

Southern Maryland Rock and Mineral Club



Rock Talk

September, 2017



Next Meeting:
September 26, 2017@7:00 PM

Program
Member's other interests/hobbies
Refreshments
Ralph Gamba

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

Photos of the field trip to Prospect, VA
taken by John Balazs



In this issue:

August Minutes	2
Upcoming Shows and Events: 2017	2
Rocks, Minerals, and Fossils in the News	3
Field Trip Report: Our First Visit to a Quarry	5
Willis Mountain Fun	7
Member's Finds	9
Mt. Ida Gem and Mineral Show Flyer	10
Friends of Mineralogy-PA Chapter Symposium and Field Trip Flyer	11

AUGUST MINUTES

Submitted by Dave Lines

DATE: Meeting was called to order on August 22, 2017 at 6:10 PM by Acting President Bob Davison. Tonight's normal business meeting dispensed with because it was the Annual Club Picnic and Auction. Approximately 35 club members and guests present.

FIELD TRIPS: Field trips – Dave, Field Trip Vice President reminded everyone of upcoming trips: 8-26-17 ---- Vulcan Manassas Quarry, Manassas, VA field trip --- 7:15 am to noon. Trip info sheet and release form emailed to all members. 9-23-17 --- Annual Willis Mountain trip --- 8:30 am to 2:00 pm – Trip info sheet emailed to all members. 10/13&14/2017 --- 30th Annual World Championship Quartz Crystal Dig at Mt. Ida, Arkansas. 2 mines open for contest 8-3 daily. \$75 per contestant if send in form and fee before August 31st. Dave (trip leader) and wife Ann plus Bill and Debbie Curtain are going.

ADJOURNED: Business Meeting
adjourned at 6:15 p.m.

Upcoming Shows and Events: 2017

October 7: Macungie, PA -- 2017 Autumn Mineralfest Show sponsored by the Pennsylvania Earth Sciences Association. Macungie Memorial Park, Macungie, PA.

October 13-15: Baltimore, MD-- 61st Annual Desautels Micromount Symposium. Friends School of Baltimore, 5114 N. Charles St; Baltimore, MD 21210. Info and registration:

October 21-22: Bristol, CT-- 45th Annual Gem & Mineral Show and 67th Eastern Federation Convention hosted by the Bristol Gem & Mineral Club. Beals Community Center, 240 Stafford Ave., Bristol, CT EFMLS Annual Meeting: Friday, October 20.

October 21-22: Charleston, WV--44th Annual Jewelry, Gem, Mineral & Fossil Show and Sale sponsored by the Kanawha Rock & Gem Club. So. Charleston Community Center, 601 Jefferson Rd; So. Charleston, WV.

October 28: 28th annual Ultravioletation Show hosted by the Rock & Mineral Club of Lower Bucks County. First United Methodist Church, 840 Trenton Rd; Fairless Hills, PA 19030.

October 28: South Penn Fall Rock Swap— South Mountain Fairgrounds-1.5 miles West of Arendtsville, PA on Route 234 8:00am- 3:00pm sponsored by Franklin County & Central PA Rock and Mineral Clubs

Rocks, Minerals, and Fossils in the News

Hey gang, crystals will not cure your cancer

It turns out that the best medicine is medicine



Missing from this picture: a licensed medical

professional. [Image credit: Pixabay / kaboompics | [CC0.1.0](https://creativecommons.org/licenses/by/4.0/)
By [Dan Robitzski](#) | Posted September 21, 2017

<http://scienceline.org/2017/09/hey-gang-crystals-will-not-cure-cancer/>

“Use amethyst for calming effects.” Okay, fine. “Peridot helps with lethargy and Angelite will give you peace.” Sure, whatever. “Rub a garnet for fertility.” Hang on, you’re losing me here. “Treat your cancer with opal and hematite” Woah woah woah, what?!

