

## Presidents Message:

Hello to All,

Are you familiar with lapidary work? Can you operate a large slab cutting saw or trim saw? Can you grind a stone and polish it on a cabbing machine? If you answered yes to any of the above we can use your help at the Saturday workshops. If you answered no to all of the above, would you like to learn how to use these pieces of equipment? Then come on out to the Saturday workshops at Dave Callahan's and we can teach you what you need to know. The Uncle Billy's Day Festival is coming up on June the 4<sup>th</sup> in Altavista, VA and we need help finishing up the Rock Clocks and Cabochons for belt buckles.

Also on May 14<sup>th</sup> we will be filling Gem Bags for the Sluice line used at all our Festivals. So come on out and join the fun. We will have more info at the meeting about workshops and upcoming Festivals. Be sure and sign up as a volunteer to help in the sales booth at Uncle Billy's Day, we will need all the help we can get. When you see how much fun the young people and young at heart have working the Sluice Lines you will be glad you were a part of the activities.

I hope to see you all at the May 18<sup>th</sup> Meeting.

Keep Looking Down,  
**John Haskins**

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## From the First VP:

With the club's emphasis on moving lapidary equipment from Dave's to Dave's and with more of us making cabochons, and learning about faceting, I thought that the following article retyped from the current "Rock & Gem" magazine might be helpful.

### Shop Talk by William A. Kappel "Polishing Problems"

From time to time, I get questions from Rock & Gem readers about how to fix things that go wrong in the cabbing process. Probably the most common problem I hear about is the pesky little flat spot on the top on the cab that isn't noticed until the final

polishing. Of course, by that time, the only possibilities are either to pretend that you intended all along to have a flat spot there or go back to the sanding steps and do what should have been done in the first place.

Well, let's talk about what should have been done in the first place. The usual method in beginning to shape the dome on the grinding wheel is to grind down around the perimeter of the stone, starting at the girdle and slowly increasing the angle while

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**2011 ELECTED OFFICERS****John Haskins - PRESIDENT**

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**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**- Daryl Grant**Membership**- Ralph Torning

## April Meeting Minutes

**Meeting:** April 20, 2011**Attendance:** 31 members and 1 guest**Hospitality:** Our host for this evening was Jack Curtin, and in May it will be Jean Midkiff. June's hosts will be Tom and Linda Knowles. Thanks to all who volunteer to keep up our refreshments.**On Time Drawing:** Winners were Alexa Fleshman, Tommy Conner, Siglinde Allbeck**First Vice President:** Jack Curtin: program for this evening: Thanks to John for providing the DVD on Sterling Hill/ Franklin, NJ mines. It was a great overview for those who will be going up there this spring. We are still working on next month's program, but we may have a "show and tell" session where everyone brings in their favorite rock and tells a little about where it was found, etc.**Second Vice President:** Dave Callahan: Field Trips/ Activities: 4/23: Glendon Quarry to collect pyrite, fluorite; 4/26- 5/1: Mountain Mushroom Festival & Blue Grass Mineral Club Agate Hunt and Show- Held in Kentucky- contact Dave for information. 4/30: DMC trip to Burke Co GA to collect Savannah River Agates. 4/30-5/1: Franklin/Sterling Hill NJ Fluorescent mineral collecting and show. 4/29-5/1: Graves Mountain Swap and Dig; 5/21: Faber Mine trip, must contact Dave if interested as parking is limited. 5/28: DMC Trip to Cotton Patch Gold Mine in NC; 7/24-7/31: Spruce Pine shows and field trips, Mitchell County, NC. **Treasurers Report:** Treasury balance at this time \$6203.46; belt buckle and clock sets have been paid for.**New Business:** There was a Rock Raiders meeting this evening with Daryl Grant for the young members. There were great silent auction specimens, as well as some specimens for sale from Dave Callahan's collection.

Applications for membership renewal and specimen identification handouts were available.

