

Southern Maryland Rock and Mineral Club



Rock Talk



October, 2019

Next Meeting:
October 22, 2019 @ 7:00 PM

Program
Cooper Pedy, the Australian Opal Capital
Carole and Al Raucheison; Polly
Zimmerman

Refreshments
Carole and Al Raucheison; Polly
Zimmerman

**Clearwater Nature Center, 11000 Thrift
Road, Clinton, MD.**



Some of the mineral specimens from Morocco presented at the September meeting by Bob Farrer (Photos by Rich Simcsak)

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SEPTEMBER MINUTES

Submitted by Cheryl Reese

DATE:

Meeting was called to order on Tuesday, September, 24, 2019 at 7:10 by Sondra

VISITORS/NEW MEMBERS:

Jennifer Weeks and Alton Jones became new members of the club tonight. Bob Farrar is once again visiting and giving tonight's program. He has been published in Rock and Gem

MEMBERSHIP: There are now 68 paid up-to-date members.

NEWSLETTER: No report.

TREASURER: Dave reported that \$94 was the club's share from last month's auction.

FIELD TRIPS:

No field trips in August. Dave however had suggested that we should have joined the Richmond club as they had sponsored a trip in early September to the Dale Quarry in Chester Va. Evidently this was a very successful trip. This is a quarry that has granite, gneiss and pegmatite formations with pink feldspar, mica and smoky quartz. Beryl is also found there and towards end of day someone found a 12" beryl crystal.

Sept 28th, 2019 Nine people thus far have signed up for the kyanite quarry trip in central Va.

October 11, 2019 This is a Friday trip. National Limestone quarry in Middleburg Pa

for calcite crystals. Time 9-1pm. If you signed up for this trip Dave will send email about details.

October 12th, 2019 We have been invited to the Delaware quarry which Dave states has no known fossils or minerals. Bog iron is found in abundance and the quarry shows a history of stratified layers of sand. If you would like to attend, Dave will give you the info you need.

October 19th, 2019 We have been invited by the Shenandoah club back to the Vesuvius mine for Kyanite, If you signed up, details of trip will be emailed to you, It is highly suggested to get Mapquest directions to this site, do not rely on google maps on phone.

November 16th, 2019 The Montgomery club has invited us back to the H.K. Penn Quarry in Peachbottom, PA. Serpentine which takes a good polish and other minerals can be found here. This has been a popular trip for our club members in the past.

December 2019 date TBD Depending on tides and weather, a local fossil trip may be planned.

PROGRAMS: No report, however next month's meeting will be presented by Al, Carole and Polly on their trip to Coober Pedy, the Australian opal capital. They will also be providing refreshments.

WEBMASTER: No report

OLD BUSINESS: None.

NEW BUSINESS: Dave is hoping for easier time this year getting our dues paid and

insurance coverage from EFMLS. This bill normally comes in November.

Cheryl recently returned from a trip to Norway and passed around specimens of Thulite which is the “gemstone of Norway” She had a rough specimen, a cab and a polished stone.

ADJOURNED: 7:35 pm followed by door prizes, refreshments and a program by Bob Farrar Morocco A Mineral Collector’s Paradise

UPCOMING SHOWS AND EVENTS 2019

October 26, 2019 - Fairless Hills, PA - The Rock and Mineral Club of Lower Bucks County, PA and the North East Region Fluoresophiles (NERFs) of the Fluorescent Mineral Society and its collecting wing the UV Nomads present "ULTRAVIOLATION 2019" at the First United Methodist Church, 840 Trenton Road, Fairless Hills, PA. (See flyer, page 16).

