

GEM & MINERAL JOURNAL

Volume 20 Issue 1
January 2011

Presidents Message:

Happy New Year To All,

2010 was a great year for the Club. We had several Festivals that put our check book in good shape. We are not doing all this hard work just to sit on our laurels, we need to get ideas on some new equipment that can be used for personal projects as well as something that can expedite projects for future festivals. So put on your thinking caps for ideas for workshop additions that we can all benefit from. It may be as simple as making changes to the equipment we already own.

The December meeting elections found only two changes to our Club Officers list. I would like to welcome Tony Shields and Bernardo Rivera as our new members to the Members At Large positions. I also want to thank Joann Mason and Tom Powers for their service as Members at Large for the past few years. You did a good job and I hope you will still participate in field trips,



Happy New Year

work shops, festivals etc. They have always been there when needed, thanks again.

As you know by now, MSHA regulations have made it harder for our Club to access more and more quarries and mines. We need to think about field trips to areas that are not under such strict rules and regulations. Some of us have talked about doing more activities such as Gold Panning and visiting old prospects and mines on public land. If any of you have any good ideas about places to rock hunt please let it be known at the meeting or to one of the Club Officers. We are open to suggestions. I feel the life of the Club is in field trips and we are doing all we can to make this year more interesting.

It has been announced that the monthly workshops at Dave Woolley's home will need to be moved to another location. One thought is to have all of the rock equipment moved to Dave Callahan's
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From the First VP:

Happy New Year to all!!! We have a great presentation entitled "Diamonds and Gold-prospecting in Guyana" for all of you attending our January meeting. A return lecturer, Ed Blackford of the Roanoke Valley Gem and Mineral Club, will be presenting results of his recent prospecting trip to Guyana, South America, in search of precious minerals. His presentation will focus on the mechanics of getting to the diamond producing areas, preliminary search results and local mining methodology.

Guyana is a small sovereign country on the north eastern coast of South American previously known as British Guiana, that is culturally part of the Anglophone Caribbean where English is the officially spoken language. It is only a four-hour flight from Miami, Florida to Guyana.

To better prepare for Ed's presentation, I have composed an article on diamonds, which can be found on page 7.

See you at the meeting on the 19th-

All the best~ Jack.

2011 ELECTED OFFICERS**John Haskins - PRESIDENT**

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midkiff@aol.com**Members At Large-**Bernardino Rivera &
Tony Shields**COMMITTEE****CHAIR PERSONS:****Field Trips**– David Callahan**Hospitality**-**News Articles**– Natalie Darling**Silent Auction**– Warren Darling**Swap for Rocks**–Warren Darling**Website**– Casper Voogt**Workshops**– Dave Woolley**FRA Adult Liaison-****Membership**- Ralph Torning

December Meeting Minutes

Meeting: Wednesday, Dec. 15th**Attendance:** 27 members**Hospitality:** This was our annual holiday covered dish dinner, and as always, it was a fabulous spread. Thanks to all who joined us and shared their favorite dish with us. As of this writing, there has not been a host established for the January meeting.**On Time Drawing:** Jean Midkiff, Frank Midkiff, Hunter Bunnell, Natalie Darling, and Heinz Mueller.**Old Business:** John Haskins had an Appreciation Drawing for those who worked the Gem Show. Thanks to all who came out to support your club! Ant the winners were:

Bernard Rivera, Lynn Powers, Don McIntyre, Nona Haskins, Cindy Mitchell, Cindy Shields, Steve Gordon, Dave Woolley, Jack Curtin, Dave Callahan, John Haskins, Ann Torning, Ralph Torning, Tony Shields, Hunter Bunnell, Frank Midkiff, Warren Darling, Natalie Darling, Bruce Bunnell, Tom Powers, Daryl Grant, Jean Midkiff.