A nicely crafted wooden box now holds our utensils on the refreshment table. It was crafted and donated by club member Henry Mueller. Thanks Henry- we appreciate your generosity and talents!

**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

Thanks again to John Haskins for sharing a DVD on Mineral Collecting in the Franklin/ Sterling Hill, NJ Mines. This was a timely presentation, as the annual open house, collecting trips and show were held at the end of April. Several of our members planned to attend.

The program arrangements for the May meeting are still underway at this time, and will probably be a video presentation. Anyone with ideas for future programs is encouraged to speak to Jack or John. Let's keep our meetings educational and fun for all who attend.

## Bench Tips by Brad Smith

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



### **MAGNETIC HOLDER FOR FILES**

An easy way to keep all your files organized at the bench is to use a magnetic tool strip. They're not expensive and help keep a lot of small tools from cluttering the bench top. I got a couple of them from Harbor Freight for about \$5 each. See

<http://www.harborfreight.com/18-inch-magnetic-holder-65489.html>

Only regret was putting some of my small drills on the magnets. The drills got a little magnetized and now stick together when I carry them in a bottle in my tool box.

### **FINISHING PIERCED PATTERNS**

After sawing patterns there's always a little cleanup to do. Needle files (7-8 inches) can get into the larger areas, and escapement files (4 inches) can get into some of the corners. But I often find myself looking for even smaller files. Couldn't even find them at a watchmaker tools supply company, so I had to try something else. I ended up grinding down the tip of a 4" barrette file using a separating disk (or cutoff wheel) in your Dremel or Foredom.

The wheels are inexpensive and do a great job grinding steel (poor at soft metals like silver). The disks have other uses like modifying pliers and making design stamps. My preference is the one inch diameter ones as shown at right and at <http://www.ottofrei.com/store/product.php?productid=3919&cat=3439&page=1> Be sure to hold the wheel firmly so nothing moves to break the disk, and definitely wear your safety glasses. A flake of steel in your eye makes for a bad day.





*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)

### **American Rutile Quarry update**

The Nelson County Life magazine has a short article in the May 2011 issue about our field trip there on March 26, 2011. If you are interested in reading the article, go to their web site <http://www.nelsoncountylife.com> and near the top of the home page. On the right-hand side, there is a link where you can see the magazine as it looks in print. Flip the pages with the appropriate icon there to page 26 and 27 and you can read the short story with a couple of pictures.

### **Glendon Quarry Standard Minerals / R.T. Vanderbilt Co. Saturday, April 23, 2011**

This annual spring field trip is sponsored by The Southeast Federation of Mineralogical Societies, Inc. and is limited to the first 120 members that sign-up. If you missed the opportunity this year and would like to attend in the spring of 2012, you must be an active club member and be on our email broadcast list as this is the only way you will be notified. The SFMS Field Trip Committee Chair sets the trip up, usually in mid-April and sends out a broadcast to all the member clubs about 30 days in advance. Each of the member clubs will in turn, send this notice out to their membership. Only the first 120 to reply will receive a confirmation number and will be assured of a slot to attend. Others will be put on a waiting list in case of a cancellation. There are thousands of members in the SFMS organization, so this email notification process is the only way to quickly get the word out to the membership. We, as members of the Lynchburg and Roanoke Clubs, have been very fortunate to receive a large share of the available openings. This year we had 15 members attending. Once the notice is sent out, all the available slots are usually filled within 24 hours.

For those new members that may wonder what is this Glendon Quarry thing that folks rave about and clamor to get on the list? This area of Moore County, a little west of Sanford, North Carolina has an extensive deposit of the mineral pyrophyllite, a hydrous aluminum silicate. Pyrophyllite is very soft, about 1 to 2 on the Mohs scale. It has a greasy feel like talc and difficult to tell the difference except by chemical or x-ray analysis. This product has been mined for years and is used as a dry lubricant especially in the casting industry as a parting agent. Other uses are as an insulator in the heat and electrical industry, paper, rubber, fabric and soap industries. The majority of the product from this Glendon Quarry is shipped overseas where the majority of our steel and cast iron castings are currently being made.

