

Nittany Mineralogical Society Bulletin

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

September, 2016

Visit our web site: www.nittanymineral.org

Editor (see back page):

David C. Glick

September 21st meeting:

Fluorite, the Fourth Mineral

presented by Andrew A. Sicree,
based on Arvid Pasto's
Collectors' Guide to Fluorite

Our September meeting will be held Wednesday the 17th in room 114 (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, answers

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!
-Editor

Fluorite is a popular mineral among collectors principally because it can be found as well-formed crystals in a wide variety of colors. Fluorite occurs in purple, red, blue, green, and every color of the spectrum. Black specimens are known, as are clear colorless specimens. Sometimes we find bands of different colors in a single specimen of fluorite.

Fluorite occurs in geologic environments ranging from sedimentary to high-temperature hydrothermal. It is mined in large quantities because it is valuable as a fluxing agent in steel-making.

This mineral is much-collected because it is a relatively common mineral (common enough for Friedrich Mohs to give it the 4th place on his scale of hardness), common enough that most collectors will encounter it in the field.

This talk focuses on fluorite, using it as an example to introduce the beginning collector to some of the basic principles of mineralogy. ❄



Cubic crystals of purple fluorite, Cave-in-Rock, Illinois.
J. Passaneau photo

OFFICIAL NOTICE: Annual Meeting and Elections in October

by David Glick, NMS President

The October 19th meeting will be the **Annual Meeting of the Corporation**, and will include election of officers. In accordance with our bylaws (available on the web site), the Board of Directors, acting as the Nominating Committee, presents the following slate of candidates:

President	David Glick
Vice President	Bob Altamura
Secretary	John Dziak
Treasurer	Stuart Bingham

The Board truly needs **additional volunteers** to get involved with running the Society, providing **new energy and fresh thinking** and some new names on the ballot. In many cases it would be useful to have newcomers spend some time on committees and attending Board meetings before stepping into elected office. **All members: please consider volunteering!**

Membership Dues - Online or Snail Mail

We are trying out a new option: payment via Paypal and dues form submission via fillable PDF form (available for download from <http://www.nittanymineral.org/mem>). The old way is still fine too - fill in the printed form and mail it in with a check, or bring them to the September meeting. Members receiving the printed Bulletin will find a printed dues form enclosed. Payment in September helps avoid additional expense of sending more forms in October. Dues are due by the end of October.

ATTENDING THE SEPTEMBER MEETING?

Donations of **a few high quality, labeled door prize specimens** are invited.

Your donated snacks will be welcomed.

Bring a friend!

Lapidary Demonstration at Maker Week

Maker Week was held in State College during the first week of Penn State classes, and NMS was invited to participate. Lapidary enthusiast Bob Altamura organized an active, hands-on exhibit demonstrating the carving, grinding and polishing of gemstones. A great variety of "rough" material was shown, along with finished stones and jewelry. It was a pleasant day and attendance for the overall event and for our booth was very good. The help of volunteers Priyanka, Jenny and John was greatly appreciated.

- Editor



Photos by D. Glick



Upcoming NMS Programs

Oct. 19 A Geological Tour of California - Los Angeles to San Francisco - Dr. Charles E. Miller, Jr.

Nov. 16 The Rogue Kimberlites of Indiana County, PA - Dr. Duff Gold

Field Trip - September 24: Earthen Paradise, Prospect, Virginia

from Ed Echler, Field Trip Chair

Our field trip to Earthen Paradise in Prospect, Virginia, is planned for the weekend of September 24. This is a fee mine where we can dig kyanite, garnets and quartz and do gold panning in the stream. See the kyanite photograph, courtesy of Jessica Callen, owner of Earthen Paradise.



The drive is about 5 to 6 hours from State College. This is a fee dig mine; at this time the fee is 20 dollars a day. Sometime this fall the fee will change. If I have enough interest in this trip I can negotiate the fee. If you are interested in going on this trip, please email Ed Echler at eechler@comcast.net.