Those are some of the many crystal prescriptions listed on the website for Aura Shop, a Los Angeles-based marketplace for crystals that they claim have healing powers. The idea is that crystals can heal people by pairing with our chakras — centers of spiritual energy within our bodies according to the Hindu and Buddhist mythos — and “balancing vibrational energies within the body.” And for the low, low price of

200 dollars per hour, they can help you too. “It’s bullshit,” geologist Emily Nicholson says in regard to people’s belief that minerals have healing abilities. “Rocks are rocks. Doesn’t mean they’re not pretty though. I myself enjoy minerals and rocks and jewelry, but nothing more.”

According to a 2013 research article published in *Medical Anthropology*, accounts of crystals being used for medical and spiritual purposes date back to ancient Egypt and Mesopotamia. And with the recent controversy surrounding Gwyneth Paltrow’s debunked and dangerous *Goop* products, the idea has persisted.

Unfortunately, that same article describes at length how crystal healing procedures are performances. Important performances to the people who find meaning in them, perhaps, but performances all the same, not medical procedures. In fact, the paper cites crystal healers saying that the crystals themselves are accessories for the shamanistic healer, who must improvise to convince the client that they “are good at being a healer.”

This can create an authentic, meditative moment for people who seek out such spiritual encounters, concludes the article, but in fact it does not rid them of any disease.

A 2010 study titled “Mystical stones in oncology: crystal healing power or perfect

nonsense” that was published in *Trace Elements & Electrolytes* describes how every analyzed case of people being allegedly healed by crystals is entirely a result of the placebo effect, in which actual physiological changes occur in our body based on our expectations.

There is no direct harm in people seeking out magical rocks to help them focus or improve their clarity, but all placebos aside, there’s no good in it either. And for serious conditions like cancer, HIV, heart attacks, addictions, and Alzheimer’s Disease — all of which are maladies that can be cured with crystals according to the Aura Shop — telling people that some random mineral will heal them is straight up dangerous.

In that *Trace Elements & Electrolytes* paper on crystals and the placebo effect, the scientists who conducted the research provided a strongly worded statement on their goal to prevent their patients “from wasting hope, time and money in an ineffective treatment.” Pursuing crystal-based treatment instead of real medicine would postpone any form of effective treatment and put people in danger.

There are many reasons to be skeptical about pharmaceuticals, but those reasons should be more related to the amount of money and corruption within large corporations and the FDA’s inability to enforce its own regulations. They should not have anything to do with Aura Shop’s ludicrous assertion that crystals are “alive in the sense that they have energy, they are growing and they have DNA.”

Perhaps not surprisingly, a representative from Aura Shop politely refused to provide a comment for this story, as did a representative of Vibrational Energy Medicine, another company that offers crystal and stone therapies.

Early trilobites had stomachs, new fossil study finds

BY BUNNER TONY ON 23 SEPTEMBER 2017

<http://deathrattlesports.com/early-trilobites-had-stomachs-new-fossil-study-finds/53926>



“Trilobites are one of the first types of animals to show up in large numbers in the fossil record,” said lead author Melanie Hopkins, an assistant curator in the Division of Paleontology at the American Museum of Natural History. “Their exoskeletons were heavy in minerals, and so they preserved really well. But like all fossils, it’s very rare to see the preservation of soft tissues like organs or appendages in trilobites, and because of this, our knowledge of the trilobite digestive system comes from a small number of specimens. The new material in this study really expands our understanding.”

Trilobites are a group of extinct marine arthropods—distantly related to the horseshoe crab—that lived for almost 300 million years. They were extremely diverse, with about 20,000 species, and their fossil exoskeletons can be found all around the world. Most of the 270 specimens analyzed in the new study were collected from a quarry in southern Kunming, China, during an excavation led by Hopkins' co-author, Zhifei Zhang, from Northwest University in Xi'an.

Previous research suggests that two body plans existed for trilobite digestive systems: a tube that runs down the length of the trilobite's body with lateral digestive glands that would have helped process the food; or an expanded stomach, called a "crop", leading into a simple tube with no lateral glands. Until now, only the first type had been reported from the oldest trilobites. Based on this, researchers had proposed that the evolution of the crop came later in trilobite evolutionary history and represented a distinct type of digestive system. The Chinese trilobite fossils, about 20 percent of which have soft tissue preservation, are dated to the early Cambrian, about 514 million years ago. Contradictory to the previously proposed body plans, the researchers identified crops in two different species within this material. In addition, they found a single specimen that has both a crop and digestive glands—suggesting that the evolution of trilobite digestive systems is more complex than originally proposed.

