

Nittany Mineralogical Society Bulletin

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

Editor (see back page):

October, 2021

Visit our web site: www.nittanymineral.org

David C. Glick

October 20th meeting

IN PERSON at BOAL HALL or via Zoom:

A History of the New Jersey Zinc Operations in the Palmerton Area

by Dru Germanoski, PhD, PG

Dr. Ervin R. VanArtsdalen Professor of Geology
Lafayette College

Our October meeting is planned for Wednesday the 20th in Boal Hall, 113 East Pine St., Boalsburg, PA. Maps are available on our web site.

7:15 to 7:45 p.m.: Social "hour." For this in-person meeting, we will not be serving refreshments. Feel free to bring your own non-alcoholic beverage. Current guidance in Centre County is to wear a mask at public indoor settings.

7:45 to 8:00 p.m.: Annual Meeting of the membership (Vote on election and bylaws amendments by those attending in person); other announcements, door prize drawing

about 8:00 p.m.: featured program

*The event has free admission, free parking (lot just east of Fire Hall along East Pine St.), and is open to all; **parents/guardians must provide supervision of minors.** Bring your friends and share an interesting evening!*

-- We are grateful to Dr. Dru Germanoski for making the trip to speak to us in person. Please join us for his presentation!

-- If you can't attend in person, the Zoom link will be e-mailed to all paid members who receive our e-mails; others are welcome to request it by e-mailing <xidg@verizon.net>. -Editor

New Jersey Zinc founded Palmerton, Pennsylvania, to serve as the site of a new zinc smelter in 1897 to optimize the transportation of ore from the Friedensville mines in Saucon Valley, PA, and in the Franklin - Sterling area near Ogdensburg, New Jersey, and anthracite coal for fuel from the anthracite coal fields in Carbon County, PA. The Lehigh River, Lehigh Canal, and the railroads that followed

the river valley into the Palmerton area linked together the vital resources. Initially the ore supply was oxidized zinc ore from Friedensville and the Franklin - Sterling Mines, but soon the oxidized ores played out and the feedstock shifted to zinc sulfides from the original mine to zinc sulfide mines in Austinville, Virginia as well as international sources which greatly increased sulfur emissions at Palmerton. Heavy metals such as arsenic, cadmium, mercury, and lead, among others, are commonly present in coal. Therefore, in addition to the release of metals and sulfur present in the ore, the anthracite fuel source also contributed to atmospheric emissions. Consequently, a host of heavy metals were released into the atmosphere from the smelters and are now found in the soils surrounding and downwind of the old smelters. Therefore, this talk explores the mineralogy and geologic origins of ores deposited in Friedensville, PA, Franklin and Sterling Hill New Jersey, and Austinville, Virginia. ✱

Upcoming NMS Schedule

October 20: Annual Meeting and Elections - see page 2 - and New Jersey Zinc program (see above).

November 17: Regular meeting at Boal Hall.

December 15: Annual Holiday dinner at Quaker Steak & Lube Restaurant.

Dues Time Once Again

For those NMS members who have not yet renewed, a dues form is included with this issue, either on paper or electronically. The form is also available on our web site at <<http://www.nittanymineral.org/mem.htm>>. If you haven't paid already (many thanks to those who have!), please bring your dues and form to the October meeting, or send them in as soon as possible. October is the last month of our membership year! We look forward to your continuing membership!

ATTENDING THE OCTOBER MEETING?

Donations of **one or two high quality, labeled door prize specimens** are invited.

Additional items can be placed on the giveaway table.

Bring a friend!

OFFICIAL NOTICE: Annual Meeting and Elections in October

by David Glick, NMS President

The October 20th meeting, to be held at Boal Hall in Boalsburg, will be the **Annual Meeting of the Corporation**. Business will include election of officers and a vote on bylaws amendments as described below. Votes will be cast by those attending in person.

