

GEM & MINERAL JOURNAL

Official Monthly
Publication of the Gem &
Mineral Society of
Lynchburg, VA, Inc
www.lynchburgrockclub.org

APRIL 2017

VOLUME 26~ ISSUE 4



President's Message:

Hi All,

At the time you are reading this I am on my third job of the spring and should be home for the May meeting. Work has been tough but I look forward to being back with all of you and getting out there looking and hunting for that special rock.

I hope that the winter has not been too bad on you but spring is here and the weather is getting warmer. I look forward to this time of year as it is great for rock collecting. The only bad thing is now all of the creatures are back out also so be careful when you are out there and be extra diligent about watching where you step or where you put your hands.

I have to thank Natalie for filling in while I am out and it sounds like she has a lot of great things lined up for the meetings. I am not around to help but wish I was so I would like to ask all of you to help her out and help to grow the club's knowledge. Also to make the meetings

From the First V.P.

This month for our program we will have hands on demonstrations of different methods of Mineral Identification. This should be fun and educational for all.

We will also start our "Last Thursday" workshop, which I hope will become a regular monthly feature. We will be able to meet at The office of American Cancer Society, 2050 Langhorne Rd, suite 201. If this seems like a suitable place we can continue to meet there on the last Thursday of each month through November. Meeting time will be 7-9PM. If you have any questions or suggestions please let me know. The workshop, like all club activities, is open to all current club members. You may bring along anything you want to work on, share,

more of an experience than just a meeting. I know that most of you are members because of either the trips or the training but if we can turn the meetings into a great learning experience that would complete the circle. Collect, Identify and Create. This is how you complete the rock hound experience. Most of us are one or two of these but knowing how to do all three makes you a better rock hound. Myself I really love the hunt but knowing that I have found what I went out for is better. I have learned how to make jewelry, and it is not my thing, but going through the process has made me appreciate those who do it. It also has made it easier to talk to those that do and we learn from each other.

Keep up the hard work and pitch in when you can. I will see you soon.

Keep looking down,
Steve

get assistance with, or just come with an open mind and good spirit. I will be happy to help folks with wire crochet projects that need completion. We can share ideas of what folks would like to do/ learn here in the future.

I have found an interesting article to share this month, from smithsonian.com, which is timely since the Big Digg in Franklin NJ for Fluorescent material is also held this month. Enjoy~

See The World's Largest Collection of Fluorescent Rocks and get glowing in the mine's Rainbow Tunnel.

In New a Jersey mine spanning 2,670 vertical feet- more than twice as deep as the Empire State Building is tall- visitors might notice a little glow. Well, a lot of glow, actually.

continued on page 11



March Meeting Minutes

Meeting: Wednesday, March 15, 2017 @ 7:00 PM

Attendance: 33 member

Hospitality: Eric and Pam Routon hosted tonight's meeting, Donna Spencer will host the April meeting.

On Time Drawing Winners: Mary McIntire, Wayne McIntyre, Tony Shields, Thom Noble, Roger Linkenhoker and, Gabby Routon

50/50 drawing winner – Pam Routon

President -Steve Gordon was not able to attend this months meeting due to his work schedule.

New Business:

Second V.P. Dave Callahan– presided over the meeting since the president and first VP were out of town. By show of hands members voted to participate at Uncle Billy's Day June 3rd Event. Also voted to just have the sluice and geodes at the event. At least 6 members are needed there at all times and help with setting up, & taking down, as well as general operations. There is a sign up sheet for club members to put a time you can be there. It was also decided to have the set up at English Park and not the Trade Lot. Cindy Mitchell will take care of getting us registered.

***-Shirt orders were not turned in due to some problems with the

orders. Dave will work on this through the April meeting.

Officers will be working on a Summer Program for Parks and Recreation and Natalie will be working on this, as well as a social workshop for a week night. Anyone with suggestion on location please contact her. Club members were asked about interest in a Basic Safety CPR Class and there were only 4 in favor so this will be tabled for another time when there is more interest.

Upcoming field trips: March 25, Faber Mine; April 22, American Rutile.

Treasurer: Cindy Mitchell gave the treasury report, the current balance is \$7191.98.

Program: Show and Sell. Club members and one guest who signed up prior to the meeting were allowed to "rent" a table and offer their hobby related items for sale. It seemed to be well received and we will try to offer similar programs in the future.

Dave Woolley reminded everyone about the Fluorescent Mineral collecting trips on Saturday, April 29, 2017 in Franklin, NJ.

