



Gem & mineral journal

The Monthly Publication of
The Gem and Mineral Society of Lynchburg, VA, INC

APRIL 2012 ~ VOLUME 21, ISSUE 4

Presidents Message:

Hello To All,

Here it is April already, and we are not close to being ready for the Uncle Billy's Day Festival the 2nd of June in Altavista, VA. We need to have workshops almost every available Saturday between now and then. Bookends and trees need to be made up as well as packing several hundred Gem & Mineral bags for our very popular Sluice. Also the new item for sale this year will be Rock Business Card Holders. This is the main reason we purchased the new brick & tile saw. There will be info at the April Society meeting for getting these projects finished on time. I hope we can count on you to attend some of the workshops, we will have something to do for people of all skill levels.

The March meeting went well with the mineral identification night although I was a little disappointed in the light turnout. I want to thank Natalie Darling, Dave Callahan, Jack Curtin, Bernard Rivera and Tony Shields for doing a great job in

working with all those that wanted to learn more about rocks and minerals. Anything you can learn will help you on future field trips.

Please remember to bring along your young children and grand-children to our monthly meetings as Jon Glass will have interesting projects and activities for the Rock Raiders Club. Young people are the future of our Club, please get them interested at an early age. Learning about Geology and related fields is something they can carry with them all through their lives.

Remember to think about the contributions we would like to make to the Scholarship Funds for the Universities that help support our Club effort. I hope to see you at the April 18th Society meeting.

Keep Looking Down,
John Haskins

From the First Vice President:

Want to learn more about Plate Tectonics and Continental Drift? Then plan on attending our next meeting April 18th to hear geology Professor Dr. Stephen Lenhart speak on the subject.

Last month's mineral identification program helped me learn so much more about the properties of the rocks and minerals that we find on collecting trips. Now I know how valuable a pocketknife, a penny, my own fingernails, and a porcelain scratch plate would be to carry along on rock hounding trips. Dave's displays showing texture and color were especially helpful and easy

to apply. The information and examples depicting cleavage and fracture were very educational too. If we need a specific gravity test now we know we can count on John.

Now that we have learned more about mineral identification, we can go about finding more interesting rocks and minerals to identify. Knowing something about the formative factors shaping a particular area can be an immense help. You might find the following information useful; giving you tips on what you might find in particular areas.

Continued on page 14

2012 ELECTED OFFICERS**John Haskins - PRESIDENT**

(434) 525-8430

JMhaskins1@netzero.net**First Vice President****Jack Curtin**

(434) 384 -6249

jacwcurtin@gmail.com**David Callahan****Second Vice President**

(540) 297-1853

DBCALLI@aol.com**Secretary****Brenda Glass**

(434) 525 6664

glass57@netzero.net**Natalie Darling – Editor**

(434) 941-1899

gmsleditor@comcast.net**Frank Midkiff- Treasurer**

(434) 660-1565

midkiff@aol.com**Members At Large-**

Bernardino Rivera &

Tony Shields

COMMITTEE**CHAIR PERSONS:****Field Trips**– David Callahan**Hospitality**- Monthly Volunteers**News Articles**– Natalie Darling**Silent Auction**– Warren Darling**Swap for Rocks**–Warren Darling**Website**– Casper Voogt**Workshops**– Dave Callahan**FRA Adult Liaison**- Jon Glass**Membership**- Ralph Torning

March Meeting Minutes

Meeting: Wednesday March 21, 2012**Attendance:** 28 members and 2 guests.**Hospitality:** Hosts for tonight's meeting was Jean and Frank Midkiff. The hosts for our April meeting will be Thom and Linda Noble.**On Time Drawing Winners:** Elena Laguna, Bernadette Ellis, Bill Livingston, Tommy Conner, Diane Capobianco, Tom Davis, Natalie Darling, Frank Midkiff, Kitty McGann, Siglinde Allbeck.**Old Business:** Discussion about scholarship donations for JMU and RU geology students. We will be accepting donations over the next several months.**First VP:** Jack Curtin- no report.**2nd VP-** Dave Callahan- Field Trips/ Activities: 3/24 Faber Mine and also general mineral miners certification on Buckingham. 3/24 DMC trip to TN; 3/31 Learning workshop at Callahan's. 4/14 DMC trip to Arkansas, 4/21 Glendon Quarry in NC;

