

# GEM & MINERAL JOURNAL

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

[WWW.LYNCHBURGROCKCLUB.ORG](http://WWW.LYNCHBURGROCKCLUB.ORG)

## Presidents Message

Hello To All,

I hope a lot of members took advantage of the Gem & Mineral Shows and related field trips to Franklin, N.C as well as Grassy Creek & Spruce Pines, N.C. in late July & early August. If you haven't been it is certainly more than worth while. The Shows are great with dealers from all over the U.S. as well as some great collecting sites with spectacular scenery of the Carolina Mountains. Please treat yourself to a great experience next year.

Also keep in mind the 2012 EFMLS Region IV picnic & rock swap on Saturday August 25<sup>th</sup>. The site is on a hill top overlooking a 60 acre lake. Take some specimens to trade and enjoy meeting members of other Region IV Rock Clubs while enjoying a pot luck lunch. In the afternoon there will be a field trip



available for fossil collecting. I hope you can attend this year. All the details begin on page 12.

As you have heard, the Clubs' Gem & Mineral Display is now located at Easter Island. We asked for some nice specimens to add to the beauty of our display and Tom & Linda Noble presented us with an unusual specimen of orange colored selenite crystals on a plate of matrix that will add some sparkle & color to our collection. Dave Woolley is going to see if he can donate some specimens of some colors we may be missing. Thanks guys, it only takes a few members to make a big difference.

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## From the First VP:

Professor Steve Lenhart of Radford University will return for our August meeting to give another interesting geology presentation. I'm looking forward to that and hope to see you all there too.

Have you been watching the Olympic games and cheering our American athletes on to victory? It has been a very exciting and rewarding Olympic competition so far for the USA, who at last count was the leader in total medals and tied with China for the most gold medals. What percentage of those gold medals are actually gold do you suppose?

If the percentage was too high, it would be very expensive to give out all those gold medals in all of the Olympic game categories.

Curiosity got the best of me and so I did a little research and found the following article from the website [colorcombos.com](http://colorcombos.com).

"The 2012 Summer Olympic Games are about to descend upon London from July 27–August 12. This year, 204 countries and territories from around the globe are sending their finest athletes to compete for national honor and those highly coveted gold, silver and bronze medals.

*Continued on page 11*

## July Meeting Minutes

**Meeting- Wednesday, July 18, 2012**

**Attendance-** 29 members and 2 guests

**Host-** Thank you Pam Klien for volunteering to host our August Meeting.

**On Time Drawing-** Winners were: Jack Curtin, Noel Weller, Dave Woolley, Gabrielle, Nona Haskins, Kitty McGann, Tommy Conner.

**Old Business-** John Haskins: Our Monthly meetings will remain at the 301 Grove St. location until further notice. **WE WILL NOT BE MOVING THE MEETINGS TO THE FAIRVIEW CENTER IN AUGUST AS PREVIOUSLY PLANNED.**

Our club display case is setup at Easter Island. Nona, Jon and Dave worked on the lighting and setup. There was a total of over 40 man hours provided. Easter Island will also be selling some of our lapidary items (spheres, bookends, etc.) for a percentage.

EFMLS Region IV Picnic and Rock Swap will be held in Maryland on August 25th. Very detailed article in last months newsletter.

**First V.P.-** Jack Curtin: Tonights program will be a DVD on the Sahara Desert. For August Dr. Lenhart will be our speaker.

**Second V.P.-** Dave Callahan: 7/25-7/29 Franklin NC Show-Roanoke club will be hosting field trips. 8/3-8/5- Annual Spruce Pine Field Trips; 8/25 Annual Federation Picnic in Maryland. also on this date DMC Trip to Tennessee for gold mining. Dave is still working on some local trips.

**Treasurers Report-** Franklin Midkiff: Balance at this time is \$7,749.68.

**New Business-** John Haskins: Workshop at Dave Callahan's house will be 8/18 to fill sluice bags, clean out the trailer, and get prepared for the Apple Festival. We also had our silent auction and specimens for sale by Dave Callahan.

**Minutes submitted by:**

**Brenda Glass, Secretary**



### 2012 ELECTED OFFICERS

**John Haskins - PRESIDENT**

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**Members At Large-**

Bernardino Rivera &

Tony Shields

### COMMITTEE

#### CHAIR PERSONS:

**Field Trips-** David Callahan

**Hospitality-** Monthly Volunteers

**News Articles-** Natalie Darling

**Silent Auction-** Warren Darling

**Swap for Rocks-** Warren Darling

**Website-** Casper Voogt

**Workshops-** Dave Callahan

**FRA Adult Liaison-** Jon Glass

**Membership-** Thom Noble



## PROGRAMS

Our July program was to be a video. For our August meeting, we look forward to having Dr. Lenhart speak. Please join us for the meeting on August 15, 2012 at 7:00 PM, at the Parks and Recreation Department, 301 Grove St., Lynchburg,

### **Bench Tips by Brad Smith**

More Bench Tips by Brad Smith are at:  
[groups.yahoo.com/group/Bench Tips/](http://groups.yahoo.com/group/Bench%20Tips/)  
or [facebook.com/Bench Tips](http://facebook.com/Bench%20Tips)

### **SHEET AND WIRE STORAGE**

The more you work with jewelry, the more problems you have finding the piece of metal you need. My pieces of sheet were generally stored in various plastic bags, and the wire in separate coils. Few were marked, so it often took me a while to locate that piece of 26gauge fine sheet I bought last year, especially since I usually take my supplies back and forth to classes.