<http://sterlinghillssuperdig.org> for information

Minutes submitted by Linda Noble, Secretary

2017 ELECTED OFFICERS

PRESIDENT - Steve Gordon
(434) 929-1524
stevegordon@comcast.net

First Vice President
Natalie Darling
434-941-1899
natalie@sterlingflame.com

Second Vice President
David Callahan
(540) 297-1853
DBCALL1@aol.com

Secretary
Linda Noble
(434) 332-4869
linda-noble@hughes.net

Editor - Warren Darling
(434) 941-3784
darlingwarren@yahoo.com

Treasurer - Cindy Mitchell
(434) 283-3884
mitchell99@embarqmail.com

Members At Large-
Johnny Knight
Eric Routon

COMMITTEE CHAIR PERSONS:

Field Trips– David Callahan
Hospitality- Monthly Volunteers
News Articles– Natalie Darling
Silent Auction– Warren Darling
Website– Casper Voogt
Workshops– Dave Callahan
FRA Adult Liaison- OPEN
Membership- Thom Noble
Finance Committee- Natalie Darling

PROGRAMS

Thanks to all who participated in our March program as Buyers, Sellers and overall hobby enthusiasts! I have heard so many wonderful comments about the Show and Sell. We will definitely plan on offering more opportunities like this in the future.

For the April meeting we will have 4-5 stations offering different methods of mineral identification. This is a hands on, fun way to learn different ways to help identify the rocks we collect. Please join us on April 19, 2017 at 7PM.



Bench Tips By Brad Smith

See all Brad's jewelry books at
[Amazon.com/author/BradfordSmith](https://www.amazon.com/author/BradfordSmith)

A new melting dish or crucible must be given a protective coating of borax before its first use. Borax extends the life of the ceramic material. Once done, it generally does not have to be repeated.

The procedure is straightforward. Heat the new melting dish to red with a large torch. You'll need plenty of heat. I use an acetylene/air Prest-O-Lite torch with a large #5 nozzle.

When the dish is hot, sprinkle in a half teaspoon of borax, let it melt, and spread it with a carbon rod over all of the interior surface of the dish. Add more borax if needed.

Sometimes you will have to hold the dish at an angle to coat the sides up to the rim. And don't forget to coat the pouring spout itself.

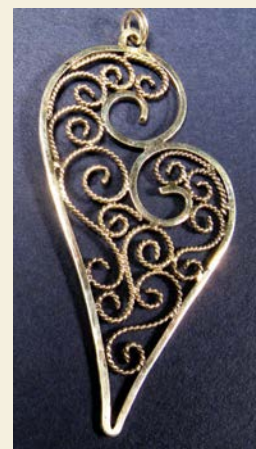


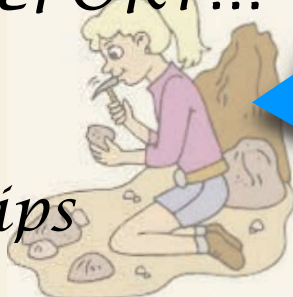
Making wire for filigree is quite simple. Take a double strand of 24-26 gauge silver wire, twist it

tightly, and then flatten it a bit. While the basics are straightforward, here's a few tips that will quickly make you an expert with filigree.

Filigree looks best when the wire has a very tight twist. The way I do this is to start with dead soft wire and twist it until it breaks. It always seems to break on one end or the other. I like to use a screw gun, although a Foredom also works well. Be sure to keep a little tension on the wires as you twist. Then to get a real tight twist, I anneal the wire and twist it a second time until it breaks.

The final step in prepping the filigree wire is to flatten it slightly with a planishing hammer or rolling mill. The amount of flattening is a personal preference. I like to reduce the diameter about 25%. The wire will be quite stiff at this point, so it's best to anneal it again before starting to make the filigree shapes.



*FIELD TRIP REPORT...**Up Coming
Field Trips*

Contact Information
for Field Trips
David Callahan,
Field Trip Chairman
Home phone: 540-297-1853
Cell Phone- 540-874-5201
E-mail dbcall1@aol.com

**The Gem & Mineral Society of Lynchburg,
VA. Inc. & The Roanoke Valley Mineral &
Gem Society**

Combined Mineral Collecting Field Trip

Saturday, April 22, 2017

9:15am to 1:00pm at the quarry

**Meeting time at Hardee's in Amherst
departing 8:45am**

**Sign-up required. Call me, email me or sign up at the
meeting.**

We may need to carpool and or limit the size of the group due to the private nature of this site and respect for the landowners living there.

We will explore an old rutile quarry in Nelson County and will be able to collect some massive and crystal rutile and ilmenite also massive aplite feldspar and blue quartz. Some beautiful 1/2" and smaller rutile crystals have been found here before. This material is hard and will make beautiful specimens and will take a good polish. In addition to personal specimen collecting, please help the Lynchburg Club in its quest to collect hard solid material to make bookends, clock faces, rock candles spheres and other products for sale at our fund raising events.

We will meet in Amherst, VA, Saturday morning, at the Hardee's Restaurant on US 29 business, no later than 8:30 A.M. We will decide if we need to carpool and we can leave cars here if needed. We will depart from there promptly 8:45 A.M.

