimulate advances throughout the Roman empire. However in the area of Natural Philosophy, Aristotle holds sway.

Of course we are looking at our ancestors through 20-20 lenses. Nonetheless 2,000 years go by without much change. Collections are classified using the signs of the zodiac or alphabetically.

Then, one day the Renaissance (14th to 17th century) arrives upon the scene. People of means want to study and understand nature. Collections of the natural world begin to bloom and slowly, detailed examinations lead to classification systems.

I present this Reader’s Digest version of the first few millions years of mineral collecting because not much is written about these collections. I can say that Fred Flintstone, employed as a miner in a quarry, created the first mineral collection until Wilma convinced him to use the collection to build an addition on their house. This is anecdotal evidence which does not belong in such a hoity-toity article! Suffice it to say, a collector using physical characteristics of minerals as a classification system is a collector of interest. What follows is a thumbnail version of some of the mineral collectors of the 16th century, which as we all know is during the Scientific Revolution.

Georgius Agricola (1494-1555) is born Georg Bauer. He will later latinize his name for his publications and because women dig it. He is trained as a physician and begins his mineral collection for medical reasons, but that is just the camel’s nose in the tent! He is appointed city physician of St. Joachimsthal, (Germany?) later to Chemnitz, both silver mining towns. These areas will contribute a great many samples to his collection. He also travels and corresponds widely, further enhancing his collection, or “Holdings” as we say today.

Agricola will publish two important works in 1546. “The Nature of Minerals” classifies minerals by physical properties such as density, color, luster, transparency, taste, odor and shape. This classification system provides a rational approach for mineral collectors and they are off and running. Our current system of mineral classification is based on chemistry (sulfates, silicates, etc.). Chemistry is not rocks or geology and therefore will not be addressed in these pages.

Bernard Paillasse (1510-1590) a self-taught potter, started collecting minerals used in ceramics and glazes and after 16 years of experimentation invented a glazed stoneware prized by the aristocracy. Self-collecting over these years to save money for his pottery work, his observational skills served him well, as he learns about geology and mineral formation.

As a Protestant he believes in examination of the Scriptures and coming to his own conclusions. He therefore, approaches the world and present day texts with a critical eye toward observation and deduction.

Business is good; Paillasse moves to Paris and gives lectures using specimen as examples from his personal museum for prominent intellectuals. This is the first collection in Paris to be used for scholarly instruction. When reading his book you are expected to visit his museum and do the lab work to confirm Paillasse’s statements.

This is also the beginning of institutional museums. Many museums began with one person’s collection, such as the Smithsonian. People who gave their collection to an institution include; Conrad Gesner’s (1516-1565) collection is in Naturhistorisches Museum in Basle; Francesco Calzolari (1521/2-1600/6) collection is part of the Miniscalchi Foundation in Verona; Ulisse Aldrovandi (1522-1605) bequeathed his museum and library to the city of Bologna, among many others.

Agricola and Palissy and many others began teaching a systematic classification of minerals using physical properties. Samples are available for examination and testing. No longer will the natural world be explored by conjecture. We learn to collect, examine and test the natural world to plumb its secrets. The world slowly begins to turn away, the sway of Aristotle.

*
Wonderful Wildacres
by Steve Weinberger, Wildacres Committee Chair
from EFMLS Newsletter 52:3, January, 2015

As I write this our neighborhood is blanketed in snow -- snow in Maryland before Thanksgiving? Sure an odd sight! Although a beautiful scene, I can’t help but turn my thoughts towards springtime and the chance to head off to see the spring blossoms that always greet us upon our arrival at Wildacres. And this time, with a late May date, it’s doubtful that we’ll be greeted with snow showers...or even bitter cold weather.

Not yet been to Wildacres? Are you ever missing a treat! Wildacres Retreat is a conference center that offers its facilities to non-profit groups such as the EFMLS who conduct educational or cultural programs.

Situated on 1,600 acres on a mountain just off the Blue Ridge Parkway in Little Switzerland, NC (about an hour north of Asheville), the center includes a variety of classroom and meeting spaces, and about 60 double-occupancy bedrooms, each with a private bath. EFMLS has use of Wildacres twice each year and 2015 will be no exception.

In a nutshell...Wildacres is a fabulous place to take classes in lapidary, jewelry making, photography, etc.!!! Each of our sessions features a guest speaker plus a lineup of interesting classes for participants to chose from. A complete list for each session can be found elsewhere in this issue (or on our web site <efmls-wildacres.org>).

Spring (May 19 – 24) will see the arrival of none other than Bob Jones, Senior Editor of Rock & Gem Magazine as our Speaker-in-Residence. Bob will provide all of us with six fabulous talks including some about his adventures around the world. He’ll be joined by his wife Carol, an exceptional jewelry artist. Bob really needs no introduction other than to say that he’s a marvelous person and speaker and that we’re in for a treat.

