

Nittany Mineralogical Society Bulletin

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

Editor (see back page):

April, 2021

Visit our web site: www.nittanymineral.org

David C. Glick

April 21st

Zoom meeting ONLINE:

Start to Finish: The Process of Mining to Selling New Mexico Thundereggs

by

Lori Lytle Coleman

Owner/Operator Spanish Stirrup Rock Shop



In our April 21st Zoom meeting, Lori Lytle Coleman will tell us about her geode mining and preparation operations, start to finish. She mines thundereggs in both New Mexico and Oregon. We'll have an inside look at an interesting process.

See the article on page 2, and more online at

<https://ssrockshop.com/>

<https://www.facebook.com/SpanishStirrupRockShop/>

<https://www.rockngem.com/getting-to-know-spanish-stirrup-rock-shop/>

Please join us online for this presentation! The Zoom link will be e-mailed to all paid members who receive our e-mails; others can request it by e-mailing <xidg@verizon.net>. We'll plan to start at 7:30 p.m.; we can have informal discussions, then we can do any questions & answers and announcements, and plan to start the presentation at 8:00 p.m. We will have some information on the main page of the web site as well.

-Editor

While We Can't Travel: Virtual Geo-Resources Continue to Expand

Last month's NMS presentation on Gembone (silicified dinosaur bone) by Daniel Bontempo can now be viewed via a link from the main page on our web site, along with earlier ones. Penn State's Earth and Mineral Sciences Museum has been adding many posts to their Facebook page, and videos to their YouTube channel. There's a link to that Facebook page, and many other online resources from the last year, on our web site.

-Editor

Cave Program in August: NMS Seeks Personnel

David Glick, NMS President

We're planning to participate and are still looking for volunteers to help

Planning has begun for the Penn State Arboretum's Cave Day, Saturday, August 28, 2021. Patricia 'Ann' Dunlavy of Lincoln Caverns reports that the event, a partnership between Penn State and Lincoln Caverns, will be held from 10:00 a.m. to 3:00 p.m. For 2021, the International Year of Caves and Karst, community involvement is desired to make it a great event. Geologists Drs. Will White and Dick Parizek will be presenting throughout the day at the event, and NMS is invited to have some complimentary presentations and/or stations on Pennsylvania geology or some aspect of caves and karst. This might be in the form of our stations at Minerals Junior Education Day, or Spring Creek Day from a few years ago. Please contact Dave Glick (see page 6) if you are interested in staffing a station. ❄



Copper. Blue Ridge Summit, Adams County, PA. This sculptural and uncommonly large copper has a boxwork structure and a nice patina. 1200 grams weight! 22.5 x 12.3 x 4.5 cm. Rob Lavinsky, iRocks.com – CC-BY-SA-3.0

New Mexico Thundereggs *continued from page 1*

Lori Lytle Coleman

Owner/Operator Spanish Stirrup Rock Shop

Lori’s pursuit of rocks began in a cotton field in Yazoo County, MS in the 1980’s. Picking up rocks and hoping for signs of arrowheads was an activity she shared with her late husband and now grown children Blue and Bobbie. The occasional family fishing trip into Arkansas allowed time to run over to Mt. Ida for quartz crystal digging. The hobby of hounding was beginning. In the winters whitetail hunting opened the opportunity to pick up petrified wood in the creeks and streams of the Mississippi Hill Country. In 2009 the family retired from farming and headed out west to chase the rockhounding bug. In a small rural community named Deming was the start of what is known as the Spanish Stirrup Rock Shop. In an area called The Little Florida Mountain in 2010 the Colemans discovered Eggzilla, a deposit on private land. Large thundereggs are produced on this deposit and most now go into jewelry. A claim on BLM land of thundereggs named Lava Cap was next - known for their crazy pseudomorphs. Lori successfully acquired 4 state sections in 2015 where she has uncovered more deposits, Lost Rabbit, Mine Shaft, Tavernier. Lori digs her deposits with a large excavator. Reclamation is an important part of closing her mining trips.