From Lynchburg and Roanoke, follow US Rt. 460 east / US 29 north by-pass several miles east of Lynchburg. Take the new US Rt. 29 north by-pass across the James River and proceed north to the Amherst US 29 business exit. The Hardee's is in the Ambriar Shopping Center at this exit. Come early and have a bite to eat. From this point, it should take about 20 minutes to arrive at the quarry. Be sure that you are fueled up and ready to leave at 8:45 A.M. If you are coming from the north, the US 29 business exit will be about 2 miles south of the US 60 exit. If you live in Lynchburg, it could be closer to just follow US 29 business thru Madison Heights to Amherst. The Hardee's will be on your left at the new US 29 bypass interchange, just before you arrive at the town of Amherst.

If you will be driving in from the north, let me know and I will send you an alternate meeting area.

Dress for the weather that day and be sure to bring food, water and warm clothing. Wear boots, gloves, long pants and safety glasses. Hard hats will not be required.

SAFETY NOTE...DO NOT CLIMB UP OR DOWN THE QUARRY WALL. THIS IS UNSTABLE, UNSAFE AND THE QUARRY IS FULL OF WATER. DO NOT WONDER OFF BY YOURSELF. TAKE SOMEONE WITH YOU. STAY IN SIGHT AND EAR SHOT OF OTHERS. THE SITE IS OVERGROWN AND YOU WOULD BE HARD TO LOCATE IF YOU NEEDED HELP. DO NOT ATTEMPT THIS TRIP IF YOU HAVE ANY MEDICAL CONDITION THAT COULD CAUSE A PROBLEM FOR YOU. THIS IS A REMOTE AREA. IF YOU LEAVE EARLY, LET YOUR LEADER OR A CLUB OFFICER KNOW.

Continued on next page

Up Coming Field Trips

Continued from page 4

Bring a hoe or something to turn rocks and watch where you put your hands. There may be a surprise waiting underneath. Hopefully the kudzu has not over grown everything this early in the year. If you plan to collect BIG rocks, then a hand truck, wheelbarrow or wagon will come in handy.

Bring a hammer and chisel to break rocks, buckets and newspaper to wrap any delicate specimens you might find. Digging tools and a sledge may come in handy. We will be able to drive into the quarry through the rear gate this year. This access road is mostly level so any vehicle should be able to make it. Four wheel drive vehicles are always best though especially if you have a load. It may be slick and muddy if there has been a recent rain and we will cancel the trip if it is raining the morning of the

trip. There is no age limit but children must be supervised. There are NO restroom facilities at this site.

I will have maps and examples of the material you will likely find available at the meeting place that morning.

We must arrive together but you will be free to leave at any time.

For more information contact: David Callahan, Field Trip Leader

Lynchburg Gem & Mineral Society Inc.
www.lyncburgrockclub.org

Roanoke Valley Mineral & Gem Society Inc.
www.rvmgsoc.org (new web site)

Home Phone 540-297-1853 any time

Cell Phone [540-874-5201](tel:540-874-5201) day of trip only please (If I don't pick, let the phones ring and leave a message please)

An Official Field Trip of the Mid-Tennessee Gem & Mineral Society, Inc. (Murfreesboro, TN) (HOST)

An Official Field Trip of the GMSL & RVMGS

**Saturday, May 6, 2017
10:00AM until 3:00PM CDT
Cumberland Furnace, TN**

COLLECTING: We are heading to Cumberland Furnace to collect slag. The slag was a byproduct of making iron. Some of the slag is quit colorful in shades of blue and green ... some with swirls. The slag is easily cut and polished and makes nice pendants – it is too soft for rings.

Our target is a dump pile on the banks of the stream that runs through Cumberland Furnace (access by crossing a large field owned by the community). This dump pile is

located about a ¼ of a mile from the parking area. Although the dump pile has the greatest potential, slag can be found anywhere along the banks (both upstream and downstream). Another way to search is by wading downstream from the furnace if the creek is low. I am not sure if conditions will permit - bring wading shoes just in case if you wish to collect in the stream.

BRING: You need to bring a hand tool, trowel, small shovel, etc to dig in the slag pile and gloves to protect your hands. Bring a back pack or small buckets for carrying. Boots or wading shoes are recommended as your feet may get wet otherwise.

CHILDREN: Everyone is welcome but children must be 6 years or older. They will not be allowed to roam around unattended and must obey all safety requirements and have all safety equipment.

Continued on next page

*Up Coming**Field Trips**...continued from page 5***PETS:** All pets must be under control at all times.**SEVERAL LODGING SUGGESTIONS:** Depending on which direction you are coming from, I would recommend staying in the Nashville area, Clarksville (north of the furnace) or Dickson (south of the furnace).**DIRECTIONS AND WHERE TO MEET:**

From Nashville, TN off of I-40 take exit 196 for US-70 S (Bellevue/Newsom Station) go 0.2 miles.