Later in the season (dates still to be determined), Denise Nelson will join us as Speakers-in-Residence. Denise is a graduate gemologist, member of the National Association of Jewelry Appraisers, recipient of the Diamond Council of America’s Gem and Diamond certificates and owner of her own jewelry design and appraisal service.

So what are you waiting for? Registrations for the spring sessions will be accepted beginning January 1 and since class size is limited, we suggest that you register NOW so you won’t be disappointed. A complete list of classes can be found on page 17 and a registration form on page 18 [of the January EFMLS Bulletin].

Want more information? Visit our website (www.efmls-wildacres.org) or the Wildacres Retreat web site or contact us at <info@efmls-wildacres.org).

We promise that you won’t be disappointed.
### Presentations in Scott Hall Room 123

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<td>10:00 am to 11:00 am</td>
<td>“A Dip in the Ocean: An Interactive Exploration of How the Ocean Impacts You and How You Impact the Ocean”</td>
<td>Janice McDonnell</td>
<td>Rutgers University Department of Marine and Coastal Sciences</td>
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<td>1:30 pm to 2:30 pm</td>
<td>“Earth’s Cocktail Party: Deciphering the Physics of Earthquakes with Networks of Seismic Arrays”</td>
<td>Dr. Jean-Paul Ampuero</td>
<td>California Institute of Technology Seismological Laboratory</td>
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<td>11:30 am to 12:30 pm</td>
<td>“Extremophilic Environments and Microbial Diversity Within”</td>
<td>Dr. Ramaydalis Keddis</td>
<td>Kean University Department of General Studies</td>
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<td>3:00 pm to 4:00 pm</td>
<td>“The Art of the Geological Map”</td>
<td>Dr. Don Monteverde</td>
<td>New Jersey Geological and Water Survey Rutgers University Department of Earth and Planetary Sciences</td>
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### Mineral Sale - Scott Hall Room 135 from 9:00 am to 4:00 pm
- Rock and mineral identification – Scott Hall Room 206 from 11:00 am to 2:00 pm
- Make-and-take stations for kids (all ages) - Geology Museum from 11:00 am to 3:00 pm

### Hands-on activity sessions for kids (ages 8+) in Scott Hall

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<td>Outbreak</td>
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### CART Captioning Services
CART Captioning Services will be available for all RUGM lectures. Contact the museum at 848-932-7243 or at museum@rci.rutgers.edu for more information about this event.

Check out our website at http://geologymuseum.rutgers.edu
NEWS FROM THE FEDERATIONS

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 available through the link on our web site www.nittanymineral.org, or remind Dave Glick to bring a printed copy to a meeting for you to see. In the January issue, matters concerning the 2015 Annual Meeting are discussed. A two-part bylaws amendment concerning term lengths for the President and Vice Presidents, and another changing “audit” to “audit or review” for treasurer’s annual records, will come up for vote there. President Merrill Dickinson discusses his rationale for his term lengths proposal. Voting on the proposals will occur during the EFMLS Annual Meeting in Hickory, NC, on Friday, March 27, 2015. The slate of candidates up for election at the meeting is also presented. The 65th Annual EFMLS Convention will then take place on March 28-29, hosted by the Catawba Valley Gem & Mineral Club in conjunction with their Show at the Hickory Metro Convention Center, Hickory, North Carolina. Wildacres workshops for 2015 are discussed (the article is included on page 4 of this Bulletin) and the Spring class list and a registration form are provided. The safety article discusses lines that must not be crossed for personal safety and for maintaining a good relationship with hosts such as quarry owners. The Conservation & Legislation column continues the theme of “Collecting Responsibly.” The Editors Corner column notes one addition to the “Decade Club” of editors serving ten years or more; that’s the editor of this Bulletin, David Glick.

The AFMS Newsletter is available by the same methods. The December-January issue was covered in last month’s Bulletin.

Please see the web sites for the complete Newsletters. There’s a lot there! - Editor

Geo-Sudoku
by David Glick

This puzzle contains the letters ADEFILMRW, and one row or column spells the “collecting” couple mentioned in Andy Celmer’s article. 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.

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Help me create better puzzles than this one! Suggest geo-words of nine letters, all different, to the Editor (see p. 8). Thank you!

Classifieds

Ads may be submitted to the Editor (see p. 8)

FOR SALE: This sturdy, three-legged cast aluminum lapidary unit is made by Gemlap Equipment, model 5-A. Its tub is 4 inches deep, and will hold any grinding wheel or platen up to 2-inches thick and 10 inches in diameter. Its center ball bearing mounted spindle is 0.5 inches in diameter, with a 0.5-20 UNF fine thread (20 threads per inch.). It is driven from below by any conventional pulley system. Old but in excellent condition. $25; proceeds go to NMS. Contact Jim Garthe, jwg10@psu.edu, (814) 667-2409.
FOR SALE: Long-time Pennsylvania collector John ‘Pen’ Ambler in Hollidaysburg has books, specimens and more for sale. Pen reports: “I have some 10 – 15 cartons of books on mineral and mineral related subjects. My cataloged collection consist of upwards of 6,000 specimens some of which were the Ed Carper collection. The specimens are cabinet, small cabinet, hand-sized, miniature, thumbnail and micro minerals. Many of the minerals are PA and eastern U.S.; however, it is a varied collection. There are lapidary materials (slabs and some bulk); limited fossils; tumbled stones including PA amethyst; UV materials and equipment; supplies (boxes, etc.).” Please contact Pen by email: bridger@atlanticbb.net