4/28 American Rutile in Nelson County;

Treasurers Report: Balance \$7771.76.**New Business:** No silent auction tonight, due to the amount of material and space required by our mineral ID program. We are looking for a tub to place under the new saw. The cement pan at Lowes is not large enough.**Rock Raiders:** The Rock Raiders enjoyed a program on fossils, and even had the opportunity to discover their own fossils in some shale that was donated by John Haskins.

The program tonight is Mineral Identification. Several different methods demonstrated and information sheets available for assistance.

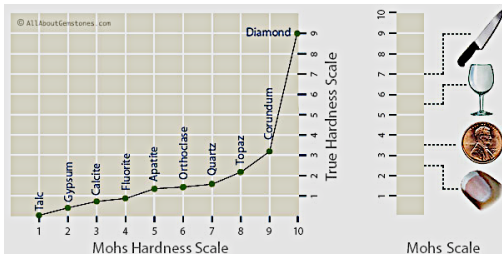
*Minutes submitted by:
Brenda Glass, Secretary*

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

The Gem and Mineral Society of Lynchburg VA, Inc.
Meets on the third Wednesday of each month,
From 7:00pm– 9:00pm
In the auditorium of the Parks and Recreation Building
301 Grove St. Lynchburg, VA 24501
Public is invited, Please join us!

PROGRAMS

For our March meeting program, we enjoyed Mineral Identification Night- There were many different methods of mineral identification demonstrated, including a specific gravity measurement using a home made gauge that John Haskins fabricated. It was educational and we hope that everyone learned something.



For the April program we will once again enjoy Dr. Steve Lenhart. He will be speaking on Plate Tectonics and Continental Drift. We hope you can join us for this educational opportunity.

Bench Tips by Brad Smith

More Bench Tips by Brad Smith are at:
groups.yahoo.com/group/Bench_Tips/
Or facebook.com/Bench_Tips

Charles Lewton-Brain

Charles Lewton-Brain is one of the most popular writer-innovators in the jewelry/metalworking field. In this video he shares some of the principles that shape his philosophy.

http://www.youtube.com/watch?v=Hq_OTqF3u3k

Gold, Silver & Gemstone Motor

Hans Meevis shows off a miniature, working motor he built from scratch. It's about 60mm tall and contains 50 grams of silver and 12 grams of gold. Major parts of the assembly are cut and faceted from cubic zirconia. Hans and his wife Anne run Meevis Jewelry in Simpson Bay, St Maarten where he creates unique, fine designer jewelry.

<http://ganoksin.com/blog/meevis/2012/02/19/miniature-cz-motor-finished-and-running/>

DRILLING SMALL ITEMS

Small pieces need to be held securely while drilling or burring to prevent them from spinning if the drill catches. A quick solution is to hold the work piece with a pair of pliers or your ring clamp. Another alternative is to clamp your piece to the bench pin or a thin board. If using pliers, you can avoid scratches by putting a little tape over the jaws.

DRILLING A STONE

One of the things my students often ask to do is drill a hole through a piece of gemstone. The usual thought is to get a diamond drill, but I've found these often break or burn up. The reason I think is that the drill pivots on the piece of diamond on the drill tip. By pivoting the diamond does not cut. When it doesn't cut, you tend to add more force, and the drill is damaged by excess heat.

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**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**

**Past Field Trip
Faber Mine, Albemarle County, VA.
March 24, 2012**

The weather reports did not look promising in the hours leading up to our Saturday morning departure time. Rain, heavy at times and afternoon thunderstorms were on the forecast.

We had 28 on the sign-up sheet with members coming from Northern Virginia, West Virginia and Roanoke. One arrived on Friday so I knew there was no way to call everyone and reschedule the trip. Several did let me know they didn't like to get wet, some did call and cancel Saturday morning and some just didn't bother to show up at all.