The study backs up an earlier announcement made by a separate research team, which

found evidence for the unusual crop and gland pairing in a single juvenile trilobite specimen from Sweden from the late Cambrian. But the Chinese material presents the oldest example of this complex digestive system in a mature trilobite, wiping away doubts that the dual structures might just be part of the animal's early development.

"This is a very rigorous study based on multiple specimens, and it shows that we should start thinking about this aspect of trilobite biology and evolution in a different way," Hopkins said.

Field Trip Report: Our First Visit to a Quarry

by Kimberlynn Jurkowski; photos by Tim Foard

We (Orion, Arion, and Kimberlynn Jurkowski) are excited about our new membership with the Southern Maryland Rock & Mineral Club (SMRMC). As new members, we decided to join other members of SMRMC and go on a field trip to Vulcan Manassas Quarry in Manassas, Virginia. This was our first visit to a quarry and we were not sure what to expect. Orion went shopping a few days ago to buy supplies (hard hats, steel toe boots, goggles, gloves, buckets, hammers, backpacks, and snacks) for our visit.



On Saturday, August, 26, 2017 at 6:45 am, we arrived at the quarry office and Orion pulled into a parallel parking space. We were told to arrive by 7:15am, so we were early. We noticed two other cars on the parking lot and a few large trucks moving toward the back area of the main building. Looking across the area, we noticed several large piles of dirt and a long wall near the back of the parking area. We exited the car and walked over to the long wall. Looking over the wall, we could see an amazing deep, large, hole with carved paths, equipment, piles of dirt, large rocks, and layers of internal walls (the size of a small town).

A few minutes after 7:00am, several cars arrived in the parking area including members from SMRMC. About 25 people gathered into a small group for the field trip. Vulcan's Safety Officer ("KT") explained to the group, rules, expected behavior, required equipment, and emergency procedures. "KT" led all cars down a long winding road down deep into the quarry. We learned two key safety points --- recognize the high wall and keep safety gear on at all times. We did our best to follow the experienced members. Dave Lines, was a big help and educator. He explained many

concepts, demonstrated how to use several tools, and he made sure we practiced safe habits as we collected rocks (Thanks Dave!).



We noticed most of the calcite, feldspar, prehnite, and mordenite were hidden "inside" the gray rocks. Teams of people worked for several hours on large rocks to chip around vugs, cavities, and areas of interest filled with crystals. Finally, it was time to pack up, thank everyone for helping us, and head out up the long and winding road. We made it back to the main entrance and received a light car wash as we exited. We enjoyed our time and learned so much about rock identification, safety, team work, and tools during our field trip. We received help and support from many people. And we did not go home empty handed --- several beautiful specimens and rocks were shared with us. Orion and Arion worked hard, while I took pictures, and learned about the quarry and rocks in my own way (smile).

Willis Mountain Fun

by Dave Lines; photos by Kimberlynn Jurkowski



Twelve members (Rich, Leo, Sondra, Orion, Kim, Arion, Aby, Asher, Emily, Noah, Isaac and Dave) of the Southern Maryland Rock and Mineral Club joined about 80 other rockhounds from various clubs from Delaware, Maryland and Virginia for our annual field trip to Willis Mountain Kyanite Mine near Dillwyn, Virginia on Saturday September 23, 2017. The weather was beautiful --- sunny and pleasant with a high temperature about 80 degrees --- perfect for an early autumn field trip.