A tip from a friend helped me organize everything. I bought an expanding file folder from the office supplies store (the kind that has 13 slots and a folding cover) and marked the tabs for each gauge of metal I use. Then I marked all my pieces of sheet with their gauge, put them in plastic bags, marked the gauge on the bag, and popped them into the folder. I usually store coils of wire loose in the folder, but they can also be bagged if you prefer. I use one tab for bezel wire and one for the odd, miscellaneous items.

The resulting folder is really convenient when I want to take my metal out to a class or workshop. It's also colorful enough for me to easily find in the clutter of the shop!

### **LITTLE BALLS**

I often use little balls, silver and gold, as accent pieces on my designs. They can be made as needed from pieces of scrap. Just put the scrap on a solder pad and melt it with a torch. Then throw the balls into a small cup of pickle.

The only problem is if you need to make all the balls the same size. For that, you need the same amount of metal to melt each time, and the only way I know to do that is to clip equal lengths of wire. But there's an easier way to get a supply of well-formed balls. Simply pick them out of your stash of casting grain. But before you grab your magnifying glass and tweezers, you may want to do what I do.

Just pour the casting grain out onto a baking pan, tilt the pan a bit and watch all the round ones roll to the bottom. Then pick out the good ones and pour the rest back into your bag for casting.

In addition, here are a couple news items that might be of interest to you:

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**Contact Information for Field Trips****David Callahan,****Field Trip Chairman****Home phone: 540-297-1853****Cell Phone- 540-874-5201****E-mail [dbc11@aol.com](mailto:dbc11@aol.com)**

# FIELD TRIP REPORT...

## UP COMING FIELD TRIPS

There are no local field trips scheduled for the month of August due to the lack of access to any sites. There are several prospects in the works but nothing finalized to date. Notifications will be sent by e-mail or will be announced at the meeting.

The following Dixie Mineral Council field trip is open to all club members and you are invited to attend.

**DMC Program of the SFMS Field Trip Committee****An Official Field Trip of The Knoxville Gem & Mineral Society - Knoxville, TN (HOST)****An Official Field Trip of the GMSL and RVMGS****This a "go on your own" trip****Please sign up so that I will know who will be attending****Sign up at the meeting, e-mail me ([dbc11@aol.com](mailto:dbc11@aol.com)) or call (540-297-1853)**

Meeting time 10:00 AM  
 Saturday, August 25, 2012  
 Coker Creek Village Retreat Center  
 Coker Creek, Tennessee

**FEE AREA**

The Knoxville Gem & Mineral Society would like to extend an invitation to fellow DMC clubs to join us in panning for gold at a placer deposit located in Coker Creek Tennessee. The gold is found in the stream near the Coker Creek Village Retreat Center. Gold is found as small flakes and dust. You will also find small limonite cubes 1/8 to 1 on a face in the gravel while you are panning for the gold.

FEE AREA Fee \$5 to pan all day.

**Children :** Welcome with Adult Supervision

Pets: allowed on leash

**COLLECTING:** Gold and Limonite Cubes

**BRING:** Shovels and pans. The Coker Creek village has a limited number of pans that can be used, but I recommend that you bring your own equipment if possible. Pans can also be purchased at the Center as well as at the welcome center approximately 1.5 miles North on Hwy 68.



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## UP COMING FIELD TRIPS.....CONTINUED FROM PAGE 4

For additional information on the site, including overnight stay or equipment purchases, contact the Coker Creek Village Retreat Center at: phone: 423-261-2310, Website: <http://www.cokercreekvillage.com>

Address: Coker Creek Village, 12528 Highway 68, Coker Creek, TN 37314.

### Directions:

#### ***From Atlanta, GA***

Travel I-75 North out of Atlanta. Take I-575 East Toward Blue Ridge and Ellijay. Travel I-575 to Blue Ridge. At Blue Ridge take Georgia Route 5 to McCaysville. At McCaysville take a left onto Tennessee Highway 68 North. Stay on TN 68 N through Copper Hill and Ducktown. Approximately 9 Miles north of Ducktown there is a fork in the road, take the left fork and stay on TN 68 N. Continue on TN 68 N approximately 14 miles until you see the Coker Creek Village Retreat Center on your right. We will check in at the Center around 10:00 am.

#### ***From Knoxville, TN***

Take I-75 south towards Chattanooga. At the second Sweetwater exit (exit 60). At the top of the ramp take a left on Tennessee Highway 68 South and through Sweetwater and Tellico Plains. The Coker Creek Retreat Center is at mile marker 35 on Hwy 68. We will check in at the Center around 10:00 am.

Daniel Miller, Knoxville G&MS Field Trip Chair [dmillerspe@aol.com](mailto:dmillerspe@aol.com)

OR-----

David Callahan, GMSL and RVMGS Field Trip Chair. [dbcall1@aol.com](mailto:dbcall1@aol.com)

"Field trips are open to all members of associated clubs of the DMC program of the SFMS Field Trip Committee and to all members of SFMS member clubs who have provided their membership with SFMS liability insurance. Because of insurance requirements, members of the GENERAL PUBLIC are NOT invited on this or any DMC program field trips!"