I arrived at the Amherst meeting spot and was happy to see many smiling faces. Yes!!! We had 11 adventurous rockhounds eagerly waiting. The rain was light and steady and everyone was ready to go. At 8:45 we departed and arrived at the site by 9:30. We had one waiting at the US 29 and Rt. 6 intersection.

We suited up to keep dry and loaded our carts, backpacks and off to the mine. The rain was light and steady but soon slacked off and stopped. The sun actually came out for a while and made for a very pleasant day. Folks began to depart for their cars in the early afternoon. Everyone had left except Jack and me so I suggested we had better depart as well. I could see clouds darkening and thunder rolling in the distance and we didn't want to get caught in an electrical storm. My pack was full and at my carry limit. Just before leaving I found several very nice pieces of sphalerite and galena. Did I mention that this stuff is heavy?

Anyway, we made it back to the car, dry and none the worse for wear. Royce and his group were waiting to be sure we made it out in one piece. Thank you Royce.

The Faber is probably my all-time favorite collecting site and this trip was no exception. We had several new members along and one new member, Kathryn is related to the Faber family. Her Great-Great-Great Grandfather was the Mr. Faber that owned the land and opened the mine during the Civil War. Now that's very special. I hope she enjoyed the trip down memory lane.



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Field Trip Chairman
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Cell phone-----540-874-5201-----
E-mail dbcall1@aol.com

**Combined Lynchburg and Roanoke Clubs
Mineral Collecting Field Trip**

Saturday, April 28, 2012

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, massive aplite feldspar and blue quartz. Some beautiful 1/2" 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 two fund raising events.

We will meet in Amherst, VA, Saturday morning, at the Hardies 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 Hardees is in the Ambriar Shopping Center at this exit. Come early and have a bite to eat. From this point, it should take about 40 minutes to arrive at the quarry. Be sure that you are fueled up and ready to leave by 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 might be closer to just follow US 29 business thru Madison Heights to Amherst. The Hardees 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. IF YOU LEAVE EARLY, LET YOUR LEADER OR A CLUB OFFICER KNOW.

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

Continued on next page

Up Coming Field Trips...*Continued from page 5*

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 can drive into the quarry if it is dry. A low-slung car or 2-wheel drive may bottom out and get stuck. Four-wheel drive vehicles are best. We will make that decision when we observe the situation that morning. It may be wet and will be slick and muddy if there has been a recent rain. There is no age limit but children must be supervised. There are NO restroom facilities at this site.

More information will be available at our next meeting. We must arrive together but you will be free to leave at any time.

For more information contact: David Callahan, Field Trip Leader

UPCOMING DMC FIELD TRIPS

DMC Field Trip

Coleman's Miller Mountain Mine
Jessieville, Arkansas- Saturday April 14, 2012-
Fee Site

Details on page 11

GLENDON QUARRY - Standard

Minerals/R.T. Vanderbilt Co.

Saturday, April 21, 2012 –

8AM till 3PM sharp!

(Attendance limited to 120 registrations)

We still have a few slots remaining to be filled - hurry!

SFMS WEBSITE REGISTRATION

INFORMATION &

FORMS: <http://www.amfed.org/sfms/Glendon-Std-Minerals.html>

Bench Tips ... *Continued from page 3*

A much better approach is to use a core drill. This is a small hollow tube with a coating of diamond grit at the business end. The diamonds easily carve out a circular arc without undue pressure or heat buildup. Core drills are readily available from jewelry supply companies. They come in sizes as small as 1mm and are reasonable in price, for instance \$6 for 2mm diameter.

Chuck up the core drill in a drill press or a Foredom and be sure to keep the drilling zone wet to cool the tool and to flush out debris. Also, if you're drilling a through hole, go very easy on the pressure as the drill is about to break through. Otherwise you will usually chip off some of the stone surface around the hole.



Sterling Hill Super Dig

March 27th, 2012

Last year, your Trip master and many Museum volunteers wired up the museum, the snack bar, and even the dig areas with high-speed wireless "Wi-Fi" -- which will be available FREE to all our Diggers again this year! So you can sit in the snack bar and check your email, or even take your Android tablet out in the field and look up info on what you find.