About 8:30 a.m., we gathered in the office parking lot of the Kyanite Mining Corporation for our safety brief. First we heard from Dave Callahan --- overall trip leader and organizer of this event. Dave reminded us of the importance of adhering to various safety requirements to collect mineral specimens on this property. Our unblemished safety record here has certainly contributed to the owners inviting us back every year and we all want that to continue --- especially in light of the many local mines for which are closed to field trips. Next, Mike Morris, our host from the Kyanite Corporation, carefully reviewed a thorough checklist of safety do's and don'ts --- often elaborating with specific

instances which reinforced the consequences and importance of following the safety rules at all times. For example, he not only told us to stay away from the safety berms and why, but told us that a MSHA inspector would question even the presence of "foot prints" on a berm. So we all felt a sincere sense of responsibility and confidence that we would do the right thing before we left the parking area.



Following Mike's vehicle, the group caravanned up to the top of the mountain about 9:00 a.m. where everyone spread out to search for specimens. Each year, we are amazed at how much change has occurred in the mine since our last visit. And there was ample evidence that the Kyanite Mining Corporation had spent a lot of effort preparing for our visit --- the roads were clear and bulldozed flat with no large rocks sticking up, the berms were freshly refurbished everywhere and blocked the areas near all highwalls and there was flagging that noted various areas to remain clear of. They had done an excellent job with safety in mind for everyone.

Our group from SMRMC had many novices -- in fact, five (5) of us had never been in a mine and this was their very first field trip and another three (3) had been on only one other

field trip. So those of us who had been here before spent our time assisting our new folks enjoy their adventure. Rich was especially helpful in getting them comfortable in their new surroundings while making sure they found something worthwhile. I checked out the perimeter of the area near, but not on, the very top of the mountain. As I walked around, I made a mental note of several areas which looked good for collecting later. Early in my walk, I came across a lady who sitting on a very large boulder which she "claimed". After quickly noticing that it was laced with small pockets of iridescent hematite, I had a conversation with her about how she was going to extract the specimens. She said her husband was getting a sledge hammer to break it apart. This boulder was BIG --- at least 6 feet long, 4 feet wide and 3 feet thick -- so she needed a really big sledge. I waited until her husband returned with a sledge weighing about 10 pounds. I told her that I had a bigger sledge -- a 20 pounder --- and if she wanted me to, I would help break it up. She gave me a small, colorful specimen and thanked me. I said I would check back with them later.

I checked on our new rockhounds and gave the specimen of iridescent hematite to Noah (one of our new members), then eventually worked my way to the truck. There I picked up my big sledge, a 6 foot pry bar, a couple of good steel chisels and a small 4 pound hammer and headed back toward the lady on the rock. She was still sitting on that rock when I arrived about a half hour after I first met her. And her husband was not having much luck breaking the rock apart. I showed him my big sledge and he accepted my offer to help. So the lady got up, moved and sit nearby while I checked out the boulder. It was a great looking rock --- covered with

small vugs of brightly colored hematite. Along the way, an acquaintance named David tagged along because he sensed that I knew something. He was right. Now "we" studied the boulder to determine the best way to break it up while protecting the specimens. My first few whacks with the 20 pounder were decisive and we quickly had enough material for the original "claimers" ---- they were very happy and declared that they had plenty and gave me the rest of the boulder.

Of course, by this time, our activity had attracted several other rockhounds --- all of who wanted some of the action. And so it went for the next 2 hours as "we" dissected that rock into many smaller specimens. In fact, everyone else was using my big sledge and chisels more than I was --- but it was okay, I am not as young as I used to be, and besides, Tom Sawyer had a good plan. ☺ We even got our new rockhounds to join us as well and they learned about wrapping their specimens with old newspaper to protect them. We worked on that boulder until it was about half its original size. In fact, Asher finally split the remaining portion of it completely in half. Everyone that came around got some of that boulder.

As has happened on other occasions, time ran out on us and we had to leave the mine before we finished collecting. But the boulder is still there --- with lots of brightly colored iridescent hematite exposed on several sides. It would make a spectacular yard rock --- if you could lift it ---- and then figure out how to transport it back home. It still weighs two tons.

As for what was found, I saw iridescent hematite, iridescent hematite on kyanite crystals, kyanite crystals (grey, blue and clear), quartz, pyrite in kyanite and quartz,

rutilated biotite mica (pinkish red colored) and malachite in white quartz. Of course, there were many specimens that I did not see.

