



# Gem & mineral journal

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

FEBRUARY 2012 ~ VOLUME 21, ISSUE 2

## *Presidents Message:*

Hello To All,

The New Year has had a great start, with two field trips already in January. After the James Madison University Geology Lab experience several Club members visited a Shop in Crozet, VA where the Club was able to acquire a nice specimen of Crystal Turquoise that was collected from the Bishop Mine near Lynch Station, VA. This mine has been closed to collecting for a number of years now. Dave Callahan is in the process of cleaning up the specimen for display in the mineral cabinet at the Lynchburg Parks & Recreation building. Speaking of the mineral cabinet, if any Club member has a nice specimen, no larger than fist size, we invite you to display it, on loan of course, in the Clubs' display. It will give everyone a chance to show the mineral and crystal specimens that are collected on our fieldtrips. After a month or two we will change them out for new specimens.

At the January meeting we talked about teaching workshops at Dave Callahan's house each month. Beginning on March 31<sup>st</sup> several members will be teaching how to make Gem Trees, Cabochon making, and instructions for using any of our Lapidary machines including the new saw and sanding machine we just bought in January. Anyone can learn how to make all of the items we have had for sale at our past fund raising festivals. These teaching workshops will be for learning; we will have other scheduled workshops for making items for sale at festivals later in the year. There will be a signup sheet at the meeting for all interested in participating. Come on out and join the fun, we get started about 9:00 AM and you can pack a lunch or eat at the local Grill that is only a half mile away. Make a day of it or leave at your time of choosing.

*Continued on page 11*

---

## *From the First Vice President:*

David Callahan's hiking trip to Vesuvius, VA was an exciting adventure of discovery for those who attended. The area had been mined for iron ore and also has several manganese minerals there as well.

Let's investigate the oxide minerals in general and then focus on the iron oxides. Andrew Alden, a geologist with About.com has great information on the oxide minerals that will get us started on our way to understanding the oxides.

### Oxide Minerals

The oxide minerals are compounds of metallic elements plus oxygen, with two prominent exceptions: ice and quartz. Ice (H<sub>2</sub>O) always gets left out of the mineral books. Quartz (SiO<sub>2</sub>) is treated as one of the silicate minerals. Some of them are primary minerals that solidify deep in the Earth in magmas, but the most common oxide minerals form near the surface where oxygen in the air and water acts upon other minerals such as the sulfides. The four oxides hematite, ilmenite, magnetite and rutile are often found associated with each other. Andrew Alden has this to say about iron, interesting stuff indeed.

*Continued on page 10*

**2012 ELECTED OFFICERS****John Haskins - PRESIDENT**

(434) 525-8430

[JMhaskins1@netzero.net](mailto:JMhaskins1@netzero.net)**First Vice President****Jack Curtin**

(434) 384 -6249

[jacwcurtin@gmail.com](mailto:jacwcurtin@gmail.com)**David Callahan****Second Vice President**

(540) 297-1853

[DBCALLI@aol.com](mailto:DBCALLI@aol.com)**Secretary****Brenda Glass**

(434) 525 6664

[glass57@netzero.net](mailto:glass57@netzero.net)**Natalie Darling – Editor**

(434) 941-1899

[gmsleditor@comcast.net](mailto:gmsleditor@comcast.net)**Frank Midkiff- Treasurer**

(434) 660-1565

[midkiff@aol.com](mailto:midkiff@aol.com)**Members At Large-**

Bernardino Rivera &amp;

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

## January Meeting Minutes

**Meeting:** Wednesday January 18, 2012.**Attendance:** 25 members and 7 guests.**Hospitality:** January's host was Bernard Rivera, and the host for the February meeting will be Jack Curtin.**On Time Drawing Winners:** Tommy Connor, Thom Noble, Anne Torning, Jean Midkiff, Dave Woolley, Jack Curtin, Bob McIntyre, Siglinde Allbeck, Tom Davis, Brenda Glass. Thank you Dave Woolley for generously donating many of the "extra" door prizes.**Old Business:** Bernard found a Tile saw for sale that fit our needs, and plans were made for it to be purchased tomorrow. Don McIntyre conducted the installment of Officers for 2012.**First VP:** Jack Curtin informed us that tonight's program would be a short information session on Wild Acres by Natalie Darling, followed by a video on Gold.**2<sup>nd</sup> VP-** Dave Callahan- Field Trips: Sat. 1/21- JMU field trip;

1/28- hiking trip; 2/25 DMC trip to Burgin Quartz Mine in NC; Future possibilities include the Faber Mine, American Rutile Quarry, Glendon NC, and Mill Point WV. Information will be passed on as plans develop.