The importance of a world class polish on a world class specimen pushed Lori into revolutionizing her polishing process. Actually, Bruce her fiancé had a huge part in it too. After much research they swapped over to the Covington Rociprolaps. In their new shop in Alto, NM they can turn out hundreds of polished specimens a week.



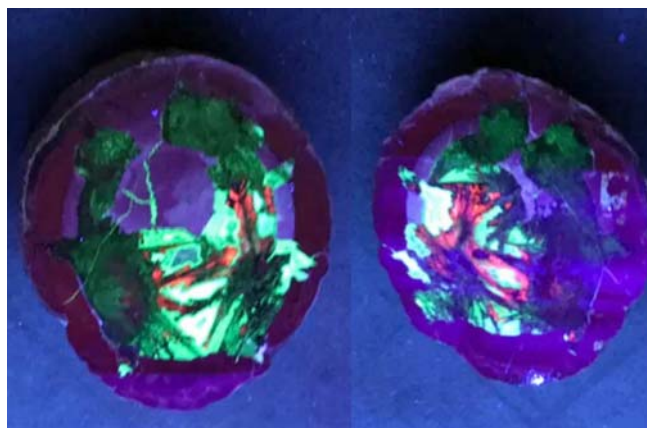
Moctezuma Agate 5

Rock Shows used to be a large part of Lori’s year: Tucson, Quartzite, Denver, Lubbock, Dallas, Arlington, Houston, San Antonio, New Jersey to just name a few. Lori no longer does trade shows because of her vigorous mining schedule of 100 days a year in New Mexico and Oregon.

In June 2019 she was the keynote speaker at the International Agate Expo in Austin, Texas. In 2021 her mining schedule is February mining MineShaft, Lost Rabbit and Lindbergh Thundereggs all in New Mexico. Then in May she will be at Pink Lady Plume Agate and Million Dollar Hill Sagenite deposits near Graveyard Point in Oregon. July will take her back to Oregon to mine Carrasite Jasper. Each trip is at least 30 days but can run over due to weather conditions. This optimizes the equipment being used.

Sharing her knowledge and enthusiasm for mining world class thundereggs, plume agates and jaspers is passed on during her club trips while mining. During her February/March 2021 mining trip she hosted four clubs and over 100 people to share in mining with Lori.

Images courtesy of Lori Lytle Coleman.



Fluorescent Lava Cap thunderegg pair, white light and ultraviolet light.

When the Mediterranean Dried Up

Dr. Charles E. Miller, Jr.
State College, Pennsylvania

In 1972, *Scientific American* published an article “When the Mediterranean Dried Up.” It was an extraordinary announcement. Consider the Mediterranean Sea covers an area of approximately 965,000 square miles (about 0.25 the size of the U.S.) and reaches depths of more than 16,000 feet. After it dried up (or nearly dried up), the basin refilled as a result of what may have been the biggest flood known to science (Figure 1).

1970s deep-sea drilling in the Mediterranean found sediments formed under subaerial exposure. They included dry streambed gravels, floodplain silts, wind-blown silts, and evaporites (gypsum, anhydrite, potash, and salt). The sediments were later confirmed to have been formed on a desert tidal flat, now located 9000 feet

below sea level. How could these have been deposited in such deep water?

Six million years ago, the Strait of Gibraltar (Figure 1) and lesser connections - linking the Mediterranean and Atlantic – closed due to tectonics. The Strait was the primary link between the two major water bodies. In the Mediterranean region, evaporation is 2-3 times precipitation and runoff into it. Closing the Strait and other connections transformed the Mediterranean into a hypersaline setting. Salt nearly two miles thick was deposited. It is estimated that if uninterrupted-closure occurred today, the Mediterranean would dry up in approximately 1000 years.