A lot of time, energy, knowledge and experience, and money have gone into adding this feature to the Sterling Hill site. It should make a really nice enhancement to the Diggg Day.

Jeff tells me that "tons of material" have been brought down from New York State this year, so that you will have interesting finds from there as well as the material that is so well known as being exclusive to the Sterling, NJ area.

There will be at least a very nice UltraViolet lamp for the adult door prize, and another one for the kids door prize -- some of our vendor friends are still making arrangements to donate more door prizes. We may have special T-Shirts available this year too.

We have some new sponsors this year that will be helping us make this our most exciting event ever!! Welcome to "U-Haul" -- yes, the great people that help keep our country on the move and "PSE&G" Public Service Electric and Gas are donating funds to help with expenses and support costs; and we can not forget "Way To Cool," the makers of most excellent and affordable UV Lamps, who will be donating another two Portable 12 v shortwave UV Lamps for our raffle give away -- one for the adults and one for the kids. And as always "Uvtools" has some cool stuff to give away just for the kids. And "Gary's Gem Garden" with really cool specimens from around the world! A big "Thank You" to all !!!

Really great NEW news for this year -- Jeff has announced that this year Diggers will have access to the MIDDLE MILL building. This is the first time in history that the public has ever been allowed into this part of the mine complex. It should be a fantastic photo opportunity!

Those who have been to the Diggg in previous years know about the conveyor inside the big "landmark" structure... the rocks that are on the conveyor belt (photo, above) are actually left from what was on the way to the mill on the very last day that the mine was operated -- when it closed, they just turned off all the power and "walked away." Each year, registered Diggers have been invited to take one of the rocks from the belt as a historical souvenir from the Sterling Hill mine. However, since only the rocks left from the last day are on the belt, the quantity of rocks is almost depleted -- this might be the last year that this special offer can be made.

We plan on expanding our "in the dark" tour of the mine -- our famous "BLACK OUT TOUR." Bring your portable shortwave lamps, this is the only event of this kind on planet earth, so do not miss it!!!

As another feature of the day, go back in time to the 1800s and tour the fully restored "TROTTER TUNNEL" -- you have to see it to believe it !!!

And if all goes well, plans are in the works to light both sides of "THE PILLAR OF LIGHT", the largest outdoor display of Fluorescence Minerals in the world. This will be done shortly after dusk, so be sure you are rested up and ready to be amazed.

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Rock Raiders



Rock Raiders is the official Future Rock hounds of America Association of The Gem and Mineral Society of Lynchburg, VA Inc.

A Mineral “ If - Then” Challenge

Reprinted from Mini Miners Monthly, March 2012

http://www.diamonddanpublications.net/index_files/Vol%206%20No%203%2

This is another brain challenge. The “If” part of the sentence states a fact about a mineral species or variety. Your challenge is to fill in the blank in the “then” half of the sentence.

There is a logical connection between the “if” and the “then” parts of the sentence. For example: “If a mineral has no streak, then its hardness is greater than _____.” Answer: 7

1. If a metallic mineral has cubic cleavage, then it is probably _____.
2. If a copper ore is green, and it is not azurite, then it is _____.
3. If quartz is brown, then it is called _____.
4. If tourmaline is black, then it is called _____.
5. If spodumene is pink, then it is called _____.
6. If pyrite is hit with steel, then a hot _____ is formed.
7. If iron ore sticks to steel, then it is called _____.
8. If a mineral can dissolve in water and it makes food taste better, then it is called _____.
9. If a mineral specimen has the shape of one mineral but the chemical formula of a different mineral, then it is called a _____.
10. If you are holding a green variety of feldspar, then you are probably holding _____.
11. If this carbon mineral is mixed with clay to make pencil “lead,” then it is called _____.
12. If this mineral is heated and crushed to a powder, then _____ of _____ is created. Just add water and let it dry to make it hard again!
13. If this mineral scratches everything, then it must be _____.
14. If I am a variety of corundum and I am blue, then I am called _____.