Turn right at TN-1 W/US-70S W go 1.8 miles.

Turn left at TN-1 W/US-70 W/Charlotte Pike go 16.1 miles.

Turn right at TN-47 (White Bluff) go 9.6 miles.

Turn right at TN-48 (Charlotte) go 6.8 miles.

Take a slight left at Earl Leech Rd go 0.2 miles.

Turn left on Cinder Road. You will see a log cabin (Starks Cabin) on the left hand side of the road. You can park in the field next to the cabin.

ASSEMBLY TIME: 10:00 AM at Cinder Road, Cumberland Furnace, TN

Meet near the old log cabin on Cinder Road.

CONTACT:**For further information or alternative directions contact:** John Martin, MTGMS President at info@mtgms.org call my cell phone [615-210-5385](tel:615-210-5385) Visit our website www.mtgms.org and visit us on Facebook.**2017 AFMS Endowment Fund Drawing***by Carolyn Weinberger, Endowment Fund Representative*

Time is running short for you to purchase your tickets for the 2017 AFMS Endowment Fund Drawing which will be held in early June during the AFMS Convention in Ventura, CA. You do not need to be present should one (or more) of your tickets be among the winners.

You can purchase tickets from me by mail by sending your check along with a stamped, self-addressed envelope. Tickets are \$5 each of 5 for \$20. Checks should be made payable to "AFMS Endowment" and sent to Carolyn Weinberger at PO Box 302; Glyndon, MD 21071-0302. Deadline for purchases is June 1.

#1 - Dinosaur footprint donated by Doug True. Estimated value \$250.

#2 - Multi-colored fresh water pearl necklace donated by Jean & Ma Charsky. Estimated value \$80.

#4 - Brazilian Amethyst Plate with wood stand donated by the Island Rockhounds. Estimated value \$110.

#6 - Brazilian agate with wood stand donated by Cheryl Neary. Estimated value \$85.

#7 - 130 ct Covellite pendant from Butte, MT with sterling silver wirewrap in a box made of Japanese Paulownia wood. Donated by Hidemi & Tomoko Kira. Estimated value \$150.

#8 - Moroccan vanadinite donated by Steve & Carolyn Weinberger. Estimated value \$75

Photos of the prizes can be seen at <http://www.amfed.org/efms/efapril17web.pdf>**BRING US YOUR OLD SHOES...** Help benefit needy animals in our area.Central Virginia Regional Rescue <http://www.cvrrescue.org/> is hosting a shoe drive and their goal is to collect 2500 pairs of shoes. All of the shoes will be sent to third world countries where they can be used. If the rescue succeeds in collecting 2500 pair, then we will receive a \$1000 donation as well as helping others who may not even have shoes. So we are asking everyone we know to bring us their used shoes. Any style or size. You may bring them to this months meeting and Natalie will take them where they need to go from there. Thank You for your support!

7 April 2017

<https://gemologistapprentice.com/course/gemologist-apprentice/>

Submitted by Dave Woolley

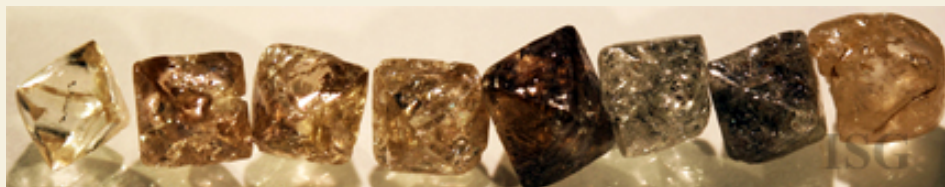
**Welcome to the ISG Gemologist Apprentice Program
A free gemology education opportunity from the new
non-profit International School of Gemology Inc.**

The ISG Gemologist Apprentice program has been specifically designed as an introduction to gemology for kids in the 8 through 13 age range, located anywhere in the world, who are interested in the study of gems and minerals. This course is based on our classroom presentations in various elementary and middle schools in the local public school districts. This introductory course includes information that is taken directly from the ISG course programs. It is good for young aspiring gemologists who are just starting their education in gemology, or for young students who just like gems and minerals and would like to learn more about them.

This free education program consists of a 9 lesson course in gem and mineral formation, how gemstones are mined, how gemstone crystals grow, basics of gem identification, a review of over 67 of the most often seen gemstones and a full section on Careers in Gemology. It is complete with many videos, slide presentations and explanations to help you better understand the study of gemology. Short exams are taken after each lesson. A Certificate of Completion as an ISG Gemologist Apprentice is awarded upon completion, and can be printed out immediately.

ISG Gemologist Apprentice Program is FREE to students in elementary and middle schools around the world.