Nominations: All positions have only one candidate except for the Members-At-Large and there are 3 candidates. A vote was taken for the two top candidates for this position. A motion was made by Don McIntyre and seconded by Steve Gordon. Next year's Executive Committee will be held by the following:

President – John Haskins

1st Vice-President – Jack Curtin2nd Vice- President – Dave Callahan

Secretary – Brenda Glass

Treasurer – Frank Midkiff

Newsletter – Natalie Darling

Members-At-Large – Bernard Rivera and Tony Shield

First Vice President: Jack Curtin: Ed Blackburn from Roanoke will be speaking next month on diamonds. He is part owner of a diamond/gold mine in Guyana.**Second Vice President:** Dave Callahan- Upcoming field trips: 12/18 from 10-12 – RockFab on Orange Avenue in Roanoke; 1/22/11 – JMU Geology Department trip from 8:45 – 1:00; on 2/19/11– Bus trip to Luray and Endless Caverns. Helmet Decals were available from the Willis Mountain DMC trip.

Spheres are here tonight if you are looking for a gift for someone or yourself.

Treasurers Report: The checking balance is \$6,751.00. We made around \$813 at the Gem Show.**New Business:**

Today was Dave Woolley's last day at VDOT. He brought in an Alpine rock from 501S in Halifax. This was the last specimen that he was paid to dig.

**Minutes submitted by
Brenda Glass, Secretary**

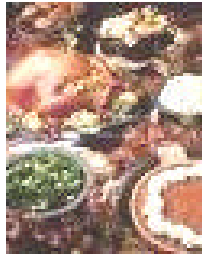
The purpose of the Gem & Mineral Society of Lynchburg, VA, INC. is to promote education in The Earth Sciences including: Mineralogy, Geology, Gemology, Paleontology, and Crystallography

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

Programs

For the December meeting, we enjoyed our annual covered dish dinner and infamous "Dirty Santa Rock Swap Game." It was nice to visit with fellow club members and share some old collecting stories, etc.

Dave Callahan also brought in a flat of our beautiful hand crafted rock spheres which were available for purchase for those wishing to add to their collection or give one as a gift.



January 19th, 2011 will be our first club meeting of the new year, and we are thrilled to have returning speaker Ed Blackford from the Roanoke Club. You may remember Ed's presentation on his experiences collecting opals in Virgin Valley Nevada. This time around, we will learn about prospecting for diamonds and gold in South America. This promises to be an informative and glittering experience. Hope you can join us!



Bench Tips by Brad Smith

BURNISHING BEZELS

A dapping ball can sometimes be used to burnish a bezel. I noticed this when setting some 8 x 10 cabs on a piece of filigree. It was difficult to get enough pressure with a regular burnisher, so I tried a dapping ball and found it much easier.

Make sure the ball is well polished (hit it with the Zam wheel) and let it ride along the base of your piece. Select a ball big enough to hit the top of the bezel at the right angle to burnish it down onto the stone.

SUPER PICKLE

We've all made the mistake of putting some steel in the pickle pot. This can cause all your pieces to be coated with copper. Easiest way I've found to clean it off is to fill half a coffee cup with the pickle and put in an ounce or two of hydrogen peroxide from the drug store. Throw your pieces in and the coating is gone in about 10 minutes. When finished, pour the solution back into your pickle pot.



More Bench Tips by Brad Smith are at:

groups.yahoo.com/group/BenchTips/

or

[facebook.com/BenchTips](https://www.facebook.com/BenchTips)



*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

December 18, 2010 Field Trip Report
ROCKFAB Kitchen & Bath
Roanoke, Virginia

This Saturday morning was very cold and some snow and ice were still hanging around from the heavy snowfall on Thursday. The roads for the most part were clear and RockFab parking lot was clear but icy in spots.

Of the 49 that signed up, 25 actually made the effort and were rewarded by a wonderful guided tour of the display area, manufacturing area and scrap yard.

Mikkia Baker, sales manager was our host and guide for our visit. He was very knowledgeable about the product and manufacturing techniques used to produce the finished counter top. To some, the installed price of a finished granite counter top may sound expensive. Consider that all the counter tops and back splashes for the average sized kitchen must be all cut from one massive slab of stone. Some on these slabs are about 7 feet tall, 9 or 10 feet long and 1 ¼ inch thick. The face is polished to a high luster and the back is reinforced with fiber mesh in epoxy for strength.

