

GEM & MINERAL JOURNAL

Official Monthly
Publication of the Gem &
Mineral Society of
Lynchburg, VA, Inc

www.lynchburgrockclub.org

FEBRUARY 2015

VOLUME 24~ ISSUE 2

Presidents Message

Hello To All,

I don't know about you, but I am looking forward to a warmer Spring day so I can dig in some not so frozen dirt and crack open some rocks to find something nice inside. I hope a field trip outside is not too far away- I guess we need to be patient. The only collecting experience and a good look at a nice specimen this winter has been in the Rock & gem magazine and a few finds on Prospector on the weather channel. I'm not so sure some of those finds weren't for the camera only. At least it keeps my hopes up.

I would like to welcome back our Club Officers for another year, they must be doing a great job or wouldn't be reelected each year. If any of the members would like to see something new in meetings or at Club workshops

please let it be known to one of your officers. We are always open to new ideas.

Speaking of ideas, anyone that has an idea or a lead to a speaker or program for our monthly meetings I'm sure Jack Curtin would welcome the help. It is not an easy task coming up with new material each and every month. We are thinking that a few programs this year will be dedicated to identifying minerals and also how to use Faceting and or Cabbing machines and rock saws. These are the most basic lapidary tools and everyone should have at least a basic knowledge of each. Who knows, it may be just what you were wanting to learn and didn't realize it.

Please remember to bring in your favorite beverage and or snack to the February 18th meeting. I hope to see you all there. Until then,

Keep Looking Down,
John Haskins

From the First V.P.

Valentine's Day seems to bring out the best intentions of lovers one to the other. We strive to find that perfect vehicle to express our enduring love and affection. Often gift ideas include chocolates, roses, and jewelry. Here's a little insight into the vivacious world of red gemstones published by the Gemological Institute of America (www.gia.edu).

Perhaps it will help you make that special purchase.

Valentine's Day Ideas: Red Gems

Think red for Valentine's Day – as in red gemstones. The world of red gems is fascinating. They're hot, sexy, confident, passionate... and never boring. Each red gem has its own personality – which radiates from every facet.

If you are shopping for a red gemstone for Valentine's Day, there are several intriguing choices available and one is bound to be right for you. Colored stone experts at GIA (Gemological Institute of America), the world's foremost authority in gemology, provide the following insightful glimpses into four of the most popular red gemstone choices:

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January Meeting Minutes

Meeting: January 21, 2015 @ 7:00PM

Attendance: 47 members

Host: Jack Curtin was not able to be present due to a medical emergency, so Sharon Curtin stepped up and brought in the refreshments for us to enjoy, and Jean Midkiff hosted the table. THANKS Jean and Sharon!

On Time Drawing: Marvin Hershberger, Pamela Routon, Paul Peter Coviello, Dave Callahan, Jennifer Golston, Lydia Kalyna, Jim Mizio, Sally Hershberger, Natalie Darling, Bernard Rivera, Don McIntyre, Jean Midkiff, Greg Lester, Linwood Hoffman, Noel Weller, Eric Routon, Warren Darling, Susan McIntyre, Katie Hoffman, Nona Haskins, Sharon Lester, Judy Elder, Gabby Routon, Thom Noble, Wayne McIntyre, Johnny Knight and James Elder.

Dave Callahan won the 50/50 drawing.

President: John Haskins- Old business- Open workshops on the 2nd Saturday of each month at Dave Callahan's. Please let us know if you are interested in learning something so we may recruit an instructor.

New Business: Installed New Officers

Natalie Darling has entered our Newsletter into competition and will be judged in March. Volunteers needed for judging, to read articles

and complete score card. She will be attending the Convention in North Carolina in March. More to follow.

First V.P.: Not present.

Second V.P.: Dave Callahan- Field Trips: 1/24: JMU; February- looking at the possibility of a trip to the Martinsville Museum; The workshop focus for February will be learning to cab. There will be instructors on hand to help where needed.

IF YOU ORDERED A T-SHIRT, PLEASE GET WITH DAVE CALLAHAN ASAP TO PICK UP AND PAY FOR YOUR ORDER. Shirts not picked up will be offered for sale in the near future.

Treasurers Report: Franklin Midkiff-gave the current balance as \$7,578.78

Program: For the program Dave Woolley discussed Geology for Engineers and others.

Warren Darling provided specimens for the silent auction.

Minutes submitted by
Linda Noble, Secretary



2015 ELECTED OFFICERS

PRESIDENT - John Haskins
(434) 525-8430
JMHaskins1@netzero.net

First Vice President
Jack Curtin
(434) 384 -6249
jacwcurtin@gmail.com

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

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

Editor - Natalie Darling
(434) 941-1899
gmsleditor@gmail.com

Treasurer - Frank Midkiff
(434) 660-1565
midkiffsm1@gmail.com

Members At Large-
Bernardino Rivera &
Dave Woolley

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- OPEN
Membership- Thom Noble

PROGRAMS

Thank you to Dave Woolley for stepping up to the Program Podium and delivering an educational excerpt from his works "Geology for Engineers" (and others).