Teacher Notice: This program is free to all public, private and home school teachers for classroom support. Please contact the ISG for more information if you are a teacher looking for classroom content and presentation support.



With Appreciation: The ISG Gemologist Apprentice Program has been made available as a free education opportunity to children world-wide thanks to the generous donations of the following:

Chatham Created Gems

Joanna and William Emmett

FitzGibbon Family Foundation

Susanna Stachura

Mobile Friendly Study: The ISG Gemologist Apprentice Program is fully HTML5 mobile friendly so young students can study any where, any time and on any device.

SSL Secure Study: The ISG Gemologist Apprentice website is secured by SSL Certificate to insure the privacy and security of your child's information. We never share any information with anyone.

Here is an overview of the course program:

- Lesson One: How Gemstones Form
- Lesson Two: Gems from Igneous Rocks
- Lesson Three: Gems from Metamorphic Rocks
- Lesson Four: Gems from Sedimentary Rocks
- Lesson Five: The 7 Crystal Systems
- Lesson Six: Review of Gemstones A – L:
- Lesson Seven: Review of Gemstones M – Z
- Lesson Eight: Gem Identification including videos demonstrating optical properties, how to use the gem equipment and gemstone phenomena.
- Lesson Nine: Careers in Gemology

This course includes over 200 photographs, 19 videos and a variety of slide presentations to help you begin your study of gemology. Great for anyone interested in gems and minerals and the study of gemology.

Certificate of Completion: ISG Gemologist Apprentice certificate is awarded upon completion of the ISG Gemologist Apprentice course.

Course Delivery: Online through our special secure hosted website in mobile friendly format available anywhere in the world.

Please share this newsletter with your friends to let me know about this important opportunity.

UPCOMING EVENTS

April 2017

April 22- GMSL Field Trip. Information on page 4.

April 27- Thursday Evening Workshop. 7—9 PM. See First VP report on page 1 for information. Contact Natalie Darling with any questions. (434-941-1899) or natalie@sterlingflame.com

May 13- Annual Earth Science Show & Sale sponsored by the Rock & Mineral Club of Lower Bucks Co. PA. Christ United Methodist Church, 501 Wistar Rd.; Fairless Hills, PA. Contact: ebrosiusrock@aol.com

May 13- Annual “Fossil Fest” sponsored by the Finger Lakes Gem, Mineral & Fossil Show. Greater Canandaigua Civic Center, 250 N. Bloomingfield Rd; Candaigua, NY. Contact minerals@icloud.com or gmfc@netzero.net

May 26-28- Treasures of the Earth Gem, Mineral, Fossil, Jewelry and Bead Show, Salem Civic Center, Salem VA. www.toteshows.com for details.

June 3-4 Annual Tannerhill Gem Mineral Fossil and Jewelry show sponsored by the Alabama Mineral & Lapidary Society of Birmingham, AL. at the Tannerhill ironworks State Park, 12632 Confederate Parkway, MCalla, AL. 35111. Contact Cathy Kellogg tannerhillgemshow@gmail.com

June 23-25-Treasures of the Earth Gem, Mineral, Fossil, Jewelry and Bead Show, Expo land in Fishersville, VA. info at www.toteshows.com

SUN	MON	TUES	WED	THURS	FRI	SAT
						1
2	3	4	5	6	7	8 Callahans workshop
9	10	11 	12	13	14	15
16 Easter	17	18	19 Meeting 7PM	20	21	22 Field Trip
23	24	25	26	27 Thursday Workshop	28	29
30						

REMINDER...

Club workshops are held on the second Saturday of each month at Dave Callahan's home. Workshops are open to members only, and all members are encouraged to attend when possible.

There will be some discussion at this months meeting about possibly offering other days for the workshops also.

This is a great learning & fellowship opportunity, as well as a way to contribute to your club. You can “learn” while helping to fabricate items for sale at our fall festival, then use the equipment available to complete your own personal pieces.