Upcoming Events

April 2012

SHOWS AND TRIPS

April 19th-22nd- Annual Rochester Mineralogical Symposium sponsored by the Rochester Academy of Science, Mineral Section. Radison Inn, Rochester Airport, 175 Jefferson Rd; Rochester, NY.

April 28th-29th- Annual NJESA Gem & Mineral Show with outdoor swap sponsored by the Franklin-Ogdensburg Mineralogical Society; Franklin School, Washington Ave; Franklin, NJ

May 12th- Morefield Mine Field Trip, sponsored by the Southern Maryland Rock and Mineral Club. See page 15 for details.

May 18th-20th- Treasures of the Earth Gem, Mineral, Fossil, Bead, and jewelry show, Martinsville National Guard Armory, Martinsville, VA
www.toteshows.com for details.

May 25th-27th- Treasures of the Earth Gem, Mineral, Fossil, Jewelry and Bead show; Salem Civic Center, Salem, VA.
www.toteshows.com for details.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
8 <i>Happy Easter</i>	9	10	11	12	13	14 Field Trip
15	16	17	18 Meeting 7PM	19	20	21 Field Trip
22	23	24	25	26	27	28 Field Trip
29	30					

Rock Raiders

During our March Business meeting, Jr. members, lead by liaison Jon Glass, learned about fossils. There were some donated items for show and tell, as well as shale containing fossils that everyone got to explore and add to their collection. New member Dakota Tilley (Left) drew a picture of an Ammonite.

Rock Raiders April Meeting Agenda

For the April Meeting, Rock Raiders will get to play “Rocky Bingo”, and also get to try a Volcano experiment with adult liaison Jon Glass.

Rock Raiders meet during the business portion of our regular monthly meeting, held the third Wednesday of each month at the Parks and Recreation Building; 301 Grove St. Lynchburg, VA



WORKSHOP AT DAVE CALLAHAN'S SATURDAY, MARCH 31, 2012



There was a light turnout for this learning workshop, but those of us present enjoyed light conversation, learning, and teaching. Dave, John, Tony, and Thom were busy trying out the new saw and Thom had some pretty rocks to cut. Nona, Natalie, Linda, Cindy and Siglinde sat inside and worked on large gem trees. Loretta Doty and Don McIntyre stopped by as well.

I left at lunchtime, so if anyone else showed up later in the day I am unaware of it. I enjoyed sharing my knowledge and time with those present.



If you are interested in learning some craft or lapidary aspects of our hobby, come on out to one of the workshops. Don't be shy, there are many different "facets" to our hobby~ you just might find something you really like (not to mention the great company and host...) Future workshops will be advertised in the newsletter and at the monthly meetings.

*Photo's left: Tree making at the Saturday Workshop;
Below- Rock Raiders enjoy searching for Sharks Teeth at the February 2012 meeting,*



**DMC Program of the SFMS
Field Trip Committee
An Official Field Trip of the Mobile
Rock and Gem Society
(Mobile, AL) HOST
Coleman's Miller Mountain Mine
Jessieville, Arkansas- FEE SETE
Saturday, April 14, 2012**

Where: Coleman's Miller Mountain Mine, Jessieville, AK.

When: Saturday, April 14, 2012 at the mine, 358 Big Hole Rd, Jessieville, AK 71949

Collecting: You will find clear and white quartz crystal and you keep all you find. There will be a backhoe digging, exposing new material. If rain is predicted for Saturday, they will dig plenty of new material on Friday.

Time: Sign in is starting at 8:00 a.m. Central time at the mine, to sign release and pay fee.

FEE: Adults Discounted price of \$7.50 each day paid at the mine. Children 9 and under are free.

Directions: at www.bluemooncrystals.com If you have questions you can call 501-984-5752

What to Bring- Pick, shovel, scratching tools, screen, buckets, gloves, newspapers, and plenty of water. Extra clothes and boots might be useful if it's muddy.

General Information: There are public restrooms onsite and bagged ice, snacks and drinks for sale at the mine. They also sell oxalic acid for cleaning crystals, with instructions at the mine. Wear old clothes and shoes or boots. You will get dirty from the red clay. Well-behaved pets on leash are allowed.