**Treasurers Report:** Balance \$7623.91. Federation Dues, liability insurance and newsletter expenses have been paid. We will also be purchasing saws and belt sander supplies.**New Business:** Plans are being made for a Mineral miner certification class. Dave Callahan is working on this, more to follow. Need at least 10 people to sign up.**Rock Raiders:** Jon Glass is the new Rock Raider Liaison and tonight we had 6 children in attendance. The program focus was sharks teeth, and everyone had the opportunity to collect their own shark's teeth from some furnished material that came from the Chesapeake Bay area.*Minutes submitted by:  
Natalie Darling*

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 January meeting program was a video on GOLD, and some information about Wildacres workshops and classes.

From the First VP: Our February meeting will feature geology professor Stephen W. Lenhart. For this program he will speak on the igneous minerals.

If you have been able to attend any of Dr. Lenhart's programs in the past you know what a treat this is. If you have not yet had the privilege, this is a great opportunity.

So please come on out and expand your knowledge of this vast group of minerals and enhance your collecting expertise as well.

---

## 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](http://facebook.com/Bench_Tips)**

### IDENTIFYING UNMARKED SOLDERS

There's plenty of ways to mark your sheet or wire solders, but suppose you forgot to mark them and have a couple that you can't identify. The answer is to compare the melting temperature of the unknowns with that of a known solder. What I do is take a thick scrap of copper or nickel and arrange several solders on it. Ideally, I would have a sample of easy, medium and hard known solders surrounding the unknown solder. Then I heat the plate from the bottom and watch the order in which the solders melt.

---

### INEXPENSIVE ELECTRIC WAX PEN

You can make your own wax pen from a small soldering iron plugged into a light dimmer switch for heat control. Both components are easily found at Radio Shack, a big hardware store or at Harbor Freight. Set the dimmer control just hot enough to melt the wax without producing any smoke.

Look for a soldering iron of around 25-30 watts. File the tip to the shape you prefer or even better get a soldering iron with replaceable tips. Then you can make several tip shapes for different tasks.



**Contact Information for Field Trips:**

**David Callahan,**

**Field Trip Chairman**

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

**Cell phone-----540-874-520-----**

**E-mail [dbcall1@aol.com](mailto:dbcall1@aol.com)**

**GMSL January field trip report**  
**James Madison University, Harrisonburg, Virginia**  
**January 21, 2012**

We always look forward to our annual January field trip to JMU. This year, the weather was cold but clear and we all were able to make the trip safely. We had 23 members from the Lynchburg and Roanoke Clubs, some new members and many old timers, all of which had an enjoyable time, learned a lot, had some questionable rocks and minerals identified, purchased lots of minerals, enjoyed the museum and consumed some wonderful coffee and sweet rolls.

Since the trip officially didn't start until 9AM, Lance kept the for sale mineral boxes closed until that hour so all would have a fair shot at the selection. He also explained about the financial donations to the geology department and how they were used and what was needed. The museum always can use funds for new mineral purchases, up-keep and maintenance. Funds are also needed for individual student scholarships to help offset the cost of field trips and other events such as the annual Rochester Symposium that are paid for by the students. Some students cannot personally afford these educational trips, so Dr. Kearns has been establishing a fund to help offset the cost for them. When we as a Club, make a donation to the Geology Department, we should specify that we want it to go to the Museum or Scholarship fund. This will be a tremendous help to the school and the Geology students.

On the way home, several of us stopped by an interesting little Bead and Glass shop in Crozet, VA to look at and purchase some interesting rocks and minerals they had obtained from an old collection. We then continued on to Afton, VA. to visit David Lipscomb at his VA Rock Shop in the Rockfish Valley Community Center. He really has a wonderful selection of rocks, minerals and jewelry.

As always, our annual JMU is a great way to start the New Year and we look forward to a return next January.

**Another January Event**

On January 28<sup>th</sup>, several of us had an opportunity to join the Shenandoah Club for a Geology hike in the Vesuvius area. They had obtained permission from a landowner to explore his property and some of the unusual geological outcrops in the area. We had a good turnout and the weather was just perfect. No bugs or snakes, just the unusual geology, beautiful wooded mountains and clear bubbling trout streams. I would love to go back sometime soon and possibly if there in enough interest, we can schedule another hike in this beautiful part of the state before it gets hot and after hunting season.