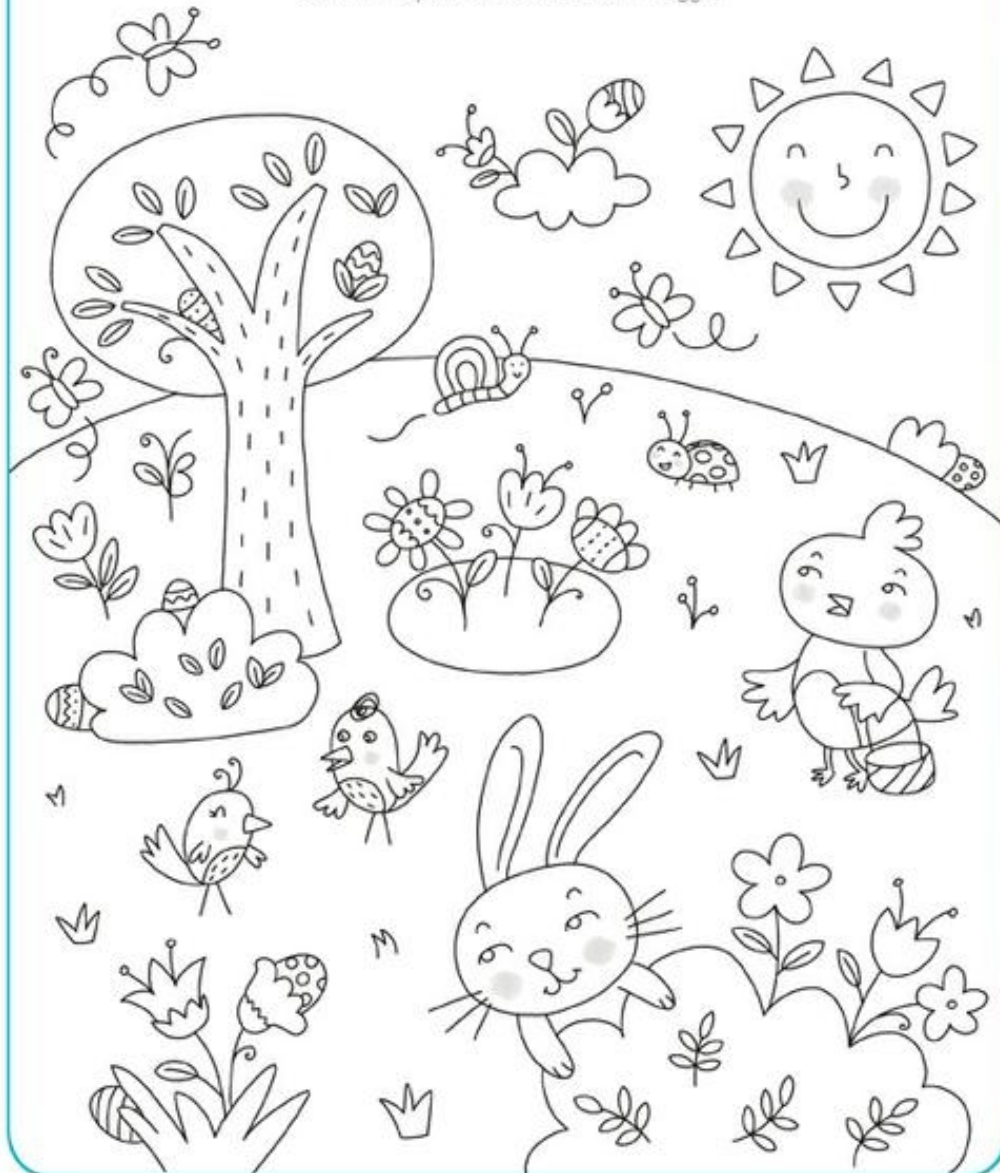
Please consider coming out, regardless of your level of experience. All help is needed and appreciated!



Rock Raiders

Easter Egg Hunt

Can you find how many eggs are in this scene?
Color in the picture and find all of the eggs!



Please be kind and DO NOT COPY OR SELL. All images are © Julissa Mora, LLC
To see more of my art visit me at www.julissamora.com or my blog at www.julissamora.blogspot.com. Thank you and ENJOY!

Answer: 10

Safety Matters, Got A Good Sole?

By Ellery Borow, EFMLS Safety Chair

Reprinted from April 2017 EFMLS News

Yes, that is “Sole” and not a typo of “soul.” Over the years I have seen a great many not so pretty soles out there on the footwear of rock, mineral, and fossil enthusiasts as they enjoy their collecting trips. I have also seen plenty of worn out, torn, missing and broken laces, as well as floppy bottomed footwear on us.

If you will permit me, I'd like to back up a bit here and mention that proper footwear is an important segment of having a good collecting experience. Having sufficient footwear for the effort is highly recommended— as recommended as utilizing safety glasses, gloves, protective clothing and sun screen.

One of my primary footwear concerns is when I see shoe soles that are worn down to the point of threadlessness. Smooth soles do not work as well as treaded soles in keeping people upright. Although a case could be made for smooth soles on the footwear of some folks who shuffle rather than walk simply because lugged soles do grip significantly better than flat ones, and may thus be a tripping hazard for some. However, that said, I rarely see folks shuffle along in quarries and pits because shuffling can be dangerous.