The February Program is still in the works at this time, Please join us on Wednesday, February 18th at 7:00PM.

Bench Tips by Brad Smith

"Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on Amazon"

www.amazon.com/dp/0988285800/

TAPERED REAMERS

A tool you don't see often these days is a tapered reamer. It's not a tool you'll use everyday, but they're particularly useful for making an irregular hole round or for enlarging a hole to an exact diameter. For example, the small set in the yellow pouch is for holes in the range of 0.3mm to 2.5mm. They are great for sizing a tube to fit a hinge pin. Other times when I'm drilling a hole for riveting and can't find the exact size drill, I simply drill the holes with a slightly smaller bit and enlarge them with a reamer until the wire just fits.

For larger hole sizes in sheet metal up to 14 ga, I really like the reamer with the black handle. It makes quick work of sizing holes from about 3mm to 12mm. You can find them in well-equipped hardware stores.

You may never use the large diameter reamers, but when sawing out some rings from 4mm thick sheet, I found they worked well for rounding and sizing the hole.



TESTING FOR SILVER

With the price of silver as high as it is, jewelry people need to keep their scrap metals sorted. Part of that process is identifying some of those unknown "silvery" pieces in the bottom of the toolbox.

Silver testing solutions can be used to distinguish high silver content alloys like Fine (.999), Sterling (.925) and Coin (.900) from alloys that have the same appearance but no silver content, like German Silver or Nickel.

I purchased a half-ounce bottle of JSP Silver Testing Solution #GT41 for \$3. With a fresh solution you have an instant reaction after applying it to the metal being tested. Procedure is simple - as you apply a small drop, look for a color change. Note that the acid will leave a slight mark, so choose a spot that is out of the way or will be easy to polish.

If you suspect the object is silver plated, you should file a little notch somewhere inconspicuous to expose what metal is below the surface. Otherwise, all you test will be the surface plating.

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FIELD TRIP REPORT...



January Field Trip Report

**James Madison University and Mineral Museum
Harrisonburg, Virginia
January 24, 2015**

The weather would be marginal at best on this Saturday in January. I had been keeping a close watch on the hourly forecasts for the Afton Mountain and the Harrisonburg areas as these were critical locations. There was no practical way to cancel the trip so everyone had been advised to use their own best judgment in attending.

I was planning to head north from Lynchburg on US 29 and take the Rt. 6 /151/250 shortcut over Afton Mountain to I-64. If this was passible, I felt the other route north on I-81 would also be passible. The hourly forecast for these areas continued to be temperatures in the low 30's and rain so I felt that it would be safe to travel those routes.

When I left my home at 6AM, the temperature was 34 degrees and a light rain. There was no sign of ice on the ground or in the trees. Those conditions continued to hold until I started up Afton Mountain on Rt. 250. I began to notice ice on the trees but the road was clear as the temperature dropped to 31 on top of the mountain.

The ice on the trees along I-64 was a stunning sight in the early morning light. There were State trucks with plows and salt waiting about every mile in the cross overs but the road was clear and the rain was light. By the time I had reached the bottom of the mountain, the temperature was back to 35 degrees and the road was clear all the way into Harrisonburg.

I arrived at the old High School just after 8AM. I noticed several white strobe lights flashing on the exterior of the

building and then two humongous fire trucks pulled up in front of the school. Uh oh I thought, this doesn't look good. Then I noticed the firemen walked to the door and entered leisurely and not dragging hoses and other equipment. Ok I thought, maybe this is a drill.

I gathered my stuff and walked around the building to see if the door was open. Lance was in his car and got out as I approached. He said that he had been there since 6AM getting ready for our visit and the fire alarm went off just before 8am.

*Continued on page 12
Photographs submitted
by Linda Noble*



Morning view on the way to JMU



Enjoying the Lab

**Contact Information
for Field Trips**

David Callahan,

Field Trip Chairman

Home phone: 540-297-1853

Cell Phone- 540-874-5201

E-mail dbcalls1@aol.com

Up Coming Field Trips



An Official Field Trip of The Gem & Mineral Society of Lynchburg, VA. Inc. (GMSL)
The Roanoke Valley Mineral & Gem Society, Inc. (RVMGS)

Virginia Museum of Natural History---Martinsville, VA. (ADMISSION FEE) Museum Hours 9AM until 5PM
Fairy Stone State Park collecting area---Patrick County, VA. (FREE) Whenever you want to leave the Museum

Saturday, February 28th, 2015

(weather permitting...you decide)

Arrival time at the museum, any time after 9AM

There is no limit or age requirement but sign-up is requested. Call, e-mail or sign-up at the meeting.