In the quarries of Europe, Africa, India, South America, the United States and other sites around the world, these huge boulders must be selected and excavated very carefully, not by blasting, but drilling a line of holes about 6 inches apart and splitting with wedges. Some are sawn with diamond cable saws and by other means to insure the boulder is undamaged. Then it is shipped to another site most likely in another country to be sawn into slabs and polished. Most of the material is granite and as we know is very hard. The marble and soapstone are softer but the process is the same.

Only after being sawn and polished, is the true beauty and value of the stone revealed. Not all the slabs in the boulder may be usable due to internal flaws, cracks or other defects. The buyers such as RockFab select only the best slabs. These are shipped from the manufacturers overseas to the Roanoke facilities. It's been a long journey from the quarry to Roanoke and much value added work has been done along the way.

This is not the end of the story. So far, we have only gotten the slab to the showroom where you can choose from a wide variety of stunning colors, patterns and materials. When viewing these hundreds of examples, it's hard to imagine how these were formed. Once the customer selects their slab, RockFab makes actual templates from your kitchen and transfers them to the slab. There are arranged to accentuate the best and most beautiful areas in the stone. Once you agree with the arrangement, the slab is sawn to size, sink cutouts made, reinforcing rods in weak areas installed, the edges and radiuses are polished all using the latest computer controlled equipment and techniques. The RockFab installation crew then delivers and installs the finished counter tops in your kitchen. You will enjoy the beauty of your new countertop for years to come especially since you know a little bit of the story of how a chunk of rock from some distant quarry in some far off land arrived on your kitchen counter top.

After our tour, we all were allowed to visit the outside scrap yard and take all the scrap cutoffs we could haul. There were many examples of stunning colors and patterns to choose from. Only your imagination could limit the use of how you will use your selection.

Many thanks go to the folks and management at RockFab for our informative facilities tour and allowing us to visit their scrap yard. If you missed the trip and would like to see the fabulous slab selection or discuss a new counter top in your kitchen, they would be happy to accommodate you. Please call Mikkia and make an appointment.

Up Coming Field Trips



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

COMBINED LYNCHBURG / ROANOKE CLUB FIELD TRIP
SATURDAY, JANUARY 22, 2011 weather permitting (9AM until NOON)
JAMES MADISON UNIVERSITY, Harrisonburg, Virginia

GEOLOGY DEPARTMENT and MINERAL MUSEUM

Sign-up required...call me, e-mail me or see me at the meeting

We may have to limit the attendance due to the size of the facilities.

We will all provide our own transportation and park in the JMU parking lot in the front of the new facility, Memorial Hall (The old High School). Plan to arrive between 8:45 to 9AM. See the directions below and walk directly to the Geology Lab. If you need transportation or any other information, please call or e-mail me for assistance. This is Dr. Kearns only available date. If the weather is bad, use your own best judgment before driving.

JMU has a fully equipped geology lab with state of the art equipment. Dr. Kearns is well known in his profession and has generously allowed us to visit his lab, museum and dedicate this Saturday morning to our clubs.

If you have any minerals that you need to identify, bring them along. We should have time to run five or six specimens thru the x-ray diffraction equipment. There will be microscopes available and other equipment for testing and viewing. Dr. Kearns also has a large fluorescent mineral collection for our viewing pleasure. Dr. Kearns may have some surplus mineral books, specimens, miniatures and micros for sale to benefit the museum, be sure to bring cash or your checkbook. This material will be first class and all the proceeds go toward future museum purchases.

NORTH BOUND ON I-81 DRIVING DIRECTIONS TO JMU HARRISONBURG, VA.

I-81 to Harrisonburg, VA. (About 2.5 hours driving time from Lynchburg and 1.5 from Roanoke).

* Exit 245 (Turn left on Port Republic Road)

* Proceed to S. Main Street (Rt. 11) and turn right at the light.

* Proceed northward on S. Main Street to the third traffic light and turn left on to Cantrell Ave.

* Proceed over the bridge to the traffic light on South High Street (RT. 42).

* Proceed northward on S. Main Street to the third traffic light and turn left on to Cantrell Ave.

* Proceed over the bridge to the traffic light on South High Street (RT. 42).