Another consideration with having tread on the sole of a boot or shoe is the direction of pattern of that tread. If the primary tread pattern is from right to left, or left to right such a pattern would be excellent for walking up or down a slope because the tread would be perpendicular to the direction of travel. But, what if one moves across the slope in either clockwise or counter-clockwise motion? In such a case the same tread pattern would be parallel to the direction of slope and thus not have anywhere near as much gripping power. When traipsing in either a clockwise or counter-clockwise motion on a slope it would be better to have a pattern of ridges that ran from toe to heel, and thus, again be in a perpendicular orientation to the direction of the slope. If one were similar to most of us and find the need to not just move up and down, but also right and left on a slope it would be rather impractical to change shoes for the different directions.

Thankfully, most manufactures offer patterns that are practical for all applications. While most manufactures offer a pattern suitable for any occasion, I still see patterns that are raised to be better in one direction rather than all directions.

Another important consideration is the flexibility and resilience of the sole material. A softer material will have significantly greater gripping power than a hard material. However, a softer sole material will not last as long as a hard sole material — especially as these boots and shoes are used on very abrasive surfaces. Again, most manufactures realize their products will be worn in varying environments and so have selected a compromise material, a material that will wear well on wood floors as well as quarry bottoms.

Another sole consideration is water. Many of the wanderings through the woods I do when seeking lost or forgotten quarries brings me into contact with brooks, creeks and streams- all of which are wet. I frequently have occasion to walk on, over and through wet slippery rocks. If one has ever experienced such situation, one will no doubt recall the slipperiness of slick, bio-film, and moss covered rocks. Even a superior lugged sole can lose its grip on rounded slippery rocks. So, in such instances, having a soft sole with great gripping power is most helpful. The salient point when working in wet environments is to try and keep one's feet dry.

Additional footwear considerations also come to mind. If one is prone to dropping rocks, perhaps such folks should consider using strong or safety toe footwear. If one were to crawl among the rocks or walk on or over tough and abrasive surfaces, folks should consider using strips or safety toe footwear. Folks should also consider safety toe footwear if walking through biting insect or critter inhabited areas or areas of unknown danger.

Do you see a pattern forming here? Yes, I do suggest wearing good and appropriate footwear- footwear suited for the occasion.

As I like to say, it is not that the sole makes the man, it is that the sole makes the man, women or entire family safe.

The takeaway here is that your foot safety matters... even if it is sometimes a wet foot.

Fluorescent Rocks...

continued from page 1

The Sterling Hill Mining Museum is known to have the worlds largest publicly displayed collection of fluorescent rocks- ones that beam bright neon colors under certain types of light.

The museum is an old zinc mine- one of the oldest in the country, having opened in 1739 and in operation until 1986, during which time it was an important site for hauling out zinc, as well as iron and manganese. The abandoned mine was purchased in 1989 and converted to a museum in 1990, and now welcomes about 40,000 people every year. The museum itself includes both outdoor and indoor mining exhibits, rock and fossils discovery centers, and observatory, an underground mine tour, and the Thomas S. Warren Museum of Fluorescence devoted to the glowing minerals.

The fluorescence museum occupies the mine's old mill, a structure dating to 1916. There's about 1800 feet of space, with more than two dozen exhibits- some of which you can touch and experience on your own. Even the entrance is impressive; more than 100 huge fluorescent mineral specimens cover an entire wall that's lit up by different types of ultraviolet light, displaying the glowing capabilities of each mineral type. For kids, there's a "cave," complete with a fluorescent volcano, a castle, and some glowing wildlife. And there's an exhibit comprised solely of fluorescent rocks and minerals from Greenland. All told, more than 700 objects are on display in the museum.

About 15 percent of minerals fluoresce under blacklight, and they generally don't glow in the daytime. Essentially, ultraviolet light shining on these minerals is absorbed into the rock, where it reacts with chemicals in the material, and excites the electrons



in the mineral, thus emitting that energy as an outwardly glow. Different types of ultraviolet light- long wave and shortwave- can produce different colors from the same rock, and based on other materials inside the mineral or sitting through rock (called activators), it may glow multiple colors.

"A mineral might pick up different activators depending on where it forms, so a specimen from Mexico might fluoresce a different color than one from Arizona, even though it's the same mineral," Jill Pasteris, a professor of earth and planetary sciences at Washington University, told the college's newspaper. "On the other hand, some minerals are just good fluorescers. Calcite, for example, can glow in just about all the fluorescent colors. But, oddly enough, having too much of an activator can prevent fluorescence as well. So an overdose of a generalized activator like manganese can keep a good fluorescer like calcite from lighting up."

Among the most impressive parts of the mine tour at Sterling Hill is the walk through the Rainbow tunnel, which ends in an entire fluoresced room called the Rainbow room. Much of the route is illuminated by ultraviolet light, causing a burst of glowing, neon reds and greens from the exposed zinc ore in the walls. The green color signifies a different type of zinc ore called willemite. The mineral's color can vary wildly in the daylight- everything from the typical chunks of reddish-brown to crystallized and gem-like blues and greens- but it fluoresces bright neon green. When the mine was active, the ore covered the walls throughout, so anyone shining ultraviolet light would have had a similar experience to what occurs in the tunnel today.