Trip Overview: This is a drive on your own trip or you can arrange your own car pool. We will NOT try to drive as a group so plan your own route and we will meet at the museum.

We will first visit the Virginia Museum of Natural History in Martinsville to view their many interesting mineral, fossil and other exhibits. They open at 9 AM so we should all plan to arrive between 9 and 10AM at the museum. Go to their web site for additional information and a map. www.vmnh.net

Fee schedule: \$5 per adult. \$4 for College students, seniors and active military. \$3 for youth 3 to 18

You can stay there as long as you want but if you want to collect some fairy stones, we will plan to depart from the museum around 12 noon. We will assemble in the parking lot. It might be handy to bring your own lunch or try to find a local restaurant.

It will be impractical for us to drive as a group so I will have a map available on a suggested route from the museum to the fairy stone collecting site which is NOT in the park.

For additional information or to sign up for field trips, please contact Dave Callahan, Field Trip Chairman

Home phone: 540-297-1853

Cell Phone- 540-874-5201

E-mail dbcalls1@aol.com

Location & suggested driving directions to the Museum: See their website for other driving directions. www.vmnh.net.

The museum is located on Rt. 58 business at 21 Starling Ave in Martinsville between the YMCA and First Baptist Church. Free parking is available at the museum. Use this address to set your GPS.

From Roanoke: Take US Route 220 South into Henry County and take 220 business into Martinsville. Turn left onto Church Street, and then follows Church Street to Starling Ave. Turn right onto Starling Ave and the museum is on the left between the YMCA and First Baptist Church. (Estimated driving time from Roanoke is about 50 miles so allow at least 1 hour)

From Lynchburg: Take US Route 29 South to Chatham. Take Va. Route 57 West to Martinsville where it will join US Route 58 Bus West. Follow US Route 58 Business signs through the city. Turn left at Starling Ave. The Museum is on the left between the YMCA and First Baptist Church. (Estimated driving time from the airport in Lynchburg is about 76 miles so allow at least 1 hour and 45 minutes from there.)

Collecting Staurolite Crystals, also called Fairy Stones: There is NO collecting in the Fairy Stone State Park. We will be in the authorized collecting area outside the park.

Location & suggested driving directions to the collecting area: The driving time from the museum to the collecting area is about 18 miles and you should allow about 35 minutes.

The collecting area is on VA. Rt. 57 West of Martinsville and Bassett just over the Henry County line in Patrick County behind the old Haynes 57 store which now has a new name. I believe that the store is now closed but it is maybe ¼ mile or less past the county line on the right. Look for the small county line sign about 5 miles west of Bassett. There is a parking area and fairy stone collecting rules sign to the left of the store. Read the sign and follow the regulations. Failure to do so can cause this free collecting site to be closed. They allow no digging, so only surface collecting is allowed.

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**DMC Program of the SFMS Field Trip Committee
An Official Field Trip of the Western South Carolina G&MS
(Greenville, SC) HOST**

**Saturday, February 28, 2015
9:00 am until dark
Amos Cunningham Farm, Due West, SC
Abbeville County
FEE SITE**

Children: 12 and under \$10 and must have adult supervision.

Pets: If controlled on a leash.

Fee: \$20 for an adult (over 12)

TRIP: Amos Cunningham Farm, 471 Alewine Rd., Due West, SC 29639

When: February 28, 2015 from 9:00 AM until dark.

COLLECTING: Good sized beryl crystals, amethyst and smokey quartz. This site has the best South Carolina beryl specimens of any site that I know how to get access to. The crystals are well shaped hexagons with flat ends. The color is green though most have a blue cast. The beryl ranges from translucent to opaque. Most crystals are specimen quality though some gem quality is present.

Digging Conditions: The site is flat to rolling land of South Carolina red clay. The digging areas have been machine trenched down to white kaolite veins that have the beryl and quartz crystals. Dirt and rock removed from the trenches and piled up, also contain beryl and are good places to search especially after a rain. Beryl is often found by breaking open quartz rocks.

BRING: Bring picks, shovels, rock hammers, scratching tools, and screens. Large hammers will not be very useful. Also bring plenty of drinks and a picnic lunch unless you want to drive a few miles for lunch.

DIRECTIONS AND WHERE TO MEET:

We will meet at the Amos Cunningham farm between Antreville and Due West, SC. From Anderson, SC drive 18 miles down route 28 East (really south) to Antreville. Turn left on Route 184 East heading toward the town of Due West. Travel for 4 miles and turn left on George Alewine Road. Drive for less than 1 mile. You will pass a trash/recycling site on the right, cross a bridge over a small creek and turn into the first lane on the right. If you pass the Cunningham Backhoe Service on the left you have gone too far.