The quarry processes the material prior to shipment and all contaminants such as pyrite, quartz and other waste rock is removed. We essentially are helping them remove contaminants by collecting the pyrite, fluorite and other minerals. The pyrite that occurs in this facility can be quite large. Cubes up to 8 inches have been found but most are somewhat smaller. Crystals in two to three inch range are very common and most persistent collectors will easily fill a couple of buckets with loose crystals and crystals still in the matrix before they leave. Most of the larger crystals will have some corner damage that occurs during the mining process but they still make valuable and interesting specimens. This quarry near Glendon, NC is the only place in our area and perhaps this country where pyrite of this size and caliber can be found. Now can you see why this is such a popular collecting site?



**Contact Information for Field Trips:**  
**David Callahan,**  
**Field Trip Chairman**  
**Home phone 540-297-1853-----**  
**Cell phone-----540-874-520-----**  
**E-mail [dbc11@aol.com](mailto:dbc11@aol.com)**

### May Field Trips

**COMBINED MINERAL COLLECTING FIELD TRIP**  
**THE GEM AND MINERAL SOCIETY OF LYNCHBURG, VA. INC.**  
**THE ROANOKE VALLEY MINERAL AND GEM SOCIETY, INC.**

**Saturday, May 21, 2011**  
**FABER LEAD MINE, ALBEMARLE COUNTY, VA.**

**Sign-up is required, call me, email me or sign-up at the meeting. Do not just show up.**

**MEETING TIME AND PLACE:** I will meet the group from Roanoke at the Sheetz Station Rt. 460 and 811 in New London and **depart promptly at 8:00 AM.** We can leave some cars in the Food Lion parking lot across the street if necessary. I will lead the group to the Madison Heights meeting spot, and we will **DEPART** as a group from the Sonic Drive-In lot in Madison Heights across from Auto Zone and above Wal-Mart (3.9 miles north on US 29 business from the center of the James River Bridge) **promptly at 8:45 AM, Saturday morning.**

Due to the restricted parking along Route 6, we must limit attendance to 10 cars maximum. Only those that call to reserve your place or sign up at the meeting will be allowed to attend. Car-pooling is recommended. We will arrive at a small parking area at the intersection of Rt. 29 North and Rt. 6 East about 9:15AM. We can leave some cars here if necessary and pick up those that will meet us here.

**THE TRIP:** I have received permission from the landowner and he has some rules that must be obeyed. **NO SMOKING** (extremely dry and a high fire hazard could exist). Keep away from the 3 open shafts and collect only geologic specimens, not historic pieces, and leave **NO TRASH.** This is a beautiful, classic and historic site and the owner has graciously allowed us to collect there.

The mine is about 1.5 miles (a good 45 minute walk) along a mostly level, rutted dirt road. Recent logging in the area has made the road rough and possibly muddy in places. Since we must walk in and out, and lead is very heavy, you might want to bring a wagon, hand truck or at the least a good back pack. Good walking shoes are a must and be sure to bring plenty of water and snacks. You'll also need safety glasses, hammers, chisel, and a tool to scratch thru the dirt and overburden and turn over rocks, buckets or bags with newspaper to wrap your delicate specimens.

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## Up Coming Field Trips

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**COLLECTING:** Expect to find **Galena** (Lead), **Sphalerite** (Zinc) and **Fluorite** (white and purple). Other minerals that exist there are **Chalcopyrite**, **Pvrite**, **Pvrrhotite**, **Maagnetite**, **Quartz**, **Calcite**, **Cerussite**, **Chalcanthite**, **Pyromorphite**, **Kaolinite**, **Azurite**, **Chlorite** and **Hydrozincite**. Many of these are fluorescent under ultraviolet lamp.