Read more: <http://www.smithsonianmag.com/travel/largest-collection-fluorescent-rocks-180962572/#wcyivr7sCRYkR3d7.99>

I hope some of you will take advantage of the opportunity to visit the Museum at Sterling Hill and do some collecting for yourself. It is certainly an experience like no other.

Hope to see you at the club meeting on April 19th and perhaps at our last Thursday Workshop on April 28th,

~Natalie Darling

GEM & MINERAL SOCIETY OF LYNCHBURG, VA, INC.

WWW.LYNCHBURGROCKCLUB.ORG

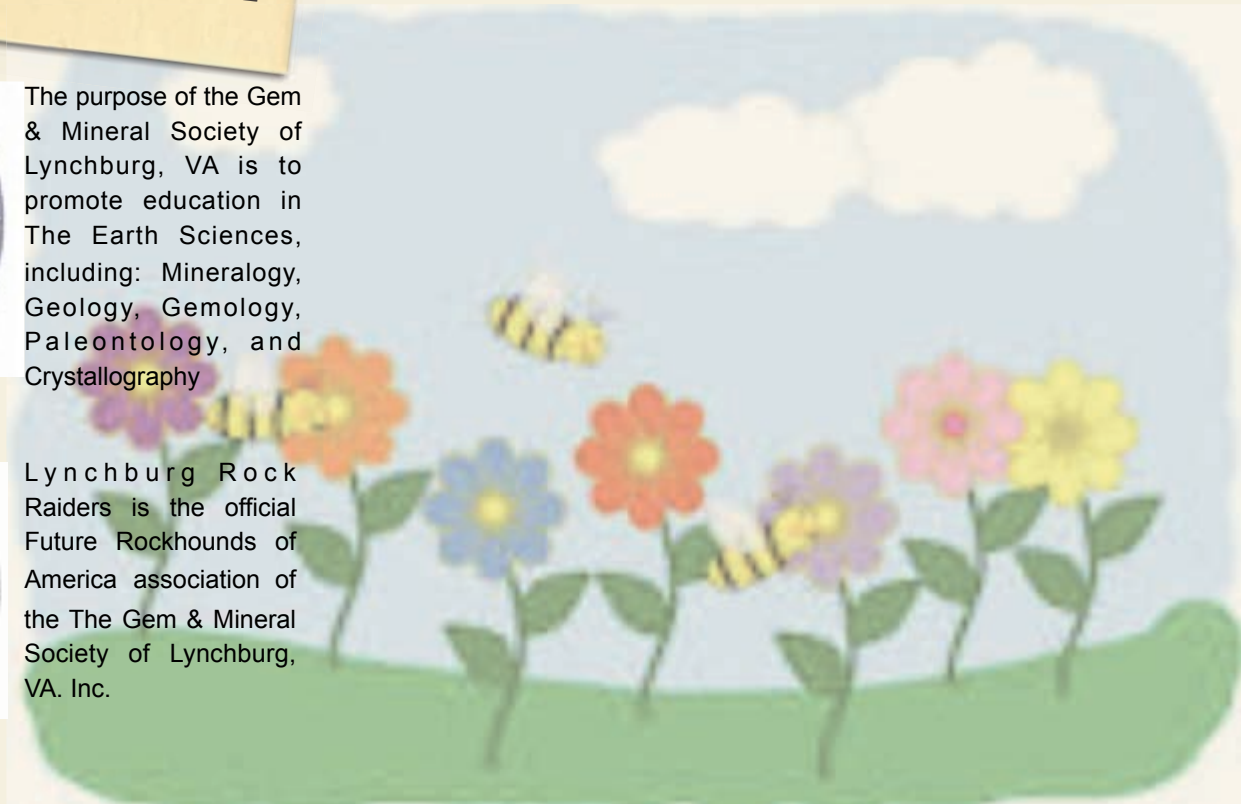
Warren Darling, Editor
211 Chesterfield Rd.
Lynchburg, VA 24502



The purpose of the Gem & Mineral Society of Lynchburg, VA is to promote education in The Earth Sciences, including: Mineralogy, Geology, Gemology, Paleontology, and Crystallography



Lynchburg Rock Raiders is the official Future Rockhounds of America association of the The Gem & Mineral Society of Lynchburg, VA, Inc.



MEETING LOCATION

*DIRECTIONS: Fairview Center;
3621 Campbell Ave., Lynchburg, VA 24501
434-847-1751~ From Route 29 expressway or Route
460, take the Campbell Avenue Exit. Follow Campbell
Ave. to 3621, which is across the street from a Citgo
Gas Station. There is a fence around the building and
parking on both streets running along the sides of the
property as well as a lot in the back. We will be
looking for you!*