It was great to see old (and young) rockhound friends from other clubs. Some sad news – Mr. Dixon – longtime owner of the Kyanite Mine, passed away recently. He was a very generous friend of rockhounds. “Thanks, Mr. Dixon for letting us enjoy your mine all these years.”

Member’s Finds

Some gemmy blue crystals of kyanite collected during a family outing to Earthen Paradise in Prospect, Virginia, by Dave Lines



Collected any interesting specimens? Send a photo or two to the editor at bmorebugman@yahoo.com for inclusion in the next issue of Rock Talk.

SMRMC OFFICERS

PRESIDENT

(position open)

Bob Davidson acting President

Membership Chairman

Polly Zimmerman

polly.zimmerman@verizon.net.

Programs Chairman

Carole Raucheson

caroleal@verizon.net

Secretary

David Lines

Dave.lines@earthlink.net

Field Trip Chairman

David Lines

Dave.lines@earthlink.net

Ralph Gamba

rgamba@verivon.net

Treasurer

David Lines

Dave.lines@earthlink.net

Editor

Timothy Foard

bmorebugman@yahoo.com

Webmaster

Bob Davidson

Bob.Davidson2@Yahoo.com

QUARTZ CRYSTAL CAPITAL OF THE WORLD

MOUNT IDA, ARKANSAS • OCT 13-15, 2017



Photo Credit: Crystal City, Inc.
Culler Creek Mine, Mount Ida, AR

GEM
&
Mineral
SHOW

Join us October 13th-15th, Fri-Sun
for the Quartz, Quiltz, & Craftz Festival
9 am - 6 pm Fri & Sat, 10 am - 4 pm Sun
3 Days, 3 Shows, 2 Digs, Fun for All!
Indoor & Outdoor Vendor Booths
Food Trucks, Hourly Door Prizes
FREE Parking & FREE Admission!
K-6 Kidz Dig & 30th Annual World
Championship Quartz Crystal Dig

IDIGCRYSTALS.US

Fri-Sat 9-6 pm, Sun 10-4 pm • Montgomery County Fairgrounds

Mount Ida Area Chamber of Commerce, mtidachamber.com




SYMPOSIUM & FIELD TRIP
Friends of Mineralogy - PA Chapter November 4-5, 2017 Lancaster, PA
 Hackman Physical Sciences Building (parking lot off Harrisburg Pike), Franklin & Marshall College

Symposium for mineral enthusiasts on Saturday Nov. 4 Doors open 8:30 a.m.; Symposium 9:00 - 4:00
 Sales by Select Dealers – Silent Auction – Give-away Table – Meet Fellow Collectors
 Experts will speak on the theme: Pennsylvania Mining and Mineralogy

Stan Mertzman, PhD Franklin & Marshall College Through the "Looking Glass": Optical Mineralogy and Common Igneous and Metamorphic Minerals and Rocks	Ron Sloto, PG West Chester University The Dyer Diabase Quarries, Berks County, Pennsylvania	Bill Stephens, PG Stephens Environmental Consulting, Inc. Lapidary Grade Agate and Other Semi-Precious Gemstones from the Penn-MD Serpentine Quarry, Lancaster County, Pennsylvania	William Kochanov, PhD Pennsylvania Geological Survey The Occurrence of Smoky Quartz Crystals in Northeastern Pennsylvania	Kent Littlefield, PG Leidos Friedensville Zinc Mines of Southern Lehigh County: Geology, Industrial History, and Environmental Impact
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Registration (form on web site): Current members \$ 15.00/person Non-members \$ 25.00 Students with student ID free
 Professional Geologists: lecture attendance qualifies for Professional Development Hours toward license renewal
 Field Trip Penn/MD Materials Q., Peach Bottom PA Sunday Nov. 5 Open only to symposium registrants.
 Visit our web site for details, registration form, changes and updates: www.rasloto.com/FM



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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:

SMRMC.org