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### The Sterling Hill Mining Museum's Annual Mineral Fund Raising Sale

Saturday September 29 and Sunday September 30, 2012

Rain or Shine

10 AM to 3 PM

See this link for additional information

<http://sterlinghillminingmuseum.org/gemmineral/index.php?gclid=CP3Lgoe-vLECFsUTNAodmncAcw>

## Stromatolites

*By Ann Benson, from PESA Rock News, June 2012, by way of DVESScapades, The Newsletter of the Delaware Valley Earth Science Society, April 2005.*

Stromatolites are the oldest known fossils, dating back more than 3 billion years. They are colonial structures formed by photosynthesizing cyanobacteria and other microbes. Stromatolites are prokaryotes (primitive organisms lacking a cellular nucleus) that thrived in warm aquatic environments and built reefs much the same way as coral does today. Cyanobacteria were likely responsible for the creation of earth's oxygen atmosphere.

They were the dominant life form on Earth for over 2 billion years. Today they are nearly extinct, living a precarious existence in only a few localities worldwide. Their layers were produced as calcium carbonate precipitated over the growing mat of bacterial filaments; photosynthesis in the bacteria depleted carbon dioxide in the surrounding water, initiating the precipitation. The minerals along with grains of sediment precipitation from the water, were then trapped within the sticky layer of mucilage that surrounds the bacterial colonies, which then continued to grow upwards through the sediment to form a new layer. As this process occurred over and over again, the layers of sediment were created.

The cyanobacteria have an extensive fossil record. The oldest known fossils, in fact, are cyanobacteria from the Early Archean rocks of western Australia, dated 3.5 billion years old! (All life during the more than one billion years of Archean was bacterial.) This may be somewhat surprising, since the oldest rocks are only a little older: 3.8 billion years old! In the Proterozoic, stromatolites were widespread on earth, and were ecologically important as the first reefs. By the close of the Proterozoic, the abundance of stromatolites decreased markedly.

Cyanobacteria are among the earliest microfossils to recognize. Morphologies in the group have

remained much the same for billions of years, and they may leave chemical fossils behind as well, in the form of breakdown products from pigments. Small fossilized cyanobacteria have been extracted from Precambrian rock, and studied through the use of SEM and TEM (scanning and transmission electron microscopy) Cyanobacteria are otherwise rarely preserved in rocks other than chert, though some possible blue-green bacteria have been recovered from shale.

Stromatolites are formed through the activity of primitive unicellular organisms: cyanobacteria (which used to be called blue-green algae) and other algae. These grow through sediment and sand, binding the sedimentary particles together resulting in successive layers which, over a long period of time, harden to form rock. For at least three-quarters of the earth's history stromatolites were the main reef building organisms, constructing large masses of calcium carbonate. However their most important role in the history of the earth has been that of contributing oxygen to the earth's atmosphere. The organisms which construct stromatolites are photosynthetic. They take carbon dioxide and water to produce carbohydrates, and in doing this they liberate oxygen into the atmosphere. When stromatolites first appeared on earth about 3.5 billion years ago there was little or no oxygen in the atmosphere. It was though the oxygen-generating activity of stromatolites that other animal life on earth was able to develop. Conversely, it is believed that the decline in numbers of stromatolites is related to the evolution of animals that consumed cyanobacteria and algae. Stromatolite fossils are evidence of the earliest life on the earth. Western Australia perhaps has the best stromatolite fossils, giving a record through the eons of time. Fossils of the earliest known stromatolites, about 3.5 Billion years old., are to be found near Marble Bar in the Pilbara. Hameln Pool gives an indication of what the earth may have looked like 3.5 billion years ago when stromatolites were widespread. Because of their range and numbers it is a place of

*Continued on next page*

## Stromatolites *continued from page 6*

great interest to botanists and geologists alike. A jetty has been constructed allowing the stromatolites to be viewed without doing them irreparable damage..

Stromatolites are:

- \* Formerly defined as: “laminated organo-sedimentary structures formed by the trapping and binding, and/or precipitation of minerals by microorganisms”, can be thought of as microbial mats in which a rock-like layer of either sand or precipitated minerals is also present. Fossil stromatolites constitute our earliest and most pervasive record of life on Earth. Although many stromatolites are fossils, there are a number of locations on the modern-day Earth where stromatolites are still forming.
- \* Fossils which show the life processes of cyanobacteria (formerly called blue-green algae). The primitive cells (Prokaryotic type), lived in huge masses that could form floating mats or extensive reefs. Masses of cyanobacteria on the sea floor deposited calcium carbonate in layers or domes. These layered deposits, which have a distinctive “signature” are called laminar stromatolites. This is an example of a layered stromatolite from the Ozark Precambrian. Most often, stromatolites appear as variously sized arches, spheres, or dromes. Ozarkcollenia, a distinctive type of layered Precambrian stromatolite, pushes the appearance of life in the Ozarks to well over a billion and a half years ago.
- \* The oldest living organisms on the planet. Some scientists believe they were the first living things on mother earth.

**Editors Note:** Some folks may remember several years ago when a very large stromatolite was unearthed at the Boxley Blue Ridge Quarry. (It is now on display at the VA Museum of Natural History in Martinsville). Many of us had the privilege of collecting in the quarry and have smaller stromatolites that we collected. Below are links to articles about the discovery that you may enjoy reading.



[http://www.boxley.com/news\\_pdfs/GMSL-Journal-Jul-08.pdf](http://www.boxley.com/news_pdfs/GMSL-Journal-Jul-08.pdf)

<http://www.vmnh.net/news.cfm?ID=99>

[http://www.sorenseninstitute.org/files/uploads/pdf/2009\\_TPGJanFebDeViney.pdf](http://www.sorenseninstitute.org/files/uploads/pdf/2009_TPGJanFebDeViney.pdf)

### **Other sites you may find interesting about stromatolites in general:**

[http://www.google.com/search?](http://www.google.com/search?q=stromatolites&hl=en&client=safari&rls=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=69geUNmtN4Kc8QJvroE4&ved=0CGUQsAQ&biw=1024&bih=730)

[q=stromatolites&hl=en&client=safari&rls=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=69geUNmtN4Kc8QJvroE4&ved=0CGUQsAQ&biw=1024&bih=730](http://www.google.com/search?q=stromatolites&hl=en&client=safari&rls=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=69geUNmtN4Kc8QJvroE4&ved=0CGUQsAQ&biw=1024&bih=730) (great images)

[www.fossilmuseum.net/Tree\\_of\\_Life/Stromatolites.htm](http://www.fossilmuseum.net/Tree_of_Life/Stromatolites.htm)

**Upcoming Events**

*August 2012*

**August 10-12-** Treasures of the Earth Gem, Mineral, Fossil, Bead and Jewelry Show, Dalton, GA. [www.toteshows.com](http://www.toteshows.com) for details.

**August 25,-** Region IV Picnic, details begin on page 12.

**Sept. 15-16-** 47th Annual Rock and Mineral Show and 62nd annual EFMLS Convention sponsored by the Central Pen. Rock and Mineral Club. Zembe Shrine, 3rd and Division Sts., Harrisburg, PA.

**EFMLS Annual Meeting Friday, Sept. 14.**

**Sept. 22-23-** 48th Annual Atlantic Coast Gem, Mineral & Jewelry Show hosted by the Gem Cutters Guild of Baltimore. Howard County Fairgrounds, MD. 32 at I-70; West Friendship, MD.

**October 19-21-** SFMS Annual Meeting- Details begin on page 9.

**Oct. 26-28-** Treasures of the Earth Gem, Mineral & Jewelry Show; Rockingham Co. Fairgrounds, Harrisonburg, VA. [www.toteshows.com](http://www.toteshows.com) for details.

SUN	MON	TUES	WED	THURS	FRI	SAT
			1	2	3	4
			<i>Spruce Pine Shows and Field Trips</i>			
5	6	7	8	9	10	11
12	13	14	15 <b>Meeting 7PM</b>	16	17	18 <i>Work shop at Callahan's</i>
19	20	21	22	23	24	25 <b>Region IV Picnic</b>
26	27	28	29	30	31	

*Workshops are being organized, and will be held at Dave Callahan's to begin preparations for our upcoming fundraiser/festival booth at the Amherst County Apple Harvest Festival. The festival will be held in October.*

*Many volunteers will be needed to help at the festival and at workshops as we pack sluice bags, and organize the remaining inventory. There may be some new items added also. This is a great opportunity to learn to use some of the lapidary equipment, and get to know other club members. Sign up sheets will be available at the meetings, but if you do not sign up you are still welcome to just show up at a workshop to help. Please contact Dave Callahan for information or if you need directions.*

**David Callahan, Field Trip Chairman**

**Home phone: 540-297-1853 ~ Cell Phone- 540-874-5201**

**E-mail [dbc11@aol.com](mailto:dbc11@aol.com)**

**SFMS 2012 Annual Meeting**  
**October 19 - 21, 2012 -**  
**Tampa, Florida**  
**Co-Hosted by the Tampa Bay**  
**Mineral & Science Club and**  
**The Imperial Bone Valley Gem,**  
**Mineral & Fossil Society**

**Cracker Barrel**

When: Friday 10/19/12 at 7:00PM

Where: Tampa Club House, 10207 Fisher Avenue, Tampa, FL 33619 (from hotel: turn right on Adamo Dr (Hwy 60), turn left on Falkenburg, go a few blocks and turn right on Fisher)

**Business Meeting**

When: Saturday 10/20/12 registration 8:30AM, Meeting 9:00 AM

Where: Strawberry Festival Fairgrounds, Expo Building, 2301 W. Oak Avenue, Plant City, Florida (in conjunction with Tampa's annual gem & mineral show) (from hotel: go to Falkenburg and turn left, drive approx. 4 miles and turn right on Hwy 92, continue for approx. 11 miles, turn right on Woodrow Wilson St and continue about 2 blocks.)

**Banquet**

When: Saturday 10/20/12 6:30pm

Where: Best Western Banquet Room

Cost: \$15 per person

(we need a headcount by 10/5/12)

**Awards Breakfast and Editor's Meeting**

When: Sunday 10/21/12 8am

Where: Tampa Club House

**Reservations:**

Best Western Brandon Hotel & Conference Center

9331 E Adamo Drive, Tampa, Florida, 33619  
reservation number is [\(813\) 621-5555](tel:8136215555)

A block of 30 rooms has been reserved at \$59 per night, plus tax. To ensure we get credit for the blocked rooms, please mention that you are with the SFMS when registering and checking in. The Reservation Cut-Off date is 9/30/12. (Take I-75 to Exit 257 (SR60/Adamo Dr). Follow SR 60 West one mile. The hotel is on the left (South) side.) This is an amazing room rate for the Tampa area and I would suggest you come early or stay a couple of days after. In addition to the Tampa gem & mineral show, there are a lot of sights to see.

**Meetings**

The Friday night Cracker Barrel, Sunday awards breakfast and Sunday editor's meeting will be held at the Tampa Bay Mineral & Science Club House, located at 10207 Fisher Avenue, Tampa, FL 33619. The Friday night refreshments and Sunday breakfast will be provided by the Imperial Bone Valley Gem, Mineral & Fossil Society. Saturday's Business meeting will be held at the Strawberry Festival Fairgrounds in the conference room above the Tampa Gem & Mineral Show. Federation attendees will have free access to the show. Expo Building, 2301 W. Oak Avenue, Plant City, Florida The Saturday Banquet will be held at the Best Western in the banquet room. Catering will be provided by Beef O'Brady's. Cost is \$15 per person.

If you plan on attending or would like some more information or maps, please contact Cindy Reed (IBV) [cdreed57@tampabay.rr.com](mailto:cdreed57@tampabay.rr.com) 863-255-5256 or Carolee Boyles (Tampa) [carolee@caroleeboylesmediagroup.com](mailto:carolee@caroleeboylesmediagroup.com) 813-431-4304. We need an accurate head count for the banquet by October 5.

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## Ted's Safety Corner

By Ted Reith, Re-printed from AFMS Newsletter,  
Volume 62, No. 7; June-July 2009

The lovely, sparkly, near pristine specimens many of us “collect” at surface, contaminant rock, gem, and mineral shows hardly ever are found in that condition in Nature. Those who collect “in the wild” will have some cleaning chores in front of them, whether planning to sell those specimens, or add them to a personal collection.

In almost any venture, simple is better than complex, and less hazard is better than more. However, if you truly know the specimen you have and the nature of the surface contaminant, then by all means use complex cleaning method with hazardous chemicals (if that is the needed methodology), but do so safely.

An important key to any cleaning is to know your specimen and know its contaminant. This means to know each in terms of Mohs hardness and chemical make-up. Hardness will guide one in mechanical cleaning options, while the chemistry will dictate specific cleaning materials.

Cleaning methods, from simple/ safe to complex/ less safe, may be outlined as follows:

- Soak in or clean under running water, using a bristle brush.
- Same as above, but add a cleaning agent, such as household detergent, to the water, This will help “wet” the surface contaminant and allow it to be flushed away more readily.
- If appropriate, use a brass brush (Mohs 3.5-5) or steel dental pick (harder). This is where knowledge of the base mineral hardness is useful. Tool needs to be harder than the contaminant, but less hard than the base material. Of course, test on an obscure area first to confirm suitability.

One very interesting cleaning option I saw is to use Soft Scrub cleaner (ground calcium carbonate in a detergent base) and a battery powered toothbrush.

Use equipment such as ultrasonic cleaners (good for more fragile specimens) or small sand blasters to remove tough scale on minerals, while following all manufacturer use and safety recommendations.

Use an acid/water solution for those known, hard-to remove contaminants. Oxalic acid and hydrochloric (Muriatic) acids are typically used for cleaning of quartz. Both are available in hardware stores. Another useful link for specific procedures using acids is at: [www.rockhounds.com/rockshop/john\\_betts/clean1.html](http://www.rockhounds.com/rockshop/john_betts/clean1.html).

The proper care and handling of acids can be accomplished using applied knowledge. The hazard associated with any acid is a function of the acid type and its concentration (%strength in water). If you put milk on your corn flakes this morning, and used oil and vinegar on your salad for lunch, you just ate two acids. Milk contains lactic acid, and vinegar is a dilute (5%) solution of acetic acid.

Oxalic Acid: Though classified as a weak organic acid, it is much stronger than acetic acid. It's primary hazard is skin irritation, with greater hazard if taken internally by mouth or breathing (classified as a poison). Recommended protective equipment includes gloves, apron, goggles, and respirator when used in poorly ventilated areas. Full MSDS info at [www.jtbaker.com/msds/englishhtml/o6044.html](http://www.jtbaker.com/msds/englishhtml/o6044.html).

Muriatic Acid: AKA hydrochloric acid- an extremely strong mineral acid with serious safety concerns. Severe damage can result from tissue or eye contact. Inhaling the fumes or ingestion may be fatal. I've used this myself, but wore butyl rubber gloves and apron, face shield, and used outdoors on a non-windy day to

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## *From the First VP: ...continued from page 1*

Approximately 10,500 delegates will bring their best efforts to 302 events from 26 separate sports. Of that number only 2,100 athletes will step up to the podiums for the 302 victory ceremonies, which will be held at 30 different venues. Third-place, fourth-place and winning team members will receive official diplomas, but the coveted gold medal is the prize about which every athlete dreams.

Interestingly, gold medals were not part of the original Greek Olympics, which were first held in 776 B.C. At that time, olive wreaths were presented to the best competitors. It was not until 1896 and the instituting of the "Modern" Olympics when medals were awarded. At that time, first-place winners received a silver award, second-place winners went home with bronze, and third-place winners left empty-handed. Four years later, in 1900, cups, trophies and other prizes were offered in lieu of medals. It is recorded that one track-and-field star accepted an umbrella as a token of his success. In 1904, the tradition of presenting gold for first place, silver for second place and bronze for third place became firmly established.

Both Greek mythology and medieval history have contributed to the choosing of gold, silver and bronze as appropriate award medals. For the Greeks, these metals represented the first three Ages of Man: gold symbolized the Golden Age, when man was purported to live among the gods; silver spoke of a period of prolonged youthfulness, which could last 100 years; and bronze was a reminder of countless heroes around which stories of courage and valor were woven. In the medieval ages, yellow metals such as gold or brass were offered for recognition of military accomplishment. In the 1700s, gold presentations were also made to those who were outstanding in the fine arts.

Today's Olympic gold and silver medals are both actually 92.5 percent silver. The gold medal contains a mere 1.34 percent of real gold, which is contained in its outer gilding. The bronze medal is 97 percent copper, 2.5 percent zinc and 0.5 percent tin. The last solid-gold medals were presented at the 1912 Olympics. They weighed 25 grams and were worth about \$750 each.

While the International Olympic Committee reserves the right to approve each year's Olympic medals, they are always the responsibility of the the host country. Great Britain has used respected British artist David Watkins to design this year's awards and 15 employees at the Royal Mint in South Wales to strike the medals. Larger than normal, they weigh 400 grams and are 7 mm in thickness and 85 mm in diameter. On the obverse, or front side, each medal portrays Nike, the goddess of victory in front of the Greek Panathinaiko Stadium. The 2012 Olympic logo is superimposed over the historic Thames River on the reverse, or back side.

In 1896, Greece set the record for most medals won with 46 silver and bronze awards. The United States came home with 20. However, for all-time records, the United States has accumulated 2,296 medals, more than twice as many as its nearest competitor, the former Soviet Union. This summer, the world will be watching to see if Michael Phelps, the phenomenal Team USA swimmer, can win just three more gold, silver or bronze medals to become the most-decorated Olympic athlete of all times. Let the games begin!"

Well, now we know. See you soon!



## 2012 EFMLS Region IV Picnic and Rock Swap

**Saturday, August 25, 2012**

Hosted by the Southern Maryland Rock and Mineral Club  
Carl Miller, EFMLS Region IV Vice President

### ***Hello Rockhounds in EFMLS Region IV!!!***

You are ALL cordially invited to the **2012 Region IV Picnic and Rock Swap** to be held in Southern Maryland on **Saturday, August 25, 2012** from 9am to 3pm at Gilbert Run Park, 13140 Charles Street, Charlotte Hall, MD 20622. This park is 40 miles southeast of Washington (only 35 miles from the Woodrow Wilson Bridge). Other travel distances: Baltimore 70, Richmond 85, Manassas 70, Staunton 150, Norfolk 170, Lynchburg 175.

The venue is a shaded, hill-top pavilion with 15 picnic tables in the woods above a 60 acre lake. There is a large 100" by 36" brick grill at one end of the pavilion, and there are separate full restroom facilities for men and women on the other end. A 100-foot path with steps leads to the pavilion from a reserved paved parking lot. Vehicles may also drive up a short gravel road to unload at the top (no parking at the top.)

This is a Potluck picnic so please bring picnic food to share.

Due to a limited budget for this event, we are asking area clubs to help by donating and bringing specific items. Please let us know which items you are willing to furnish by August 20<sup>th</sup> via email to [dave.lines@earthlink.net](mailto:dave.lines@earthlink.net) and we will post who volunteers to bring what by email as soon as we find out. We need the following:

1. Soft drinks (no alcohol in the park) / bottled water / iced tea - enough for 100 people
2. Four large coolers with 100 pounds of crushed ice.

3. Hotdogs & buns for 50 people (Richmond Gem and Mineral Society volunteered to do this one)
4. Hamburgers with buns for 75 people
5. Condiments - ketchup, mustard, relish, mayo
6. Plastic cups & plates / plastic utensils / napkins for 125 people
7. Approx. 20 lb. charcoal & starter fluid, grilling utensils, and a volunteer cook.

**Guests are welcome.** Other activities in this Park include a 2 mile walking path around the lake, fishing (license required), boat rental, playground, horseshoe pits (one by our pavilion), volleyball, and concession stand.

### **Approximate schedule of events as follows:**

- 8:00 am - pavilion available for our use
  - 9:00 am to 12 noon - swapping of rock, mineral and fossil specimens
  - 12:00 noon to 1:00 pm - picnic lunch for all
  - 1:00 pm (or after lunch) - door prizes drawn followed by the auction
- (All attendees are kindly requested to donate labeled mineral or fossil specimens for door prizes and auction)
- 2:00 pm - swapping continues until 3 pm.
- REGION IV PICNIC...** *Continued from pg 10*
- 3:00 pm - picnic over / clean-up area / drive home safely

**Other Info:** \$4 per vehicle "Daily Use Fee" will be collected at the Park Entrance.

**Optional** - You may wish to bring camping chairs for your comfort.

**Region IV Treasure Box** - As before, there will be the Treasure Box that everyone can take stuff from - for FREE. The theme has always been: "One person's 'extras' may be another person's treasure." Please bring lots of your "extras" (e.g. specimens, capping material, and other rock related items) to put in the Treasure Box. It is great fun, and who knows? You may really find a super treasure!

*Continued on page 15*

## SFMS 2012 Annual Meeting

*Continued from page 9*

Tampa website:

<http://www.tampabayrockclub.com>

Polk County website:

<http://www.bonevalley.net>

The Florida Aquarium (Daily 9:30-5)

701 Channelside Drive

Tampa, FL 33602

Phone: [813-273-4000](tel:813-273-4000)

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

MOSI (Museum of Science & Industry)

(Daily 9-5)

4801 E. Fowler Avenue

Tampa, FL 33617

Phone: [\(813\) 987-6000](tel:813-987-6000)

[www.mosi.org](http://www.mosi.org)

Mulberry Phosphate Museum

(Tues – Sat 10-4:30)

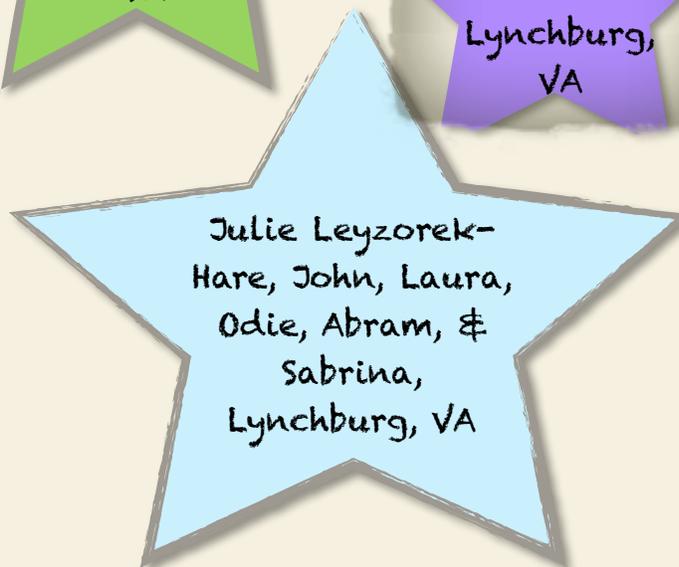
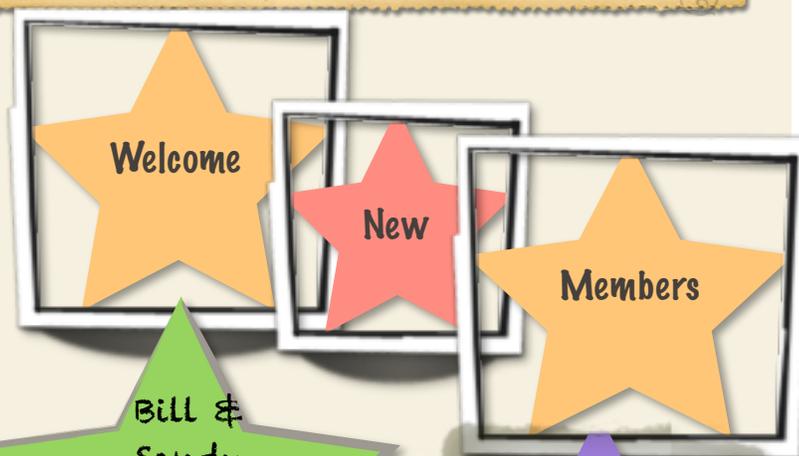
101 SE 1st Street

Mulberry, FL

Phone: [\(863\)425-2823](tel:863-425-2823)

<http://www.mulberryphosphatemuseum.org>

Also, Busch Gardens, Lowery Park Zoo, LegoLand  
(Winter Haven) and all the Orlando area



## Ted's Safety Corner *continued from page 10.*

minimize inhalation concerns. Typically available commercially from 20-38% concentration, you MUST add the acid to water if dilution is needed, never add water to acid. [www.jtbaker.com/msds/englishhtml/H3880.html](http://www.jtbaker.com/msds/englishhtml/H3880.html)

When using any acid, note that spills or solutions remaining after use should be neutralized with an alkaline material. Some fairly common household items to do that would include soda ash, lime or baking soda. How do you know when you have enough neutralizer? You can use the old high school chem lab stand-by- litmus paper. Or get some red cabbage at the grocery, and sue the juice as an indicator. At pH2 (acid), it will be red; at pH 12 (alkaline), it will be greenish-yellow. At neutral pH of 7, it's blue. Happy...and safe cleaning!

## Rock Raiders

When lightning strikes the ground, the result is a little tube of melted minerals called a fulgurite. (about.com.) Tektites and Moldavite are similar rocks, caused by meteorite impact. For our August Rock Raiders program, we will learn about fulgurites.



## Moldavite

*Reprinted from PESA News April 2012, by way of RockyTies, Lubbock Gem and Mineral Society Volume 24, Number 3, March 2012, pp. 9-10 Copyright by Amethyst Galleries, Inc..*

Tektites are still poorly understood. They are irregularly and at times intricately-shaped nodules and blobs of a glassy substance. They have no crystal structure, and are therefore similar to obsidian, but are not associated with volcanic process. Their chemistry is unique and somewhat unexplained.



The leading theory concerning their origin is the "Meteorite Impact Theory." It is postulated that many odd events occur during a meteor's impact because of the tremendous heat and pressure produced. Tektites may be fused glass that formed during an impact of a meteor with layers of rock on the Earth's surface. Tektites occur in broad bands in specific localities in different parts of the world. These bands produced characteristically similar tektites and are sometimes loosely associated with meteorite crafters or suspected craters. Could these fields represent splash material from an impact? Many believe so and this idea is gaining acceptance from many scientists. The odd and diverse chemistry of the tektites could be a result of unique meteorites hitting unique rock types with the combinations producing particular effects. Many tektites have a teardrop shape that could easily form as blobs of liquefied quartz cooled in air while falling to the earth.

Some tektites, called Moldavites, are especially prized for their clarity and unique green color. Moldavites are found in a "splash field" centered around Moldavia in former Czechoslovakia and are believed to have come from a meteorite crater in Germany. Moldavites are sometimes cut as gemstones or put into jewelry as natural uncut pieces to show off their often eerie and beautifully intricate shapes.

**Properties:** Color is black, green or colorless. Luster is vitreous to dull. Gemmy transparent to translucent, but most are nearly opaque. Crystal system does not because tektites are amorphous. Habits are usually small nodules or splinters that vary from simple rounded shapes to very intricate natural carvings. Many have smooth, scarred, or pitted surfaces. Cleavage is absent. Fracture is conchoidal. Hardness is 5-6, Specific Gravity is approximately 2.5. (somewhat light). Streak is white. Other characteristics: can sometimes be directly associated with meteorite impact craters.



Notable occurrences include Moldavia region of Eastern Europe; Thailand and southeast Asia; Australia and Georgia, USA. Best field indicators are color, odd shapes, localities and lack of cleavage or crystal faces.

## Presidents Message...continued from page 1

Speaking of a few members, we have only 8 people signed up for our August 18<sup>th</sup> Club workshop at Dave Callahan's. We will need a few more to sign up and join in the fun of filling a few hundred Gem & Mineral bags for our sluice. If you have any specimens to add to what we have in stock please bring them to the August 15<sup>th</sup> meeting or bring them with you to the workshop. All donations will be greatly appreciated.

I hope the weather will cool down some for our fall field trips which Dave is working hard to finalize the details. I am sure he will have more info at the next meeting.

That's all for now I hope to see you at our August 15<sup>th</sup> meeting. Until then,

Keep Looking Down,  
John Haskins

## REGION IV PICNIC...continued from page 12

**Please forward all 2012 Region IV Picnic/Swap related questions/comments to** Dave Lines by email at [dave.lines@earthlink.net](mailto:dave.lines@earthlink.net) or by phone at [240-427-7062](tel:240-427-7062).

**Directions:** (Recommend "Mapquest" to La Plata on U.S. Rt. 301, then follow below)

1. Take U.S. Rte 301 to La Plata from south or north, then
2. Turn EAST on MD Rte 6 (Charles Street) and follow thru town and beyond.
3. Go 9.0 miles - Look for brown Gilbert Run Park sign - Park Entrance is on LEFT.
4. After paying \$4 per vehicle Daily Use Fee, continue STRAIGHT through Park Entrance BEARING LEFT
5. Go 0.3 miles to paved parking area on RIGHT for Hilltop Pavilion.
6. You may drive your vehicle to the top to unload and then re-park in the paved parking lot below Pavilion
7. Follow path up to the Pavilion

### Bonus field trip info:

Several excellent fossil hunting sites (open to the public) are within 30 miles of the picnic location. Low tide on the Chesapeake Bay at Matoaka Beach Cabins is 3:18 pm (Fee: \$4/adult, \$2/child under 12). Low tide at Purse State Park on the Potomac River is 7:58 pm (sunset is 7:49 pm. Fee: free).

## BENCH TIPS... Continued from page 3

### BUTTERFLIES

There's an exquisite collection of butterfly brooches on display now at the Natural History Museum in Los Angeles. The collection was created by Buzz and Bernardine, who have a passion for rare gemstones that they have chosen to share through unique jewelry pieces. Buzz faceted most of the main gems and Bernardine designed all except for the "Ninja" butterfly, which is Buzz's creation. All the metalwork is done in 18k gold.

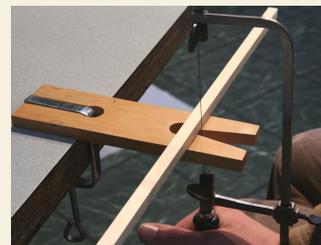
<http://nhm.org/site/research-collections/mineral-sciences/temporary-displays>

### SHAPING A BENCH PIN

What does your bench pin look like? New ones need some modification to best support the work you do. My feeling is that a bench pin that's not drilled with holes, marked with gouges, or sawed at odd angles is just not working for you.

Take a look at this short video from the GIA (via BenchTubes at Ganoksin.com) that shows some changes to a standard bench pin that makes it efficient for stone setting. It may give you some ideas about changes you could make to your own pin that would let you do your work faster and avoid mistakes that waste time and effort.

<http://www.ganoksin.com/benchtube/video/774/Ergonomics-for-Bench-Pin-Modifications>



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



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



**GEM & MINERAL SOCIETY OF LYNCHBURG, VA, INC.**

[WWW.LYNCHBURGROCKCLUB.ORG](http://WWW.LYNCHBURGROCKCLUB.ORG)

*Monthly meetings are held on the third Wednesday of each month at Lynchburg Parks and Recreation Department, 301 Grove St, Lynchburg, VA 24504. Meetings consist of various programs on hobby related subjects. All meetings are family oriented. These meetings are open to the public, please feel free to join us.*

Welcome to our new membership chairman, Thom Noble. Also, a very sincere THANK YOU to Ralph Torning, for his dedication to this endeavor over the last several years. We appreciate the organization and time Ralph invested in our club membership duties, as well as the training he provided to Thom, which will in turn be of benefit to us all.

Thanks again to both Ralph and Thom for keeping our membership records up to date!