Election of Officers

In accordance with our bylaws (available on the web site), the Board of Directors, acting as the Nominating Committee, met in early September and nominated the following slate of officers:

President	David Glick
Vice President	Bob Altamura
Treasurer	Stuart Bingham
Secretary	Barry Schetz

Bylaws vote

In order to ensure that any future votes conducted in electronic meetings are official, the Board proposes two amendments to the NMS Bylaws. One addresses Board of Directors meetings and the other concerns meetings of the membership. The text of these changes was presented on page 3 of the September NMS Bulletin.

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!**

Videos of Past Programs on Web Site

Although some computer confusion kept us from recording last month's presentation, Dr. Heaney kindly obtained permission for us to use the recording of the same program from the 2021 Sinkankas Symposium.

That program and many others are available on our web site, on the main page and at <http://www.nittanymineral.org/programs.htm>.

Geo-Sudoku

by David Glick

This puzzle contains the letters AELMNOPRT; one row or column spells where the zinc ore went. As usual, if you've read this issue, you've seen 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.

O			M	A		T		
	L				R		A	O
T	A				O	R		M
R		P	E					
	O		R	P				T
					A	O		
	P	O						
			N		P	M		
		L		R	T			A



Zinc smelter slag. "A very fine and highly unusual specimen of a sculptural, vuggy crust of translucent slag lined with scintillating, gemmy, amber to reddish-orange, secondary zincite crystals (formed from the smelt mix in a furnace). This strange, but very beautiful specimen was recovered from New Jersey Zinc Co. Smelter in Palmerton, Pennsylvania and is probably old-time material. Size: 7.1 x 3.9 x 3.0 cm." Rob Lavinsky, iRocks.com – CC-BY-SA 3.0 <https://creativecommons.org/licenses/by-sa/3.0/deed.en>

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. The AFMS News is linked from our web site, <<http://www.nittanymineral.org>>, and can be found at <http://www.amfed.org/afms_news.htm>.

The AFMS October issue is available on their web site. Judy Beck writes her last article as outgoing President; she was headed to the Midwest Convention in Toledo, then collecting in the Keweenaw Peninsula, then the South Central Convention in Lubbock, Texas. Jennifer Haley reports that dragon gift totes in the AFMS endowment raffle at that convention were a big hit. They can still be ordered, until October 31; they include a dragon had puppet, a pendant and a bag filled with tumbled stones (both in scale with the dragon), a carved dragon stone egg, a mineral specimen and the fairytale book Fairy Dragons. See the newsletter for ordering information. Jay Bowman, well known as a trainer of judges for competitive exhibits at shows, passed away August 29, 2021. Legislation was introduced in August in Congress to prohibit importation of minerals from Afghanistan (Afghanistan is the principal source of lapis lazuli). An old but probably still timely article on dangers of rock / mineral dust exposure is reprinted.

As noted in the September NMS Bulletin, the EFMLS has two factions, each claiming that the other is illegitimate. David Nock's faction held elections on July 9 and Eric Hoffman was elected President. On October 4, Mr Hoffman and his administration sent an email to club presidents stating, in part (contact D Glick for full version):

"When I reached out to Mr. Borow ("President"/my peer in the other body), he was extremely cordial, but did not specifically accept my offer to collaborate on a solution to this schism..

Also factoring into our situation is the utter lack of coordination and transfer of responsibilities and accounts from Mr. Nock & his administration... In addition, I could not have announced anything since I lacked the proper credentials and access to the efmls.org website.

To summarize, we have been faced with the ridiculousness of having dueling administrations, being rebuffed by Mr. Borow's administration in regards to a cordial resolution, and the lack of support given to our Executive Committee as we were trying to stand up.

Therefore, in order to heal this schism in a fashion that is best for the overall health and success of the EFMLS, we, the undersigned, are stepping down from our positions and will do everything we can to ease the transition and transfer of assets (both financial and web-related) to Mr. Borow's administration..."