**Contact Information for Field Trips:**

David Callahan,  
Field Trip Chairman  
Home phone 540-297-1853-----  
Cell phone-----540-874-520-----  
E-mail [dbcall1@aol.com](mailto:dbcall1@aol.com)

**DMC Program of the SFMS Field Trip Committee**  
**An Official Field Trip of The Western South Carolina Gem and Mineral Society Greenville, SC.**

**HOST**

**An Official Field Trip of The Gem & Mineral Society of Lynchburg, VA. Inc.**  
**And The Roanoke Valley Mineral & Gem Society Inc.**

**9:30 AM, Saturday, February 25, 2012**

**Burgin Quartz Mine**

**Norwood, NC**

**FEE AREA**

**Place: Burgin Quartz Mine in Norwood, NC**

**Time: Saturday, February 25, 2012 from 9:30 AM to 5:30 PM**

**Cost: \$10.00 per person and you must sign a release.**

**What to find:** Quartz crystals, often clear and sometimes huge up to 4 inches across and a few inches long. The crystals are found in vugs in a very large milky quartz outcropping, though some crystals can be found by digging through the spoil piles previously dug out by a backhoe. To get the big ones, you need to do some hard rock mining using sledge hammers, and chisels to break apart the massive quartz to expose new vugs. I picked this site, because it has only recently been opened up, its potential has not been fully explored, and the DMC has never been there.

**Lodging:** There are hotels a few miles north in Albemarle, NC.

**What to bring:** Sledge hammers, chisels, rock hammers, safety glasses, gloves, dirt sifting tools, buckets, newspaper to wrap specimens, drink and food. Subway and Bojangles are only a couple of miles away if you prefer to eat out.

**Directions:** The address is 40764 Old Cottonville Rd., Norwood, NC. Use MapQuest or GPS for exact directions from the area you are coming from. Norwood is due east of Charlotte, NC. I travel on Route 52 just south of Albemarle. Turn right (heading south) on Route 52 and follow it to the Subway on the right just inside the Norwood town limits. Turn right and then turn right again on the other side of Subway on S. Stanly School Rd. Follow it to the Old Cottonville Road on the left and turn left there. Drive under the railroad trestle and turn left onto a dirt lane. Follow the lane over a low ridge and watch for the digging area on the right. There is plenty of parking.

From Roanoke and Lynchburg, it looks like the one way is from I-85 south in Salisbury *Continued on next pg.*

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

NC, take US 52 south to Norwood, NC and follow the directions above. This site is about 17 miles south of the Cotton Patch Gold Mine in New London, NC. From Lynchburg and Roanoke, the mine is about 190 miles (allow at least 4 hours) Check your map, there are several ways to get there that will affect your driving time and distance.

For additional information: call The Western South Carolina Gem and Mineral Society Greenville, SC. HOST Bill Wetzal at 864-306-6749 or Brandt Wetzal's Cell 864-404-0001 Or David Callahan, Field Trip Chairman for the GMSL and RVMGS; Home: 540-297-1853 or Cell 540-874-5201. Let it ring and leave a message if I don't pick-up.

**March Field Trip**

I will try to set up a field trip to the Faber Mine March 24, 2012. If you are interested in attending, please keep this date reserved. This is before the spring turkey-hunting season. More information will follow.

**April Field Trip**

I will try to set up a field trip to the Nelson County Rutile Quarry on April 28, 2012. This is during the spring turkey hunting season so we can't be in the woods anytime except Sunday in April. If you are interested in this trip, please reserve the date. More information will follow.

**VIRGINIA GENERAL MINERAL MINERS CERTIFICATION CLASS**

The Central Virginia Gold Prospector Association is offering several of the areas Gem and Mineral Societies the chance to get their Virginia General Mineral Miners Certification on March 24, 2012.

This is a valuable course on general mine safety and first aid and may help us to get access to some of the area mines and quarries. This is a lifetime certification and many of our members are already certified.

**DATE:** Saturday, March 24, 2012

**TIME:** 8:30 am thru 4:00 pm (rain or shine)

**LOCATION:** Dillwyn V.F.W. 14405 W. James Anderson Road. Buckingham, VA. 23921

**COST:** \$20.00 per adult (The class is \$10.00 and \$10.00 is for building rental and snacks)

Bring cash or check only. No credit cards

I will have a sign-up sheet at the February and March meeting.  
Let me know if you have any questions.