Friends of Mineralogy - Pa Chapter Symposium November 5 - 6

Friends of Mineralogy - Pennsylvania Chapter will hold their annual symposium at Franklin & Marshall College in Lancaster, Pa., on Saturday November 5, with a field trip (for symposium registrants only) on Nov. 6. Advance registration is strongly encouraged.

Scheduled speakers are listed below. There will also be invited mineral dealers; a give-away table; silent auctions of specimens, books, tools, and more; and plenty of opportunities for fellowship with other avid collectors. Professional geologists can receive professional development hours for lecture attendance.

At this time we are planning for talks including the following topics:

Dunite of the PA-MD Chrome Mining District
Hawaiian minerals and geology
Ages of Pennsylvania minerals
and others!

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

- Editor

The 2016 Rodman Paul Award

by Johnny Johnsson, Mining History Association
from *AFMS Newsletter 69:8, September 2016*

The 2016 Rodman Paul Award was presented to the Hauck Family of Franklin, New Jersey during the July Mining History Association meeting.



The Hauck Family is worthy of mining history recognition for their accomplishments in rescuing the Sterling Hill Zinc Mine in Ogdensburg, New Jersey and developing it into a world class mining museum. Richard (Dick)

and Robert (Bob) Hauck, their respective spouses Elna and Patti (d. 2010), children, and extended family members were intimately involved in this decades-long commitment to establish and grow the Sterling Hill Mining Museum.

Mining at Sterling Hill dates back to the 1700s, being one of the two deposits forming the worldclass Franklin Zinc-Mining District. Rich zinc, iron, and manganese ores were recovered at various times during the 19th-Century, and with the Great Consolidation of 1897 New Jersey Zinc was established and primed for a strong 20th-Century run. Sterling Hill played an important role in the early 1900s, and again after 1954 when the nearby Franklin Mine was shut down. Unfortunately from a mining perspective, the mine closed for economic reasons in 1986. At this point, most such defunct mining and industrial sites in the East are usually obliterated and lost.

Dick and Bob Hauck had long been interested in minerals, mining artifacts, and mining history. In 1988 when the Sterling Hill Mine went up for tax sale, the Hauck's sold their successful nursery and flower business and purchased the 35-acre mine site tract at tax sale for \$750,000 to keep it from being destroyed or developed. Doing whatever it took, sometimes facing incredible regulatory hurdles or tax barriers, they organized an enduring non-profit educational foundation to open and sustain a museum. The museum opened to the public in 1990 with surface and underground tours showcasing the mine, its history and mining operations, and displaying rare fluorescent minerals for which the Franklin & Sterling Hill Zinc Mining District is most famous. Many minerals and artifacts from the Haucks' personal collections formed a nucleus for a growing museum collection, supplemented by donations, purchases, and sales as the museum entity became successful and self-sustaining. These displays have been seen by hundreds of thousands of visitors in magnificent underground settings, as well as in museum showcases located in historic mine buildings. An emphasis on earth

science and education has helped solicit continuing corporate sponsorships and grants. Many school students and scout groups tour the mine (40,000 visitors annually). Advanced research has also been conducted on site by university and government scientists. Additional underground tunnels were developed for tours to include historic stopes that were uncovered and more fluorescent zones. The mineral-collecting community is catered to regularly with both day and night-time collecting events.

The Haucks hosted our 2005 MHA Mining History Conference Sunday Tour, including feeding our group. We not only received an extended tour of Sterling Hill (including behind the scenes plant and head-frame visits), but also special access for an informative walk all about the historic Franklin Mine and Trotter Shaft & Dump premises adjacent to the Franklin Fluorescent Mineral Museum, which we also toured. The Haucks have served on the Mineral Museum Board as well, and fostered cooperative relations between the two museums. They got Sterling Hill placed on both the National and New Jersey Registers of Historic Places in 1991 and turned it into the best mining museum on the East Coast.

In 2015, after 25+ years of active service, leading and mentoring an army of volunteers, the Haucks retired from active roles at Sterling Hill. They have only been able to attend a few of our MHA Conferences due to the high-demand for museum tours each June, but they are known to a number of MHA members as engaging, knowledgeable, and generous.

