

Earth Day April 22



## Presidents Message:

Hello to All,

It sure was nice to get out on a Club Field Trip last Saturday. We had a few good specimens of blue quartz found along with some Rutile and Ilmenite, and had a chance to see old friends from other Clubs again. I hope some of you are getting to go on your own field trips, and keep a lookout for a place we may go as a Club.

We had a great turnout to help move the Clubs' lapidary equipment from Dave Woolley's to Dave Callahan's workshop. April 2<sup>nd</sup> we will place & level the equipment and hope to set up a water supply system to everything that needs cooling & lubrication. There will also be Saturday workshops on April 9<sup>th</sup> & 16<sup>th</sup>. We get started about 9:00 AM so come on out and join in the fun. Dave has received the Belt Buckles and Clock works all we need to do now is cut cabochons &

slabs to make them into beautiful & useful items. You can make them for yourself, at a small fee, or finish them to sell at upcoming festivals. Either way it should be a good learning experience.

We have a lot to do before Uncle Billy's Day. The Gem bags for the sluice need to be counted and a lot more put together, a lot of bookends need to be cut and polished, gem trees need to be made up as well as a few more rock pets. So be sure you sign up at the meeting and come on out and join in the Saturday workshops. There will be plenty to do for all at any level of expertise.

I hope to see you all at the April 20<sup>th</sup> Club meeting. Until then,  
Keep looking down,  
**John Haskins**

## From the First VP:

With all that is going on in Japan and our concerns about the nuclear plant radioactivity that has escaped, I thought that an article about radon might be appropriate for our April newsletter. We learned a bit about the dangers of uranium mining at our March meeting, now we can catch up on radon.

You know the earth we live on has many ways to kill us. We keep on the lookout, and rightly so, for volcanic eruptions, earthquakes, landslides, flooding, cosmic impacts, climate change and falling rocks on the highway. Should we still worry about radon?

You remember radon — that radioactive gas that comes up from the soil and collects in basements and ground floors, sometimes in well water. Radon is a prominent villain in the United States, blamed for tens of thousands of deaths from lung cancer. Like asbestos, radon was looked at more kindly when it was new, and today it too is more feared than it deserves.

### **Some Radon Geology**

To the geologist, radon is interesting, but not worrisome. For one thing, radon starts with uranium, which is worth knowing about for its

*Continued on page 11*

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**COMMITTEE  
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Saturday workshops will be scheduled to prepare for upcoming events. Dates so far: 4/2; 4/9; 4/16. Sign up sheet at meeting, or just show up. All help is greatly appreciated and you will enjoy learning and participating. There were club membership applications available for visitors. There was also information available for the AFMS/ EFMLS Convention in Syracuse, NY.

**First Vice President:** Jack Curtin: program for this evening: A presentation by Debra

Lovelace from the League of Individuals for the Environment (LIFE, Inc.) The presentation will be on "Uranium Mining and Milling in Virginia"

**Second Vice President:** Dave Callahan: Upcoming field trips / activities: 3/19- Manassas quarry with the Northern VA Club; 3/26: American Rutile Quarry Field Trip; 3/23: Glendon, NC for Pyrite for those who met the registration deadline; 4/26- 5/1: Mountain Mushroom Festival and agate collecting in KY. 4/30-5/1: Annual Sterling Hill/ Franklin NJ fluorescent mineral field trips, show, etc. 4/29-5/1: Annual spring open house Graves Mountain GA. Collect, swap, purchase.**Treasurers Report:** Treasury balance at this time \$6406.70.**New Business:** Wildacres applications and details are available on the EFMLS website for anyone interested. There was a great assortment of silent auction items up for bids. Lloyd and Lucille Watson still facing health challenges. Lucille recently broke her foot.**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



Our program for the March 16<sup>th</sup> was presented by Debra Lovelace from LIFE-League of Individuals for the Environment. She spoke to us about Uranium mining in Virginia. This was a very educational lecture, and you can gain some of the knowledge from Jack Curtin's article in this newsletter.

Information for the April program was not available at the time of this printing. Please join us for our regular monthly meeting, on April 20, 2011 at 7:00 PM- I'm sure our program coordinator has something great in store for us.