Lodging can be found around Anderson, SC. There is no lodging in Antreville or Due West.

The next day: In the past people have asked me about going to the nearby Diamond Hill Mine the next day while they are in the area. Diamond Hill will be open on Sunday, March 1. The mine is well known for quartz crystals, smokey quartz, amethyst, skeletal quartz, and cacoxenite. Cost is \$20 per person, but if 10 or more arrive as a group the cost will be \$10 per person.

Contact info for Amos Cunningham: cunninghamamos@yahoo.com or [864-379-8918](tel:864-379-8918) or [864-992-7843](tel:864-992-7843)

Contact numbers: [864-404-0025](tel:864-404-0025) Bill Wetzel Field Trip Chairman, Western South Carolina G&MS
e-mail address: wwetz14@gmail.com

Sterling Hill Super Dig

**Saturday April 25, 2015 ~ 9AM until 11PM ~
Sterling Hill, Ogdensburg, NJ
This is a Rani or Shine Event!**

The SUPER DIG is a once a year event at the mine!

What can club members experience?

Mine Tours or Trotter Tunnel tour given by Iron Miners members.

Upper Mine and Mill tour where you will receive a "last day of operation" ore specimen right off the conveyor belt (certificate included).

The ever popular "Blackout Tour of the Mine "Tunnel of Love" (safety glasses required).

See the nighttime illumination of the famous "Fluorescent Wall" in the Fill Quarry.

And, collect minerals in all 3 collection areas on the property.



Important Information:

Super Dig is a closed event for club members only. Proof of insurance is necessary- see below

Event fee- \$20 per person

Collecting fee- \$1.50 per pound

Membership fee for Insurance- \$20.00 per person if you need it.



Please read and understand the insurance information page before registering for this event. You may have proper coverage if you are already a member of Sterling Mining Museum, DVESS or FOMS.

All registration is through UVWorld.org

To view photographs and additional information, such as Schedule of Events, Insurance, registration, & Lodging, please visit www.UVWorld.org.

UPCOMING EVENTS

Feb. 28-Lakeland Fl Annual Show. Bone Valley Gem, Mineral & Fossil Society. FPC of lakeland; 175 Lake Hollingsworth Dr. Sat 9-430. Contact: Kim Price, 863-412-9156; email IBVGFS@gmail.com; web www.bonevalley.net

March 7-8- 52nd annual Earth Science Gem & Mineral Show sponsored by the Delaware Mineralogical Society. Delaware Technical & Community College, 400 Stanton-Christina Rd; Newark, DE

March 21-22- Annual Gem, Lapidary & Mineral Show sponsored by the Gem, Lapidary & Mineral Society of Montgomery Co., MD. Montgomery Co. Fairgrounds, 16 Chestnut St; Gaithersburg, MD

March 28-29- 65th annual EFMLS Convention hosted by the Catawba Valley Gem & Mineral Club. Hickory Metroplex, Hickory, NC EFMLS Annual Meeting on Friday, March 27.

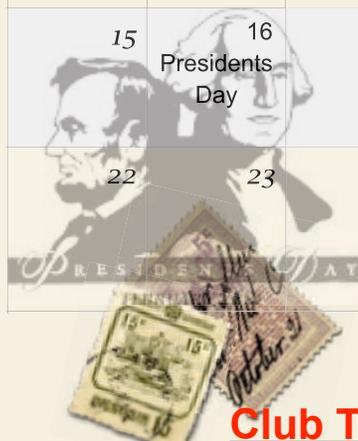
March 28-29- 46th Annual Che-Hanna Rock & Mineral Show hosted by the Che- Hanna Rock & Mineral Club; Athens Twp. Volunteer Fire Hall, 211 Herrick Ave, Sayre, PA

March 28- 5th Annual SEMMC Auction sponsored by the Southeastern Massachusetts Mineral Club. Mitchell Memorial Club, 29 Elm St; Middleboro, MA

FEBRUARY 2015



SUN	MON	TUES	WED	THURS	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14 Callahans Workshop; Valentines Day
15	16 Presidents Day	17	18 Meeting 7-9	19	20	21
22	23	24	25	26	27	28



Club Tee Shirt Final Notice:

The following members need to pick up the shirts you ordered at the September and October 2014 meeting. If you do not arrange with me to pick them up at the February 2015 meeting, I will offer them to other members at the March meeting. They have been available for you to pick up since the November 2014 meeting.

GMSL members...