FOR SALE: 2 Homemade Lapidary saws for sale - 14" and 18". Both come with working motors, arbor, belt, pulley, rock clamp/carriage, and a blade. Both are mucked-out and ready to move. Both could use a little TLC. For more info contact Mike Zelazny at fabricatefilm@yahoo.com

FOR SALE:
Microscope & Accessories, Mineral Specimens, Crystal Models. Avid collector wants these to be purchased by someone who would appreciate them. Contact Frank & Gail Beall, 724-789-7290. See much more complete listing at www.nittanymineral.org/beall.pdf

Meiji RZ-B Trinocular Microscope system: two 10x eyepieces plus zoom yield 7.5x to 75x viewing. Wide field. High stand with long focus distance allows viewing, for instance, into a “cantaloupe-size” geode. Equipped for photography with trinoc tube for mounting separate photo “eyepieces” (included) and camera (not included) at the same time. Iris diaphragm to control depth of field. Separate Fiber-Lite brand FL-181 variable-intensity illuminator with halogen bulb and two flexible fiber-optic arms about 22" long. Focusing lenses (change the lighting spot from 1/4 inch to inches in diameter without moving the arms) and filter holders on the illumination arms. Built-in cooling fan; anti-vibration table (over 100 lbs) built according to specifications from Jeff Scovil to prevent blurred photos caused by fan vibration. Camera is mounted via T-mount which would need to be ordered for the user’s specific interchangeable-lens camera model. Customized case, manuals, calibration slide, spare bulbs, etc. are included. Exceptionally high quality microscope, used for one project in 2004-5 and virtually unused since then. Paid $6,000 in 2004, would cost several times that today. **Only reasonable offers, please.** It will still be a bargain for the right person.

Mineral Specimens: High-quality specimens, many already sold. Those remaining at this time include:

Tetrahedrite, Zacatecas, Mexico, 5x4" Pyrite & marcasite, Idarado Mine, Ouray, Colo. Ex-Carnegie Museum, was on display for nearly two decades. 10.5 x 6"
Mesolite, Nasik, India 2.75", paid $120.
Barite on quartz, Old Mines, MO. 4x3" Tetrahedrite, Peru 5x4", paid $350.
Smoky quartz, amazonite, albite. Albany NH. Ex-Carnegie Museum. 4.5x3"
Andradite garnet, Calaveras County CA. 5.5x3.5"
Elbaite (tourmaline) on albite Var, clevelandite, Minas Gerais Brazil. Ex-Carnegie Museum. 9x3.5"
Quartz pseudo after barite, Ouray CO, Ex-Carnegie Museum Hillman Hall display 7x6"
Calcite & strontianite, Winfield PA, 6.5x5", Ex-Carnegie. Rhodochrosite, quartz & tetrahedrite, Rob’s Pocket, Sweet Home Mine, Alma CO. 3x2". 2014 appraisal $2,300.
Ruby, garnets, amethyst, selenite, apophyllite & stilbite, galena & calcite, others.
Extensive life-long collection of pyrite specimens, many still available. A number of rare or unusual forms and from a variety of locations, a variety of sizes from thumbnail to several pounds. Stored in several sealed containers with desiccant. General collection of approx. 500 mineral specimens in plastic “keeper” boxes; some fossils and cave formations. Thumbail to almost hand-size. Crystal Models: Plexiglas, wood, cast acrylic, ball-and-stick. Exhibit & educational materials. Scroll-sawed art replicating mineral specimens: 16x12" framed calcite, 16x12" framed iron pyrite.
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.


January 31, 2015: Rutgers Geology Museum Open House, Rutgers University Geology Museum and Scott Hall, New Brunswick, NJ. 9-4. See page 5, and https://geologymuseum.rutgers.edu/museum-events/open-house (Parking and additional information on web site)


May 16-17, 2015: World of Gems and Minerals Show, by Berks Mineralogical Soc. Leesport Farmer’s Market, Route 61, Leesport, PA.

June 6, 2015: Spring Minalfest, by Penna. Earth Sciences Ass’n. Macungie Memorial Park, Poplar St., Macungie PA. Sat. only, 8:30-3:00.

Geo-Sudoku Solution

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
209 Spring Lea Dr. phone: (814) 237-1094 (h)
State College, PA  16801-7226

Newsletter submissions are appreciated by the first Wednesday of the month. If you include photographs or graphics, 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.

Visit us at www.nittanymineral.org