**HISTORY:** The mine was discovered in 1849, and operated off and on by the Confederates during the Civil War producing an excess 7,000 pounds of lead, but abandoned when General Sherman crossed the Blue Ridge at Rockfish Gap. In 1905, it was again opened for Lead and Zinc but closed again about 1919. Several other unsuccessful attempts to reopen the mine were short-lived. The 3 shafts are now partly choked and caved and the audit reopened in 1958 is now caved. A large dump still exists and will still yield beautiful specimens after much searching and digging.

We must arrive and walk in together, but you may leave any time you want and walk out by yourself. This is a unique collecting site and we are fortunate to have it in our area and have a landowner who is willing to share it with us.

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### DMC COLLECTING TRIP – OPEN TO AFFILIATED CLUB MEMBERS ONLY- NO GUESTS

An Official Field Trip of Charlotte Gem and Mineral Club (Charlotte, NC) (HOST)

An Official Field Trip of The Gem and Mineral Society of Lynchburg, Inc. and

The Roanoke Valley Mineral and Gem Society, Inc.

**10:00 AM EDT**

**Saturday May 28, 2011**

**Cotton Patch Gold Mine & Campground**

**Stanly County, New London, NC**

**Fee Site**

**WHERE:** Cotton Patch Gold Mine, 41697 Gurley Road, New London, NC

**WHEN:** Saturday May 28, 2011

**WEBSITE FOR MORE INFO:** <http://www.cottonpatchgoldmine.com>

**DIRECTIONS:** Take Hwy 740 East from New London, go one mile, turn right on Hearne Road, go one and a half miles then turn left on Gurley Road and go 300 yards, 1st driveway on the left at Cotton Patch Gold Mine Sign. **GPS Coordinates:** Longitude 80.1874, Latitude 35.4358

**HISTORY:** Historic Cotton Patch Gold Mine & Campground is located in Stanly County, in the town of New London. This small town in North Carolina has a rich history of Gold Mining. Cotton Patch Gold Mine began its run in the 1860's. A large vein of gold was discovered near a cotton patch off Gurley Road. They began to mine the gold, removing tons of material. The mine eventually closed, but was reopened in 1958 after a new vein was

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## Up Coming Field Trips

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discovered. In 1961, the mine opened for panners and rock hounds. Today the mine continues to produce gold. The gold is mixed with placer material and also found buried in white quartz.

**ASSEMBLY TIME:** 10:00 AM on Saturday May 28, 2011

**ACCOMMODATIONS:** You may want to set-up camp, park your RV or rent your cabin on Friday as our group rates apply all weekend. You have to mention that you are with the DMC group that is being hosted by the Charlotte Gem and Mineral Club to get our special group rates.

**COLLECTING:** PLACER GOLD

**EQUIPMENT:** All equipment supplied. They have a General Store that has snacks, gifts and bags of ice. Open 7 days a week...9-5..

**FEES:** The following group rates are for the DMC club members only:

- ? Rate discount will be 10% on cabins or camping for our members and their guests.
- ? Panning for gold- pan for gold at our troughs. \$ 10.00 for 3/ 2 gallon buckets OR \$ 14.00 for 5/ 2 gallon buckets
- ? Gold wheel rental with panning material (automatic panner) \$ 8.00 for 4 hour rental
- ? Gold sluicing- more productive than panning, loads of material are brought to you to run at a live flume.
  - 1/4 load (+/- 5 five gallon buckets) \$40.00 2-3 hours
  - 1/2 load (+/- 10 five gallon buckets) \$ 75.00 3-5 hours
  - full load (+/- 22 five gallon buckets) \$ 140.00 6-8 hours
- ? Rock picking for crystals- digging in the pit for rock and crystal specimens \$15.00 per head, as long as you want that day.
- ? Old time gold mining adventure- digging gold bearing ore out of the ground and processing it to liberate the gold. \$ 50.00 per head, all day adventure.