- Leasa T.---** 1- Medium, short sleeved, gold @\$8.00,
 1- Large, short sleeved, heather indigo @\$8.00
 1- Child's medium, long sleeved, red @\$11.00
 1- Medium, long sleeved, Irish green @\$11.00

- Peter R.--** 1- XX large, long sleeved, ash gray @ \$13.00

- Tony S.--** 1- X Large, short sleeved, orange @ \$8.00

- Cindy S.-** 1- X Large, lady's short sleeved, orange @ \$8.00
 1- Large, lady's short sleeved, purple @ \$8.00

- Gale McK.--**1- Large, lady's short sleeved, royal @ \$8.00

Call me [540-297-1853](tel:540-297-1853) or email dbcall1@aol.com Thank you...David Callahan



365 Days of Minerals

by Emma Fajcz

reprinted from *Mini Miners Monthly*,
Vol. 9, No. 1 January 2015

As a new year begins, people often start looking for the perfect calendar that reflects their hobbies and tastes. It's easy to walk into a store and find calendars on landscapes, flowers, birds, and cars- but not about minerals!

Feel free to print off the mineral calendar (found on pages 3-5 of @ <http://www.diamonddanpublications.net/>) and be creative with it! Cut out each month and glue the top of the pages together to make a tear-off calendar to put on your desk, or fasten it together with a magnetic clip and stick it to your fridge. Punch a hole in the top of each page and display it on a wall or cork board in your house. Staple the top together and put it in the family vehicle's glove compartment, or the left side to make a book that can fit in your book bag or purse. The possibilities are many.

You're probably curious what minerals I've featured in the calendar. All these minerals- and one element- are from my personal collection. Also, the red numbers signify national holidays.

January- Copper (This is the element! Look for copper's abbreviation "Cu" on the Periodic Table of Elements.)

February: Agate

March: Bumble Bee Jasper

April: Spectralite

May: Mica

June: Apatite

July: Quartz

August: Cactus Quartz

September: Blue Lace Agate

October: Tiger Eye

November: Red Calcite

December: Boulder Chrysoprase

Rock Raiders

Kid's Rocks & Minerals

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

Mohs' hardness scale and the three main rock types

MOHS	ORTHOCLASE	IGNEOUS
TALC	QUARTZ	METAMORPHIC
GYPSUM	TOPAZ	SEDIMENTARY
CALCITE	CORUNDUM	
FLUORITE	DIAMOND	
APATITE		

Copyright 1997 John R. Potter John's Word Search Puzzles
<http://www.thepotters.com/puzzles.html>

Brrr, It's Cold

*Re-printed from January 2015 issue of Lodestar
Extracted from Introspection Institute newsletter.*

For many, the fury of winter is upon us. Thermographs working outdoors in col climates can face serious safety challenges due to frostbite and hypothermia. Knowing the symptoms of these conditions and proper treatment is imperative for worker safety.

Frostbite is a severe reaction to cold exposure that can permanently damage its victims. A loss of feeling and a white or pale appearance in fingers, toes, or nose and ear lobes are symptoms of frostbite.

Hypothermia is a condition brought on when the body temperature drops to less than 90 degrees Fahrenheit. Symptoms of hypothermia include uncontrollable shivering, slow speech, memory lapses, frequent stumbling, drowsiness, and exhaustion.

If frostbite or hypothermia is suspected, begin warming the person slowly and seek immediate medical assistance. Warm the person's trunk first. Use your own body heat to help. Arms and legs should be warmed last because stimulation of the limbs can drive cold blood toward the heart and lead to heart failure. If the person is wet, put them in dry clothing and wrap their entire body in a blanket.

Never give a frostbite or hypothermia victim beverages containing caffeine or alcohol. Caffeine, a stimulant, can cause the heart to beat faster and hasten the effects the cold has on the body. Alcohol, a depressant, can slow the heart and also hasten the ill effects of cold body temperatures.

When working outdoors this winter, be sure to dress appropriately and work safely!



Mineral of the Meeting: Diaspore

by Bob Farrar, reprinted from January 2015 Rostrum

The Name of this mineral comes from the Greek diaspora, which meant scattering. In common usage, diaspora refers to the dispersal of people outside their homeland. It was applied to the mineral because of the way it crackles when heated.

Diaspore consists of hydrous aluminum oxide, $\alpha\text{-AlO(OH)}$. It crystallizes in the orthorhombic system. It usually occurs as tubular crystals, or as elongated plates, but may also be acicular or small disseminated grains. Twinning of crystals is common. Diaspore occurs in a variety of colors, including colorless, yellow, green, pink, violet, and red. Thicker pieces may be pleochroic, meaning that they show different colors when viewed from different angles. Other physical properties include a hardness of 6.5 to 7.0, a specific gravity of 3.4 and perfect cleavage. Crystal form pleochroism, and occurrence help distinguish diaspore.

Diaspore occurs widely in altered and metamorphosed aluminum-bearing minerals such as corundum or bauxite. Good crystals, though, are uncommon. Among the finest are found in a bauxite deposit at Mulga, Turkey. There, transparent yellow to green crystals up to 12 cm are found. Better pieces of this material are faceted into interesting gemstones that show a color change somewhat like alexandrite. Under daylight, these stones are yellow to green, while under incandescent light they are pink to red. Turkish diaspore is sometimes marketed under the trade names "Zultanite" or "Csarite."