For their commitment and achievements in mine site preservation, education, and mining history, the Hauck Family is a worthy recipient of the Rodman Paul Award.

Respectfully submitted,
Johnny Johnsson-Chairman
Duane Smith, Karen Vendl



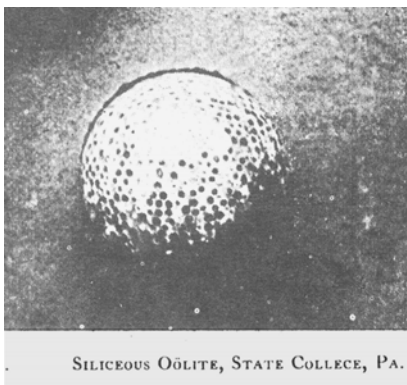
The Mining History Association's Johnny Johnsson presents the 2016 Rodman Paul Award for outstanding contributions to mining history to the Hauck Family. Pictured from left to right: Johnny Johnsson, Dick & Elna Hauck, Bob & Elizabeth Hauck.

120 Years Ago in THE MINERAL COLLECTOR

The September 1896 issue included Part 5 of Concerning Quartz, by A.C. Bates. Next was Observations on Oölites, A Preliminary Paper, by G.R. Weiland, It said, in part,

“...since the occurrence of the fine siliceous oölite obtained near the Pennsylvania State College in Center Co., Pa., was first advertised and described in 1890, in the “mineralogists’ Monthly,” of which The Mineral Collector is the lineal descendant, not only siliceous oölites, but a number of others of varying composition have been reported from widely different points. Petrographers now recognize the fact that oölites are so varied in composition that it is necessary to specify the kind. Thus we have calcareous, iron bearing, siliceous, magnesian, dolomitic, and as we shall show in this article, silico-dolomitic oölites.

The article referred to the frontispiece photograph in the issue, which showed various gemstones and jewelry made from silica minerals, from the collection of Arthur Chamberlain. The State College Oölite portion is shown here.



NMS Picnic on a Beautiful Day

NMS thanks Ellen and Stuart Bingham for hosting the annual NMS picnic on September 11th at their home in Pennsylvania Furnace. Most of the attendees are shown at right. Photo: D. Glick and R. Altamura.



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 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. The September issue promotes the EFMLS Convention, October 21-23 in Rochester, New York. Candidates for the offices to be elected there are announced, as are bylaws changes to be voted on. Obituaries for well-known Federation personalities Gen R. Bolick and Fred Ward are presented.

The **AFMS Newsletter** is available by the same methods. In the September issue, the 2016 Citation Award is presented to immediate past president Dr. Bob Carlson. President Matt Charsky comments on the recent AFMS Annual Meeting in Oregon. Ellery Borow's safety article is on controlling or avoiding the hazardous chips that are produced by collecting and lapidary activities (see page 7). The Mining History Association presented their 2016 Rodman Paul Award to the Hauck family of Franklin, New Jersey, who are friends of Nittany Mineralogical Society as well. That article is reproduced on page 3 of this Bulletin. The resignation of long-time, enthusiastic Federation Historian Shirley Leeson is announced; the memorabilia she collected through the years will be a feature of next year's convention. Extensive results of the bulletin and web site competitions, and inductees in the Editor's Hall of Fame, are announced. From the convention, Endowment Fund Drawing winners and competitive exhibit winners are announced.

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

September NMS Meeting Door Prizes

By Bob Altamura

Shown below are two door prizes which we plan to offer at the September 21st meeting.