Where to stay: There is onsite RV parking, four spaces with electric and water at \$10.00 per day, and 23 primitive campsites without hookups at \$4.00 per day. They have showers for \$2.00 per person. No septic. You can call for reservations at 501-984-5752.

Nearby Hot Springs, Arkansas has many motels and campgrounds available.

Trip Chairman Larry Landry-maryloulandry@aol.com or 251-653-8459 or 251-591-5682.

**AFMS ENDOWMENT FUND
Raffle Ticket Fund Raiser Underway**

The AFMS holds the annual raffle to raise money to help support numerous programs that benefit our clubs.

All money raised is invested in secure, interest bearing accounts and the interest from these investments is what's used for the special projects.

There are currently 23 prizes, including 4 pieces of lapidary equipment. Pictures and descriptions of all the prizes can be found on the AFMS website www.amfed.org/endow2012.html or in the recent AFMS Newsletters.

Ticket cost is \$5.00 each or 5 for \$20.00

To purchase tickets, send your check payable to "AFMS Endowment" along with a self addressed stamped envelope to: **Carolyn Weinberger, PO Box 302, Glyndon, MD 21071-0302- No later than July 1st.** If you are interested any of the lapidary equipment, indicate which one with your request. All other tickets will go into a random drawing.

The Safe Computer

By *Ellery Borow, EFMLS Safety Chair*

Reprinted from April 2012 issue of EFMLS News

Is there such a thing as a safe computer? Well, if one were to disconnect it from the power grid and the internet, take out all of it's known to the State of California as containing toxic substances, and put it away on a shelf, the answer would still be, no. After all, it could fall off the shelf and land on one's foot.

How does one make air travel completely safe? Stop using airplanes. How does one make automobiles completely safe? Stop using cars. Planes, cars and computers are, however, an indispensable part of our lives. They are also a part which we will never make completely safe. While we can make nothing completely safe, we can make things safer.

Planes and autos have numerous laws, regulations, rules, guidelines and maintenance schedules to help us maintain our safety, health and well being while we use them. Computers, once they comply with various Federal Communications Commission Rules and manufacturing standards, are pretty much up to the user (and the household teenager or teenage computer guru down the street) to keep operational, and utilized properly and safely.

No doubt you have heard of computer "viruses", spam (not the meal kind), Trojan horses, spyware, keystroke loggers, bots, drones and zombies, email scams, worms, mal-ware, fire walls and all manner of cautionary computer usage terms with which we need to become familiar when keeping one's computer safe. Keeping track of all the computer protections we need may be a daunting task. Still, as dependent as we are on these machines, we should be extra diligent in maintaining and protecting them.

While I have heard of no specific threat targeting

just our hobby, simply being connected to the internet should give one cause to be concerned about threats to computers. That said, I recently learned of a study where researchers placed USB flash drives around campuses, shops, and parking lots in a manner resembling someone accidentally leaving the drive behind. The object of the study was to learn if folks finding the drives would pick them up and insert them into their computer's USB port. For the most part, the finders of the drives did just that- place them into their computer. Now, had there been malicious software on those drives...

The biggest obstacle to protecting one's computer is often human nature. Safe computer usage must be practiced diligently. No one, I'm sure, actually wants to pass on a computer virus to a friend, however, many folks do inadvertently because they do not realize their computer contains mal-ware. Many malicious softwares are designed to ride along with or in word processing macros, JPEG photographs, e-mail attachments and numerous other vehicles- and ride they do, to every computer down the line from the infected one.

What is an upstanding and concerned computer user to do? For starters, utilize and keep updated one's firewall and virus protection software. Refrain from opening suspicious emails and email attachments. Regularly monitor one's protection softwares for their efficacy. Also, regularly monitor the computer usage of less cautious members of one's family. Keep up to date backups of all one's documents, files, and photos (just in case there is a virus that slips in under the wire). For another thing, don't pick up and use strange USB flash drives.