Host club comments: Look at their website for additional information such as camping and cabin facilities should anyone want to make a weekend of it. Note that there is no fee to enter the property so if one wanted to come and observe the activities it would be fine. There is also a gem sluice that many kids would enjoy. The last time that I was there, I rented a gold wheel and found flakes as well as a clinker. If you are not familiar with this property there are big oak trees with picnic tables in the shade. Some members of the charlotte club plan on setting up tables for a mini swap meet of rocks and minerals. The owner will likely give a personally guided tour of the mine. We took our junior rockhounds there and they had a ball. For serious gold hunters, I suggest sharing a load of dirt.

**IF YOU NEED ANY MORE INFORMATION, PLEASE LET ME KNOW.**

Jack King

Charlotte G&MC - Field Trip Chair 704-892-7608 [jackkretired09@gmail.com](mailto:jackkretired09@gmail.com)

Lynchburg and Roanoke Club contact -Please let me know if you will attend.

This is a go-on-your-own trip. David Callahan...[dbc11@aol.com](mailto:dbc11@aol.com)....540-297-1853

# Up Coming Events

# May 2010

## Shows and Trips

**May 14<sup>th</sup>**- Workshop at Dave Callahan's house. Sluice bags need to be packed for our up coming fundraiser events. There will be plenty to do for anyone who would like to help our.

**May 21<sup>st</sup>**- Field trip to Faber Mine. See page 5 for details.

**May 28<sup>th</sup>**- DMC Field Trip to Cotton Patch Gold Mine. See page 6.

**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>. Visit the EFMLS website for complete details.

**July 24<sup>th</sup>-31<sup>st</sup>**- Spruce Pine Weekend- Field trips, outdoor and indoor gem shows. Mark your calendar now- more information as we get closer to this date.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
8 <i>Mothers Day</i>	9	10	11	12	13	14 Workshop @ Callahan's
15	16	17	18 Meeting 7:00 PM	19	20	21 Field Trip
22	23	24	25	26	27 <i>Gem Show</i>	28 Field Trip
29 <i>Gem Show</i>	30 <i>Memorial Day</i>	31				

## Welcome New Members

Joe Clebourn,  
Kristen & Xoe  
from  
Lynchburg, VA

Michelle  
Tolley from  
Madison  
Heights VA

## Fluorescent Minerals

By Bill Fowler

*Reprinted from May 2011 Tips and Trips, newsletter of the Georgia Mineral Society*

On a table in a dark room, lay out a large collection of crystalline minerals of different types from different locations. The shine a shortwave ultraviolet (UV) lamp on each of the specimens. Although UV radiation is not visible to the human eye, you'll nonetheless find that about 10% of the mineral specimens in a typical collection will emit a clearly visible glow in response to the UV lamp. A few of them may even be quite spectacular in this regard. This phenomenon is called fluorescence.

Of those that do fluoresce, about 10% will continue to glow for a few seconds after the UV lamp is turned off. This property is usually termed phosphorescence or afterglow. Fluorescence and phosphorescence on minerals can be of any color. This color is usually not related to the type of mineral but is instead dependent on the nature of the fluorescence activator that is present in the mineral. Thus, the fluorescent color can be identical for two or more different mineral types that happen to contain the same activator. Or the color can be different for two or more different specimens of the same mineral type but from different geographical locations. Common fluorescence activators in minerals include point defects in the crystal structures, as well as atoms, ions (i.e. charged particles), and molecules that are present in minerals as impurities, e.g. hydrocarbons, manganese, titanium, europium, lead, uranium, and sulfur.