This descloizite specimen was once in the collection of our late member John Passaneau. A lead-zinc vanadate hydrate, $PbZn(VO_4)(OH)$, it is from Tsumeb, Namibia. *R. Altamura photo.*



This polished metarhyolite slab is from the South Mountain terrane in Adams County, Pennsylvania, and was collected and donated by Jim Garthe. It's an end cut from a large chunk that Jim used in one of his large lapidary projects. *R. Altamura photo.*

66th Annual EFMLS Convention and Rochester Gem, Mineral, Jewelry & Fossil Show and Sale

The Annual convention of the Eastern Federation of Mineralogical and Lapidary Societies will be hosted by the Rochester Lapidary Society at The Radisson Hotel, 175 Jefferson Rd, Rochester, NY 14623. The Federation's Annual Meeting and elections will be held Friday, October 21, and the banquet, other Federation activities, and the Gem Show will take place Saturday and Sunday. The convention packet available at <http://www.amfed.org/efmls/conventionp.htm> has the schedule and much more.

The Show site <<http://www.rochesterlapidary.org/show/>> has Show details and map, coupon, and a link to connect with the Show's Facebook page at www.Facebook.com/ROCGemShow

Geo-Sudoku

by David Glick

This puzzle contains the letters ABCEIKNTY. One row or column includes a blue mineral with interesting hardness properties. As usual, if you've read this issue, you've seen the word. 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.

	K			Y		B	T
	T		B				C
			K			I	
		T	K	C	E	A	B
					T	C	N
		B	T	N		K	I
B	C		Y				
			E	C	K		
N	E		B	I			

Safety Matters - Safety 101

by *Ellery Borow, AFMS Safety Chair*
from *AFMS Newsletter 69:7, June 2016*

To my knowledge there is no rockhound / mineral collector / fossilhound / lapidary / jewelry maker Safety 101 class being offered anywhere. In my years and years... and years of safety research I've sort of made up an informal list of what might be offered if there were such a course.

Now, I'm sure you all as good rockhounds / mineral collectors / fossilhounds / lapidary / jewelry makers are aware of, in one form or another, and follow pretty much a self-made list of similar guidelines -- and one more specifically tailored to your particular activities. So, the following list may be more of a reminder for veteran collectors and a good reference list for newcomers to our great hobbies.



1. Prepare yourself both mentally and physically for the task at hand.
2. Wear and utilize any and all protective gear suitable for the task.
3. Stay hydrated and consider bringing additional water with you to offer to those less encumbered with thoughts of keeping hydrated.
4. Keep with you or know the whereabouts of a med-kit, first-aid kit. Learn how to use the contents of the kit.
5. Let folks know where and when you will be both on the road and situated at a specific location. (Cell phone batteries are notorious for quitting at the most inopportune times.)
6. Keep your personal meds with you.
7. Know the guidelines, safety rules of the mine I quarry I building / equipment one is working with I on I in and by.
8. Keep the "Golden Rule" in mind, and, no, I'm not talking about the rule that says "He who has 7the gold makes the rules."
9. Mind the needs of the critters you bring with you, and the critters you meet along the way.

10. Set a good example in all you do. (I have a good story about motor neurons to relate in a later Safety Matters article)

11. Every minute has the potential to be one in which one can learn something and teach something -- or a little bit of both. Take advantage of those opportunities.

12. Take more rest breaks than you might think you need for the task at hand - - your body will thank you.

13. Mind the conditions in which you find yourself - too hot, too cold, too wet , too humid, too deep, too close to an edge or slope , too slippery, too hazardous, toooooo . . . anything.

14. Mind that your actions reflect on your club.

15. Note that your attitude makes a huge difference in what you do and how safe you are.

16. Keep your wits about you at all times, you will need them if not now , then later. Personally I have use up so many wits that I am down to a half of one, but that is another story for another time.

17. Have maps handy . Those GPS batteries are also ones that have a habit of failing when most needed.

18. Our hobby is not a race - take the appropriate amount of time to be safe.

19. Keep a personal protective kit with you in case one gets lost and need to spend more time that planned out in the wilds and woolies.

20. Keep in mind the AFMS Code of Ethics - it is as much a safety guide as it is ethics.

21 . Learn to fly the plane if the pilot is incapacitated - a metaphor of all experiences in life.

22. Clean up after oneself.

As one might imagine this list is in no particular order and every situation demands it's own specific requirements . As a general list of guidelines I'm sure another thousand or so could be added without too much thought . This list is just a good starting point.