Non-gem quality diaspore crystals are found in a number of localities, often having been formed by alteration of corundum. Tabular crystals occur in fissures in an emery (corundum) deposit in Chester, Massachusetts. It is found in altered aluminum-bearing rocks in Litchfield, Maine. In Chester Co., Pennsylvania it is found with margarite, which can also be formed by alteration of corundum. Diaspore is found with ruby in Macedonia, Greece. Pink to violet manganese-rich diaspore occurs in large quantities in South Africa.

Continued on page 15

Picasso Stone

Reprinted from Jan. 2015 issue of The Tumbler

Picasso Stone (sometimes called Picasso Jasper or Piccolo Marble) is a type of limestone that has metamorphosed to a highly silicated stone which can be the hardness of a jasper, ranging from 5.5 to 6.5 on the Mohs scale. This precious stone has an unusual name, but its occurrence is unusual as well. In the southeast corner of Utah near the town of Beaver, a singular location.

David Penny found this boldly patterned gemstone and saw in its angular streaks, patches and markings the brush strokes of the artist Pablo Picasso. It is unusual to pick a name for an artist's technique rather than what the stone is or who found it.

Picasso Stone began as did many marble varieties. Millions of years ago, when the Gulf of Mexico was an enormous inland sea, extending across Utah not Montana and east through Kansas, millions of tiny creatures living in this sea shed their shells. Eventually these shells become compressed by the pressures of sediment and the calcium in their shells cemented into solid layer of beautiful and unique marble criss-crossed with a matrix of geometric black and tan lines. This unique geological story only occurred in one place on Earth.



Picasso Stone

Giant Clams of the Triassic

Reprinted from Jan 2015 issue to the Tumbler

The discovery of a new family and species of giant clams revealed information about Triassic clams and the Triassic Pacific. George Stanley, a University of Montana (UM) geology professor, and Thomas Yancey, a researcher from Texas A&M University, described the giant clams, which range up to 3 feet in diameter.

In mid 1980's Stanley and a student discovered the saucer shaped fossils, silhouetted in white in an wall of black limestone, in a quarry on the Wallowa Mountains in Oregon. Unable at the time to separate the fossils from the limestone, they transported the limestone more than 400-pounds of rock to UM. The similar densities of the fossils and their matrix rendered X-rays ineffective. The fossil's identities remained a mystery until recently, when Yancey, having the tools and the time, began removing the surrounding rock, and could see the internal morphologies of the giant clams. The researchers assigned the fossils the family name Wallowacochidae after the surrounding mountains.

The fossils had unusual wing-like extensions surrounding their central body cavities. According the the scientists, the clams used chambers inside their shell extensions to nurture and house algae. Partially translucent shells of natural fiber optics allowed light to pass through the clams' shells to the symbolic algae.

The extinct clams lived in the Triassic period about 200 million years ago. The researchers believe that the clam's habitat was a shallow lagoon, behind coral reefs, that surrounded isolated volcanic islands like Tahiti or Fiji located in the Eastern Pacific. Identical fossils were found in the Yukon and in Sonora, Mexico.

The different locations of the fossils may help geologists reconstruct the paleogeography of the Pacific during the Triassic. "I believe the clams were living in isolation around an island like the Galapagos and eventually plate tectonics brought them crashing into North America. Later fault systems moved them north and south." Stanley says.

FIELD TRIP REPORT...

Continued from page 4

James Madison University and Mineral Museum

He immediately secured the museum, equipment and office then left the building. He said that there were several false fire alarms earlier in the week and he felt that this was one also. The strobes went out and it was safe to enter the building about 8:20.

All the equipment was restarted and the other folks started arriving about 8:30. By 9:15 most of the people had arrived. Of the 45 that had signed up, only 25 actually showed up. Of those that didn't show, only two bothered to let me know they would not attend. This is not a good practice and some clubs will not let field trip "no shows" attend future field trips. This may seem to be harsh but when there is a limited attendance, others on the reserve list are deprived from attending. No Shows also bring into question, did so and so have an accident? Did they get lost? Do we send out a search team of notify the State Police?

So please, if you sign up for a field trip and find that you cannot attend, just email me or leave a message on my phone.