## Bench Tips by Brad Smith

It makes sense to mark your tools if you ever lend them to friends or take them out to classes or workshops. Question is how to mark them permanently. For metal tools, I use a very small ball bur running fast in the Dremel or Foredom to "engrave" my initials. Other times I'll form the initials with a number of hits with a center punch.

But for hammer handles and other wooden tools, the country boy in me came back and thought "Why not make a branding iron?" If you'd like to try one, all you need is a little scrap copper or nickel about 22-24 gauge, a piece of heavy brass or copper for a base, about 6 inches of metal rod and a piece of wood for the handle. There are a couple pictures in the Photo section that show the details. ([groups.yahoo.com/group/BenchTips/](http://groups.yahoo.com/group/BenchTips/))

I formed my initials from a couple 5mm strips of sheet nickel. The "S" was one piece, but the "B" was three pieces soldered together with hard. (Remember to form the letters backwards). I then soldered the letters with medium onto a piece of 1/8 inch thick brass bar to act as a heat sink. Finally, I soldered a piece of 1/8 round rod on the back of the brass bar as a shaft to join to a wooden handle.



**More Bench Tips by Brad Smith are at:**  
[groups.yahoo.com/group/Bench Tips/](http://groups.yahoo.com/group/BenchTips/)  
 or  
[facebook.com/Bench Tips](https://www.facebook.com/BenchTips)



# Field Trip Report



*Field Trip Report submitted by  
Dave Callahan,  
Field trip chairman.*

For further information on field trips, contact David Callahan, 540-297-1853  
Email [dbc11@aol.com](mailto:dbc11@aol.com)

Our annual spring field trip to the old rutile quarry in Nelson County on March 26, 2011 was a great success. The weather was perfect and the crowd was huge. We had between 55 and 60 attending including 11 from the Virginia Peninsula Club. Two of our members drove up from the Raleigh, NC area and we also had several members from the Lewisburg, WV area.

Several of us ventured to the backside on the quarry and were digging in the vein. We found a lot of small rutile crystals in the aplite matrix. In the dirt under the ledge, we found many small rutile crystals that had weathered out over the years.

Many people collected large, beautiful yard rocks and several of us found some nice large solid pieces that will yield nice bookends for our upcoming Uncle Billy's Day event in early June. There was a photographer there from the Nelson County paper and they are doing an article on the quarry. When it is published, I'll get a copy for the club.

This is a very interesting site and I look forward to a return visit next spring.



Photographs of the trip submitted by Shirley Green, Lynchburg club member from Raleigh, NC.  
Thanks, Shirley!



**Contact Information for Field Trips:**

**David Callahan,**

**Field Trip Chairman**

**Home phone 540-297-1853-----**

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**E-mail [dbc11@aol.com](mailto:dbc11@aol.com)**

**April field trip possibilities**

**April 23<sup>rd</sup>** Glendon Quarry. This is a Southeastern Federation field trip and limited to the first 120 people that signed up. The registration is filled at this time. We have several from the club that will be attending. If you need directions to the site please let me know or pick up a copy at our April meeting.

**April 26, 27 and 28<sup>th</sup>** Irvine, Kentucky Agate Hunt. Registration Required.

**April 29 thru May 1<sup>st</sup>** Irvine, Kentucky 21<sup>st</sup> Annual Mountain Mushroom Festival and the Bluegrass Gem and Mineral Club Show. See me for additional information if you are interested in attending these three Irvine Kentucky events.

**April 30<sup>th</sup> and May 1<sup>st</sup>** Ogdensburg and Franklin, NJ. The fluorescent mineral collecting capital of the world. April 30 at the Sterling Hill Mining Museum and May 1 at the Franklin Museum. There are fees and registration involved. Pick up information at the meeting or contact me for additional information.

**April 30<sup>th</sup>** Dixie Mineral Council field trip to Girard Georgia for Savannah River Agate. Contact me for details if you plan to attend.

**April 29<sup>th</sup> thru May 1<sup>st</sup>** Graves Mountain Georgia "Rock Swap and Dig" Contact me for details if you plan to attend.