The causes of mineral fluorescence are complex, and a complete understanding of them requires an in-depth knowledge of atomic and molecular process. Nevertheless, a simplified explanation can be given as follows. When a fluorescence activator is struck by photons of UV light, the activator absorbs the uv energy. This extra energy promotes the activator from its ground energy state (or ground energy level to an excited energy state or level). This is an unstable condition for the activator, and thus it tries to find a way to throw off the excess energy and thereby return to the ground state. For most atom's, ions and molecules, there are a number of ways to accomplish this goal that do not involve fluorescence. But for fluorescence activators, the only way to get rid of the excess energy is to emit photons of visible light. It is these emitted photons of visible light that our eyes detect as fluorescence or phosphorescence. Although the explanation of fluorescence is complex, there is nothing at all complex about the observation of fluorescence... It is purely and simply beautiful! The collector of fluorescent minerals loves to display his or her specimens in display boxes equipped with UV lamps. But the greatest thrill for the collector lies in discovering attractive new specimens in the field as they respond to a hand-held UV lamp for the first time. This is best done at night, but it's also possible to do it during the day if a portable dark-box or dark shroud is carried along.

There are now at least three types of UV lamps on the market, differing mainly in the wavelength of UV radiation emitted: long-wave, midwave, and short-wave. It is generally true that the shorter the wavelength, the more expressive the lamp, and the more mineral specimens there are that can be excited to fluorescence by that wavelength. Many minerals will fluoresce either the same color or a different color under each of the three wavelengths. So where does one find fluorescent minerals?

It turns out that the potential for finding fluorescent minerals is significant at any location where one can find crystalline rocks and minerals. For example, I have found them all across Alabama in mines and quarries, on rock dams, in road cuts, in stream gravel, along railroad tracks, on prehistoric Indian sites, in timber clear-cuts, on the banks of major reservoirs, and in landscaped areas where ornamental rock was used. But one of the best places to find them is in the mineral collection of a rockhound who has never

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## Take the Mineral IQ Test

*By Anita Westlake, reprinted from April 2011 Tips and Trips, as taken from 1001 Questions Answered About the Mineral Kingdom by Richard M. Pearl, 1995*

1. What is black mica called
2. What color streak does hematite leave on an unglazed porcelain tile?
3. What does pseudomorph mean?
4. What is the purple variety of quartz called?
5. Are diamonds found in meteorites?
6. In the mineral kingdom, what is a halfbreed?
7. Johann Wolfgang von Goethe had what mineral named after him?
8. What mineral is 4 on the Mohs Hardness scale?
9. Which mineral is a natural magnet?
10. Which is the stalagmite and the stalactite?
11. What is another name for pyrite?
12. What is a "thin section"?
13. What's the difference between magma and lava?
14. What is silver/clear mica called?
15. Is amber a mineral?
16. What are aa and pahoehoe?
17. What's the difference between a meteorite and a meteor?
18. Do meteorites come from meteor showers?
19. Where in outer space do meteorites originate?
20. Which mineral has variable hardness?
21. What is the principle use of bauxite?
22. What is "quicksilver"?
23. Why is Rancho La Brea famous?
24. What common natural glass is still used in eye surgery?

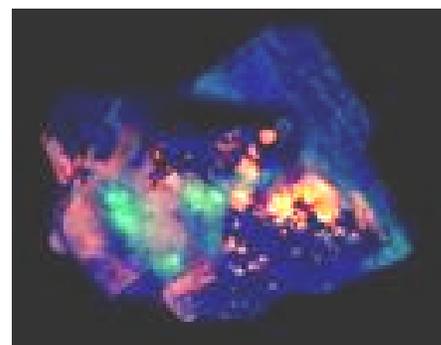
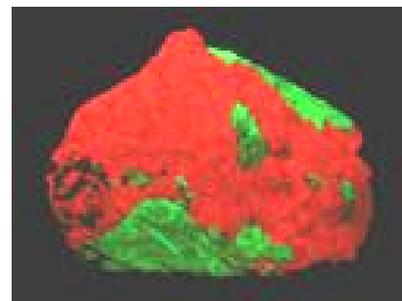
*Answers on page 11*

## Fluorescent Minerals... *Continued from page 9*

shined a UV lamp on his or her specimens. If this includes you, then you need to borrow a lamp from someone and check it out. Discover a few fluorescent minerals in your collection and it could shed a whole new light on your favorite hobby.