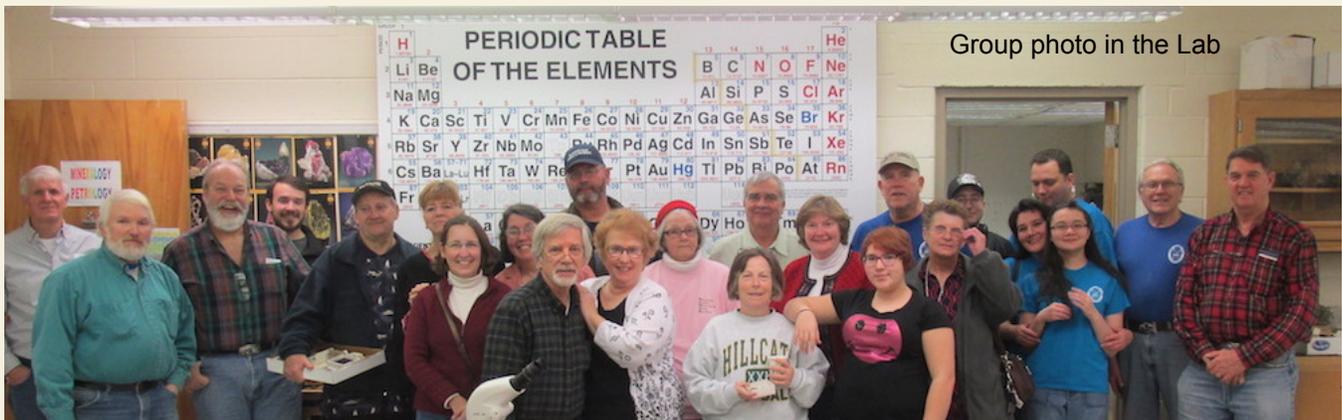
For those that were there, all had a very good time. Lance identified a lot of rocks and minerals for us and the museum was open for us all to enjoy. He showed us some of his new acquisitions and they were stunning indeed. The fluorescent mineral display is one of the best anywhere. The museum in my opinion is on a par

with anything around including the Smithsonian for quality of specimens.

Lance said that he will be retiring in two years so the future of our annual visits may be short lived. Only time will tell what will be the future of our and other area Gem and Mineral Club visits. I know that the Lynchburg Club has been making this annual trip to JMU since the early 1990's and we were the first to start this trend.

We will schedule a return trip hopefully in January or

February 2016. Hope to see many of you again along with many new members.



Group photo in the Lab

Up Coming Field Trips



Continued from page 5

You will be able to find many poorly formed crystals but persistent searching, off the beaten paths, under trees, bushes and leaves should reward you with nicely formed single and 60 degree highly collectable twin crystals. The 90 degree much sought after natural twins or crosses are extremely rare in this location. Most of these you see on the market are "manufactured". I saw the powdering and molding process some years ago. You may stay here as long as you want or leave at any time. Be sure to not leave any trash. There should be trash barrels in the parking area.

Collecting equipment: You should have a small bucket, bag or baggies to keep your finds.

Gloves will be handy and knee pads are handy as the best way to search is on your knees.

A small stick is handy for brushing away the leaves. No digging tools are allowed so don't bring any! Park rangers do patrol here.

Bring snacks and water.

Wear appropriate clothing for the weather and collecting. Hard hats are not required.

There are NO facilities here so be prepared.

Children and pets are allowed but they must be supervised and always under your control.

Remember- Contact Dave Callahan for additional information or to Sign Up for the trip.

DMC FIELD TRIP

10:00 AM to 12:00 Noon,
Saturday, March 07, 2015

Vulcan Materials Company, Bartow Quarry
Cartersville, GA
Free Area

Where: Vulcan Bartow Quarry, 5840 Highway 20 SE, Cartersville, 30121

The Quarry began operations in 1995 at this location. They have 797 acres and their pit is approximately 1,200 feet wide and 250 feet deep at this time.

Directions: Interstate 75 North to exit 290. Highway 20. At the exit you make a right and go 1 and 1/2 miles to the quarry on the right. This is past the McDonalds. Turn right into the quarry and continue to a small building were we will meet before going to the pit. If you are coming from the North, you would still exit at 290 but turn left, go east and continue to the quarry. When we arrive we will meet a Vulcan employee who will be our guide for this trip.

Collecting: The rock found here is a porphoblastic granite gneiss and is part of the Corbin Gneiss Complex. These rocks are some of the oldest in Georgia dating back some 1.2 billion years, making it much older than the granites found at their other locations. This quarry is known for the blue quartz found within the granite. While most of the blue quartz is small, you can normally find some large enough to polish into a very nice cabochon. Some may be found with pyrite inclusions as well as other minerals within the granite.

WHAT TO BRING: Clothes that would be appropriate for this time of year in Georgia. That could be almost anything and I would suggest layers that could be removed and something in the event of a shower. A hard hat, safety glasses, and steel toe shoes/boots, or at least a good pair of shoes. We should be finished early enough to go to the McDonalds for lunch but something to drink is always good to bring along.

They are blasting rock every week and, as a working quarry, there are spoil piles all around. No one will be allowed near any of the high walls but with the abundance of material we normally just have to bend over and pick things up. All you really need is a bucket to take your samples home. If you want to chip off a piece of a larger boulder be sure you have all your safety equipment including safety glasses, gloves, hard hat and a chisel and crack hammer.