* Memorial Hall (the old Harrisonburg High School) is directly in front of you. Go straight into the parking lot on your left. Try to arrive between 8:45 and 9:00 AM.

* To enter the Geology Department, walk around the building to the left (Grace Street Side)

* When you enter the building, go down the flight of stairs on your left. Enter the double doors and you are in the Geology Department. Walk around to your right, and the mineralogy lab will be open.

* The new Mineral Museum will be open so be sure to spend some time here. As you enter the building, turn right and walk to the end of the hall. The Museum is on your right. Notice the new brass plaque on the Virginia mineral collection cabinet.

Up Coming Field Trips

Continued from page 5

Tentative February Virginia Caverns Adventure Field Trip

The Roanoke Club is trying to set up a Bus Trip on February 19, 2011 to Luray and Grand Caverns. I do not know what the exact cost will be at this time but as a group, we will get a much-reduced rate. The Luray Caverns costs will be around \$15.50 for each adult and \$7.50 for youth 12 and under. The Grand Caverns cost will be around \$13.00 for each adult and \$8.00 for youth 12 and under. As in the past, the Roanoke Club might defray some or all of the bus cost. This will be decided at the Roanoke Clubs January Board meeting. Each club member will pay the bus seat cost (if any), all caverns and meal cost.

The Roanoke Club will have the first opportunity to fill a 54-seat bus and any unsold seats, as before, will be offered to the Lynchburg Club. As this is a Roanoke sponsored and partly funded field trip, the Roanoke Club will have until perhaps the week prior to the trip to fill the seats. After that cut off date, the Lynchburg Club will have a chance to fill all available seats. This is why it is very important to get on the sign-up sheet early. Any available seats will be offered to the Lynchburg Club on a first come, first served basis. To get on the list you must contact me. This opportunity is available only to Lynchburg Club members in good standing (paid up dues). Details will be worked out and details will follow. If you have an interest in attending, don't delay to get on the standby list at once. I have no idea how many or if any seats at all will be available. On our past trips to the Smithsonian, we had enough seats for everyone that wanted to go.

If you would like to get on the standby reserve seat list, please let me know at once, by email (dbc1@aol.com) at the meeting or by phone (540-297-1853).

Tentative schedule is to depart from the Bonsack Wal-Mart about 7AM and arrive at Luray by 8:30. Tour the cave from 9:00 to 9:15, self guided tour thru the two museums there, eat lunch at the in-house fast food and depart about 12 to 1PM. We will board the bus and drive to the second cavern, probably Grand Cavern as Endless is closed for the season. After that tour we will board the bus and drive to a family restaurant in Harrisonburg. We will return to the Wal-Mart later that evening.

Sounds like a very interesting adventure and the caverns are completely different. You must get on the sign-up list as soon as possible. We will determine what the actual costs will be and how the money will be handled. Details will follow as plans are finalized.

Welcome to our Newest Club Member

John Lichtenberger of Ashland, KY

Lets Review Some General Information about Diamonds...*submitted by Jack Curtin*

Diamonds are the world's most popular gemstones. -- They're the hardest natural substance known to man. Diamond is a fascination mineral. It is also chemically resistant. These properties make it suitable for use as a cutting tool and for other uses where durability is required. Diamond also has special optical properties such as a high index of refraction and high luster. Diamond is a rare, naturally occurring mineral composed of carbon. Each carbon atom in a diamonds is surrounded by four other carbon atoms and connected to them by strong covalent bonds. This simple, uniform, tightly bonded arrangement yields one of the most durable substances known.

Where do diamonds form?

Diamonds are not native to Earth's surface. Instead they form at high temperatures and pressures that occur in Earth's mantle about 100 miles down. Diamonds are brought to Earth's surface in large pieces of mantle rock known as xenoliths. The diamonds are produced either by mining the rock which contains the xenoliths or by mining the soils and sediments that formed as the diamond-bearing rock weathered away. For most of my life, I had thought that diamond was formed from coal under great heat and pressure probably because I had seen Superman crush coal to produce diamond on TV as a kid. That is not the case, however.