In addition to clues from sediments, it was observed rivers flowing into the Mediterranean had eroded deep channels. For example, the Nile River eroded 500 feet below sea level at that time. This was only possible if the Mediterranean’s water level was much lower – or if the sea dried up. The river’s erosion occurred as it tried

reaching a new, lower, base level in a shrinking basin. A river’s base level is the limiting level to which it can erode. For rivers flowing into the ocean (or Mediterranean Sea), sea level is the base level. If sea level drops, in-flowing rivers can erode their channels more deeply.

What were weather conditions in the Mediterranean when it dried up? A basin 1-3 miles deep is heated adiabatically and would experience temperatures 20-60 degrees warmer at the bottom than at the top. Hikers experience this at the Grand Canyon. Bottom temperatures in the Canyon are 15

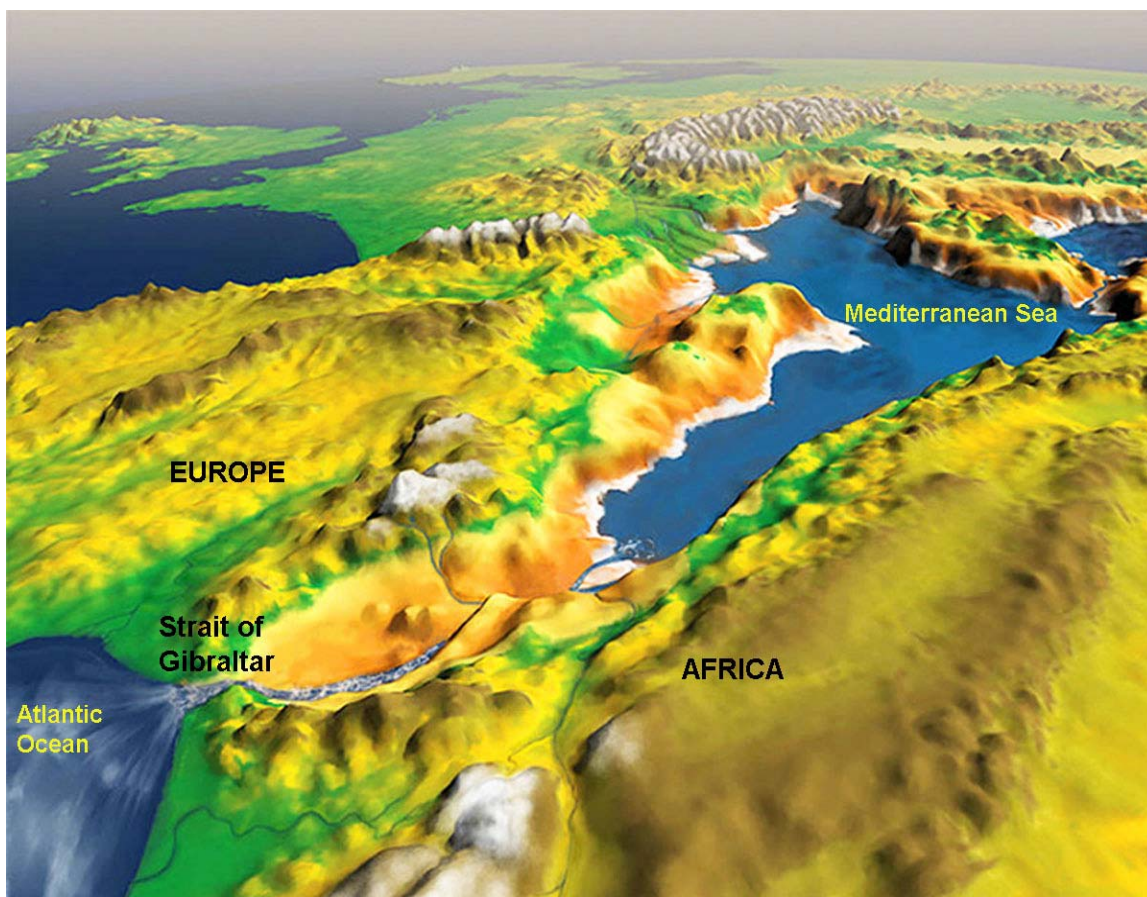


Figure 1: Artist rendition of the Mediterranean Sea refilling. (Roger Pibernat under supervision of Daniel Garcia-Castellanos (CC BY-SA 3.0 [https://creativecommons.org/licenses/by-sa/3.0]), via Wikimedia Commons, from <https://www.earthdate.org/the-mediterranean-desert>)

degrees warmer than at the top. Similarly, for the Mediterranean, a 90-degree temperature at the top would become 110 to 150, respectively, at 1 and 3 miles. In addition, sediment-core analyses indicate temperatures approximately 6 million years ago were an average of at least 4 degrees warmer than at present. This means that temperatures at the bottom of the Mediterranean were even higher, making it too hot for most life except for extremophiles. Also, keep in mind that evaporation increases with increased temperature. This, then, was a very hostile setting.

The connecting channel at the Strait of Gibraltar began reopening thousands of years later. Borehole and seismic data reveal a mile-wide, 125-mile channel, 800 feet deep cut across the Strait from the flood waters. The estimated water velocity was more than 185 mph. This flooding is thought to have raised the level of the Mediterranean by 30 feet per day, filling it in less than two years. Originally thought of as a huge, steep waterfall, geophysical data suggest reopening-flooding was a descending ramp or cascading waterfall a little more than a mile wide. Reopening the Mediterranean was not a single event, but rather a series of episodes or pulses. This is reflected in clastic sediments interlayered with evaporites.

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The Strait of Gibraltar today: Europe (Rock of Gibraltar) in foreground, Africa 8.9 miles away in background.

Photo by leonardo4it, CC-by-SA-2.0, <https://creativecommons.org/licenses/by-sa/2.0/deed.en>

Pennsylvania Geology Magazine

The 2020 issue of Pennsylvania Geology magazine, vol. 50 no. 1, from the Bureau of Geological Survey is now available via the list of issues at <http://docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20033210.pdf> (this link is available on the left sidebar of our web site's main page).

In an editorial written late in the year, State Geologist Gale Blackmer reflects on restrictions arising from the pandemic, and how the Survey continued its work.

Geologic articles in this issue are: Dam That Muddy Creek!— Siting the Moraine State Park Dam, by Gary Fleecker, and An Example of the Usefulness of Drill Cuttings (Harry Dewey #1 Mud Log), by Katherine W. Schmid and Steven D. Clark.

Recent publications listed are three new entries in the Trail of Geology series -- one-page illustrated summaries of outstanding geologic features. One is of special interest to mineral collectors: Cornwall mines, Lebanon County <<http://maps.dcnr.pa.gov/publications/Default.aspx?id=988>>. The others are Baughman Rock, Fayette County, and Jumonville Glen Rocks, Fayette County.

Survey Librarian Jody Smale reports on progress; hundreds of Survey reports were added to the online catalog of the State Library, and links were updated so that digital versions can be easily viewed. "Now all the Bureau's reports can be found in the online catalog and users can search for these by title, author, subject, and/or keywords. The online catalog is a powerful resource that provides greater searching capability so that users can more easily find the Bureau's reports, and other publications owned by the Bureau library, online."

More than 1000 photographs from the Bureau's archival collection were scanned and added to those already in the State Library of Pennsylvania's Historical Photographs Collection online at <http://digitalcollections.powerlibrary.org/cdm/search/collection/spgsl-photo>

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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 Federations and our Society strongly encourage all members to read the monthly Federation Newsletters. The AFMS News is linked from our web site, www.nittanymineral.org.**

EFMLS is not currently posting its newsletters on its web site.

The AFMS April issue's column by President Judy Beck updates us on changes of officers and the loss of active former president Emerson Tucker. Possible moves to a more digitally-centered newsletter are noted. Ellery Borow's safety article covers words used for safety. In the first of a series of profiles of people in regional and/or national federation jobs, long-time Bulletin Editor's Advisory Committee Chair Mary Bateman is recognized. Uniform Rules Committee Chair Lee Whitebay writes on Successful Exhibits. The Juniors Program column outlines the history of the program at Ventura Gem & Mineral Society, focusing on the advantages of mentoring to both the adults and juniors. Cheryl Neary continues the geological travelogue of Wyoming. Plans continue for an in-person AFMS / Rocky Mountain FMS Convention June 17-21, 2021, in Big Piney, Wyoming.

Please see the AFMS Newsletters at http://www.amfed.org/afms_news.htm. *-Editor*

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.

Update: No meetings are planned during COVID restrictions.

Geo-Sudoku

by David Glick

This puzzle contains the letters AEFHIMNST; one row or column spells a thunderegg location. 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.

	F			I		N		
S		A			N	E	H	
					H			T
I			A		S			N
N	E			T		F	M	
			M			I	T	H
	N			A	T			
			S	F				E
	H		N	E	M	T		



Chalcopyrite, from French Creek Mines, St. Peters, Warwick Township, Chester County, Pennsylvania, USA (Locality at mindat.org). Four crystals of successively larger size stacked in perfect tiered arrangement, from a classic Pennsylvania locality. 2.6 x 1.7 x 1.3 cm. Rob Lavinsky, iRocks.com – CC-BY-SA-3.0

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.

Many events have been canceled.
Verify show schedule before traveling!

April 15-17, 2021: Tom’s Mineral and Rock and Fossil Garage Sale. 10 Roger Ave, Shippensburg, PA 17257. Rain or Shine. Thurs. 4/15 4 pm to 6 pm; Fri 4/16 9 am to 6 pm; Sat 4/17 9 am to 1 pm., or by appointment. 2.1 miles from center of Shippensburg Start on Earl Street, go past Ship. University At Middle Spring Motor sign take right onto Roger Ave 4th house on left. Contact tsmith1012@comcast.net

May 1-2, 2021: World of Gems & Minerals show, by Berks Mineralogical Society. Leesport Farmers Market Banquet Hall, 312 Gernant’s Church Rd., Leesport PA 19533. Sat 10-5, Sun 10-4; Sat. ONLY tailgate section. <<https://berksmineralsociety.com>>

May 8, 2021: South Penn Rock Swap. South Mountain Fairgrounds (1.5 miles West of Arendtsville, PA on Rt 234). By Central PA & Franklin Cty R&M Clubs. Admission: \$1.00. Tables for swappers: \$5.00 each. 8:00 – 3:00 PM. Contact: tsmith1012@comcast.net

May 8, 2021: Mont Clare, Penn., Mineral Treasures sponsored by the Philadelphia Mineralogical Society, 10:00 AM to 6:00 pm, One day, outdoor show, free parking, Adults \$5, kids under 13 and scouts wearing uniforms are free. www.phillyrocks.org/mineral-show/ Contact: Karenne, minerals.fossils.rocks@gmail.com

July 9-11, 2021: EFMLS Annual Convention, at Gem & Mineral Society of Syracuse, NY, show. Tentative, depending on pandemic restrictions.

Geo-Sudoku Solution

H	F	E	T	I	A	N	S	M
S	T	A	F	M	N	E	H	I
M	I	N	E	S	H	A	F	T
I	M	T	A	H	F	S	E	N
N	E	H	I	T	S	F	M	A
A	S	F	M	N	E	I	T	H
E	N	S	H	A	T	M	I	F
T	A	M	S	F	I	H	N	E
F	H	I	N	E	M	T	A	S

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 (TIF, or good to highest quality JPEG files, about 1050 pixels wide, are preferred). Please provide captions and name of photographer or artist.

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