David Callahan  
[dbcall1@aol.com](mailto:dbcall1@aol.com)  
540-297-1853

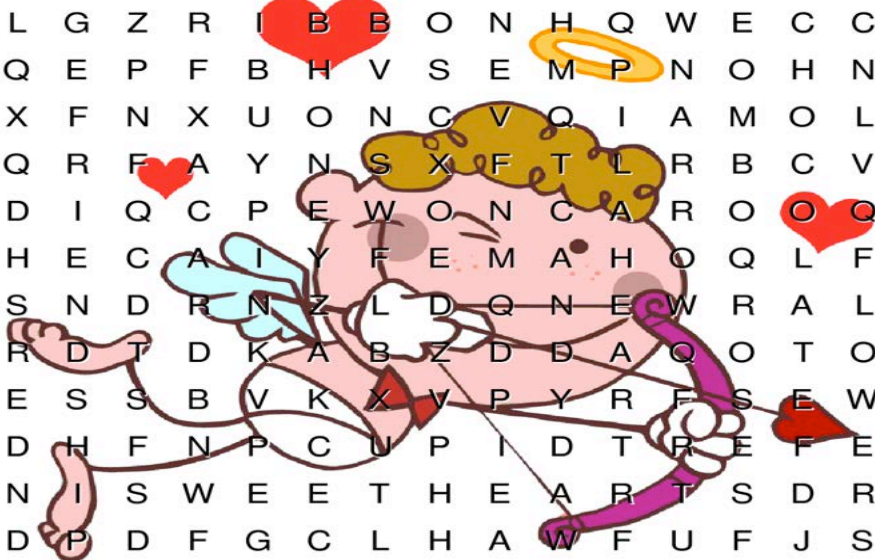
# Rock Raiders

The Gem and Mineral Society of Lynchburg, VA would like to welcome and thank our new Rock Raiders Liaison Jon Glass. Jon stepped up to accept the responsibilities of planning and conducting monthly meetings for our junior rock hounds. These meetings will be held during the business portion of our regular monthly club meetings.

For January, we had 6 Rock Raiders in attendance, who were treated to a program on shark's teeth. Everyone took home a baggie of self-collected teeth and some information and coloring sheets on the subject.

Please join us for the February 15<sup>th</sup> meeting, when we will be discussing fossils.

Valentine's Day Word Search  
www.KidsCanHaveFun.com



- |            |            |       |           |           |
|------------|------------|-------|-----------|-----------|
| ARROW      | HEART      | CANDY | CUPID     | FLOWERS   |
| SWEETHEART | ROSES      | RED   | PINK      | VALENTINE |
| CARD       | FRIENDSHIP | HONEY | CHOCOLATE | RIBBON    |



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

## Safety Note: Know Your Limits

By Owen Martin, AFMS Safety Chair,  
reprinted from AFMS Newsletter- Feb. 2012

Over the past few years I've written a lot of safety articles, many of which were inspired by fellow rock hounds while on hunting trips (kind of like those songs from Taylor Swift- don't date her!) Last week I managed to inspire another one of my own. The trip I was on resulted in a great find- a big ammonite that weighed in excess of 70 pounds. Seeing as I had hernia surgery earlier this year this posed a problem. Luckily with proper lifting techniques I managed to slowly haul the big ammo out of the water and up to my cart without injuring myself! The effort did however inspire this note.

In my particular case I really pushed the limit of how much I could safely lift without injuring or reinjuring myself. The potential was there to aggravate my hernia scar or even hurt my back.

Understanding your limits with respect to managing how much you can carry is very important. The very first article I wrote as the Safety Chairman for the SCFMS was inspired by an incident where a lady passed out from heat exhaustion while trying to carry too much weight up a hill to our cars. Ultimately she was ok, but we left most of her finds at the outcrop. If she had considered her physical condition, the heat and the terrain, then she would have been more selective with what she had tried to haul out.

Along those lines I would encourage you to take into account what you might find while on a field trip and give careful consideration to how much you can physically carry from the outcrop to your vehicle. Personally I use a variety of buckets and ropes to do a lot of my rock hauling, and much to the amusement of many of my friends, I haul a lot of rocks in a double-wide jogging stroller (3-wheeler) that I bought at Goodwill a couple of years ago. It works great- thus my "limit" is about two hundred pounds of rocks! I have other field trip buddies who use wagons, carts, sleds, canoes, rafts, etc. to help them haul out their finds.

My hunting in Texas also adds the summer heat to the mix. It was so hot this past summer that I know very few people who actually made many hunts over the past several months. Hunting in this heat required additional consideration for what could be hauled out from an outcrop. Distance, time, heat and how much liquid you could carry out with you were added to the equation with weight. Staying hydrated was essential. Two bottles of water in a backpack were NOT adequate.

