

THE ROCKHOUNDER



JUNE
2012

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 the 2nd Monday of the month from September to June. The Society will meet on **Monday June 11th** in the dining room of the Rockville Senior Center, 1150 Carnation Drive, Rockville. A short business meeting will begin at 7:45 pm but the room is available to us at 7:30 pm so come early and chat with old friends. The speaker will **Bob Farrar**. The topic will be “**The Cruzeiro Mine: World's Greatest Tourmaline Mine.**” Bob Farrar has been collecting rocks, minerals, and fossils for over 40 years. He has traveled extensively in pursuit of rock collecting, including making several trips to Brazil. He has written a number of articles about his travels for Rock & Gem and other publications. Bob holds a Ph. D. in entomology, and works for the U. S. Dept. Of Agriculture in Beltsville, MD. A resident of Bowie, he is also a dealer of Minerals & Fossils.

THE BOARD OF DIRECTORS will possibly meet Monday, June 18, at the Home of Andy Muir. The President will notify Board members if a meeting is necessary. All Board members are expected to attend if meeting is called. Any member is welcome to attend but kindly let Andy know if you plan to attend at: <amuir21@comcast.net> or phone 301 990 1370.

NEW ROCKHOUND



ZARINS, Andy, 1235 Teresa Drive, Hampstead MD 21074-1685,
410 374 6935, azarins2@comcast.net.

Doug Baum Signs 'Em Up. Photo W. Mohr



REJOINED MEMBERS (Inadvertently omitted from the February issue. To get maximum attention, it's hard to beat a good, BIG, mistake. Sorry, Ed.)

SMITH, David and Carol, 16633 Alden Avenue, Gaithersburg MD 20877-1503, 240 683 6399, desquared59@yahoo.com.

BE CONSIDERATE AT MEETINGS, PLEASE

It is annoying when, at a meeting, a cell phone ringtone disrupts whoever holds the floor. The phone might be safely tucked in a Purse or a case. It still sounds off if not turned off. Please remember to turn cell phones off or put on silent, and hold phone conversations during break time. It's electronic etiquette. Thanks!

DEADLINE for The July, August
2012 Rockhounder: June 25th.

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PRESIDENT'S MESSAGE

By Andy Celmer

**The soundtrack for Jaws thunders in the background!
Just When You Thought it Was Safe to Read the Newsletter!!!!**

Let me take you on a journey in your personnel time machine. Remember the first time you walked into a club meeting? For some of you it may have been olden times, before the internet, before cable TV, even before cell phones. That's right Mighty Mocks, there was a time before cell phones! Regardless whether it was last year or in the distant past, pull up that memory. How did you figure anything out? What did all the letters stand for, GLMSMC, EFMLS, AFMS? Why are there rocks in the back of the room? Where the heck are the rock trips? Why can't I wear my rock helmet instead of a hard hat? Why are they passing out tickets?

I found out the answer to these and many other questions because Wendell came up to me and made a personnel contact. Over the years I peppered him with questions and he always had an answer. That is how you learned the ropes too. Somebody talked to you first, somebody took you in!

Had someone not come up to me, I would have gone to a few meetings and just faded away. It would have been as if I had never been present at a meeting. I've seen that happen to people since I've been coming.

We all have things to do at the meetings, friends to talk to, stuff to look at. But take a moment during the meeting, remember the new person, remember when you were the new person. Take the time to talk to the new people, or just someone you don't yet know. Someone connected with you, return the favor. They need you and we need them!



Andy B. The B stands for Buddy!

VOLUNTEERS NEEDED!**EDITOR**

Assemble input from the Program and Membership Chairs, President, Minutes from the Secretary, Field Trip Chair, FRA and Mini Miners leaders. Joel Rosen supplies door prize and show table information at the meeting. Area shows and other things like Safety articles come from EFMLS or AFMS Newsletters you will automatically receive.

The Board will supply you with Microsoft Publisher program or equivalent for your easy use. Lots of clip art and articles are available along with assistance. If are willing to take on the job, talk to Andy Celmer.

SHOW DEMONSTRATIONS CHAIR

The Society is seeking a new Demonstrations Chair to arrange/invite demonstrators for the 2013 show. Duties include cultivating relationships with potential demonstrators (such as sculptors, jewelers, faceters, etc.). The idea is to have a good representation of demonstrators relating to the earth sciences. Past year's invitations and sources would be turned over electronically as most invitations are recorded in Microsoft Word. Many invitations are mailed out over the Christmas holidays and in early January. Follow-up is often necessary later to confirm commitment and details etc. New contact sources need to be followed up and some cold calling and other club contact is required. Questions may be addressed to Bob Irby 301 540 5033 or <irbyr@verizon.net>. Thank you, Bob, for your many years of serving.

W. Mohr
Photo

The May 14, 2012 meeting was called to order by President Andy Celmer at 7:44 pm, with approximately 67 people attending. It was M/S/P to approve the minutes of the April 9, 2012 regular meeting and April 16, 2012 board of director's meeting.

FRA: Holly McNeil presented the Stone Age Tools and Art badge to Cassie DeSalvo. Good work, Cassie. Holly thanked George Durland for giving a local community presentation to juniors.

President: President Andy Celmer announced a silent auction of a bound index to Mineralogical Record. A volunteer is needed to coordinate demonstrators at the annual club show. Bob Irby described the duties. Bob was thanked for his service. Andy "B" presented the treasurers report provided Andy Muir. The Society is in good financial shape.

Membership: It was M/S/P to approve membership for Andy Zarins.

Show: A volunteer is needed to coordinate demonstrators at the annual club show. Bob Irby described the duties. Bob was thanked for his service. JoAnn Mohr will continue to make bags for the show. She is in need of fabric and will need volunteers to string them.

Guest Editor and EFMLS Liaison: Wendell Mohr discussed AFMS convention which will feature agates this year. He had applications for the fall session of Wildacres, reminding members the club has a scholarship available for first timers. Wendell discussed upcoming Gemology classes and Patuxent Lapidary Guild classes. The club continues to need a new newsletter editor.

Field Trips: Jonathan Harris discussed the recent field trip to National Limestone quarry and upcoming trips. Jim Kostka had giveaways of strontianite and wavellite. Jonathan had free specimens of laumontite and stilbite from Gettysburg.

Presentation: Vice president Chris Luzier introduced the speaker for the evening, Fred Parker. Fred presented *Franklin, NJ, More Than Just Fluorescents*. Fred began by discussing the '50s, '60s, and '70s heydays of collecting in Franklin/Ogdensburg. These were days when mineral specimens, brought out in lunch boxes, could be used as currency. Fred was lucky enough to grow up nearby, with a father who was also an avid collector. He discussed many of the local mineral celebrities, including stories of the late, great, Ewald Gerstmann. At the time there was more emphasis on scientific study, including Fred's XRD analysis of many unknowns. Ore samples were passed around to show the differences between the two ore bodies. He pointed out that the ore bodies are special more because there have been 358 minerals identified, 9% of all minerals known, with 28 unique to the locality. Fred went on to discuss many of the minerals including may wonderful photos of what can be found, from the common red & green (calcite & Willemite) to the less common. He answered many questions from an appreciative audience. Thanks Fred.



Photograph by
W. Mohr

Rod Towers administered the junior's door prize. Joel Rosen administered the show table and the drawings for the door and show table prizes.

Meeting adjourned at 9:45pm.

Jeff Cessna, Secretary.

BOARD MEETING MINUTES, May 21, 2012

Board Members present: Andy Celmer, Jeff Cessna, Jonathan Harris, Chris Luzier, Wendell Mohr, Andy Muir, Pat Repik-Byrne, and Joel Rosen. Not present: Doug Baum, Eric Kindahl, Rod Towers.

President Andy Celmer called the meeting to order at 7:31 pm.

Membership: Doug Baum emailed the current membership numbers and a few updated Rosters.

Treasurer: Andy Muir presented a treasurer's report. The club continues in strong financial shape. Andy sent a check and thank you to Claudia Hill for rock saw sale. Tax calculations were completed and filing was done before deadline. Andy will send copy of "thank you" to Stephen Turner.

Show: Pat Repik-Byrne brought the two gold pans donated by Dale Newbury; they will be auctioned at the next meeting. Andy will send a thank you letter. Dop sticks and leftover pre-forms have been located.

Field Trips: Jonathan Harris solicited ideas for future field trips and discussed upcoming trips.

Guest Editor and EFMLS Liaison: Wendell Mohr showed mineral magazines from Tucson, donated by Matt Charsky. They will be used as additional door prizes at the next meeting. Wendell talked to Steve Turner regarding the recent donation he had made. The Society may use their best judgment with use of the money to support juniors in addition to the Lillian Turner awards for exhibits at the club show. Options were discussed. Possible options for new editor were discussed as well as possible splitting of duties.

Vice President: Chris Luzier discussed upcoming presentations including a presentation on tourmalines.

Andy Muir graciously volunteered to take minutes at the next general meeting. Thanks Andy.

The meeting was adjourned at 8:48 PM.

Jeff Cessna, Secretary



Get Well Wishes: to Jack Busch who suffered a fall resulting in a gash on his head requiring staples (Not Office Depot) to close. Subsequently he developed a pneumonia from which he is recovering now. We all hope that he will recuperate enough to be able to attend the June meeting. Mend fast!



Over breakfast one morning, a woman said to her husband while he was reading his newspaper, "I'll bet you don't know what day this is." "Of course I do," he answered as if he was offended, and left for the office. At 10:00 am, the doorbell rang and when the woman opened the door, she was handed a box of a dozen long stemmed red roses. At 1:00 pm, a foil-wrapped, two-pound box of her favorite chocolates was delivered. Later, a boutique delivered a designer dress. The woman couldn't wait for her husband to come home. "First the flowers, then the chocolates and then the dress!" she exclaimed. "I've never had a more wonderful GLMSMC meeting day in my life!"



FIELD TRIPS

Saturday, June 16, LaFarge Churchville Quarry, Churchville, MD. 8:45 am.

Meet at the office building parking in the gravel parking lot, 1219 Calvary Rd, Churchville MD. We must be out of the quarry by 1 PM (subject to change by quarry management if the people on site have to leave earlier). Attendees must be adults (18 and over) and be current members of

the GLMSMC or a mineral club invited by the GLMSMC. Total number of attendees is limited to 12 by request of quarry.

Special rules: The quarry has requested that we wear fluorescent vests (typically available at home center stores), that members with any certification for mine safety bring their cards (certification not required), and that no food wrappers or other trash be left behind.

Because this is a space limited trip, please reply to Jonathan Harris <jgharris7@gmail.com> by e-mail (preferred) including "Churchville" in the subject line, or phone 301-545-0808 by June 9th with your name and the names of others going with you. Please note any special issues that may affect your plans on attending (e.g. potential to be called away for business trip, desire to avoid rain, etc.) Jonathan will let people know if they can attend; previous experience suggests it is unlikely we will be oversubscribed. People who request to attend after the deadline will be accommodated on a first-come-first-served basis.

Mineral types: Zeolites (Stilbite, Heulandite, Laumontite), Pyrite, Quartz, Epidote.

Directions: Take I-270 to beltway I-495, to I-95 (Baltimore/NY.) Keep right onto I-895 (Harbor Tunnel Throughway.) After the tunnel, merge right onto I-95. At Exit 80 turn right onto ramp for MD543 (Riverside/Churchville.) Turn left on MD543 (Cresswell Road.) Bear right onto MD 136 (Calvary Road) to 1219 Calvary Road, Churchville MD. About 75 miles from Rockville, 1 hour and 30 minutes.

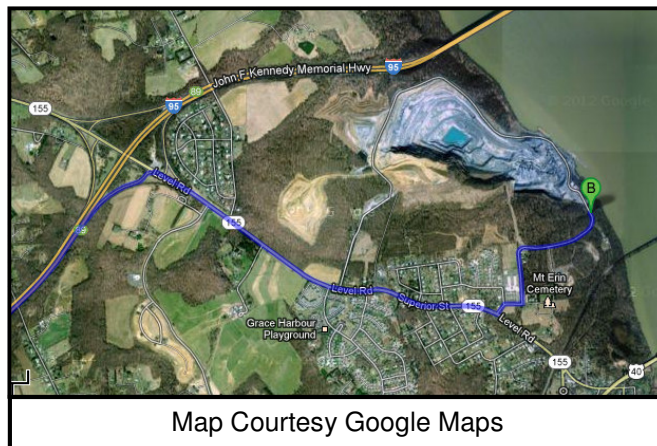
Saturday, June 30, Vulcan Havre de Grace Quarry. Meet at the office, 938 Quarry Road, Havre de Grace, MD. At 7:00 am. Collect to Noon.

Minimum age for attending is 10. Minors under the age of 18 must be accompanied by a parent and both must be club members. Notify Jonathan by June 25, e-mail is preferred, contact information above. Include "Havre De Grace" in the subject line of your email message.

The Havre De Grace Quarry mines Port Deposit gneiss, diabase, and mettagabbro. Among the minerals reported found are epidote, pyrite, zeolites, siderite, titanite, feldspar, and quartz.

Circumstances beyond our control, weather or problems at the quarry, can cause last minute cancellations so it is advisable to check your e-mail Friday evening for any changes. Jonathan will try to avoid such situations and give notice as soon as he learns of them. Please be on time. Late comers who miss the safety briefing cannot collect at the quarry.

Directions: Take I-270 to beltway I-495, to I-95 (Baltimore/NY.) Keep right onto I-895 (Harbor Tunnel Throughway.) After the tunnel, merge right onto I-95. At Exit 89 turn right onto ramp for MD155 E, Level Road. Turn left on Graceview Drive. Turn left on Quarry Road. About 82 miles from Rockville, 1 hour and 40 minutes.



For both trips you will need to agree to the rules and waiver which you can obtain from Jonathan.

FUTURE ROCKHOUNDS OF AMERICA (The MOCKS) Ages 10-15.

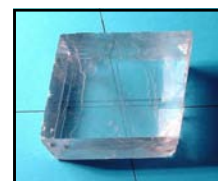
Meeting Date: June 11, 2012. **Meeting time:** 7:45 - 9:00 pm.

Meeting Location: Sunroom Cafeteria at the Rockville Senior Center

CONGRATULATIONS To Cassie DeSalvo for earning the Stone Age Tool & Arts Badge. Well done Cassie!



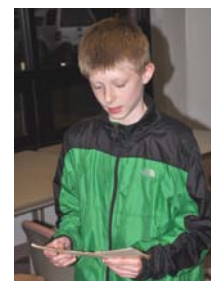
May 14th Meeting Recap: We learned what causes certain minerals to exhibit “special effects” such as asterism, chatoyancy, adularescence, color change, labradorescence, play of color and pleochroism. We discussed light



← These photographs courtesy of Roger Weller, Cochise College →
absorption and used a spectroscope on a synthetic alexandrite to enable us to see its spectrum absorption. Each member then selected a piece of Kunzite and viewed it through a dichroscope to prove the pleochroism. We talked about refraction and double refraction and all present went home with an Iceland spar (Calcite) specimen as an example.



Photos by W. Mohr



June 11th Meeting: During our May meeting there was a lot of side discussion and questions about gemstones. Given the amount of interest, we will start to cover the “Big 4” in June --Diamonds, Emeralds, Rubies and Sapphires. We will talk about formation, treatments, how quality is judged and economics. Don’t even ask – no free samples will be provided.

For more information on the Future Rockhounds of America program, please contact Holly McNeil at <fra_advisor@glmsmc.com> or 301-605-7179.

DON'T GET LOST In an open space where the ground is level, drive a stake into the ground. Mark the tip of the shadow that the stake casts with a small rock. Wait at least 10 minutes, then place another rock at the tip of the shadow. The line joining the two rocks will always run east-west no matter what time of day or year!
From the Rockhound Gazette Nov 2011 via Pegmatite Bulletin San Diego M&G Society May 2012

MINI MINERS Ages 6-9

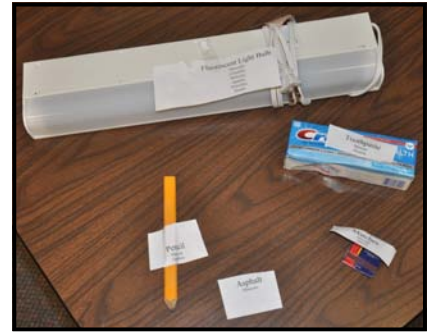
Meeting Date: June 11th 2012 **Meeting time:** 7:00 - 8:00 pm

Meeting Location: The Card Room at the Rockville Senior Center

May 14th Program: We learned about the many uses of minerals in things we use in everyday life. Conrad Smith assisted Linda Smith in the presentation.



Photos by W. Mohr



June 11th Meeting: No information was available in time for this issue of the Rockhounder. Come to the meeting and be surprised.

For more information contact Linda Smith 301-530-5007 or Tunacat107@aol.com

From Canada Mint: \$ 100 14-Karat Gold Coin - 150th Anniversary of the Cariboo Gold Rush.



It all started in 1861 when seekers of wealth began hearing stories about British Columbia's Cariboo region. Tales of rivers flowing with gold so close to the surface that it hardly required panning. This 2012 \$100 face value coin is struck with 14 karat gold and showcases a very fascinating side of this story; camels were sent in Canada as pack animals!



Face Value: \$100, cost \$599.95 CDN. Product#243914.



GLOW-IN-THE-DARK TECHNOLOGY! A CANADA MINT FIRST!

New Series! The *Pachyrhinosaurus lakustai* Canadian dinosaur coin is the first in a 4-coin Prehistoric Creature (photo-luminescent) series! Released in early 2012, the design was approved by the Royal Tyrrell Museum of Paleontology. After placing the coin in sunlight,

fluorescent, or incandescent light bring the coin into the dark to reveal the phosphorescent skeleton of the dinosaur!

Limited to 25,000 coins worldwide (already sold out. Face value \$0.25, priced for sale at \$29.95 CDN), the after-market price is already North of \$90.00!



SHOWS AND EVENTS



July 26 - 29, "A Celebration of Agates."
 AFMS Convention and Show and seminars.
 Lindbergh Center at Hopkins High School,
 2400 Lindbergh Drive, Minnetonka MN.

For information see:

<<http://minnesotamineralclub.org/2012show.htm>>.



September 15 - 16, 47th Annual Show by the
 Central Pennsylvania Rock & Mineral Club,
 Zembo Shrine, 2801 N. 3rd St., Harrisburg PA
 17110. **EFMLS Meeting** Friday September
 14th. For information see

<<http://www.rockandmineral.org/>>.

With this ad, \$1.00 off General Admission

GEM MINER'S JUBILEE!!
 August 17 - 19
 LEBANON, PA
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 Minerals! Fossils!
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RETAIL AND WHOLESALE EXHIBITORS
 CLASSES, TAILGATING & CAMPING
 BEAD, JEWELRY AND MINERAL RELATED DEMONSTRATIONS
 OPEN TO THE PUBLIC ♦ WHOLESALE ROOM

FRIDAY & SATURDAY, AUG. 17-18: 10 A.M. - 6 P.M.
 SUNDAY, AUG 19: 10 A.M. - 4 P.M.

\$6 ADMISSION - CHILDREN UNDER 12 FREE

Lebanon Expo Center: Route 72
 5 mi. N. of PA Turnpike—Exit 266 (old exit 20),
 right on Rocherty Road.
www.gem-show.com
 (see website for updates)
 (717) 838-8870

SCIENCECAFE "MARKET FOR MINERALS"



Rockville Science Café, Tuesday, June 19, 2012, Branded '72, 387 Gude Road, Rockville, MD 20850, 7:00 - 8:00 pm.

Speaker: Phillip Candela, Professor of Economic Geology.

For more information, contact Ruth Hanessian at 301-674-7884 or call the Rockville Science Center at 240-FUN-8111.

Rockville Science Cafés are free and open to all.



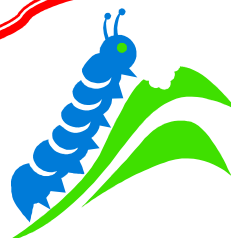
MAY 14th PRIZES

Junior Door Prize: Lucky Ryan Gunnison won a very nice Topaz from Skardu, Pakistan.

General Door Prize: A Grossular and Clinozoisite from the local Hunting Hill Quarry in Rockville MD and an Alaskan Jade necklace were taken home by Alf Shupe.

Show Table Prize: A Jan/Feb 2012 Lapidary Journal plus a Quartz and Barite from Hunan China.

Geology Professor to class:
 Question: What does the term "lava" mean?
 Answer: A pre-pubescent caterpillar





Mining for Good Sites

By Wendell Mohr

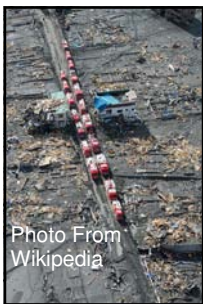
WEB SITES

Glacier National Park, Park Service site, is at <<http://www.nps.gov/glac/index.htm>>. It's exciting to look at every nook and cranny here. You might even want to visit this summer because, if current trends continue, some scientists have predicted that by the year 2020, there will be no more glaciers in GNP due to global climate change! The stunning national park was established on May 1, 1910.



In the fall of 2011 the US Mint released the Glacier quarter in the America the Beautiful Quarters® program. The park is named for its ancient glaciers and its glacier-carved landscape, descended from the ice age of 10,000 years ago. These lands were first set aside as a national reserve on February 22, 1897. The coin shows the northeast slope of Mount Reynolds towering in the distance. A mountain goat views the scene from a rocky perch.

Coincidentally on January 19, 2012 the USPS released an 85¢ Canada/Mexico rate stamp. The stunning national park was established on May 1, 1910. The stamp image shows Logan Pass, the highest point on the park's Going-to-the-Sun Road. Peaks of the Northern Rocky Mountains fill the photo's background. The park preserves more than a million acres of peaks and valleys, meadows, lakes and forest. • My GLMSMC activities cause me to be glacially slow with projects around the house, sez my wife. How about YOU volunteering to be GLMSMC Editor?•



Tohoku Earthquake and Tsunami, titled "Looking Back from Space is from the NASA Earth Observatory": <<http://earthobservatory.nasa.gov/Features/Gallery/tsunami.php?src=features-recent>>. Space photos review the 2011, fourth largest earthquake in history which rocked the coast of Japan and spawned a devastating tsunami. See destruction and recovery. Step through the photographs and graphics and read the text accompanying each. • The professor discovered that his theory of earthquakes was on shaky ground. There in Japan they had a tsignificant tsuper tsize tsunami •

• I'll pepper you with one more guide to add balance to this last site. •

The Wieliczka Salt Mine, <<http://www.kuriositas.com/2011/08/wieliczka-salt-mine-astounding.html>> is an "Astounding Subterranean Salt Cathedral" located in a town of the same name in the Krakow area of Poland. Founded in the 12th century to mine salt, it was mined right up until 1996. A catastrophic flood in 1992 had dealt the last blow to commercial salt mining in the area and now the mine functions purely as a tourist attraction. Brine is, however, still extracted from the mine – and then evaporated to produce some salt, but hardly on the ancient scale. If this was not done, then the mines would soon become flooded once again.

The mine reaches a depth of 1,073 ft. and is over 190 miles long. It features new exhibits on the history of salt mining, as well as a 2.2 miles touring route including statues and figures carved out of rock salt in distant past. More recent sculptures have been fashioned by contemporary artists.

The mine is often referred to as "the Underground Salt Cathedral of Poland." In 1978 it was placed on the UNESCO list of the World Heritage Sites. Thanks to Bob Irby for this lead. • They have a huge battery as a back-up in case the conventional electrical system fails. It is called assault and battery •



Q. Why do miners these days have clear lunch boxes?

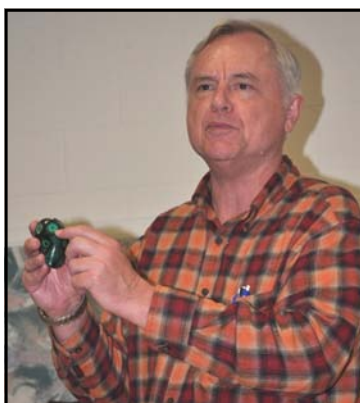
A. So they know whether they are going home or going to work!

SHOW TABLE: May 14th, 2012. Thanks to those who bring items for sharing at the meetings.

<u>Exhibitor</u>	<u>Specimen (s)</u>	<u>Locality</u>
Frances Becker	Willemite	Sterling Hill Mine, NJ
Barbara Burr	Blue Beryl	ME
Andy Celmer	Fossil Root*	Daily WV
Jeff Cessna	Wollastonite, Calcite	Sterling Hill, NJ
	“Crazy” Calcite, Hydrozincite	Sterling Hill, NJ
	Strontianite*	Mt. Pleasant Mills PA
Claire DeSalvo	Carved Bird on Amethyst base	Locality not given
George Durland	Tugtupite, Sodalite	Kangerlussag, Greenland
Ryan Gunnison	Three Selenites	Locality not given
Jonathan Harris	Stilbite*	Gettysburg PA
Jim Kostka	Hyalite Opal	Spruce Pine NC
Diane Leaman	Prehnite	India
	Prehnite	Prospect Park NJ
Gary Leaman	Sphalerite, Willemite, & Calcite	Sterling Hill Mine, NJ
Chuck Mason	Agate Geodes	Locality unknown
Pat Repik-Byrne	Aquatic Fossil*	Logan Canyon, Logan UT
Joel Rosen	Uranium glass paper weight	Crafted by Gilbert Johnson
Nancy Shinowara	Apatite	Cerro Mercado, Durango, Mexico
Conrad Smith	Apatite, Augite, Calcite	Franklin NJ
Earl Smith	Franklinite	Franklin NJ
Linda Smith	Calcite	Franklin NJ
Rod Towers	Malachite	Zaire
Petra Trebohansingh	Hemimorphite	China



Self-collected or self made



Photographs by W. Mohr

Participate at the Show Table to increase your chances of winning a prize!

ALEXANDRITE, an alternate birthstone for June, is a strongly pleochroic (trichroic) gem, and will exhibit emerald green, red and orange-yellow colors depending on viewing direction in partially polarized light. However, its most distinctive property is that it also changes color in artificial (tungsten/halogen) light compared to daylight. The color change from red to green is due to strong absorption of light in a narrow yellow portion of the spectrum, while allowing large bands of blue-green and red wavelengths to be transmitted. Which of these prevails to give the perceived hue depends on the spectral balance of the illumination. Typically, alexandrite has an emerald-green color in daylight (relatively blue illumination of high color temperature) but exhibits a raspberry-red color in incandescent light (relatively yellow illumination). Alexandrite results from small scale replacement of aluminum by chromium ions in the crystal structure, which causes intense absorption of light over a narrow range of wavelengths in the yellow region of the spectrum. Alexandrite from the Ural Mountains in Russia is green by daylight and red by incandescent light. Other varieties of alexandrite may be yellowish or pink in daylight and a columbine or raspberry red by incandescent light



Alexandrite step cut cushion, 26.75 cts.
Photo by David Weinberg released to the

Alexandrite is a variety of chrysoberyl, BeAl_2O_4 , Hardness 8.5 (unusually high, between topaz [8] and corundum [9]) Despite the similarity of their names, chrysoberyl and beryl are two completely different gemstones.

According to a popular but controversial story, alexandrite was discovered by the Finnish mineralogist Nils Gustaf Nordenskiöld (1792–1866), and named alexandrite in honor of the future Tsar Alexander II of Russia. Nordenskiöld's initial discovery occurred as a result of an examination of a newly found mineral sample he had received from Perovskii, which he identified as emerald at first. The first emerald mine had been opened in 1831.

Alexandrite up to 5 carats (1,000 mg) and larger were traditionally thought to be found only in the Ural Mountains. Other deposits are located in India (Andhra Pradesh), Madagascar, and Sri Lanka. Alexandrites in sizes over three carats are very rare.

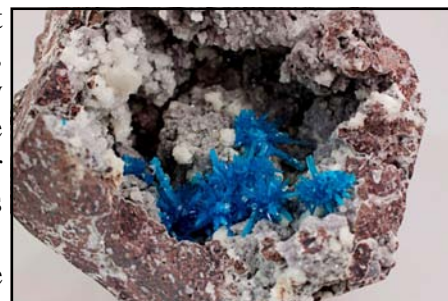
Some gemstones described as lab-grown (synthetic) alexandrite are actually corundum laced with trace elements (e.g., vanadium) or color-change spinel and are not actually chrysoberyl. As a result, they would be more accurately described as simulated alexandrite rather than synthetic, but are often called Czochralski alexandrite after the process that grows the crystals.

Alexandrite lasers are commonly used in laser hair removal for pale skins. They work at 755 nm.

Abstracted from Wikipedia.

GLMSMC DONATION TO THE SMITHSONIAN INSTITUTION, NMNH

Dr. Jeffrey Post formally acknowledged in a letter to our President our donation of a pentagonite specimen from the Wagholi Quarry, Pune District, India. From the Deccan traprocks in India, the very finest pentagonite specimens in the world occur at Wagholi. Its name comes from crystals which are five-sided, an extremely rare form for a mineral. The intense and unique color of this species is what attracts collectors. The crystals are a vivid blue, in bundles and sprays. Pentagonite is $\text{Ca}(\text{VO})\text{Si}_4\text{O}_{10} \cdot 4 \text{H}_2\text{O}$ and dimorphous with cavansite which means that the two species are chemically identical, but they have different crystal habits.



Photograph by Kenneth Larsen, NMNH

The overall specimen is about 12 cm across, and the longest crystals are about 1 cm.

UNAKITE An attractive stone that is easily available to both beginning and advanced jewelry and lapidary hobbyists.

Unakite adds striking beauty to any creation. Discovered in 1874 by Professor Frank H. Bradley, a geologist at East Tennessee University, it was named for the location where it was first discovered - the Unakas mountains of North Carolina. Subsequently, it has been found in the river valleys of Virginia (where it is washed down from the Blue Ridge Mountains) and as pebbles and cobbles on the shores of Lake Superior where it was deposited from ancient glacial drift. It is prized for its contrasting green and pink colors. Unakite deposits are not limited to the United States, and the stone is also found in South Africa, Sierra Leone, Brazil, and China.



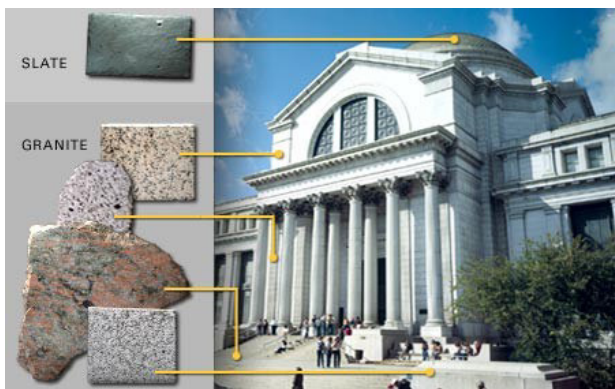
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Unakite is usually found with a mottled appearance - with various shades of green and pink with little translucent patches, as the photo above depicts. Its hardness of 6 to 7 on the Mohs scale comes from its typical composition as an altered granite containing pink orthoclase feldspar (6), green epidote (6 to 7), and generally colorless quartz (7). Unakite is considered a semiprecious stone and will take a good polish. It is often used in jewelry as beads and in rings and pendants. Other lapidary uses include stone eggs, spheres and carvings - including animals - such as the bear above!



Unakite shapes and cabochons, used courtesy of Dick Dietrich

It can be tumbled, formed into chips, spheres, pyramids, hearts, wands, small boxes and other containers, paperweights, free forms and scarabs for jewelry. Quick & Leiper in their "GEMCRAFT - HOW TO CUT AND POLISH GEMSTONES" recommend polishing with cerium oxide on a felt buff. Unakite has even been used as tile on the main terrace of the National Museum of Natural History (Smithsonian Institution - shown below) in Washington, D.C.



Research in this article has been supplied by and used with the permission of R. V. Dietrich, Professor Emeritus, College of Science and Technology - Central Michigan University, and also from the article "Unakite" by Lawrence Skelton of Wichita, Kansas as published in the McPherson, Kansas, Gem & Mineral Society's The Post Rock.

From Pasadena Lapidary Society Rockhound Ramblings, Nov. 2011

A young female mineral collector went running to the doctor shouting and screaming in pain. "Please doctor you've got to help me. I've been stung by a bee." "Don't worry," says the doctor, "I'll put some cream on it." "You will never find that bee. It must be miles away by now." "No, you don't understand!" answers the doctor, "I'll put some cream on the place you were stung." "Oh! It happened in the quarry in Medford." "No, no, no!" says the doctor getting frustrated, "I mean on which part of your body did that bee sting you." "On my finger!" screamed the girl in pain. "The bee stung me on my finger and it really hurts." "Which one?" the doctor asked. "How am I supposed to know? All bees look the same to me!"

SAFETY - SIZE MATTERS

By Ellery Borow, EFMLS Safety Chair

Really! It does! Think of cabinet specimens, thumbnails and micro-mounts - one would never enter a cabinet specimen in a micro-mount competition. Now think even smaller, think chips, dust and microns. Imagine collectors working on breaking rocks in a hot dusty quarry. Imagine the look after hours of digging, hammering, and even perspiring where clothes are dirty, gloves are dirty, face is probably dust covered (with assistance from the aforementioned perspiration and dust). The only part of one not dust covered are the clean circles around your eyes that were protected by your goggles - you were wearing your goggles weren't you? If so, congratulations! Give yourself a pat on the back)



Now think of your nose. With all that quarry dust and those chips flying your way, think of the title of this article. Size matters. Hammer chips may go flying but they soon land on the ground or in your shoes. Dust, especially the really fine particles, are often suspended in the air for lengthy periods of time - time in which they can cover clothes and gloves and faces and be inhaled. Our noses are nice moist places. They provide great mechanisms for collecting dust. Given small amounts of dust, one's nose is remarkably efficient with keeping particulate matter from reaching our lungs. Noses are efficient, think of a dirty sneeze - you know the kind I'm talking about. Now, if you are not experiencing such sneezes again congratulations - either you are working in a relatively clean environment or are taking steps to protect your lungs by wearing a dust filtering mask. Give yourself another pat on the back.

It is good to protect yourself by wearing a dust mask. It is even better to prevent dust from getting to you in the first place. It's even better to avoid dust in the environment or be exposed to dust to begin with; but, really, we live in a dirty, dusty world. Let's settle for good ventilation (either natural or man made) to keep dust away when we can - if we can't, a dust mask may be called for.

Lapidary work has similar issues. We are supposed to use good ventilation practices and keep dust down by keeping things wet as we enjoy our lapidary work. Now, think of most lapidary equipment. Even with the best of good practices the equipment becomes dirty and dust covered. How does it get dirty? Well, yes there is usually some splashing but a good deal of cutting dust is transported by water vapor and mist in the air. That water vapor is carrying that dust to equipment, to aprons, to work tables, to hands, and again, to faces - and faces (except for certain prize fighters) are where our noses reside. If one does a good deal of lapidary, please consider protecting your nose with the use of adequate ventilation in conjunction with a proper fitting dust filtration mask. One may be surprised to note just how moist a dust mask gets with that water-vapor carried dust.

Your nose knows that size matters. I hope this short message has engaged your brain to think so as well. The chips may fall where they may but dust goes on and on - just hanging around to await inhalation.

For this month's safety review, considering the warmer than usual temperatures experienced in many parts of the east coast this past mid and late winter, please consider making a review of Bill Klose's excellent sun and heat safety issues article in the June/July, 2006 issue of the EFMLS News which, if you do not have a copy, is available from the EFMLS web site at www.amfed.org/efmls. Just click on the "Newsletter" tab to download the issue.



Thank you and please remember, size and your safety matters!

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