-Editor

October Door Prizes



Labradorite feldspar pendant crafted by Bob Altamura. *D. Glick photo.*



Crystalline geode halves and close-up. *D. Glick photos.*



University of Arizona Alfie Norville Gem and Mineral Museum at the Historic Pima County Courthouse Is Now Open!

Steve Kaminski,
Mineralogical Society of Arizona
from AFMS Newsletter 74:6, Sept. 2021

A new gem, and mineral museum has opened in Tucson, Arizona. The University of Arizona Alfie Norville Gem & Mineral Museum (UAANGMM) is located within the historic Pima County Courthouse, an iconic and historic building of magnificent Spanish Revival architecture in the heart of Tucson.



The Pima County Courthouse. Courtesy of the University of Arizona Alfie Norville Gem and Mineral Museum

Following the completion of a \$13.5 Million renovation and buildout project, UAANGMM is dedicated to providing public education, the curation of minerals, gems, fossils and meteorites while also serving the research needs of professionals, students and collectors. The collection is literally universal in scope, but with specific emphasis on minerals from Arizona and Mexico. Eric Fritz is the museum's Director.

Previously housed in the basement of the UofA's Flandreau Science Center and Planetarium, the UArizona mineral collection has a new home with



Director Eric Fritz of the University of Arizona Alfie Norville Gem and Mineral Museum. Courtesy of the University of Arizona Alfie Norville Gem and Mineral Museum

12,000 square feet of exhibit space. The Flandreau will continue with new exhibits featuring specimens on loan from UAANGMM.

UAANGMM adds an exciting element to the Tucson Gem, Mineral and Fossil Showcase which occurs in late January and early February. Of course, the museum will attract attention year-round. The museum space will not only be exhibiting world-class minerals, gems and jewelry, but also provide immersive activities, graphics and videos as well as interactive experiences. The visitor experience will be enhanced by the integrated exhibits highlighting research from the U Arizona gem science and mineralogy programs.

UAANGMM will have four major exhibit areas; each will change on a regular basis. The four primary areas are: a Mineral Evolution Gallery, an Arizona-Mexico Gallery; a crystal interactive lab; and a Gem Gallery. In addition to the public museum space, an additional 9,000 square feet on the lower level of the courthouse will be dedicated to a reference library, research lab, and community classroom.

Mineral Evolution Hall

UAANGMM's first gallery, the Mineral Evolution Gallery will explore and expand on the developing theories around the story of our planet's mineral evolution. The exhibit will chronologically explore how the solar system formed and minerals have co-evolved on earth alongside life over time. This scientific theory is a supported by NASA space research.

Similar to other rocky planets in our solar system and meteorites, Earth started with around 60 minerals. Earth is now home to over 5,600 minerals and the count continues. The museum will tell the story of





Rendering of the Planetary Evolution Hall inside of the University of Arizona Alfie Norville Gem and Mineral Museum. Courtesy of the University of Arizona

how this happened. The expression of this story will touch on many topics, including the interaction of life and oxygen and changes that followed the emergence of the new minerals.



A rendering of Bisbee-Azurite stope inside the University of Arizona Alfie Norville Gem and Mineral Museum. Courtesy of the University of Arizona

The Arizona and Mexico Gallery

The Arizona and Mexico gallery, will feature the unique mineralogy of the region, highlighting Arizona’s mining roots. One section of the exhibit will be modeled after a recreated stope within the Copper Queen Mine in Bisbee which will showcase some of the minerals that were mined during the early workings. The stope design was based on the contributions of Dick Graeme III (the expert Bisbee mineral collector, historian and miner) and his family.

“We’re telling the story of mining and how the copper mined in Bisbee basically set up the United States for the Industrial Revolution,” Fritz said. “Without that, we wouldn’t have had power and telecommunications.” Copper was mined here before Arizona became a state. “...copper helped make this the last contiguous state in the U.S.”