Gem Diamonds vs. Industrial Diamonds

Gemstone diamonds are stones with color and clarity that make them suitable for jewelry or investment use. These stones are especially rare and make up a minor portion of worldwide diamond production. Gemstone diamonds are sold for their beauty and quality.

Industrial diamonds are mostly used in cutting, grinding, drilling, and polishing procedures. Here, hardness and heat conductivity characteristics are the qualities being purchased. Size and other measures of quality relevant to gemstones are not important.

Industrial diamonds are often crushed to produce micron-sized abrasive powders. Large amounts of diamonds that are gemstone quality but too small to cut are sold into the industrial diamond trade.

Diamonds as Gemstones

More money is spent on diamonds than on all other gemstones combined.

Part of the reason for diamonds popularity is a result of its optical properties- or how it reacts with light. Other factors include fashion; custom and marketing. Diamonds have a very high luster.

The high luster is a result of a diamond reflecting a high percentage of the light that strikes its surface. This high luster is what gives diamonds their pleasing "sparkle"

Diamond also has a high dispersion. As white light passes through a diamond this high dispersion causes that light to separate into its component colors. Dispersion is what enables a prism to separate white light into the colors of the spectrum. This property of dispersion is what gives diamonds their colorful "fire."

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Up Coming Events

January 2011



Shows and Trips

February 19th- 21st Annual Mineral, Jewelry and Fossil Show sponsored by the Southern Maryland Rock and Mineral Club. The Show Place Arena, Upper Marlboro, MD

March 5th-6th- 48th annual Earth Science Gem and Mineral Show sponsored by the Delaware Mineralogical Society. Delaware Technical & community college, Newark, DE

March 18th-20th- Annual Gem, Mineral, Fossil & Jewelry Show sponsored by the Catawba Valley Gem & Mineral Club. Hickory Metro Convention Center, Hickory, NC

March 19th-20th- 47th annual Gem, Mineral & Fossil Show sponsored by the Gem, Lapidary & Mineral Society of Montgomery Co MD.

July 9th-10th- Annual Show and AFMS/EFMS Combined Conventions sponsored by the Gem & Mineral Society of Syracuse, NY. EFMLS Annual Meeting Friday, July 8th.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19 Meeting 7 PM	20	21	22 JMU Field Trip
23	24	25	26	27	28	29
30	31					

Happy New Year Folks!

As you may have heard we are thinking of trying a new date this year for the Region 4 picnic & swap at Lake Anna State Park on the second Saturday of MAY. We have had such incredibly hot weather the past several years in mid-June and many people have suggested having it earlier. Please send me some thoughts and feedback from you and your clubs on this date.

If you or your club members have never attended you are missing out on a great time! Many folks also go panning for gold in the afternoon. Everyone is welcome to come and join in the fun!

Get Out There!

Carl Miller

EFMLS Region 4 VP



FAREWELL!

Submitted by Dave Woolley

I boarded the magic carpet at the Highway Department in Lynchburg, on May 10 of 1967, a few years after the carpet had taken flight. In the early days the Geology Section was located in downtown Richmond. The first State Highway Geologist, W. T. Parrott, had by then been replaced by George Meadors, who lived in Charlottesville. On Monday mornings, the several Geologists with their drill crews would have breakfast with George at his home and receive their work assignments to travel across the state. John Henry Phillips, District Engineer at Lynchburg, put a stop to motel bills and per diem, plus those bands of renegade-heathens running through his District. Thereafter, each District had its own drill crew and George had to commute to Richmond. George's assistant, Al Penick, who broke me into the 'state way' of doing business, had previously left a vacancy at a Kerr-McGee uranium mine in Grants, New Mexico. Coincidentally, my first job interview was for his Kerr-McGee position, 800 feet underground - breathing Radon gas. My second job application was with the Army Corps of Engineers in Clewiston, Florida, a job created to help the Engineers drain the Everglades - knee deep in alligators and water moccasins. The morning I was supposed to report to work in Florida, I had an interview with Bob Fielding, then the Materials Engineer in Lynchburg. He and Frank Green hired me. I replaced Marion Creech, who was the first District Geologist at Lynchburg. (I had a chance meeting with Marion a month before his death by cancer.