October 26-27, 2019 - West Friendship, MD - 55th Annual Atlantic Coast Gem, Mineral, Jewelry & Fossil Show hosted by the Gem Cutters Guild of Baltimore. Howard County Fairgrounds, West Friendship, MD. Info: gemcuttersguild.com

November 23-24, 2019 Fairfax, VA - 28th Annual Gem, Mineral & Fossil Show Sponsored by The Northern Virginia Mineral Club, Inc. Show site: Dewberry Hall, Johnson Center, George Mason University, Fairfax, VA, 4400 University Dr, Fairfax, VA 22030 Club website: www.novamineralclub.org Hrs: Sat. 10-6, Sun. 10-4, Admission: Adults \$6, Seniors \$4, Teens (13-17) \$3, Children 12 and under FREE, scouts in uniform FREE. Featuring:

Letter from Dr. Lance Kearns (JMU):

Hello Mineral Enthusiasts;

I am writing to let your mineral club members know that the James Madison University Mineral Museum (the one located in Memorial Hall) will be closed permanently beginning July 1, 2019. We are presently in the process of constructing a new and bigger Mineral Museum which will be located in the Festival Center on the JMU campus. We expect this new facility will open in the Spring of 2020. Your club will receive notification when the new museum is to open, and an invitation to join us for the Grand Opening.

For now, I am asking you to spread the word (by mouth and newsletter) that the JMU Mineral Museum will be closed permanently beginning July 1, 2019.

Best wishes,

Dr. Lance E. Kearns
Professor Emeritus
Mineral Curator

ITEMS WANTED/FOR SALE

For Sale – Virginia unakite slabs (approx ¼ inch thick) – \$0.50 per square inch (this is half off regular price). Call Dave (240) 427-7062.

For Sale – SMRMC Only 4 remaining t-shirts for sale: size small (1) at \$9.00; and large (3), also at \$9.00 each Contact Tina @ htleague@comcast.net

Rocks, Minerals, and Fossils in the News

Huge dinosaurs evolved cooling systems to escape heat stroke

by Mihai Andrei

<https://www.zmescience.com/science/dinosaurs-evolved-cooling-vessels-17102019>

Gargantuan beasts had unique ways to escape heat.

Growing big has its advantages — like escaping those nasty predators — but it also brings new problems. For giant dinosaurs, dealing with overheating was a massive issue, but they managed to overcome it by developing specialized cooling systems.



Detail of a painting of an Upper Jurassic scenery showing a sauropod. Credits: Gerhard Boeggemann.

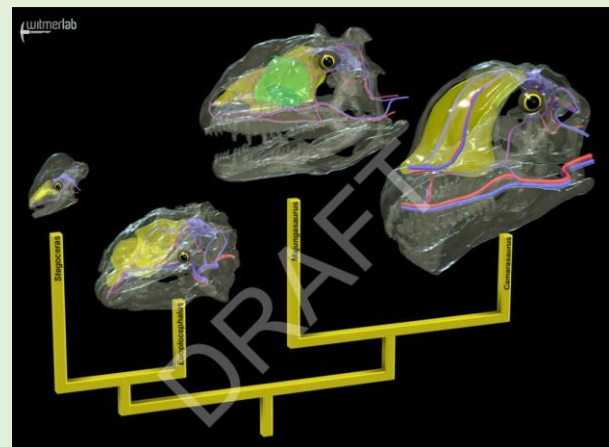
Dinosaurs were an extremely varied group, and size is one regard in which their variability went off the charts. Some dinosaurs were as small as hummingbirds, weighing only a few grams, while others could weigh as much as 100 tons.

Sauropods were the largest and heavier dinosaurs — larger than everything else in

their ecosystem, and an order of magnitude more massive than anything that ever walked the Earth until them.

There are several advantages to growing this much. For starters, you can simply outgrow predators, and become too big for predation. Secondly, you can also use energy more efficiently, and also gain significant longevity. But there are a few issues to overcome too. Thermal inertia is such an issue.

“Small dinosaurs could have just run into the shade to cool off,” said study co-author Professor Lawrence Witmer, “but for those giant dinosaurs, the potential for overheating was literally inescapable. They must have had special mechanisms to control brain temperature, but what were they?”



Different dinosaur groups had different physiological strategies to deal with high heat loads in the brain. Small-bodied dinosaurs had a balanced pattern of blood supply with no particular emphasis on any one site of heat exchange whereas larger-bodied dinosaurs had a more focused thermal strategy, emphasizing blood flow to different parts of the head. Credits: Courtesy of Witmer Lab at Ohio University.