The Crystal Lab

In the Crystal Lab, visitors will have a chance to alter the crystal structure to cause a change in color in quartz, sapphire, or diamond. “For example, if you start with a clear quartz and add a little bit of iron, you’ll end up with amethyst,” Fritz said. “So, they’ll actually learn while doing something pretty cool.”

The Gem Gallery and Treasury

The final exhibit, the Gemstone Gallery and Treasury, will showcase minerals that have been manipulated by humans and turned into jewelry, carvings and works of art, demonstrating human-kind’s innate appreciation for natural beauty. The Treasury resides in the center of the gallery and displays a collection of minerals, jewelry and gemstones from all over the world. The majority of displays showcased in the treasury are on loan from the Somewhere in the Rainbow, a gem and jewelry private collection from Phoenix.



Rendering of the Crystal Lab inside of the University of Arizona Alfie Norville Gem and Mineral Museum. Courtesy of the University of Arizona

The UArizona Department of Geosciences is offering a new track as the result of an endowed chair in gem science, funded by The RealReal. The gem science track is preparing students for careers in the gem trade. The



Rendering of the Treasury inside of the University of Arizona Alfie Norville Gem and Mineral Museum. Courtesy of the University of Arizona Alfie Norville Gem and Mineral Museum.

University begins teaching classes in the program this Fall 2021. Eric Fritz and museum Assistant Curator Susan Leib will be co-instructing the first undergraduate course.

The upgraded mineral museum will contribute to the new gem sciences track, providing opportunities for students to study in the museum's labs and classrooms. According to Fritz, "The hope is that the classroom in the lower level will become the gem science classroom for students." Museum leaders are also hoping to make these areas available to school groups and local

organizations to increase interest in gem sciences and mineralogy throughout the community.

IT'S OPEN

The University of Arizona Alfie Norville Gem & Mineral Museum is now open with Summer Hours. Visit Monday-Friday from 10 a.m. - 2 p.m. (summer hours). Last Tickets sold at 1pm.

The museum will open from Monday-Friday 10 a.m. - 4 p.m. starting on August 23rd. Purchase tickets in-person at 115 N Church Ave, Tucson, AZ, 85701. Information can be found at: <https://gemandmineralmuseum.arizona.edu/>

Thanks to Eric Fritz, Selena Gabriella Valencia and W. Lesley Presmyk for their review and comments.

References:

UA's planned new gem and mineral museum downtown aims to enrich Tucson community; Alfie Norville Gem & Mineral Museum, Nov. 1, 2019

UArizona Alfie Norville Gem & Mineral Museum is One Step Closer to Opening; Alfie Norville Gem & Mineral Museum, Feb. 17, 2021

<https://news.arizona.edu/story/uarizona-alfie-norville-gem-mineral-museum-one-stepcloser-opening>

Photos provided by University of Arizona Alfie Norville Gem & Mineral Museum Media contact: Selena Valencia, Alfie Norville Gem & Mineral Museum, 520-621-7320, selena.valencia@arizona.edu



Tuscarora Lapidary Society's 52nd Annual GEMARAMA

Gem & Jewelry Show

Shop Early for the Holidays

Admission \$6.00
Child (under 12) \$1

Exhibits • Demonstrations • Dealers
Children's Activities

Saturday Nov. 6
10 AM - 6 PM
Sunday Nov. 7
10 AM - 5PM

Discount Coupons & Purchase Tickets
www.lapidary.org/gemarama



HALL D
Greater Philadelphia Expo Center
100 Station Avenue
OAKS, PA 19456

ULTRAVIOLATION Show

First United Methodist Church,
840 Trenton Rd, Fairless Hills, PA

Saturday, October 30, 2021
9:00 AM to 4:00 PM

ULTRAVIOLATION is the ULTIMATE annual show for the **fluorescent mineral** enthusiast, whether a novice or serious collector. The show features many of the world's premier fluorescent mineral COLLECTORS AND DEALERS who strive each year to bring the biggest, brightest and best fluorescent minerals to satisfy the insatiable cravings of the fluorescent collector. ULTRAVIOLATION highlights fluorescent minerals exclusively and is the next best thing to night collecting. Free admission and a fluorescent mineral specimen for each junior mineralogist 12 years and younger when accompanied by an adult.