**May field trips possibilities**

**May 21<sup>st</sup>** Club field trip. Awaiting conformation.

**May 28<sup>th</sup>** DMC field trip to the Cotton Patch Gold Mine. Pick up information at the meeting or in the May newsletter. **This is a fee site.**

**THE 2011 DIGGG IS ON!!!**

**Registration and Trip Information  
at <http://www.uvworld.org/>**

April 30, 2011

The Delaware Valley Earth Science Society (DVESS) and the North East Field Trip Alliance (NEFTA), in cooperation with the Sterling Hill Mining Museum, invite you to share an internationally famous collecting experience.

This field trip has attracted dedicated collectors from across the globe.

Be one of them this year!

It WILL be a historic and memorable event.

## WHY MICROMOUNTS?

By David Brand, *reprinted from Rock News (PESA) March 2011*

Many amateur mineralogists begin their interest in collecting as a hobby by being fascinated by a beautiful crystal. Maybe it was a hand-held specimen of Arkansas quartz that could be taken home and shown to admiring friends and relatives.

Curt Segeler, a noted NYMC micromounter, once remarked that only about 400 out of the total of over 4000 known mineral species are available in hand-sized specimens. The opportunity to collect good specimens in the field has been limited. Many localities have been denuded of fine specimens or have been closed to collectors because of liability concerns. It has become an expensive investment to obtain hand-held or cabinet-sized specimens. Not so with micromounts. They offer a less expensive alternative means of collecting and offer a greater variety of minerals to collect.

### What is a micromount?

Neal Yedlin, another NYMC micromounter, defined them as "any specimen which requires magnification to see it properly." Smaller crystals have a better chance of achieving perfect crystallization in the more common minerals, as well as the rarer mineral species. In addition to their beauty there is the benefit of saving space.

Many micromounters might add to that definition by pointing out that the specimen fits or is made to fit in small paper or plastic boxes. Typically these boxes are an inch or less square; however, the size of the box, paper or plastic is a matter of personal preference. By using one-inch boxes, 144 specimens will fit into a square foot. So even a very large collection can be stored in a relatively small space. Another big advantage is that the many specimens can be purchased at prices that won't strain the pocketbook.

The major deterrent that keeps collectors from becoming micromounters is the high cost of a stereo-binocular microscope. Initially, a magnifying glass or jeweler's loop will suffice, but the investment in a good scope with zoom lenses and good illumination becomes a necessity. Used scopes are available, but are still relatively expensive. With the high resale value, the expense of a microscope can be justified as an investment. Another Curt Segeler quote: "The pleasure derived from its (microscope) use will repay the buyer many times over. One look at a good micromount usually makes a convert."

The savings in buying smaller and cheaper crystal specimens will make the collector an enthusiast. Part of the joy in collecting micros is concentrating on minerals of a particular theme. There are collectors specializing in collecting all species, just zeolites, or just sulfides, others collect lead or silver minerals, or they might select a particular locale such as Franklin, New Jersey, or Tsumeb, Namibia, or New York State. To some enthusiasts, collection type localities or just trying to accumulate as many specimens of a particular species that become available can be a goal. It was reported that Lou Perloff, a NYMC micromounter, had 1400 diamond mounts in his collection. The point is that by collecting small specimens, many common or obscure species become available from a variety of localities. Many micromount collectors may be pursuing one or more themes in their collections at any given time. You don't often see micros for sale at mineral shows because they are too inexpensive. It would be difficult for a dealer to cover his initial expense at setting up his display at mineral shows.

Micromounters have their own meetings, symposiums, or workshops where mounts are freely traded or available at little cost. There is also an "International Directory of Micromounters" published by the Baltimore Mineral Society. It is complete with names and addresses of individual collectors from every state and from over 30 countries. Many of the individuals listed are more than willing to swap specimens via the mail. Micromounters have their own "Hall of Fame."

*Continued on page 10*

## MINERAL OF THE MONTH:

### **MALACHITE (Cu<sub>2</sub>Co<sub>3</sub>(OH)<sub>2</sub>)**

By Tom Prachar, *reprinted from Rock News, (PESA) March 2011*

Malachite is a popular mineral for collectors and derives its name from the Greek word *Malache* for mallows, in allusion to its popular texture and traditional green color. It is a widely distributed copper mineral found in the oxidized portion of copper veins associated with azurite, cuprite, native copper, and iron oxides. It often occurs in copper deposits associated with limestone.

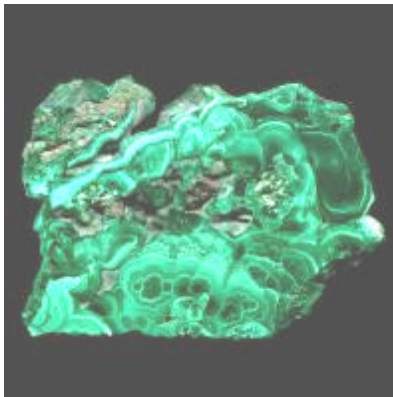
Notable localities at which malachite occurs are Tsumeb, Namibia, Katanga, Zaire, Broken Hill, New South Wales, Australia, and in the Russian Ural Mountains. In the United States, malachite occurs in the important copper district of the southwest as Bisbee, Morenci, and other localities in Arizona as well as in Utah. The largest copper mine in the world is located about thirty miles from Salt Lake City at Boneham, Utah.

Malachite is a minor ore of copper and is used extensively as an ornamental and gem material. In the 19<sup>th</sup> century, Russia was the chief source but today most of the high quality material comes from Zaire. Because of its often brilliant green color, botroidal shapes, and combinations with other attractive copper minerals, it provides particularly desirable specimens for collectors and dealers.

Malachite can best be identified by its bright green color and botroidal forms. It can be distinguished from other green copper minerals by its effervescence in hydrochloric acid and resulting green solution. Malachite is often ground, shaped and polished for ornaments and care must be taken to avoid inhaling the toxic dust it produces when ground.

#### DIAGNOSTIC PROPERTIES:

Color:	bright green
Luster:	sub-vitreous. Non-metallic, silky
Crystal Shape:	monoclinic, often botryoidally and or massive granular
Hardness:	3.5 to 4.0
Streak:	pale green
Acid Test:	effervesces in hydrochloric acid (HCL)





# Up Coming Events

# April 2010

## Shows and Trips

**April 23<sup>rd</sup>**- Glendon NC Field Trip for those who made the list.

**April 26<sup>th</sup>- May 1<sup>st</sup>**- Mushroom Festival and agate collecting, along with other activities in the Irvine, KY area. See field trip section or contact Dave Callahan for further details.

**April 30<sup>th</sup>-May 1<sup>st</sup>**- 39<sup>th</sup> Annual Gem, Mineral Fossil and Jewelry Show sponsored by the Franklin-Ogdensburg Mineralogical Society in conjunction with the NJ Earth Sciences Assoc. and Sterling Hill Mining Museum. Franklin School, Franklin, NJ.

**May 27<sup>th</sup>-29<sup>th</sup>**- Treasures of the Earth Gem, Mineral, Jewelry, Fossil, and Bead Show at the Salem Civic Center, Salem, VA. [www.toteshows.com](http://www.toteshows.com) for information.

**July 1<sup>st</sup>-3<sup>rd</sup>**- Treasures of the Earth Gem, Mineral, Jewelry, Fossil, and Bead Show at Augusta Expo Land, Fishersville, VA. [www.toteshows.com](http://www.toteshows.com) for information.

**July 9<sup>th</sup>-10<sup>th</sup>**- Annual Show and AFMS/EFMS Combined Conventions sponsored by the Gem & Mineral Society of Syracuse, NY. EFMLS Annual Meeting Friday, July 8<sup>th</sup>. See page 10 or visit the EFMLS website for complete details.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
3	4	5	6	7	8	9 Callahan's Workshop
10	11	12	13	14	15	16 Callahan's Workshop
17	18	19 Passover Begins	20 Club Meeting 7 PM	21	22 Good Friday Earth Day	23
24 Easter Sunday	25	26	27	28	29	30

### Easter Word Hunt



BUNNY  
CHICK  
DYE  
EASTER  
EGGS  
FIND  
GRASS  
HIDE  
HUNT  
LAMB  
LILY  
NEST

E	G	G	S	H	U	N	T
N	D	L	F	S	L	L	C
E	Y	A	R	F	R	I	H
S	E	M	B	I	K	L	I
T	G	B	U	N	N	Y	C
I	C	H	I	D	E	F	K
E	A	S	T	E	R	L	W
D	J	G	R	A	S	S	Q





## SAVE ROCKHOUND STATE PARK

*Submitted via email by Carolyn Weinberger, EFMLS & AFMS Editor*

Rockhound State Park is located near Deming, New Mexico on 249 acres that was dedicated on June 17, 1966 by Governor Jack Campbell. The property was donated to the State Parks Division in 1964 by the Deming Ranchettes development company. The name of the Park is derived from the fact that the Park's original intent was to cater to rock collectors.