**Warning:** LED radiation may be harmful to the eye. Avoid direct and strongly reflected exposure. 365nm through 390nm LED's can be considered Class 1M LED Product. Protective goggles are inexpensive and readily available.

*Via Rockhound Roundup, Jan 2011*



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

progressing toward the top of the dome. This is commonly referred to as "peeling the apple". If it is done right, the peeling will end when the little flat spot is gone.

Then, to remove all those ridges that look like a mountain on a topographical map, the lapidary will shift from peeling to rocking the stone from the girdle to the dome while moving around the perimeter. At this stage, the flat spot may not quite be gone, but it can easily remain unnoticed by the lapidary. It is very easy to think that the flat is being ground away when, in fact, the wheel or disk is not even touching it. This is why the stone should be scrutinized carefully before going to the first sanding step.

It is easy to miss a tiny flat hiding in all of those grinder marks. If the stone has been scrutinized, but the flat spot is still missed, perhaps the lapidary, like me, has "mature" eyes. There is no shame in using a loupe or magnifying glass to aid the eye at this stage. When you are sure that the flat spot is gone, you can go safely on to the sanding and polishing stages, secure in the knowledge that the flat will not come back.

The second most common capping question people ask me concerns an unsatisfactory polish. Unlike the flat spot, which is pretty straightforward, there are lots of ways to insure a good finish. First, of course, it is necessary to

start with a stone that will take a polish. This sounds rather obvious, but there are some stones that look like they might take a nice polish, but won't. Some types of stone will polish well in spots, but not in other places. The list of potential problems is almost endless. Sometimes, these problems can be discovered in the early stages of cutting and grinding, and sometimes they cannot. Life just isn't fair.

Assuming that the chosen preform is from a stone that will take a polish, the most important thing is to be sure that the work in the grinding and/or sanding stages is done as perfectly as possible. Every minute trace of the previous stage must be removed before moving on to the next. A loupe or magnifying glass is almost indispensable for checking these fine details at each stage.

Finally, there are a lot of different polishes on the market, from diamond to metal oxides, and some stones respond better to one type or another. If the polish is good, but you think it might be better, you can experiment with other polishes. There are guidelines you can follow for matching certain polishes and stones, but trial and error may be the only way to hit the sweet spot.

That's all for now~  
Jack

### **Mineral IQ Test Answers**

1. Biotite, 2. Red to Brownish Red, 3. False-Form, 4. Amethyst, 5. Yes, most notably in Canyon Diablo, 6. A specimen of half silver and half copper, 7. Goethite, 8. Fluorite, 9. Magnetite, 10. Stalagmite grows up mighty from the ground. Stalactites have to hang on tight to drip from the ceiling, 11. fool's Gold, 12. A wafer thin slice of a mineral or meteorite that is virtually transparent. It is placed in a polarized microscope to identify individual minerals and their crystal structures. 13. Magma forms inside the volcanic chamber, lava flows outside the chamber and is visible to the eye. 14. Muscovite, 15. No, it does not pass one of the five characteristics of a mineral, most specifically "inorganic", 16. Types of lava. Aa is named for the sound one makes when walking upon its rough surface, pahoehoe isropy lava. 17. A meteorite is a rock from space that makes it to the ground. A meteor is the LIGHT you see when the meteoroid hits the earth's atmosphere and briefly catches fire. 18. No-Meteor showers are cyclical and are the result of comet trails intersecting with earth's orbit. 19. The asteroid Belt, between Mars and Jupiter, 20. Kyanite, 21. Aluminum, 22. Mercury (the liquid metal that used to be in thermometers), 23. The La Brea Tar Pits where hundreds of animals were found preserved in tar, 24. obsidian

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

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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



*Happy Mothers Day!*



*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!*



**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)