One thing I really enjoy is the opportunity to take my kids hunting with me. My eldest daughter has type I diabetes and managing her insulin and food intake can become much more complicated while on extended hunts. Many of us really ratchet up our rock hounding after retirement, but likewise have a lot more medical considerations associated with age. Please keep that in mind if you are going into the field so that you can make sure that your medication and food situation is properly accounted for.

In a nutshell, keep in mind what limitations you have both physical and physiological. Considerations include rock weight, distance traveled, vertical ascents/descents, stamina, water/ food/ medicine requirements, and those of whom you will be hunting with.

Proper planning will help keep you safe and knowing your limitations will help you to not overdo it.

BE SAFE!





# Upcoming Events

# February 2012

## SHOWS AND TRIPS

**February 25<sup>th</sup>**- Burgin Mine Field Trip.  
(FEE Site) Details on page 5.

**March 3<sup>rd</sup>-4<sup>th</sup>**- Annual Earth Science Gem and Mineral Show sponsored by the Delaware Mineralogical society. Delaware Technical & community college, I-95, Exit 4B, Churchmans Rd. (Rte. 58); Newark, DE

**March 9<sup>th</sup>-11<sup>th</sup>**- Annual Aiken-Augusta Gem, Mineral and Fossil Show jointly sponsored by the Aiken Gem, Mineral & Fossil Society and the Augusta Gem & Mineral Society Julian Smith Casino, 2200 Broad St; Augusta, GA

**March 10<sup>th</sup>-12<sup>th</sup>-: 23<sup>rd</sup>** Annual North Jersey Gem & Mineral Show sponsored by the North Jersey Mineralogical Society. Pope John Paul II Center, Clifton, NJ

**March 16<sup>th</sup>-18<sup>th</sup>**- Annual Unifour Gem, Mineral, Bead, Fossil & Jewelry Show sponsored by the Catawba Valley Gem and Mineral Club. Hickory Metro Convention Center, I-40, Exit 125, Hickory, NC.

**March 30<sup>th</sup>-April 1<sup>st</sup>**- Raleigh, NC, Tar Heel Gem and Mineral Show, Kerr Scott Bldg, State Fair Grounds.

**May 18<sup>th</sup>-20<sup>th</sup>**- Treasures of the Earth Gem, Mineral, Fossil, Bead, and jewelry show, Martinsville National Guard Armory, Martinsville, VA  
[www.toteshows.com](http://www.toteshows.com) for details.

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



“From Stones to bones, the museum of Earth Sciences provides a fascinating journey through the remarkable history of the earth. With exhibits featuring a life size replica of a Tyrannosaurus rex skull to a glowing exhibit of fluorescent minerals, the Museum of the Earth Sciences is a unique learning experience encompassing earth science-related themes.”

Hours: (Open when Radford University is in session)  
 Monday and Wednesdays 11 a.m. to 2 p.m.  
 Tuesdays and Thursdays 2p.m. to 5 p.m.  
 First and third Saturdays of each month 10 a.m. to noon

Located on the first floor of Radford University’s Curie Hall in Room 143.

[www.radford.edu/mes](http://www.radford.edu/mes)

## **Oxide Minerals...***continued from page 1*

Iron is serious stuff. It not only makes up the Earth's core, but it is the base of civilization. Iron was long ago categorized as a base metal, as opposed to the noble metals like gold and silver, but in fact its fundamental role makes it a "base metal" in quite the other sense.

Only meteorites give us plain, solid iron, and they're very rare. Tools made from meteoritic iron are an expensive curiosity. To get useful amounts of metal requires ore and ways to smelt it. Earth is fortunate to have enormous bodies of iron ore, but they occur only in peculiar and extremely ancient settings. Whereas the human Iron Age began about 3,000 years ago, a tiny fraction of our lifetime as a species, Earth's Iron Age lasted over two billion years.

### *The Precambrian Iron Age*

Some 4 billion years ago, during the Early Archean era, the first blue-green algae or cyanobacteria went about their lives. This was a time when the atmosphere was a choking mix of nitrogen and carbon dioxide. In the shallow anoxic seas lapping upon the early continents, the cyanobacteria were in Fat City with the world to themselves, breathing carbon dioxide and making oxygen as a waste product. Ferrous iron in the water scavenged that poisonous waste, turned into solid minerals—magnetite and hematite—and settled in vast, thin layers.