Be safe, think safety, because ...

...your safety matters.

Safety Matters -Let the Chips Fall Where They May

by Ellery Borow, AFMS Safety Chair

from AFMS Newsletter 69:8, September 2016

Yes, in most instances letting the chips fall wherever they may is about all we can do. When it comes to our hobby, however, we often try to exercise what I call - chip control.

Most of our lapidary work creates both large and small chips during the various activities of that work . Faceting, cabochon and sphere making, slab and trim sawing, and even some carving are usually performed wet using water, treated water, or oil. Wet work captures the dust and small chips, and together fall to the bottom of the pan - - instead of the entering the air we breathe. Working wet is a form of chip control. Some lapidary operations, notably carving, are done dry with any dust and small chips captured and diverted using some kind of fan, hood and ductwork. This too is a form of chip control.

Many activities in our hobby produce a different kind of chip -- a large chip. A chip whose flight, direction, velocity, and momentum are of concern determine how we manage chip control. Large chips are produced when a rock pick strikes a rock, when a sledge/crack hammer impacts a chisel, when a rock is tossed aside and in its landing hits another rock, and even when a bucket of rocks upended. Chips are also produced by seldom noted processes. For example, at shows I have noted demonstrations of geode cracking, with some of those demonstrations using chain and cutter , cast iron pipe cutters to crack the geodes. I have seen hydraulic and screw type matrix / specimen trimmers produce chips. Pretty much every operation to alter, separate, or play with the form of a hard rock produces chips.

How do we perform chip control, especially with those large chip producing procedures? First we should protect ourselves with proper safety gear such as gloves, long pants and shirt sleeves, eye protection, and whatever protective gear is appropriate for the situation. Now, PPE (personal protective equipment) is all well and good but what about the other folks in the vicinity of the chip-producing activity? What do we do in that case to address safety concerns? It is possible to shield an area from flying chips by positioning our body to

protect others. We can utilize collecting buckets, screens, or other barriers to control the flight of chips. If blocking of chip flight is impossible, perhaps we can suggest that folks in the area wear their own PPE. In fact, if the persons in the area are our own kids, we can insist on it! Sometimes we can capture chips by carefully using our gloved hand to divert flying chips. Even fabric draped over the chip producing area can be effective with chip control. On occasion it may even be possible to move the chip producing activity to a secluded area. It may sometimes be more prudent to hold off any major chip production until people in the area have vacated the space. Rockhounds are undeniably creative people .

We, as respectful rockhounds should mind where our chips fall. After all, we certainly want to be good, considerate, and thoughtful rockhounds.

Be safe, think safety, because your safety matters.

NMS 20 YEARS AGO

In September 1996, NMS was working hard in preparation for the Centennial Mineral Symposium, on the occasion of the centennial of the College of Earth & Mineral Sciences. The theme was Carbonate Mineralogy, and the keynote speaker was mineral photographer and author Jeff Scovil.

COLLECTION FOR SALE

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

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.

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

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

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

October 21-23, 2016: Eastern Federation of Mineralogical and Lapidary Societies Convention & Show, Rochester, NY. <http://www.rochesterlapidary.org/show/> See page 5.

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

November 5-6, 2016: FM-PA Chapter Symposium (Saturday) and Field Trip (Sunday). Franklin & Marshall College, Lancaster, PA. <http://www.rasloto.com/FM/> See page 4.

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

Geo-Sudoku Solution

I	K	N	C	E	Y	A	B	T
A	T	Y	N	B	I	K	E	C
E	B	C	K	T	A	N	I	Y
Y	N	T	I	K	C	E	A	B
K	I	E	A	Y	B	T	C	N
C	A	B	T	N	E	Y	K	I
B	C	K	Y	A	N	I	T	E
T	Y	I	E	C	K	B	N	A
N	E	A	B	I	T	C	Y	K

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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 Door Prizes: Dr. Bob Altamura (see above)
 Facebook & Publicity: John Dziak: jjd264@psu.edu

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. 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.

Visit us at www.nittanymineral.org