He fondly remembered his days with the drill crews; thoughts that I took to heart.)

My resumé, which listed that I had boating and Virginia white-water kayaking experience, won me the job. Those skills became important for barge work at river crossings, a foreshadowing of things to come. On that interview morning my canoe was loaded on the top of a VW van that contained all of my worldly possession. Noel, my sweetheart, rode from Florida with her feet on the dash; our house plants were on the floor. The van was soon to be replaced by the first of 13 used DS model, Citroen automobiles. Most were eventually resold at a profit: for years people have paid me to drive the best automobile in the world! [See "Citroen" linked below.] Out of necessity I also became a Citroen mechanic, experiences that lead me to an understanding of automotive engineering, excellence in design, out-of-the-box thinking, and the differences between a car and an automobile.

In his embarrassment, John Henry fired me the day after Camille; his Nelson County bridge spread-footings placed or alluvial boulders had washed away. I would not sign off on his insistence that a plate-bearing test was good enough. I never did pay much attention to what he said, so I went back to the Materials building knowing the workload to come. I guess I have always had a 'thing' for engineers who could think only in terms of numbers. [See "Geology for Engineers".]

Work, if I have to call it work, was fun. Improving the quality of geologic data and the quality of its presentation was a continuing challenge. If I could find an easier or better way to make the tools and equipment perform, I did. 30 mechanical changes to my last drill alone. Every week or few, I would drive to a new location, often an idyllic stream crossing, glade, or woods, where I was master of all I saw. More importantly, I saw what no one else could. The Geology of the Blue Ridge and especially the Piedmont is mostly out of sight. Trees, grass, and soil are nice but the underlying geology in large part has been a mystery. Discoveries made at outcrops and especially by drilling helped to secure the knowledge of Plate Tectonics. My University of South Florida professors made sure I knew how to spell 'Appalachian' because they understood that the new Theory of Plate Tectonics was full of holes to be filled with discoveries about to be made in the hills of Virginia. Drs. Richard Mitchell at UVA and Lance Kearns at JMU provided geology backups, as did the Division of Mineral Resource's Geologists, John Marr, Bill Henika, and many others. Discoveries became class projects and senior papers at UVA, and additions to the DMR publications and geologic maps. Helping with the design of the foundations of well over 400 bridges and working on geologic Special Investigations was just part of the fun. For forty-three and a half years the taxpayers of Virginia have paid my salary; I don't think I have "worked" more than four months. I do think I have the record! Those four months, by the way, are not up for discussion.

The magic carpet began to waver in the past few years. The first transition to contract drilling was nearly a disaster. The step down to 'industry standards' was a major disappointment. The current changes in the Virginia Department of Transportation's outstanding traditions have crash landed my magic carpet and it is time for me to step off. My thanks to the people at VDOT especially those Materials' drillers and the Area Headquarters' borrowed drill-helpers,

who I hope enjoyed the short carpet rides they took with me. My thanks especially to the Bridge Section personnel who provided the challenges and the Shop folks who helped build my inventions and kept the drills running. Thanks to Survey folks who helped us find the right spots to drill; in the early days the Geologists had to guess where the bridges would be built. Thanks to the District and Central Office support folks, and especially Derek Whitehouse, who kept us together and functional. Swapped jobs amongst the Districts and shared technical classes developed friendships and fond memories amongst the District Geologists and drill crews. My thanks are especially to the Materials folks at Lynchburg who have been *my family*, never wavering through the years.

Successful marriages with Noel then Tammy, (that's called 'sequential polygamy'), wonderful in-laws and expanding families, four fantastic children and one and a half grandchildren. Noel has accepted a second proposal of marriage! Her most endearing comment recently was, "What was I thinking?" Our retirement, first based in Lynchburg, will include life aboard a canal barge-boat, hopefully part of the year in Europe or at least on the Erie Canal in New York, and winters in Florida; come visit! The boat will have a forward office/cabin for friends and family to travel, explore, and visit. I will have my gem business with me and Noel is also a Naturopathic Doctor who makes house calls.