There are books, and books, and books about the complicated subject of protecting one's computer. If one does not feel comfortable with protection tasks, many of those tasks may be automated to update and operate in the background. *Continued on next page*

The Safe Computer...continued from page 12

If one still does not feel comfortable- perhaps a knowledgeable teenager may take pity on one's plight and offer to help. The key to being computer safe is being pro-active. Even if you do not feel you are a likely computer virus target, just being connected to the internet is enough to justify caution.

Be safe- it's a complicated computer (smart phone, gaming machine, wireless device, etc.), world out there.

For this month's safety review, it's fast becoming field trip season out there. Please consider making a review of Jim Doran's general collecting safety article below. The article has been reprinted from the April 2010 issue of the EFMLS News.

For anyone interested, you can access back issues of the EFMLS newsletters on the website: www.amfed.org/efmls. Just click on the "Newsletter" tab to download the issue of your choice.

Thank You and please remember that safety matters!

Some General Requirements for Collecting in Quarries and Elsewhere

By Jim Doran EFMLS Safety Chair 2010

(Not all of the items listed below may be relevant depending on where you are collecting, but are good guidelines to know.)

1. First aid kit—have one handy and know how to use it.
2. Hard Hats—(where required)
3. Safety glasses—(MANDARORY)- must use EACH and EVERY time you are breaking rocks or are using a rock hammer or crack hammer—(or you are near someone who is breaking rocks).
4. Steel toed boots—(or at least sturdy leather work boots)- **recommended**, (some locations require steel-toed boots.) **No sneakers, casual shoes, or flip-flops.**
5. Long pants—(jeans recommended)- **No shorts or Capri pants!** Rocks and boulders can be very sharp!
6. Long-sleeved shirts- (recommended)- again, rocks can be very sharp!
7. **Avoid high walls!!! Rock falls can Kill!**
8. Be aware of your surroundings! See what features are around you—high walls, water-filled pits, heavy equipment or machinery, etc. Avoid these.
9. Sunscreen—use whenever necessary.
10. Water—drink plenty of water—stay hydrated.
11. Lunch or snacks.
12. Know and obey all local collecting rules.
13. Pay attention! Know where you and your fellow collectors are at all times!
14. Listen to and obey your designated trip leaders.
15. Be Safe!!!
16. Have Fun!!!

From the First Vice President

Continued from page 1

Mineral Collecting at Contact Zones What to Look For in Country Rock and Wall Rock

By Andrew Alden, About.com Guide

Once you have become familiar with the major rock types and their typical minerals, it's time to take your game up a level. As in other areas of life, unusual things take place at the edges. In geology, that's where different rock types meet.

Plutonic Invasions: Country Rock

A prime playground for mineral chemistry is the intersection where deep-seated magma invades the older rock around it, referred to as country rock. Magma introduces two things that can create new minerals: heat and fluids.

Deep magma bodies cool very slowly and turn into coarse-grained, plutonic rocks like granite and gabbro. During this time they bake a narrow zone, or aureole, of contact metamorphism in the country rock. Magma intrusions deep underground can cause greater changes as they advance, forming tough, fine-grained hornfels in the country rock at their margins. Prolonged heat doesn't always melt the country rock, but it does mobilize the elements and allow new minerals to form and grow that are stable in the high temperatures. It also may help the existing minerals recrystallize into larger grains. Usually the rocks in the aureole are fine-grained types classified as hornfels. Depending on the amount of heat available, the presence of groundwater and other factors, contact-metamorphic aureoles may be hundreds of meters thick or no wider than the length of a hammer handle. These rocks may grade through different degrees of mineral alteration, or contact-metamorphic faces: pyroxenes in the hotter parts, amphiboles farther away, and epidote along the outer rim. Late-breaking veins may further change these mineral assemblages.

Magma is not just a melt; it leaks water-rich fluids into its surroundings, and at high heat and pressure these can deeply alter country rock in the process called metasomatism. Large bodies of rock where igneous fluids alter sedimentary rocks are called skarns. Dramatic examples occur where granite invades limestone, but mudstones and shale (pelitic rocks) can be turned into unusual mineral mixtures too.