For over 2 billion years this went on, until the iron ran out, and then the oxygen bubbled up into the atmosphere. The clear, oxygenated atmosphere we know dates from about 1,700 million years ago, after two-thirds of Earth history. The vast layers of iron minerals stayed behind in rocks called banded iron formation, or BIF.

His information on specific iron oxide minerals follows: Hematite (also spelled haematite) is iron oxide,  $\text{Fe}_2\text{O}_3$ . It is the most important iron-ore mineral. Please study the attached file which is Andrew Alden's picture of hematite shown on About.com that shows hematite in its black botryoidal form. Hematite may be pronounced HEM-atite or HEEM-atite; the first is more

American, the second more British. Hematite takes on several different appearances, but it's most easily identified when it is black, heavy and hard. It has a hardness of 6 on the Mohs scale and a distinctive red-brown streak. Unlike its oxide cousin magnetite, hematite does not attract a magnet. Hematite is common in soil and sedimentary rocks, accounting for their reddish colors. Hematite is also the principal iron mineral in banded iron formation. This specimen of "kidney ore" hematite displays the reniform botryoidal mineral habit.

### *Magnetite*

Magnetite is a common iron oxide mineral,  $\text{Fe}_3\text{O}_4$ , named for an ancient region of Greece where metal production was prominent. Magnetite is the only mineral that exhibits strong magnetism, although others like ilmenite, chromite and hematite may have weakly magnetic behavior. Magnetite has a Mohs hardness of about 6 and a black streak. Most magnetite occurs in very small grains. A chunk of well-crystallized magnetite like the round specimen is called a lodestone. Magnetite also occurs in well-formed octahedral crystals like the one shown in Andrew's picture in the attached file. Magnetite is a widespread accessory mineral in iron-rich (mafic) igneous rocks, especially peridotite and pyroxenite. It also occurs in high-temperature vein deposits and some metamorphic rocks.

Limonite is a mixture of hydrated iron oxides found where iron-bearing minerals have weathered, such as soils, bogs and gossans (oxidized sulfide bodies). Ordinary rust is limonite.

### *Psilomelane*

Psilomelane (sigh-LOW-melane) is a catchall name for hard, black manganese oxides that form crusts like this in various geologic settings. Psilomelane has no precise chemical formula, being a mix of different compounds, but it's approximately  $\text{MnO}_2$ , the same as pyrolusite. It has a Mohs hardness of up to 6, a blackish streak, and commonly a botryoidal habit as shown along the bottom of the attached photo.

*Continued on page 11*

*Presidents Message...continued from page 1*

We would like to welcome Jon Glass as our new Rock Raiders Liaison & Leader. For those members who don't know, the Rock Raiders meet at the same time as the GMSL business meeting, with their own fun programs, and join us later for refreshments and the program for the evening. Natalie Darling has supplied material to add to the fun and learning activities put together by Jon Glass. Jon is young and energetic and I think the right person for leading our young Rock Raiders through a great New Year. So young people come on out and join in the fun. You can even write an article for our monthly newsletter about what you have learned or what you like most about the Rock Raiders.

There is a new project we will need to discuss at the Society meeting so I hope to see you at the February 15<sup>th</sup> Club meeting. Until Then.

Keep Looking Down,  
John Haskins

**Oxide Minerals...continued from page 10**

It also adopts a dendritic habit, making up the fossil-like forms called dendrites. This specimen is from the Marin Headlands north of San Francisco, where deep-sea chert is widely exposed.

Some of us have recently been studying minerals such as, rockbridgeite, quartzite, and goethite, but I wanted to focus on the above minerals. The next set of attached pictures show specimens in my collection. To best identify these minerals I used the mineral's streak, color, crystal form, and magnetism or lack of it. My first attached picture, P1070563, I believe, is hematite (reddish-orange and botryoidal) with psilomelane (black & botryoidal).

P1070565, I feel is limonite (yellow and botryoidal) with psilomelane (black and botryoidal) and hematite (reddish).

P1070571 pictures magnatite. It is highly magnetic and has a black streak.

The last picture, P1070572, is a neat crystal form (steel-grey botryoidal) of hematite. The streak is reddish;brown. Sure hope that this discussion will be helpful for you in identifying your specimens.

Till next time,  
Jack Curtin



**Hematite**



**Magnatite**



**P1070563**



**P1070572**



**P1070571**



**P1070565**

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

Natalie Darling, Editor

211 Chesterfield Rd.

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

**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: