



SEPTEMBER

PURPOSE The purpose of the Gem, Lapidary, and Mineral Society of Montgomery County MD., Inc. is “To increase knowledge and popular interest in earth sciences, geology, mineralogy, paleontology, lapidary arts, and related subjects”.

REGULAR MEETING Meetings are held on the 2nd Monday of the month from September through June. **Next Meeting: Monday September 10th** in the dining room of the Rockville Senior Center, 1150 Carnation Drive, Rockville. The short business meeting will begin at 7:45 pm but the room is available to us at 7:30 pm so come early and see what you and others have on the Show Table and chat with old friends. The program has not been confirmed as of this writing. You can be certain that a program of interest will be presented so come and be surprised. A silent auction will be held. See page 2 for information.

THE BOARD OF DIRECTORS will meet on September 17th at 7:30 pm at the home of David and Nancy Ballard. All Board members are expected to be there. Any member is welcome to attend but please let Nancy know if you plan to attend.

ROSTER CHANGES (Oooooops), to correct errors:
GRUNDEL, Erich, E Mail: erich.grundel.fda.hhs.gov. Also his new phone number is 240 205 0764
WILLIAMS, Harold & Dee, 8061 Tuckerman Lane, Potomac MD 20854-3741
Other changes: MACLEAN, David, New E Mail: dbmaclean@attglobal.net
McNeil, Steve & Holly 22 S. Duke St., Rockville MD 20850-1014, 301 605 7179

DUES are overdue if you didn't pay by September 1st. Single membership is \$15 per year, Family membership (Which is defined as up to 2 adults and children under 18 years of age) is \$20 per year. We pay \$1.25 dues for EFMLS/AFMS, and about \$3.15 for insurance for each member over 10 years of age so when renewing, list only those interested in taking part in Society activities. Send check made out to “GLMSMC” to: Membership Chair Nancy Ballard, 16812 Baederwood Lane, Derwood MD 20855-2011, 301 926 7374.

She will mail your Membership card(s) back to you if you send her a self addressed stamped envelope, otherwise you may pickup your card(s) at the September regular meeting. Please help by paying your dues on time. DON'T be late. It makes for lots of extra administrative work if you are deleted from Membership then reinstate later.

SUNSHINE We wish **George Durland** a speedy and successful recovery after his Pacemaker implant. And keep **Juan Proaño** in your thoughts as his broken foot bone heals following a fall down stairs.

Scott Braley has found that due to increased travel requirements on his job, he will not be able to serve as the Show Chairman for 2008. (He can handle dealers.) Therefore we are again seeking a person to serve as Show Chair. Will you please be a gem and volunteer?



IN THIS ISSUE	
Meeting Announcements, Roster Changes, Dues, Sunshine, Show Chair Needs, Rockhounder Deadline.....	1
Field Trips, Silent Auction.....	2
Educational Activities.....	3
EFMLS Convention, Opal Offer, Exchange Request.....	4
Birthdays, Sapphire Birthstone, Library, AFMS News.....	5
Electrical Safety.....	6
Geology of Helium, Donation..	7
History.....	8
Web Sites, Shows & Open House..	9
School's Open, Drive Safely	

DEADLINE for the October 2007 Rockhounder is September 24th.

MEETING MINUTES No meetings were held in July or August so there are no minutes this month.

FIELD TRIPS: Contact Field Trip Chair Anita James at 301 652 5527 or E Mail <johnjames04@comcast.net> if you intend to attend a trip or to inquire about any last minute trips. Reminder: If you leave a message on her answering machine be certain to leave your viable phone number and/or E Mail address so she can get back to you. Also get in touch with her if you have interest in going to Fredericksburg VA later this fall.

September 15 Vulcan Quarry, Manassas VA, 7:30-11:30 am. (At the invitation of the Northern VA Club) Age 18 and up. When you go into the quarry you must stay with the group until exit time. Hard hat, safety glasses, and steel toe boots required. Take I-66 West to exit 44 onto Prince William Parkway (VA 234) and go ~3 miles to Wellington Road where you turn left and go another 1/2 mile. Quarry is on the left on Vulcan Lane.

September 23: Meckley's Quarry, Mandata PA, will hold their annual Open House for the entire family. For a donation of \$1, you can go into the quarry from Noon to 5 PM and collect as much as you can haul out! Children permitted only if accompanied by an adult. You do not need to sign up for this one and there is usually food for sale and tailgating is typically allowed. Blue Celestite is the main attraction but golden and white Calcite, Strontianite, Sphalerite, Fluorite, Pyrite, Limonite, and fossils can also be found. This is about a 3 hour drive from Rockville. Take I-270N, US-15N, I-81E, US-22 & 322N, PA-225N. Quarry is on left just before town of Mandata PA. (About 45 miles North of Harrisburg) You can get further information about the open house from Theresa Winn, 570 758 3011, or at <<http://www.meckleys.com/index.html>> and check "Community" and "Rockhound". See <<http://www.delminsociety.net/fieldtrips/meckleys.htm>> to see a slide show.

Note from Jennifer Wingard Aug 15 2007: "PCS Phosphate is offering a fall collecting season and I put a request in for 8 slots. They have denied us that number in the past but I'm hoping they'll have a little sympathy given our rain-out in April." Thanks to Jen for making the contact.



Photo by Georgia Olmstead On Saturday, June 30, the Baltimore Mineral Society made a trip to the National Limestone Quarry, 217 Quarry Road, in faraway Mt. Pleasant Mills, PA. It was a long drive for those who attended, but the trip was made worthwhile by the abundance of material at the quarry. At 9 AM, BMS members Phil Greenberg, Ed Goldberg, Louis Sentman, Jim Scoonmaker, Jake Slagel, and John and Kate Coolidge joined Bob Buckmore of Cornwall Quarry and members of another group (GLMSMC members were invited, and included Georgia Olmstead, Michael Tihomirov, Fred Parker, and Erich Grundel, and perhaps others -Ed.) in the parking area of the quarry. After a short introduction by the host, Eric Stahl, most collectors chose to begin the day digging for wavellite along a road cut above the quarry. Fine marble-sized hemispheres of green wavellite have been recovered from the site, but the very best specimens require heavy digging. To make life a little easier, the quarry sent a loader to excavate some promising areas. Next the BMS members (And guests -Ed.) investigated mineralized areas in the quarry itself, turning up strontianite balls, calcite crystals and some fluorite. Quarter-sized strontianite puffs were found, but many of the larger balls were stained or damaged. Smaller, brilliant white and undamaged sprays were found inside huge boulders, along with thumb-sized transparent calcite crystals with complex crystal form. By afternoon, everyone was tired from digging holes and swinging sledgehammers. Boxes and buckets were full of quality specimens, and supplies of newspaper and paper towels were depleted. Club members were hot and tired and dirty and had a long drive ahead of them, but when they left they were happy and their trunks were full of rocks.

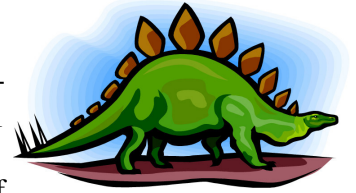
Excerpts from BMS News July 2007 by Kate Coolidge

SILENT AUCTION Helen Root has made a donation of some things from her deceased husband, ex-member, Norman. It consists mainly of Lapidary equipment: An arbor with a diamond saw, grinding wheels, and polishing wheel in well-used condition; a couple of Lortone tumblers with some supplies, diamond saw blades, dop wax heater, and small slab rough for cabs, and some findings. There are a few minerals like agate slabs and geodes etc., Estwing crack hammer, three hard hats (two unopened in original packaging), and other things like medium to large size sea shells. We will hold a silent auction at the September regular meeting to dispose of the material. Items will be on tables in the room adjacent to the meeting room and available for viewing before the meeting. You may indicate your bid on the bidding sheet accompanying each lot. At the selected deadline to be announced by the President, bids will halt and winners will be able to pay for their purchases with cash or check. Opportunity knocks!



EDUCATIONAL OPPORTUNITIES:

Sep. 4-Oct. 9. Dinosaurs, Tues. 1-2:30 pm, for ages 4-5, Audubon Naturalist Society, Woodend Sanctuary, Chevy Chase MD, Members \$69, Others \$94. Call 301 652 9188 Ext. 26.



Various Dates beginning **Sep. 8 through Feb. 23, 2008**. There are a number of programs too numerous to list here for **Basic and Intermediate Wire Working, Beading and Stringing, Earrings, Metal Clay Jewelry, and Mixed Media Jewelry** at Glen Echo Park. See Stone Carving below for Glen Echo registration.

Sep. 9. Mining Montgomery, Sunday, 2:40 pm, in conjunction with at the Montgomery County Historical Society exhibit, our member **Jeff Nagy** will show the many types of minerals that have been mined and quarried here. Free. Free parking on Wood Lane.

Sep. 15-Dec. 8. Geology, Saturdays, 9-Noon, Capital Gallery. Field Trips Sep. 30, Oct. 14, Nov. 4. Instructor Joe Marx. Information: 888-744-GRAD. Register at <www.grad.usda.gov/evening>. Tuition \$335. Course NATH1125E USDA Graduate School.

Sep. 19-Oct. 24. Stone Carving, Wednesdays, 6-9 pm, 6 sessions, Cuddle Up Pavilion, Glen Echo Park. Tuition \$280. Tool rental \$45, stone fee \$75 if needed. Minimum age 15. Instructor Nizette Brennan. Registration <www.glenechopark.org> or phone 301 634 2226

Sep. 19-22. Walking with Dinosaurs-The Live Experience based on the award-winning BBC TV Series.

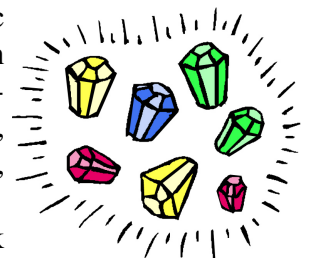


Verizon Center, 601 F Street, NW, Washington, DC 20004, Telephone: 202-628-3200. 7:00 pm each day plus 10:30 am Sep. 20 and 3 pm Sep. 22. Tickets are on sale now at Ticketmaster. Prices: \$30.50, \$45.00, \$67.50, & \$82.50. Metro Access is conveniently located directly underneath Verizon Center with metro stations at Gallery Place-Chinatown (Red, Yellow and Green lines). Ten species are represented from the entire 200 million year reign of the dinosaurs. The show includes the Tyrannosaurus Rex, the terror of the ancient terrain, as well as the Plesiosaurus and Liliensternus from the Triassic period, and the Stegosaurus and Allosaurus from the Jurassic period and Torosaurus and Utahraptor from the Cretaceous period. The largest of them, the Brachiosaurus, is 45 feet tall and 75 feet long from nose to tail. It took a team of 50, including engineers, fabricators, skin makers, artists and painters, and animatronic experts, a year to build the original production. More at <http://www.verizoncenter.com/news/dinosaurs_070719.shtml>

Sep. 23. Geology Along Difficult Run VA, Sun. 10 am-1 pm. Members \$18. Others \$25. Audubon Naturalist Society, Instructor Joe Marx (Not a USDA Program). Get registration form in The Summer and Fall 2007 booklet from the Library. Call 301 652 9188 Ext. 16.

Until Last Day, Sep. 23. Mining Montgomery Exhibit, Montgomery Historical Society at 111 W. Montgomery Ave., Tues.-Sat. 12-4. Admission \$3. Students and Seniors \$2. Information 301 762 1492.

Sep. 26. Gemology, Wednesdays, 10-Noon, 12 sessions for ages 18 & up, Potomac CC, instructor, our member, Lisa Carp. Tuition \$115. Get Montco Guide, Recreation & Park Programs, Autumn 2007 at the Library. Montgomery County Recreation Department registration by Phone 240 777 6818, FAX form from booklet 240 777 6818, web <<http://recweb.montgomerycountymd.gov>>, or Mail or drop off form at MCRD, 4010 Randolph Road, Silver Spring MD 20902-1099, Phone 240-777-6840.



Sep. 30. Fossil Collecting by Kayak, Sun., 8 am-7pm, for ages 18 & up, From Black Hill Park, Friends of Black Hill \$20, Others \$25, Get Montco Guide, Recreation & Park Programs, Autumn 2007 at the Library. Montgomery Parks MNCPPC registration on web <www.ParkPASS.org> You must open an account first and get a customer # and PIN. In person or mail: Black Hill Regional Park, 20920 Lake Ridge Drive, Boyds MD 20841, Phone 301 972 6157, weekends, 301 972 9396 M-F.

Oct. 3. Stone Sculpture Wednesdays, 10 sessions, 7-9 pm, or **Oct. 4** Thursdays, 10 sessions, 7-9 pm. Instructor Ann Ruppert, Tuition \$155, Ages 18 & up. Tools and material discussed at first meeting, Ross Boddy CC. See Gemology, above, for registration instructions for this program.

THE ANNUAL EFMLS CONVENTION is in conjunction with the 14th Annual Wayne County Gem and Mineral Club's Show in Newark, New York. You are cordially invited you to attend October 5th thru 8th. The EFMLS Convention will be headquartered at the Quality Inn, 125 Main Street, Newark, NY. All Convention proceedings, except for the EFMLS Auction, will be held at the host hotel. The auction will be held at the show site.

Convention events schedule:

Andrea Cords, Show Chair Photo EFMLS News May 2007 ▶

Friday Oct 5 Noon: Exhibitors and Vendors Setup. 3:00 p.m.: Cracker Barrel Session, the place for the general membership to bring up any ideas they would like to share or bring to a vote at the annual meeting Friday night. Last year in West Palm Beach there was a lot of talk about how clubs work with children. This year there will be a speaker to help clubs gain some ideas to use. 7:00 p.m.: EFMLS Annual Meeting.

Saturday Oct. 6 The Wayne County G&M Show will be held Saturday and Sunday at St. Michael's School, 320 Main St. (Rt. 88), Newark, NY 14513. Admission each day \$3.00 - Children under 12 Free. Show hours are 10 a.m. - 5 p.m. Call 1-315-986-1171 or see < Show@Americanhobbyshop.com > for more information, directions, and map. EFMLS Auction (at the show) 2:00 p.m. EFMLS Awards Banquet 7:00 p.m. Have you ever had homemade apple pie or grape pie made with the fruits from the New York Finger Lakes Area? All who attend the annual dinner are in for a real treat. Maybe we should have desert first?

Sunday Oct 7 8:00 a.m.: Editor's Breakfast. Show open 10 a.m. - 4 p.m. 10:00 a.m.: Sunday Field trip for Celestite and fossils in Syracuse area (Carpool).

Monday Oct 8 8:00 a.m.: Bus Trip to Crystal Grove for an all day Herkimer Diamond (Quartz) Dig. Bus will return to Quality Inn at 8:00 p.m. (Incidentally, Oct. 8th is the Columbus Day Holiday)

Special events at the show include: *Mini-Miners *Lampwork Bead Demo *Lecture on Penfield and Walworth NY Quarries *Competitive and non-competitive Exhibits *Antique Car Show on Sunday 11-1. The weekend of the convention happens to traditionally be the peak fall foliage weekend. You will be amazed at the pallet of colors you will see. While visiting Wayne County you might want to go for a boat ride on the Erie Canal, visit the local apple farms for apple tastings, or do wine tastings in the finger lakes area. Convention reservations deadline Sep. 5th! Special Hotel rate if reserved by Sep. 5th, mention EFMLS.



OPAL OFFER Your Editor received this information by E mail (Excerpted and edited):

"I have some small specimens of opal dug in 1994-2001 at the Royal Peacock and Rainbow Ridge opal mines. I dug opal all summer out there those years and still have some little stuff I would sell to interested persons. Would any of your club members be interested? I'm told it costs a couple of hundred bucks to dig in Virgin Valley NV now. Guess I got my time in in the "good old days."

I don't do any digging these days. I'll keep a few pieces to show the grand kids but would like to sell a little at low prices, say ten to twenty bucks, just for those who would like a specimen. I'm out of the rock business except for these stones that are gathering dust in my file cabinet. Some are in water and I think I have some that are dry. If anyone is interested I'll dig them out of the closet.

No hurry, It's hung around for thousands of years already and doesn't take up much room in my closet. Go ahead and make a note in your newsletter. My address is: Susan Staff, Apt 1219, 1121 University Blvd. West, Silver Spring MD 20902. E-Mail <butter40fly60@starpower.net>.

My buddy lives in the desert permanently now and I have no plans for hunting rocks any time soon. Maybe I can get some more specimens out of the garage when my buddy comes back to visit this fall. Thanks, Susan Staff ." (If you have interest, contact Susan Staff directly.)

Photo by Andrew Alden Fair Use Permitted ▶



ANOTHER REQUEST

I am endeavouring to start a fossil collection for my 8 year son and therefore hoping to find people in the USA that might be willing to trade for materials from New Zealand. I have numerous minerals (Too many to list right now) that may be of interest including Greenstone (Jade), Cornelian, Obsidian, Kauri gum, Quartz after Calcite, and also some Boulder opal and other minerals from Australia. If you have any members that may be interested could you please pass on my message. My son's interests are fish, dinosaur teeth, shark teeth, and trilobites. As a sign of good faith to show this is not a scam I am willing to forward some samples if you could please forward your mailing address. I thank you for your time and hope to hear from you soon.

Yours sincerely Gary O'Neill. E Mail address: <Gary.ONeill@ap.o-i.com>.

SEPTEMBER MEMBER BIRTHDAYS: Joyce Becker, Michael Buynak, Jeffrey Cessna, Mary Crosswhite, Erich Grundel, Emily Johnson, Brian Kaider, Alexandra Kindahl, Rory Mc-Elravy, Jo Ann Mohr, Georgia Olmstead, Meredith Powers, David Smith, Jane Warford.



Blue Sapphire is the birthstone for the month of September. Sapphire is a variety of the mineral species corundum. At 9.0 on the *Mohs Scale*, corundum is the second hardest natural mineral; hardness differs in various directions – an important factor in cutting. The name corundum comes from the ancient Sanskrit *kuruvindam*, while the word sapphire comes from the Persian *safir*, meaning "beloved of Saturn", or Greek *sapphiros*, the word for "blue". Sapphires occur in all colors of the rainbow with the exception of red, which is ruby; in fact, any corundum that is not colored red is known as a sapphire. If sapphires were grouped as rubies, they would be stones of inferior quality. Coloring pigment in blue sapphire is iron and titanium. The luster of the gems ranges from brilliant as a diamond to vitreous as glass. Sapphires are stunningly clear, although they may have impurities or inclusions. They are often heat treated to bring out their color, and may be heated to reduce cloudiness that is caused by rutile inclusions. These inclusions can result in a silky sheen or in cat's eye or six-rayed, and sometimes twelve-ray, star stones, usually only seen in cabochon cuts. (According to some opinions this asterism is not caused by rutile needles, but by intersecting hollow channels running in three directions.) Fine star sapphires are rare and valuable.

Origin plays a large influence in a sapphire's value. The most valuable are those from Kashmir followed by gems from Burma and Sri Lanka. They're also mined in Australia, Tanzania, Kampuchea, and Kenya. Corundum is frequently found as part of igneous rocks, but gem-quality material is normally found in crystalline limestone which has been subject to extreme heat and pressure of metamorphic action. Synthetic sapphire was first created in 1902 and is hard to distinguish from natural sapphire except by gemologists. Large sapphires are rare. They are sometimes named in the same way as famous diamonds. *The American Museum of Natural History* owns both the "Star of India" (536ct.) and the "Midnight Star" (116ct), a black star sapphire. The "Star of Asia" (330ct.) is owned by the *Smithsonian Institution* in Washington; two other famous sapphires are part of the English Crown Jewels.

Sapphire was the lapis lazuli of the ancient world, probably because the stones both have the same intense blue coloring. An ancient Persian legend states that the earth rests on a large sapphire and the blue of the sky comes from the gem's reflection. Ancients claimed the Ten Commandments were written on sapphire, making this gem most sacred. Legend tells many stories of their power. The gems were believed to influence spirits, make peace between enemies, and protect one from capture. Medieval priests and monks wore the gems to prevent evil impulses and thoughts, and it was once thought that if a poisonous snake were put in a container with a sapphire, the gem's rays would kill it. Sapphire is a symbol and guardian of purity and represents truth, sincerity, and faithfulness. If its luster dulled when worn by a spouse, it was believed that person had been unfaithful. It assists spiritual enlightenment and inner peace by helping to rid oneself of unwanted thoughts and bring joy, lightness and peace of mind. It also helps communication and promotes dreaming. Sapphire is believed to offer healing properties for rheumatism, colic, and mental illness. It is also considered an antidepressant and an aid to psychokinesis, telepathy, clairvoyance and astral projection. The gem is said to cure fevers, colds, eye diseases, and ulcers, combat excessive bleeding, and strengthen the walls of the veins. Adapted from the Sacramento Mineral Society, *Matrix*, 9/06.



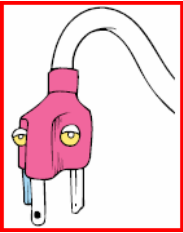
New book just out: "Fourteen Ton Sapphire"by R. U. Sirius.

LIBRARY Jonathan Harris will try to bring some of the books from our Society library to the September meeting. you can peruse them and check out any that you want. FREE!

AFMS NEWS See <www.amfed.org> for the Roswell NM convention report and other news.

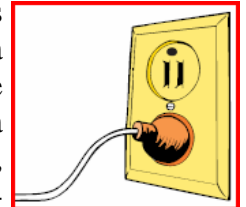


Most lapidary work involves the use of electric motors, and usually also includes water. This can lead to some very dangerous situations. Not only does water make the human body more electrically conductive, it also manages to work itself into electrical components providing additional seriously dangerous electrical current paths - compound all of this with some of the equipment being very old, home built, and possibly not well maintained. There are two very simple things that can be done to improve the situation. Providing proper electrical grounding and the use of a **GFCI** (Ground Fault Circuit Interrupter).



Electrical Grounding Most modern electrical equipment now includes an electrical plug that has 3 prongs with an electrical ground. There are some limited exceptions where 2 prong groundless connections are currently manufactured, but there is a lot of older equipment that was built before grounding was a standard. Sometimes equipment may have been built with an electrical ground, but someone wrongly cut it off the plug because it did not plug into the 2 prong electrical outlet that was in an older house. The electrical ground provides a safety shield around electrical components. To accomplish this task, the electrical ground is connected to a conductive surface that is between the electrical components and the person using the equipment. This conductive surface would include such items as the motor's chassis, and other electrical enclosures. If an electrical fault creates an electrical path to this grounded surface, the electrical charge is carried to ground, rather than to the operator. If the electrical fault is highly conductive, then it will probably trip the household circuit breaker, further protecting the operator from harm.

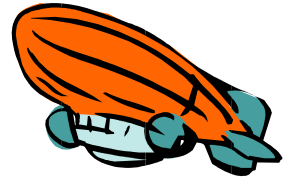
The electrical ground is a safety conductor that does not normally carry any electrical current. Just because the equipment works, it does not mean the ground is connected. The electrical ground must be continuous from the power distribution to the house, all the way to the point of use. A break in this circuit defeats the ability of the ground to protect the operator from electrocution. Just because the outlet has the 3rd prong electrical ground, it does not mean that it is connected, especially in older homes where it was originally wired with only two conductor outlets. A small tester can be bought for only a few dollars that plugs into the outlet to check a lot of common wiring errors. To use the tester, simply plug it into the outlet and see which lights light up. If you ever feel even a slight tingle from a piece of equipment, it probably means that there is an electrical fault, and the ground is not properly connected. You should immediately have the situation corrected before using it again. Don't forget to also check the electrical outlet.



A **GFCI** is a very sophisticated, but simple to use, inexpensive device. A GFCI measures the current that is being sent to the device (hot wire), and the current that is returning from the device (neutral wire). The GFCI compares these currents and if there is even a very small difference, the GFCI will trip to disconnect the appliance from the electrical circuit. This difference in current represents a current fault through a ground path. The magnitude of this small difference is only about 0.005 Amps, or about 0.5 Watts. Not only will a GFCI trip with such small current faults, it does this in about 0.025 seconds. In comparison, the circuit breaker protecting the appliance circuit may likely be rated at 20 Amps. The circuit breaker would therefore require about 4,000 times more current to trip! This could easily mean the difference between life and death.

The GFCI is such an inexpensive device that it is continually saving lives. I have seen GFCI outlets for about \$10, and on sale for as low as \$5. GFCI's are available in many forms. The most common is a duplex outlet that is permanently wired into the house wiring. They are also available as a combination with a circuit breaker, and as a simple plug-in device that goes between the outlet and the powered device. Many appliances now even come with a GFCI build into the device's power cord. Even though the GFCI can protect people from many, if not most household electrocutions, it cannot protect from all situations. For instance, if a person becomes connected to both the hot and neutral wires without any ground current path, the GFCI cannot detect a problem and will not trip. A GFCI can provide protection with even a 2-wire connection if the fault current flows through an alternate path. This is because the GFCI measures the currents in the hot and neutral wires. GFCI protection is in addition to, not as a substitute for the grounding requirements and proper safety procedures. The U.S. Consumer Product Safety Commission recommends the use of a ground-fault-circuit-interrupter (GFCI) with every power tool to protect against electrical shock hazards. Be sure your shop is safe for you and others. Proper safety doesn't have to cost a lot, unlike the lack of proper safety.

GEOLOGY OF HELIUM The gas in your party balloons is a genuine Earth product that is an important industrial gas. Helium is generated throughout the Earth's rocky mantle but especially in the continental crust.



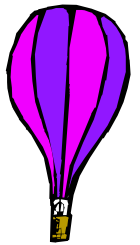
How Helium Forms: Helium is manufactured by the alpha-decay of uranium and thorium. An alpha particle, two protons and two neutrons, constitutes the nucleus of a helium atom. An alpha particle only needs to scavenge a couple of electrons to become helium. (We're speaking of helium-4. The isotope helium-3 is not produced this way and is very rare.) Helium produced this way migrates upward toward the Earth's surface. After it enters the atmosphere, helium diffuses into space relatively fast, in a million years or so. The same rock layers that trap petroleum also collect other gases, including helium. Some producers of natural gas can do a decent side business in helium, because gas in the ground may contain as much as 7 percent helium, or as little as none. This reflects the amount and age of uranium/thorium-containing materials beneath, the permeability of the rock, the quality of the rock barrier above the gas and the amount of other gases present.



Producing Helium: Raw gas from the ground is mostly methane, which is the part we burn. But in addition to helium it also has nitrogen, carbon dioxide, neon, hydrogen, and water vapor that degrade the quality of the methane. Upgrading natural gas is a process of filtering, scrubbing and cooling that removes almost everything else to yield three streams of material: methane with just 4 percent nitrogen, waste nitrogen, and crude helium. The crude helium byproduct, about 70 percent helium, is then sold to refiners.

The United States is lucky to have more helium-rich gas resources than anywhere else in the world. That and a few accidents of history have made this country the dominant supplier of helium for many years. Helium's uses began in the early 1900s with its role as a lifting gas in lighter-than-air craft (and your party balloons), but it also quickly found favor as a refrigeration gas, a super cold liquid for applications of superconductivity, an inert atmosphere for specialty welding and other roles.

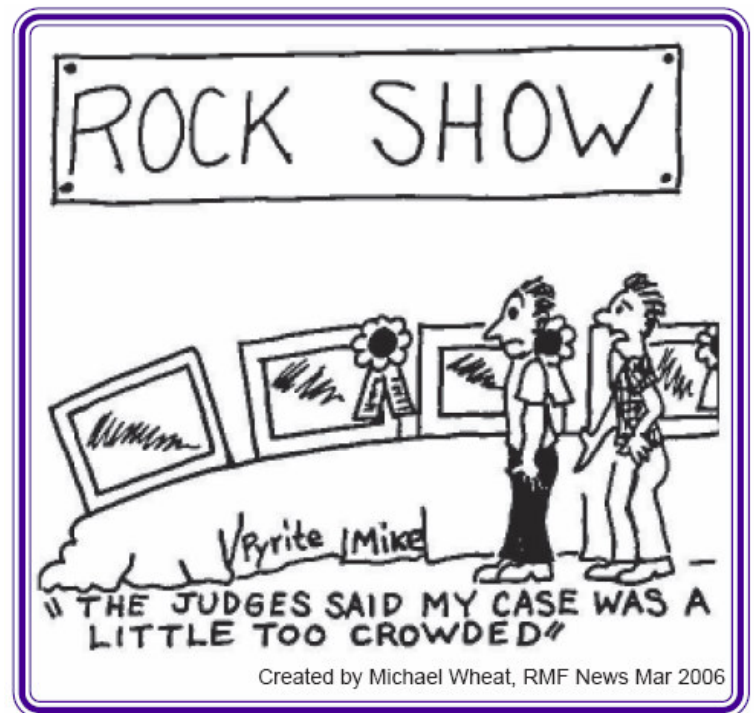
In the long term, helium will rise and fall with the fortunes of the natural gas industry. Producing helium is an energy-intensive process, and energy costs strongly affect world prices. On the other hand, higher helium prices make exploiting lower-quality gas deposits more profitable. And adding complexity to the helium market, new helium production plants are being built outside the United States. As American helium begins to run out, new sources will arise in geologically similar areas.



From Andrew Alden, *Your Guide to Geology*, with permission.

A scuba diving geologist's business is to measure the relative sizes of the rises, drops, cavities and undulations of coral formations. Of course this can only be done in the summer months so he takes the winters off to avoid the frigid air. You may tag him as a "Frost-free reef ridge rater."

DONATION: Your editor was called by Susan Houser about donating about 2-3 mini vans full of rough stone for cutting. Some hundreds of pounds! Bob Irby kindly agreed to go check it out and did so (On one of the hottest Saturdays). He managed one load full and is storing it, but has no further space and needs some one to help get the remainder and store it. Can you help? Call Bob. There is Australian Chrysoprase, nice jaspers, alabaster, agate, and tree agate. She also will donate a Titan cabbng machine with 6 wheels. The Board will have to decide how to handle the disposition of the material.



HISTORY Contributed by Jack Busch

FALL, 1990. The July/August *Rockhounder* of that year had an article by member Fred Schaefermeyer on “Chemical Formulas and How to Read Them“. To give an example, Fred used the formula for a not uncommon gemstone. It contains 47 characters--letters, numbers, and punctuation marks--If I counted correctly!! Can you guess what it is? Check the end of this scribbling to see if you are correct.

In August the Eastern Federation held its annual convention in New Carrollton MD in conjunction with the show put on there by our neighboring society, GLMSDC. The above named Fred, in his role of President, led the proceedings very smoothly, according to our delegate. Who dat? Why, our own President, Juan Proaño. Fred's year had gone so well that his successor, Shirley Greenberg of Hopewell Junction, NY, promised to continue using his theme, "Communication is the Key to Success" as hers in order to maintain the adequate transfer of ideas at all levels within EFMLS. Re the show, one of the other delegates complained about temperatures inside the hotel being too hot, and feared for the safety of the exhibits. (Some years earlier I had see quartz crystals explode at a show because of excessive heat.)

Nancy and David Ballard spent some of their summer vacation in the cooler clime of the Northwest. First they went to Seattle, where they were among the 2000 persons attending the 12th International Congress of Electron Microscopy. After that they cruised for a week in the Inside Passage of Alaska where, among other activities, they stopped at a port near Gold Creek to do some panning. They must have had success for they exhibited some of the results at September's Show Table. Nancy also mentioned the temperature at Glacier Bay had been 50°F., quite different from New Carrollton.

In September's "Rockhounder" Nancy reported that Christies in London had auctioned off the 32.34 carat pink "Agra" diamond for £4,070,000 (about \$6.9 million) Remember, that was 1990. Wonder what it would have brought today.

The speaker at September's meeting was Dr. Earl Hays, retired Chief Metallurgist and Director of the Bureau of Mines. (The Bureau was subsequently abolished, part going to the USGS, and affected member Gordon Austin) Dr. Hays spoke and showed slides of a very interesting account of the “History of the Yukon Gold Rush of 1898.” In addition to displaying bolo ties and fossils on the evening's Show Table, Dr. Hays also shared large polished “Pebbles” from Agate Beach OR, so that each family present could take one home, a most generous gesture.

At October's meeting the program for the night was an EFMLS slide presentation describing Topaz Mountain in Utah. At that time the area was reserved by the US Bureau of Land Management for rock and mineral collecting. VP Gordon Austin cautioned all that the best time to visit the area was May and October. It's too hot there June through September and too cold in the other months. He also suggested that first-timers to Topaz Mountain should consult with veterans of the place beforehand.

The slate for nominees for the coming year's officers was presented for consideration:

President: Jack Nelson

VP: Lou Williams

Secretary: Jan Shopland

Treasurer: Steph Hald

The election was scheduled for November's meeting. To learn who won, see this space next month.

Oh yes, That lengthy formula was for Tourmaline, but I'm sure you knew that all along. But tell me, can you say it without looking it up? I'm lucky if I can come up with C, Fe, and CaCO₃.

A woman went mineral collecting and brought back a plethora of specimens. She had worked long and hard in the heat of the day. She was thoroughly worn out!.....bushed!.....exhausted!.. bringing the load back to the pick-up truck which was driving. A friend said “I bet you will sleep well tonight.” The woman said, “You mean now I weigh me down to sleep?”

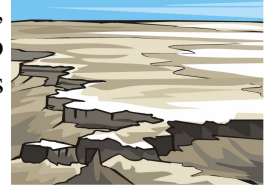
Q. What did the oceans say when they had not seen each other in millions of years?

A. Long time no sea.

**WEB SITES****Get A Load of These**

Contributed by Wendell C. Mohr

American Field Guide, <<http://www.pbs.org/americanfieldguide/>>, is a Public Broadcasting site that contains some 1400 movie clips, each roughly 5 minutes in duration. Here's a different kind of place to visit. Click on "Earth & Space" then choose your interest: Fossils, Geological Events, Glaciers, Rocks & Minerals, or Volcanic Activity. Though brief, the clips bring a nice touch to programs they have presented on TV. You must have Real Media Player or Windows Media Player, and select your download speed.



Plateau: A high form of flattery. Allege: A rocky platform on a mountain.



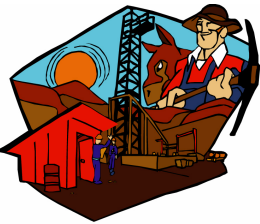
Flourites.com, <<http://www.fluorites.com>>, a site by Raoul Konanz, offers a more or less personal site however he does offer some sales which we do not particularly endorse. Fluorite Fact Sheet is very nice, with emphasis on mainly French and Spanish localities and has excellent pictures. You can see an interesting gallery of 15 sale specimens in 360° rotation. He puts his Private Collection Gallery on view with outstanding close-up photos.

Europe has no deserts. It is the only continent without one. And I always thought that French pastries were the greatest.

Desert Environment and Geology. Thanks to Georgia Olmstead for calling this web site to my attention. <<http://www.desertusa.com/Thingstodo/geo/geology.html>>, is a potpourri about Rocks, Gems, & Minerals from Desert Magazine. You may select from a long list of titles. Some articles lead to collecting localities, books for sale, and other appealing things. Don't miss the new book just out for Desert travel: "*The Proper Use of Sunscreens*" by Justin Casey Burns. A traffic cop pulled over a speeding fossil collector in west Texas and asked "Do you have any ID?" The motorist from Mississippi replied, "About what?"



There were these two mineral collectors out hiking when they came upon an old, abandoned mineshaft. Curious about its depth they threw in a pebble and waited for the sound of it striking the bottom, but they heard nothing. They went and got a bigger rock, threw it in and waited. Still nothing. They searched the area for something larger and came upon a railroad tie. With great difficulty, the two men carried it to the opening and threw it in. While waiting for it to hit bottom, a goat suddenly darted between them and leapt into the hole! The guys were still standing there with astonished looks upon their faces from the actions of the goat when a man walked up to them. He asked them if they had seen a goat anywhere in the area and they said that one had just jumped into the mineshaft in front of them. The man replied, "Oh no, that couldn't be MY goat, mine was tied to a railroad tie."

**UPCOMING SHOWS, & OPEN HOUSE:**

September 15-16 42nd Annual Gem, Mineral, and Jewelry Show sponsored by Central PA Rock & Mineral Club. Sat. 10-6, Sun. 10-5. NEW Location west of US 15. Sporting Hill Elementary School, 210 S. Sporting Hill Rd., Mechanicsburg PA. Admission \$5.00. Information: <www.rockandmineral.org>.

September 22-23 43rd Annual Atlantic Coast Gem, Mineral, & Jewelry Show, Howard County Fairgrounds, West Friendship MD, I-70 at MD 32. Sat. 10-6, Sun. 10-5. Admission \$5.00, 12 and under free with adult. Information: <www.gemcuttersguild.com>.

September 29-30, 51st Annual Franklin-Sterling Hill Mineral, Gem, & Jewelry Show sponsored by the Franklin-Ogdensburg Mineralogical Society. Franklin School, Washington Ave., Franklin NJ. Info: Lee Lowell 973 827 3658.

September 29-30, Open House, Mahalo Minerals, 8300 Eastridge Avenue, Takoma Park MD 20912, 301 585 9534, Information <www.mahalominerals.com>

October 6-7, 14th Annual Wayne County Gem & Mineral Club Show sponsored by the Wayne County Gem & Mineral Club, St. Michael's School, 320 S. Main St., Newark NY. Host of the 2007 **EFMLS Convention**. **EFMLS Annual Meeting** Oct. 5, 2007. Information <www.amfed.org/efmls>. See Page 4.

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All Society correspondence is to be sent to this address except that which is intended for the Rockhounder and its editor. Such items are to be sent to the editor's home address.



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