The Park was originally founded upon rock collecting, a popular recreational activity in the 1960s. Common at Rockhound is a variety of minerals, including perlite, thunder eggs, jasper, geodes, agate, rhyolite, and quartz. Rockhound sits at the base of the Little Florida Mountains, which are comprised of a late tertiary volcanic rock that includes interbedded fanglomerate intruded by rhyolite domes and dikes. These volcanic units are between 22 and 38 million years old and appear to extend less than 600 feet deep below ground.

Today the practice of collecting rocks at Rockhound State Park and on other public lands is no longer considered a recreational activity by those who are charged with the management of our public lands. In fact the park is trying to make it a misdemeanor to remove any geological or biological item from within Rockhound State Park.

In the beginning visitors were encouraged to collect rock and mineral specimens for personal non commercial use up to 25 pounds per visit.

The fate of Rockhound State Park has not yet been completely sealed. The process has started to remove rock collecting from the park and most of the published state literature has already deleted any reference to our hobby of Rockhounding. The final decision must have input from the public on the changes to the Rockhound State Park Management Plan. That plan is currently being revised and has been released for public comment. In the management plan revision all reference to Rockhounding in Rockhound State Park has been removed and replaced with fines and legal actions for removing rocks and minerals. Even the name is being changed from Rockhound State Park to "Florida Mountains State Park"

To save Rockhound State Park and to maintain our hobby within the park will take a lot of effort from the Rockhound Community. and Many letters will need to be written to the managers and elected officials of New Mexico letting them know that Rockhounding is a responsible recreational activity and exceptions to the rules should be made at Rockhound State Park. A writing campaign helped to save the California State Rock, Serpentine, and it can help in New Mexico to save Rockhound State Park. Time is running out for Rockhound State Park. Your input is needed now. The change process has started.

Please submit comments by:

April 18, 2011

Fax: 505-476-3361;

Mail: 1220 S St Francis Drive, PO Box 1147, Santa Fe, NM 87505

Drop off at the park or regional office; or

E-mail: [nmparks@state.nm.us](mailto:nmparks@state.nm.us)

More information on Rockhound State Park, a copy of the revised Management Plan and sample letters from which you can choose your comments and points can be found on the ALAA

**45th Annual  
Gem, Mineral, Fossil, Jewelry, and Bead Show**





**Gems and Minerals Along the Erie Canal**

Combined AFMS and EFMLS 2011 Annual Convention  
Sponsored by the Gem & Mineral Society of Syracuse, Inc. [www.gmss.us](http://www.gmss.us)  
A 501-c-3 not-for-profit hobby club

**July 9-10, 2011 Saturday – Sunday  
New York State Fairgrounds Syracuse, NY**

AFMS Annual Meeting - Thursday  
AFMS-EFMLS Cracker Barrel Social - Thursday  
EFMLS Annual Meeting - Friday evening  
Huge show at the NY State Fairgrounds Saturday and Sunday  
EFMLS Auction - Saturday  
Awards Banquet - Saturday Night  
Breakfast with the Editors and Webmasters - Sunday morning

- Headquarters Hotel: Ramada Inn - Buckley Road, Syracuse Ramada 315-457-8670 Special rate for convention attendees, newly remodeled and expanded
- We look forward to Welcoming 'YOU' to the Crossroads of Central New York
- 60 retail and wholesale dealers
- Spectacular exhibits from around the world
- Lectures, demonstrations, workshops, fun for the whole family
- Air conditioned, restaurant, acres of parking

## WHY MICROMOUNTS?...continued from page 6

It was organized and is still run by the Baltimore Mineral Society. Its purpose is to honor those who have served this hobby to the highest degree. They may have built up large collections, but more importantly, have earned and deserve a worldwide reputation among micromounters. Some familiar names of NYMC members in the Hall of Fame include Lazard Cahn, Clarence Bement, Lou Perloff, Neal Yedlin, and Curt Segeler.

A comedian once noted about food that rice is great when you are hungry and want 2000 of something. Well, collecting micromineral is a great hobby when you feel like collecting a lot of something. Micromounting opens the way for the greater enjoyment of collecting by offering a huge variety of minerals from many localities. With the lower acquisition cost of micromounting specimens, a beginner can compete with the expert on an equal footing in building an extensive and varied collection.

*By way of Rockytierr- (Lubbock Gem & Mineral Society) March 2011*

## From the First VP: *continued from page 1*

energy content and its important role in the Earth's heat budget.

Uranium turns to lead via a long, slow cascade of nuclear decay, and radon sits at an important point in that process. Not only does the radon nuclide decay quickly, with a half-life less than four days, but the next four nuclides in the cascade decay with a combined half-life less than an hour. In other words, radon packs a powerful dose of radioactivity, and because it is a gaseous element, it can drift out of the minerals where it forms into the air. Thus it's a good signal of uranium, even for buried deposits.

Radon loves fractures because they set it free. Solid mineral grains are a pretty good trap for gases, but break the grains and the gas escapes. So just having rocks rich in uranium is not enough—they must be fractured, too. Earthquake faults are often a strong source of radon for that reason, and changes in radon emissions are a well-known simple indicator of seismic stress and deep ground movement.

Radon is relatively high in uranium-rich rocks such as ancient granites, high-organic shales and coal beds. (Coal burning is a major source of uranium pollution.) The US map of potential radon reflects this geological factor.

### **The Radon Hazard**

Lately the spotlight of panic has moved from radon to other subjects, such as mercury and airborne soot. The government has set reasonable radon limits that protect mine workers and other occupations with unusually high exposures. The Environmental Protection Agency urges the rest of us to test our homes and take measures against moderate radon levels, while admitting that good research is still needed.

Lowering radon levels is simple and fairly cheap. If the EPA's policy is excessive, it's a pretty benign excess.

Nevertheless, radon is a background risk to the average American who doesn't smoke. Consider a well-conducted study published in the

June 2000 American Journal of Epidemiology. Press releases trumpeted its result—if you were an Iowa woman who'd lived for 15 years in a home with radon levels above the EPA's "action level," you faced an estimated excess lung cancer risk of 50 percent! (More recent studies give similar results.) But your actual odds of dying from lung cancer due to home radon exposure, if you don't smoke, is about 1 in 100,000 per year, with a large statistical uncertainty.

Among smokers, radon has a substantial additive effect in raising the risk of lung cancer. High radon is not such a negligible risk for smokers.

If you care about the hazard of household radon, the authorities will help you investigate your risk and find someone to fix it for you. And you'll keep following the painstaking, expensive research needed to quantify this public health threat.

### **Making Friends with Radon**

There are still reminders around of times when radon was desirable. Early in the 20th century, radiation was a full-blown health fad, and natural sites with high radiation were sought out for their curative powers. And at least two abandoned mines in Montana are reborn as old-fashioned radon centers—complete with glowing testimonials, so to speak—the Free Enterprise Health Mine in Boulder and the Merry Widow Health Mine in Basin.

PS: Frozen radon, which condenses into solid form at a relatively balmy  $-71^{\circ}\text{C}$ , must be quite a sight. Evidently it glows with a bright phosphorescence from its own radioactivity, turning yellow through orange to red as it is cooled further.

Till next time then,  
**Jack**



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

Natalie Darling, Editor

211 Chesterfield Rd.

Lynchburg, VA 24502 [www.lynchburgrockclub.org](http://www.lynchburgrockclub.org)

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



**Happy Easter**



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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!*



**ON THE WEB:** Lynchburg Gem and Mineral Society: [www.lynchburgrockclub.org](http://www.lynchburgrockclub.org)

The SFMS Newsletter, the Eastern Federation Newsletter, and the AFMS Newsletters are available for all members to read on line at the Federation Websites:

[www.amfed.org/sfms](http://www.amfed.org/sfms), [www.amfed.org](http://www.amfed.org) and [www.amfed.org/efms](http://www.amfed.org/efms)