Finally, late-stage fluids can break out just before the plutonic intrusions finish turning into rock. These are especially well disposed to form large crystals and host rare minerals; the resulting bodies of very coarse-grained minerals are called pegmatites. Miners as well as collectors seek these out.

Eruptive Disruptions: Wall Rocks

A more dynamic setting for finding special minerals is areas of present and past volcanism. Here, magma does not pool but flows instead through narrow underground channels, called dikes or sills. Dikes are sheet like magma intrusions that cut across the grain of the country rock; sills lie along the grain, between the rock layers. In either case, they are worth examining because they can pluck away pieces of their wall rocks and carry them away as xenoliths.

Xenoliths may simply float intact in the magma, or they may melt into wisps. The most interesting ones to mineral collectors are in between: former wall rocks that undergo metamorphism in the magmatic conditions. A famous example is found at Italy's Vesuvio volcano, where blocks of limestone wall rock have been torn off, held in the shallow magma chamber, then thrown from the volcano's throat. The limestone minerals are changed by the heat to calcium-rich silicates like wollastonite, nepheline and garnet.

The xenoliths from deep in the mantle that are found in diamond pipes (kimberlites) are another. *Continued on next page*

First Vice President... *From pg. 14*

Most of us will never have the chance to collect from a kimberlite, because diamond prospectors invariably stake claims on them. But a closely related body of lamproite in Arkansas is open to the public at Crater of Diamonds State Park, where you can keep whatever you find.

Thanks Andrew! Sure hope this helps our understanding of the conditions that produced some of the rocks and minerals in your collections and give us clues on where to look for particular minerals.

Happy Hunting!
Jack Curtin

**SUPER DIGGG...** *continued from page 7*

For the Diggg to happen, to "break even" on the costs of running this special event, we need at least ONE HUNDRED registered Diggers -- as of Tuesday evening, 3/27, there are 43 people registered.

If you have not yet registered, don't delay... there is also a MAXIMUM OF TWO HUNDRED Diggers, because we don't want the place to be over-crowded!

It's easy to register -- just click the "quick registration" link at the top of the main page of our website at <http://UVworld.org> or the link on the Trip Info page. You're encouraged to use the PayPal method because it fits into the automation we have developed, and assures that your registration will be ready when you arrive at the Diggg site. It also saves you the cost of postage!

Jeff says: I really do need one hundred glowhounds to make this happen. I know gas is \$4.00 a gallon, and Motels and such are costly, but I do promise one and all -- You will have a Fantastic Time!!!

Stay tuned to further emails to come, and I hope to see some old friends and a lot of new faces this year!!

More info in future emails....

Morefield Mine Field Trip <http://www.MorefieldGemMine.com> Mine Phone [1-804-561-3399](tel:1-804-561-3399)

Saturday, May 12. The mine opens at 9:30 AM and closes at 5:00 PM.

Trip Leader - Ralph Gamba, [301-248-5288](tel:301-248-5288) (home) [301-741-5578](tel:301-741-5578) (cell)

Admission for collecting is \$12.00 per 5 gallon bucket. Underground tours available at \$20 per person. Let Ralph know when you sign up if you want to go underground. Sam wants a count.

TRIP: We will be visiting the famous 82-year-old Morefield Mine in Amelia, Virginia. We will dig and collect in the old dumps, collect from recently mined material, wash our finds in the sluice line and may have the rare opportunity to tour the underground mine workings. There will be picnic tables available on a first come basis. Bring food and drink for your lunch. The closest fast food is McDonalds, a few miles away in Amelia. **It will be open to the general public.**

For more information go to the website or contact the Trip Leader above.

The Gem & Mineral Society of Lynchburg, VA Inc.

Natalie Darling, Editor

211 Chesterfield Rd.

Lynchburg, VA 24502 www.lynchburgrockclub.org

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



Lynchburg Rock Raiders is the official FRA association of The Gem & Mineral Society of Lynchburg, VA INC



***The Gem and Mineral Society of Lynchburg VA, Inc.
Meets on the third Wednesday of each month,
From 7:00pm– 9:00pm
In the auditorium of the Parks and Recreation Building
301 Grove St. Lynchburg, VA 24501
Public is invited, Please join us!***

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