Admission: \$2.00 Donation, Children 12 & Under Free

Dealers: 8' TABLE \$30 – ½ TABLE \$15
ADVANCED REGISTRATION FOR DEALERS IS ADVISED

SEND YOUR CHECK MADE PAYABLE TO: Lee McIlvaine, 8510 Elliston Dr. Wyndmoor, PA 19038 Or Paypal electronic payment to leemcilvaine@yahoo.com

For information call Lee McIlvaine at 215-713-8020 or email uvgeologist@yahoo.com



FRIENDS OF MINERALOGY - Pennsylvania Chapter

SYMPOSIUM November 13, 2021 Lancaster, PA

FIELD TRIP November 14

Symposium for mineral enthusiasts on **Saturday Nov. 13, 2021**

Hybrid Symposium - **ONLINE** or **IN PERSON** at

Bright Side Opportunities Center, 515 Hershey Ave., Lancaster, PA 17603

Talks by knowledgeable speakers on **Pennsylvania Mineralogy and Geology**

Sales by Select Dealers - Silent Auction – Give-away Table – Conversation

Registration: watch for registration form on our web site

Professional Geologists: Professional Development Hours available for lecture attendance

Field Trip Location to be announced. **Sunday Nov. 14** Open only to symposium registrants.

Watch for details, registration form, changes and updates on our **web site:**

www.rasloto.com/FM

For newsletters and field trips during the year, please join our chapter!

See "Join FM" on the web site

UPCOMING EVENTS

Confirm details of events before attending.

Oct. 30, 2021: South Mountain Rock Swap & Sale, by Central PA and Franklin County Rock & Mineral Clubs. South Mtn Fairgrounds, W of Arendtsville PA on Rt 234. Sat. only, 8-3. Contact: tsmith1012@comcast.net

Oct. 30, 2021: Ultraviolet fluorescent mineral show, by R&M Club of Lower Bucks County. First UM Church, 840 Trenton Rd, Fairless Hills PA Sat. only, 9-4. <https://sites.google.com/view/lowerbucksparocks>

Nov. 6-7, 2021: Gemarama, by Tuscarora Lapidary Society. Theme: Pictures in Stone. HALL D at the Greater Philadelphia EXPO Center, 100 Station Avenue, Oaks, PA 19456. Sat. 10-6, Sun. 10-5. <https://www.lapidary.org/gemarama>

Nov. 13-14, 2021: Symposium and Field Trip, by Friends of Mineralogy - Pennsylvania Chapter. Saturday Symposium: Online or in person at Bright Side Opportunities Center, 515 Hershey Ave., Lancaster PA 17603. Sunday field trip, open only to symposium registrants: TBA. Please register in advance. See page 7. Presentations should be listed very soon on the web site; see <https://www.rasloto.com/FM>

Geo-Sudoku Solution

O	E	R	M	A	L	T	P	N
P	L	M	T	N	R	E	A	O
T	A	N	P	E	O	R	L	M
R	T	P	E	O	N	A	M	L
L	O	A	R	P	M	N	E	T
M	N	E	L	T	A	O	R	P
N	P	O	A	M	E	L	T	R
A	R	T	N	L	P	M	O	E
E	M	L	O	R	T	P	N	A

NMS BOARD MEETING NOTICE

NMS members are invited to attend Board of Directors meetings, which are generally held at 7:00 p.m. about two weeks prior to the general monthly meeting, although we do not meet every month. The next date has not been set. Members who would like to attend should contact president David Glick to verify time and place; those who would like to have their discussion item placed on the agenda should contact him at least one week in advance of the meeting.

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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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
425 Armagast Rd. phone: (814) 810-2116 (h)
Bellefonte, PA 16823-9762

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 (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