Field Trip Contact: Jay Batcha.

rocky1s@cox.net

Phone: [478-784-1965](tel:478-784-1965)

Cell: [478-957-5002](tel:478-957-5002)

Bench Tips by Brad Smith

Continued from page 3

Here's the reaction I get when testing various materials:

Fine silver	Red/Orange
Sterling silver	Brick Red
80% silver 20% copper	Dark red changing to gray
Brass	Yellow changing to blue
Nickel	Gray-green
Copper	Yellow changing to blue
Steel	Black
Stainless Steel	No color change

Caution - If you do any of this testing, know that you are handling a reasonably strong acid. The GT41 label says it includes nitric acid and potassium dichromate.

Wear safety glasses.
Do not get any testing solution on your skin.
Always have a solution of baking soda and water handy to neutralize acid.
Wash and clean up well when you're done.

Sunshine News



Wishing a speedy recovery to Jack Curtin and Dee Tinsley. Both were a bit under the weather and undergoing corrective procedures as of the last meeting. We hope you are fully recovered by now.

Welcome New Members

Johnnie & Patricia Knight
from Martinsville, VA

Felix Guevara
from Lynchburg, VA

Marvin & Sally Hershberger
from Lynch Station, VA

This was supposed to have been printed in last months issue, but for reasons unknown was blacked out on the paper version of our newsletter.

A very sincere Thank You from your Editor...to all of the officers, members, writers, researchers, and everyone else who submitted articles, photographs, and reports for our 2014 Newsletters. I encourage everyone to consider submitting information or original articles- thats the spice that keeps our newsletter fresh and diversified.

Thank You!



From the First V.P.

Continued from page 1

Ruby: King of Red Gemstones

Mined in exotic locales around the world – including Myanmar, Madagascar, East Africa, and Sri Lanka – the ruby is the undisputed king of red gems. Ruby offers a distinctive range of red hues that vary from light (pinkish) to dark, velvety reds, and hits a brighter red in between. And, ruby is very hard – second only to diamond in hardness (resistance to scratching).

What's the best ruby shade? It's the one that speaks to you, as the potential wearer of this appealing gem. View the spectrum of red hues, and see which one best fits you. Keep in mind that vivid rubies are considered the highest quality, but they are rare and will thus be more expensive.

Spinel: The Great Pretender

GIA's colored stone experts point out that quite a few famous "rubies" in royal jewels throughout the world are actually spinels – some even reside in the British Crown Jewels. Spinel has been mistaken for ruby for centuries.

Now that it has come into its own, spinel fans love its brilliance and hardness. They are also captivated by its rich reds, although the gem appears in a spectrum of other colors. Spinel is a durable gem that is affordable but also uncommon. It's mined in Myanmar, Sri Lanka, Tanzania, Tajikistan (part of the former Soviet Union) and Vietnam.

Garnet: The Popular Gem

Although garnets appear in many colors, red is the most admired. It's also plentiful and affordable. Garnet is very durable, so it's ideal for daily wear.

The three species of red garnet are almandine, rhodolite, and pyrope. Almandine garnet is a medium-red color. Rhodolite is found in red with purple or raspberry overtones. Pyrope, from the Greek word *pyropus* meaning "fiery-eyed," is the darkest red garnet. The

finest specimens have a glowing red color. Garnets are mined in East Africa, India and Sri Lanka .

Tourmaline: A Colorful Character

This colorful gemstone occurs in more colors and color combinations than any other gemstone variety, according to GIA. In the tourmaline family, a red gemstone is referred to as a rubellite. Widely available, rubellites also come in larger sizes, making them a favorite choice for contemporary jewelry. Important sources of rubellite are Brazil and Nigeria.

When shopping for gemstones, it's advisable to go to a jeweler who has credentials from GIA, such as a Graduate Gemologist (GG) or Accredited Jewelry Professional (AJP). GIA also offers identification reports on gemstones, including those discussed here, to verify their authenticity.

Sure wish you and yours the happiest Valentine's Day ever! May your sweetheart feel especially loved this year.

Happy Hunting,
Jack Curtin

Mineral of the Meeting...*continued from page 10*

Other localities include Russia, Slovakia, Japan, England, Switzerland, and Sweden.

Diaspore is thus a mineral that is of interest both to mineral collectors and to gemologists. Good quality gemstones are hard to come by, and tend to be quite expensive. However, there are enough mineral specimens around that with a little searching most collectors can obtain a piece without having to spend a fortune.

GEM & MINERAL SOCIETY OF LYNCHBURG, VA, INC.

WWW.LYNCHBURGROCKCLUB.ORG

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



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



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



MEETING LOCATION

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