If you want to cool down, one of the best things you can do is use evaporation. It’s what many creatures do through sweat, and it’s also what air conditioning units do. This process is

particularly important around the head, where some of the most sensitive organs (like the brain and eyes) lie. Chemical analyses of fossil sauropod teeth previously suggested that, despite their massive bodies, the animals maintained body temperatures similar to those of modern mammals, so we know that they were successful in their thermoregulation.

“The brain and sense organs like the eye are very sensitive to temperature,” said Ruger Porter, Assistant Professor of Anatomical Instruction and lead author of the study. “Animals today often have elaborate thermoregulatory strategies to protect these tissues by shuttling hot and cool blood around various networks of blood vessels. We wanted to see if dinosaurs were doing the same things.”

In order to see how this process took place, researchers looked at blood vessels — the body’s natural cooling system. Thankfully for the researchers, blood vessels basically inscribe themselves into bones and well-preserved fossils can reveal the ridges associated with blood vessels.

The team started out with carcasses of birds and reptiles, using CT scans to trace blood flow from sites of evaporative cooling to the brain. They also measured the bony canals and grooves that conveyed the blood vessels. They were then able to take what they’ve learned from this process and adapt it to information from dinosaur fossils. They found that different dinosaurs used different cooling strategies.

“The discovery that different dinosaurs cooled their brains in a variety of ways not only provides a window into the everyday life

of dinosaurs, it also serves as an exemplar of how the physical constraints imposed by specific environmental conditions have shaped the evolution of this diverse and unique group,” said Sharon Swartz, a program director at the National Science Foundation, which funded the research. “Using a combination of technological innovation and biological expertise, these researchers were able to take a direct reading from the fossil record that provides new clues about how dinosaur skeletal form and function evolved.”

A key factor that decided how dinosaurs regulated their temperature was body size. Smaller dinosaurs had balanced blood flows, whereas larger dinosaurs favored blood flow to different parts of the head — the blood vessel patterns that researchers found goes way beyond what is necessary for simple nourishment. This unbalanced pattern allowed thermal strategies to be more focused, emphasizing one or more cooling regions.

For a while, the team also had a puzzling question. Most of the giant dinosaurs were herbivores, but large predators (such as the 10-ton *Tyrannosaurus Rex*) also existed — and the researchers’ analysis showed that they had a balanced vascular pattern, like the small dinosaurs.

“This finding had us scratching our heads until we noticed the obvious difference—theropods like *Majungasaurus* and *T. rex* had a huge air sinus in their snouts,” Witmer said. But the eureka moment came when the team found evidence that this antorbital air sinus was richly supplied with blood vessels. Witmer had previously shown that air circulated through the antorbital air sinus like

a bellows pump every time the animal opened and closed its mouth.

“Boom! An actively ventilated, highly vascular sinus meant that we had another potential cooling region. Theropod dinosaurs solved the same problem...but in a different way,” concluded Witmer.

The team now wants to expand the research to other species of dinosaurs.

The study has been published in the journal *Anatomical Record*.

Manufacturing minerals could transform the gem market, medical industries, and mitigate climate change

by Anita Parbhakar-Fox and Paul Gow

<https://phys.org/news/2019-10-minerals-gem-medical-industries-mitigate.html>



Pictured is a slag pile at Broken Hill in New South Wales. Slag is a man-made waste product created during smelting. Credit: Anita Parbhakar-Fox

Last month, scientists uncovered a mineral called Edscottite. Minerals are solid, naturally

occurring substances that are not living, such as quartz or hematite. This new mineral was discovered after an examination of the Wedderburn Meteorite, a metallic-looking rock found in Central Victoria back in 1951.

Edscottite is made of iron and carbon, and was likely formed within the core of another planet. It's a "true" mineral, meaning one which is naturally occurring and formed by geological processes either on Earth or in outer-space.

But while the Wedderburn Meteorite held the first-known discovery of Edscottite, other new mineral discoveries have been made on Earth, of substances formed as a result of human activities such as mining and mineral processing. These are called anthropogenic minerals.

While true minerals comprise the majority of the approximately 5,200 known minerals, there are about 208 human-made minerals which have been approved as minerals by the International Mineralogical Association.

Some are made on purpose and others are by-products. Either way, the ability to manufacture minerals has vast implications for the future of our rapidly growing population.

Modern-day alchemy

Climate change is one of the biggest challenges we face. While governments debate the future of coal-burning power stations, carbon dioxide continues to be released into the atmosphere. We need innovative strategies to capture it.

Actively manufacturing minerals such as nesquehonite is one possible approach. It

has applications in building and construction, and making it requires removing carbon dioxide from the atmosphere.

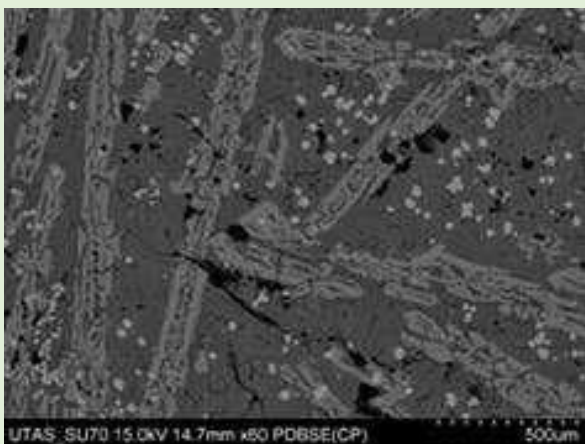
Nesquehonite occurs naturally when magnesian rocks slowly break down. It has been identified at the Paddy's River mine in the Australian Capital Territory and locations in New South Wales.

But scientists discovered it can also be made by passing carbon dioxide into an alkaline solution and having it react with magnesium chloride or sodium carbonate/bicarbonate.

This is a growing area of research.

Other synthetic minerals such as hydrotalcite are produced when asbestos tailings passively absorb atmospheric carbon dioxide, as discovered by scientists at the Woodsreef asbestos mine in New South Wales.

You could say this is a kind of "modern-day alchemy" which, if taken advantage of, could be an effective way to suck carbon dioxide from the air at a large scale.



This is a backscattered electron microscope image of historical slag collected from a Rio Tinto mine in Spain. Credit: Anita Parbhakar-Fox at the University of Tasmania (UTAS)

Meeting society's metal demands

Mining and mineral processing is designed to recover metals from ore, which is a natural occurrence of rock or sediment containing sufficient minerals with economically important elements. But through mining and mineral processing, new minerals can also be created.

Smelting is used to produce a range of commodities such as lead, zinc and copper, by heating ore to high temperatures to produce pure metals.

The process also produces a glass-like waste product called slag, which is deposited as molten liquid, resembling lava.

Once cooled, the textural and mineralogical similarities between lava and slag are crystal-clear.

Micro-scale inspection shows human-made minerals in slag have a unique ability to accommodate metals into their crystal lattice that would not be possible in nature.

This means metal recovery from mine waste (a potential secondary resource) could be an effective way to supplement society's growing metal demands. The challenge lies in developing processes which are cost effective.

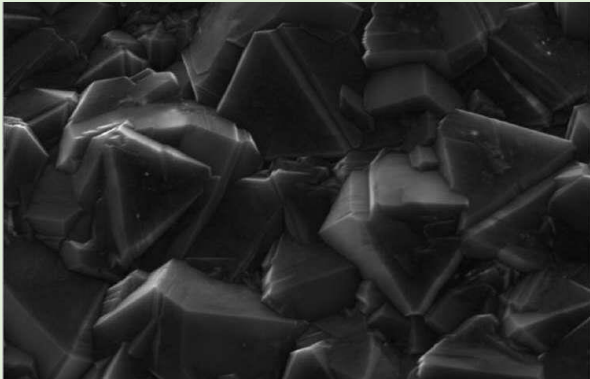
Ethically-sourced jewelry

Our increasing knowledge on how to manufacture minerals may also have a major impact on the growing synthetic gem manufacturing industry.

In 2010, the world was awestruck by the engagement ring given to Duchess of Cambridge Kate Middleton, valued at about £300,000 (AUD\$558,429).

The ring has a 12-carat blue sapphire, surrounded by 14 solitaire diamonds, with a setting made from 18-carat white gold.

Replicas of it have been acquired by people across the globe, but for only a fraction of the price. How?



Synthetic diamonds have essentially the same chemical composition, crystal structure and physical properties as natural diamonds. Credit: Instytut Fizyki Uniwersytet Kazimierza Wielkiego

In 1837, Marc Antoine Gardin demonstrated that sapphires (mineralogically known as corundum or aluminum oxide) can be replicated by reacting metals with other substances such as chromium or boric acid. This produces a range of seemingly identical colored stones.

On close examination, some properties may vary such as the presence of flaws and air bubbles and the stone's hardness. But only a gemologist or gem enthusiast would likely notice this.

Diamonds can also be synthetically made, through either a high pressure, high temperature, or chemical vapor deposition process.

Creating synthetic gems is increasingly important as natural stones are becoming more difficult and expensive to source. In

some countries, the rights of miners are also violated and this poses ethical concerns.

Medical and industrial applications

Synthetic gems have industrial applications too. They can be used in window manufacturing, semi-conducting circuits and cutting tools.

One example of an entirely manufactured mineral is something called yttrium aluminum garnet (or YAG) which can be used as a laser.

In medicine, these lasers are used to correct glaucoma. In dental surgery, they allow soft gum and tissues to be cut away.

The move to develop new minerals will also support technologies enabling deep space exploration through the creation of 'quantum materials'.

Quantum materials have unique properties and will help us create a new generation of electronic products, which could have a significant impact on space travel technologies. Maybe this will allow us to one day visit the birthplace of Edscottite?

In decades to come, the number of human-made minerals is set to increase. And as it does, so too does the opportunity to find new uses for them.

By expanding our ability to manufacture minerals, we could reduce pressure on existing resources and find new ways to tackle global challenges.

Thulite from Lom Norway

Article and photo by Cheryl Reese



I recently returned from a 14 day trip to Norway. One of the towns I knew we were driving through, Lom, was known for it's oldest stave church and for the Fossheim Steinsenter which in translation means stone center. It is a wonderful museum containing gemstones, minerals and fossils.

Of course, I wanted to find out what the national gemstone was in Norway and found out it is only found in the town of Lom that we were in. The mineral is Thulite and the following is taken from the brochure I was given when I purchased 3 specimens to bring home. "Thulite was first discovered in Norway in 1820 and the mineral was given its name after 'Ultima Thule', the old Greek name for our country used more than 2000 yrs ago. Thulite is therefore being called the national stone of Norway. As a gemstone, Thulite is only found in Norway. In Lom, Thulite is mined from a narrow quartzitic horizon in a 1600 million year old gneiss. The color varies from light pink to dark wine, according to the amount of manganese content. It takes an excellent polish and is quite hard due to the quartz content."

Willis Mountain, Virginia --- a Monadnock of Mineral Specimens

Article by Dave Lines; photos by Linda Noble and Dave Lines



From our Field Trip info sheet, we learned that Willis Mountain is a "monadnock" --- pronounced "mo-nad-nok" --- a hill or mountain of resistant rock surmounting the surrounding plain. The Trip Sheet stated: "The kyanite exposure at Willis Mountain resisted weathering and, as the surrounding area was eroded and weathered away, the mountain outcrop was left standing. This is very much like the famous Graves Mountain kyanite mine in Georgia. The center of the mountain has been mostly mined away. We were looking for white kyanite blades in the massive kyanite quartzite; pyrite; quartz; hematite; iridescent hematite; red mica, green mica, apatite and possibly some blue kyanite and pale green trolleite. Some of the white kyanite and quartz has a beautiful light blue fluorescence."

We gathered at the Kyanite Mining Corporation office near Dillwyn, Virginia from ten (10) local rock clubs from Delaware, Maryland and Virginia --- 120 of us according to our Trip Leader and organizer Dave Callahan of the Lynchburg Club. By far, the largest local field trip in our area, this event is held once a year thanks to the generosity of

the owners. We are most fortunate that they like rockhounds.

A little before 9:00 am, we began a review of the Safety Regulations which we had all read and signed. Mike Morris indicated that they were due for a MSHA (Mining Safety and Health Act) inspection which could occur unannounced at any time. With this in mind, he reminded us to “Stay off the berms” --- footprints must be explained. Stay clear of the top edge of all cliffs. Stay back from all highwalls a distance equal to or greater than the height of the highwall. Chock the downhill side of one wheel each time we stop a vehicle after we move it. Look out for each other. Keep each other safe. Accept a safety warning from another person with gratitude. If a big rock seems precariously balanced on the side of a hill above you, stay away from it and warn others. Keep our safety glasses on. In other words, stay safe. He asked us to be witnesses that we agreed to his terms. We did. It was effective – we stayed safe – 120 rockhounds in many different types of vehicles all over Willis Mountain looking for specimens and looking out for each other at the same time.

Our Southern Maryland Rock and Mineral Club had nine (9) members attending Rich, Teresa, Alton, Katie and Nate M., John Van W., Pam, Joyce and Dave. For three of us --- Alton, Katie and Nate --- it was the very first time in a commercial mine, so I asked that they stick close to me so I could show them the ropes – or at least get them started safely. When the caravan of vehicles started heading into the mine, Rich and I lead our group straight to the top of the mine where we chocked our wheels and began looking for specimens. I did a quick walk around and

spotted some nice iridescent hematite where I asked the group to gather.



Then Rich and I showed them what to look for and how to extract the brightly colored specimens out of the rather soft matrix. We pointed out the hazards of loose rocks above them on a moderately sloping hillside and knocked those rocks down out of the way. We then showed them how to use their chisels and sledge hammers to break apart the larger rocks. And suggested that they carefully wrap each specimen in newspaper to keep them in good condition. For the first hour or so, we gathered iridescent hematite and some other nearby minerals like pyrite in a matrix of white kyanite and quartz. Plus someone (Katie?) found a good sized chunk of green mica (fushite) which we split apart into several nice specimens so each person would have some.

Then Rich and I temporarily left the group and drove around until we found Mike Morris so we could ask him if we could take our group of four (4) vehicles to the south side of Willis Mountain to get some specimens of blue kyanite. Mike said yes to our request. We promised him we would be back in about an hour. Then we gathered up our group and around 11:00 am, we lead them to the blue kyanite crystal location about half mile away.

Once there, we showed our folks where to find some blue kyanite crystals that had weathered out of a vein that crossed an old dirt road in an area that was not being actively mined. Everyone found some specimens, although they were small. I also searched out another nearby location where I had on other occasions found some larger blue kyanite. I came across Pam along the way and showed her where to look. We searched the area very thoroughly and found about 20 or so loose blue crystals up to 1 inch long. I also found a nice cluster about 3 inches across that contained several exposed blue kyanite crystals up to 2 inches by 1/4 inch.

A little before 12 noon, we headed back to the main quarry area via another road. But we stopped and dug out some white kyanite embedded in quartz matrix. Then we split up and went our separate ways for the last half hour. Rich and I went to the flat area beneath the old portion of the mountain on the north side of the mine. We found various specimens including elemental sulfur, pyrite in kyanite/quartz, red rutiled mica and a large pile of sand --- which was a by-product of the mining operation.



By 12:50 pm, we returned to the Office parking lot where we joined some other

rockhounds at the picnic pavilion for lunch and some rest. It was great to see many old friends. It had been a good day in the mine.

A day or so later, I asked two of our new members --- Katie and Nate Merris --- to tell me about their impressions of their first field trip. I will share with you what they wrote:

“Good memories are essential components to a happy life. This weekend, my wife Katie and I had the great fortune to add another set of good memories to our collection. This was our first time out with a rock club, and after meeting so many friendly folk, it won’t be our last. We started our Virginia Kyanite mine adventure by driving up a dusty road. After some informative tutelage from Dave, Katie and I were searching for rocks, hammer and chisel in hand. We found a number of oil slicks with amazing rainbow colors. I also learned a great Scrabble word: vug.

Next we drove to another location. We were starting to get the hang of things, and we managed to find a decent looking rock that looked like it might contain a hidden treasure. I carefully split it open, and we were delighted to find a crystal landscape, complete with some purple ovoid areas!

Our team relocated one more time on our way back. I saw an intriguing rock that was half buried near a berm. What piqued my interest were what appeared to be cross sections of kyanite crystal on one side. With great care, Katie and I hammered it in such a way that it split mostly on the same plane as the crystals. What a treat – this turned out to be our best find of the day. The interior of the rock was packed with white crystals!

In summary, we had a great time, met some friendly and passionate new folks, and we have great memories that will last a lifetime.”

Incredible Beryl --- and more

Article by Dave Lines; photos by Dave Lines and Rich Simcsak



Vulcan's Dale Quarry located about 15 miles south of Richmond in Chester, Virginia where 25 members of the Richmond Gem and Mineral Society (RGMS) met for a much anticipated Field Trip on September 14, 2019. Dale Quarry is known among local rockhounds as having a great deal of simple pegmatite rock (feldspar, quartz and mica) with occasional almandine garnets and rarely beryl crystals. In regard to beryl crystals, this day was to be memorable.

At 8:00 a.m. we posed for a group picture (actually several) and then listened to a short safety brief from the Quarry Supervisor (because we had each already read, initialed and signed a detailed sheet of do's and don'ts). His message --- safety is paramount, stay off the berms and away from all highwalls. We then caravanned into the quarry to the lowest level where we spread out to look for specimens. The weather was near perfect --- about 72 degrees and cloudy -- and it remained below 80 degrees all morning.



The country rock in Dale Quarry is generally a gray colored granite gneiss. The quarry also has pronounced pink colored pegmatite veins and dikes due to the pink feldspar in the pegmatite. Under closer examination, this material is laced with shiny biotite (and some muscovite) mica and dark gray smoky quartz.



The quarry floor on the lowest level was generally clear of obstructions on the left side, but on the right side, there was a large area of stockpiled rocks and big boulders --- with many 6 to 8 feet across. It was in this area that Rich Simcsak and I decided to start our search. I dropped off Rich along one edge

and then drove to the far side of the stockpiled boulders --- much of which was the pink pegmatite material. I began checking the edges and there was a large amount of pink feldspar --- including nicely formed blocky chunks of pure pink feldspar suitable for lapidary use. I moved (carefully) into the boulders and spotted several garnets protruding from the surfaces --- mostly all were embedded in the pink feldspar, but none that excited me. I collected a few pieces of the feldspar as well as some pegmatite and headed back to the edge where I spoke with Mark Wiley. I showed him a piece of pegmatite that contained a thin bright green vein which looked like epidote crystals. I used his loop but could not really determine what it was.

Rich soon joined me and we searched another part of the edge. A lady and her husband began hammering on a nearby boulder and she brought me a chunk asking if it was garnet. No, it was iron stained rock. A few minutes, I chipped off a piece of feldspar with small tiny garnets and gave it to her --- and she surprised me with her own find of a piece of feldspar with several well formed ¼ inch garnets on top. A nice find. She returned to find more.

Rich and I eventually worked our way further into the boulder field where we came across both Thomas Hale and Tom Leary. Tom was pounding on a huge boulder and breaking off sections of pink feldspar which contained lots of garnets. In fact, Tom had already found several beauties including one about an inch across. Shortly after our arrival Tom decided he had enough garnets and wanted to search for other minerals. Tom gave us the boulder

and we continued to extract garnets – mostly small ones --- for the remainder of the morning.

We thought we were doing something worthwhile --- until we headed back to the office a little before 12 o'clock and found Tom grinning from ear to ear. Someone mentioned beryl and motioned to the bed of his truck. Whoa!!! Inside was an incredible beryl crystal --- very gemmy and huge-- almost a foot long and 2-1/2 inches in diameter. And there were dozens more --- all smaller, but gorgeous specimens. Then various people, including Tom, told us the story. It seems that several people had walked near and around the particular boulder that contained the beryl crystals until finally Wayne Gilmour spotted the green end of the big one.