The second canal boat trial-run on the Erie Canal in upstate New York; the first was on a sixty by seven feet wide British 'narrow boat' on the Avon canal in England. An adventure around every curve: new places to discover, different cuisine to sample, and real history lessons, plus the community of boat people to share the experiences!

Please take another visit to the attached link for some earlier thoughts, geologic and non-geologic, that you may have missed. [\\y-itd-deptdata\Public\Geology_Concepts](http://y-itd-deptdata/Public/Geology_Concepts) Copy out some rainy-day reading of some rainy-day writing before the site is closed. (It rained a lot in 43 years.)

Have you known any two geologists who could agree on anything? Thanks Bill! Part of the process for me was putting out 'weirdo' ideas to challenge conventional thinking. The geology tool of "multiple-field-hypotheses" - find as many explanations as possible to explain a situation and then try to disprove them all to find the truth - has made life most interesting. Not only did I get to argue with everybody, I also got to argue with myself.

Thanks for the emails and well wishes. Wednesday is the last day. Keep it between the ditches with the shiny side up and the greasy side down, if you can, but also make unreasonable choices for extraordinary results. [See "Pausch Remembrance" linked above.] Farewell! You can reach us at: woolley.dave@gmail.com.

Dave & Noel



Sweethearts on an adventure →



Presidents Message ... Continued from page 1

and have an all day once a month workshop. Just a thought, what do you think? I would like to thank Dave Woolley for so graciously hosting a monthly workshop for as long as I can remember, that being over ten years. Dave you don't know how much you have contributed to our Club. You have taught us much in every facet of geology, mineralogy, capping, faceting, rock identification and the members are better for it. I hope you will be around for us for years to come.

This year I hope everyone will make a big effort to participate in all of the Clubs' activities. It can be fun as well as a good learning experience for all. I hope to see you all at our January 19th meeting. Remember if the Lynchburg City Schools are closed on that day due to snow etc the Parks & Recreation Dept will be closed as well.

Keep Looking Down,
John Haskins

Diamonds... Continued from page 7

Diamond Gemstone Quality

The quality of a diamond gemstone is primarily determined by four factors" color, cut, clarity and carats.

Color: Most gem quality diamonds range from colorless to yellow. The most highly regarded stones are those that are completely colorless. These are the ones sold for the highest prices. However, another category of diamond gemstone is increasing in popularity. These are the "fancy" diamonds, which occur in a variety of colors including red, pink, yellow, purple, blue ad green. The value of these stones is based upon their color intensity, rarity and popularity.

Cut: The quality of workmanship in a diamond has a large impact upon its quality. The influences not only the geometric appearance of the stone but also the stone's luster and fire. Ideal stones are perfectly polished to be highly reflective and emit a maximum amount of fire.

The faceted faces are equal in size and identical in shape. And the edges of each faceted face meet perfectly with each of its neighbors.

Clarity: The ideal diamond is free from internal flaws and inclusions (particles of foreign material within the stone). These detract from the appearance of the stone and interfere with the passage of light through the stone. When present in large numbers of sizes they can also reduce the strength of the stone.

Carat: Diamonds are sold by the carat (a unit of weight equal to 1/5th of a gram or 1/142nd of an ounce.) Small diamonds cost less per carat than larger stones of equal quality. This is because very small stones are very common and large stones are especially rare.

Diamonds Used as Abrasive

Because diamonds are very hard they are often used as an abrasive. Most industrial diamonds are used for these purposes. Small particles of diamond are embedded in a saw blade, a drill bit or a grinding wheel for the purpose of cutting, drilling or grinding. They might also be ground into a powder and made into a diamond paste that is used for polishing or for very fine grinding.

There is a very large market for industrial diamonds. Demand for them exceeds the supply obtained through mining. Synthetic diamonds are being produced to meet this industrial demand. They can be produced at a low cost per carat and perform well in industrial use.

See you at the meeting on January 19th to learn more.



The Gem & Mineral Society of Lynchburg, VA Inc.

Natalie Darling, Editor

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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



Lynchburg Gem and Mineral Society:

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, www.amfed.org and

www.amfed.org/efmls

Hobby Related Newsletters are available free of charge by emailing the editors below. Both are great sources of information and worth checking out.

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