He realized in an instant what it was and got Tom involved. Together, they carefully and methodically began removing some of the rock around the crystal which turned out to be numerous beryl crystals. Tom – despite a

recent painful injury to his hand --- was able to swing a very large sledge hammer to break apart some of the big rock. At the same time, Wayne used a small battery operated diamond wheel saw to cut away critical pieces of the matrix to better expose the crystals. They were really pressed by time since they, with several others watching, worked on removing these beauties right up until the deadline of 12 noon when we were supposed to be out of the quarry. They were super ecstatic when the big one finally came out in one piece. In Tom's words: "Those cable TV prospector shows got nothin' on our day!!!" You can say that again. These were all incredible finds. Well done Tom and Wayne!

You never know what you will find on a field trip --- that's what makes it so much fun.

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Friends of Mineralogy – Pennsylvania Chapter

SYMPOSIUM ON PENNSYLVANIA MINING AND MINERALOGY

Mineral Collecting Enthusiasts Meet and Learn

Symposium November 2, 2019 Field Trip November 3
Franklin and Marshall College, Lancaster, PA

Please Register in Advance

The Friends of Mineralogy – Pennsylvania Chapter will hold their 2019 Symposium and field trip on the first weekend in November. Mineral collectors in attendance on Saturday will check in at the Hackman Physical Sciences Building at Franklin & Marshall College, Lancaster, PA. Activities, including several talks by experts on minerals, geology and mining in Pennsylvania and beyond, are planned for that building and the adjacent Life Sciences and Philosophy Building. On Sunday, a field trip for those registered for the symposium will provide an opportunity for mineral collecting at H&K Group's Penn/MD Materials Quarry in Lancaster County.

The program planned for the symposium includes these presentations:

Bill Stephens, PG: Amethyst Occurrences in Southeastern Pennsylvania – Classic Locales and Recent Discoveries.

Ron Sloto, PG: Minerals of the Penn/MD Materials Quarry, Fulton Township, Lancaster County, Pennsylvania

Peter Heaney, PhD: Making the Case for Celestine as the Pennsylvania State Mineral

Karenne Snow: Minerals and their Type Localities

Other possibilities being developed include: Dating calcite veining in rocks from Pennsylvania – What it Means

All interested mineral collectors are invited to register and attend. As usual, select mineral dealers will be present, and there will be a silent auction, give-away table, refreshments, and plenty of opportunities for visiting with fellow enthusiasts. Lunch is available at restaurants within walking distance. Arrangements are still being made, so please see the web site <http://www.rasloto.com/FM/> for any updates, details, and the registration form.

The mineral collecting field trip on Sunday, 9:00 a.m. – noon, is planned for H&K Group's Penn/MD Materials Quarry near Peach Bottom, PA, where a variety of minerals may be available. Details will be given at the symposium. The trip is open only to symposium registrants. Safety equipment will be required.

Dates: Saturday & Sunday, November 2-3, 2019

Location: Saturday, Nov. 2: Hackman Physical Sciences Bld., F&M College, Lancaster, PA

Sunday, Nov. 3: collecting trip, H&K Group's Penn/MD Materials Quarry, Peach Bottom, PA
Registration: \$25/person for non-members, \$15/person for current FM-Pa members; free for students with student ID.

Please register in advance; a form is available on the web site.

Professional Geologists: lecture attendance qualifies for Professional Development Hours toward license renewal.

Web Site: <http://www.rasloto.com/FM/>

Contact: Joe Marchesani e-mail: Jmarch06@comcast.net

ULTRAVIOLATION Show

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

When: October 26, 2019, from 9:00 AM to 4:00 PM

What: 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

**The Southern Maryland Rock and Mineral
Club**

Meetings take place on the 4th Tuesday of
each month at 7:00pm

Clearwater Nature Center, 11000 Thrift
Road, Clinton, MD.

For More information, call:

(301) 297-4575

We're on the web:

