The Gem and Mineral Society of Lynchburg, VA INC

GEM & MINERAL JOURNAL

Volume 20 Issue 8
August 2011

Presidents Message:

Hello To All,

Just to let you know ahead of time, the GMSL August 17th meeting will be held in the basement room, in the rear on the ground floor, of the Lynchburg Parks & Recreation building. This change is due to part of the ceiling falling in the Auditorium the day after our July meeting. I am told the repairs will take at least three weeks and at last inspection the repairs haven't started as of July 29th. I'm glad to report no one was inside at the time the accident happened.

Time seems to be flying by; we only have two scheduled Club workshops before the Apple Harvest Festival at the Amherst County High School in October. We need to make bookends, clocks, belt buckles and birthday gem trees to make sure there is a good selection of sale items. As you know the 24" slab saw cuts very slowly, so I suspect there will be work going on at Dave Callahan's most every Saturday until October. If you would like to help out the Club in making sale items or would like to make something for your own use give Dave a call and come on out to the Club Workshop. All help will be appreciated. In addition a day with other members is a great way to get to know other club members and pick up on some tips in Lapidary work. We normally get started around 9:00 AM and you can leave at anytime. Pack a lunch or go to the near by Deli for some good food and good conversation.

I know there have been a limited amount of field trips lately, so you may want to venture out on your own. My wife and I went to the Natural History Museum in Martinsville, VA and that afternoon traveled a short distance to the Fairy Stone State Park to collect the world famous Fairy Stone Crosses (Staurolite Crystals). It turned out to be a great trip. The 4,000-pound

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First VP Message:

Thank-you Natalie and Siglinde for a very informative and interesting talk on your visit to the Middle East. I kind of liked modeling the headdress; sure could use something stylish like that for my gardening under the hot summer sun.

Here's my submission for the newsletter.

Our program for August will be a "How the Earth Was Made" DVD presentation on Mount Vesuvius, possibly the world's most dangerous volcanic site.

We continue our lapidary series this month with an article on cabochons excellently written by Donald Clark CSM. Pages 11-12

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Tony Shields

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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- Daryl Grant
Membership- Ralph Torning

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

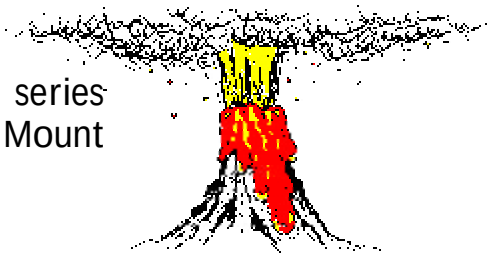
July Meeting Minutes

Meeting: Wednesday, July 20th, 2011
Attendance: 23 members, 4 guests
Hospitality: Bernard Rivera was the host this month. Next month will be Tony and Cindy Shields.
On Time Drawing: Winners were Frank Midkiff, Angela Brad, J.J. Brady, Siglinde Allbeck, Jack Curtin, Tommy Conner, Tom Davis, and Don McIntyre
Old Business: John & Nona, Dave, and Royce looked at a collection and the club approved purchase of the materials for $300. There are over 100 specimens, gem trees, and other miscellaneous items related to our hobby. These items will be available at future silent auctions and some nicer ones at our annual auction in October.
Tonight we have our silent auction and clocks for sale, as well as items from Dave Callahan's collection.
First Vice President: Jack Curtin: Tonight's program will be Treasures from the Middle East, as Natalie and Siglinde talk about their trip to Doha, Qatar and Dubai. Septembers program will be a speaker from Radford. He will accept donations for the Museum of Earth Sciences in lieu of honorariums. He has 6 programs that he can present, and they should be available on DVD soon.
Second Vice President: Dave Callahan: Field Trips/ Activities: 7/23- workshop at Callahan's, 7/29-7-31- Franklin NC Field Trip; 8/4-8/7- Spruce Pine NC Field Trips; 8/13- Thermal City Gold Mine Field Trip; 8/27- 9:00 until..Workshops at Callahan's; tentative possible dates for Willis Mountain are 9/24, 10/22, 10/29. Dave will let us know as soon as a date has been determined.
Treasurers Report: Treasury balance $6636.07
New Business: Jack will check on the cost of some folding chairs to be used during the workshops. Natalie requested the club purchase AdobeWriter for Mac, The cost is around $500.00, and this allows the newsletter to be written in a format for emailing. A motion was made and seconded.
There is a club in Arizona interested in a rock swap. Please bring to the meeting any specimens you would like to donate for the swap.
Miscellaneous: Bark for your Park- if the city wins with the most votes they will receive a $100,000 grant for a dog park. You can cast your votes online.

Minutes submitted by
Brenda Glass, Secretary

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

Programs



For August our program will be a continuation of the DVD series "How the Earth Was Made." This presentation will feature Mount Vesuvius, possibly the world's most dangerous volcanic site.

July Program photographs on page 14

From The Editor:

Our club Newsletter goes out just prior to the meeting, usually on Friday or the weekend before the third Wednesday of each month.

If you do not receive it by email or paper mail by the third Wednesday of the month, please contact the editor. With almost 200 paid memberships and several different formats and delivery methods it is impossible to know if someone inadvertently gets deleted off one of the mailing lists.

The only way I will know and rectify the situation is if you let *ME* know. You can email or call, my current information is listed in the "current officers" section on page 2 of the newsletter.

Thanks for your continued support!
Natalie Darling,
Gem & Mineral Journal Editor

Workshop at Dave Callahan's House on 8/27~ 9:00 AM until you want to leave

There is a nice selection of natural gemstones available for members who would like to make a tree for themselves. The cost is $5.00 per tree, and includes instruction, use of tools and all materials. We will also be working on birthstone trees to sell at our upcoming festivals.

If you want to cut or polish stones, learn how to use the equipment or participate in fabrication of items such as bookends, clocks, spheres, or belt buckles your help will be greatly appreciated.

Whatever your interest- these club workshops are open to all club members in good standing.

Come on out and see what we do with out rocks. You may learn or make something new- or just socialize with other club members. Whatever your interest, there is a place for YOU!

Contact Information for Field Trips:
David Callahan,
Field Trip Chairman
Home phone 540-297-1853-----
Cell phone-----540-874-520-----
E-mail dbcall1@aol.com

Past Field Trip

U.S. Silica Quarry, Montpelier, VA.

Saturday, July 16, 2011

A big thanks go out to the Shenandoah Valley Gem & Mineral Society and their Field Trip Chairman, Dean Hostetter for hosting this trip.

We had a great turn out and the weather was not too hot. We had 10 members representing the Roanoke and Lynchburg Clubs. All in all there were a total of about 40 collectors from several area clubs.

We visited two areas in the massive but rather shallow quarry. There was a lot of gray feldspar (aplite) and some had a beautiful luster not unlike moonstone. It should polish up to make some beautiful cabochons, bookends, clock faces and spheres. Only time will tell.

There was some rutile, ilmenite and garnets to be found but they were not as plentiful as our previous visit two years ago. The availability of really beautiful material is determined by where the rock was obtained in the quarry. Not all areas are heavily mineralized and if you think about it, the material we collectors are interested in is considered contaminates by the quarry. They want the pure feldspar and silica for their end product used in the manufacture of glass.

We look forward to another collecting opportunity at this quarry in the next year or so. Maybe then, we will be able to find more of that stunning white and grey feldspar loaded with that beautiful red rutile, black ilmenite and ruby red garnets.

Up Coming Trips

August Field Trip

THIS IS A "GO-ON-YOUR-OWN" TRIP

Dixie Mineral Council Field Trips
An Official Field Trip of The Columbia Gem and Mineral Society, Inc., Columbia, SC (HOST)
An Official Field Trip of the Gem & Mineral Society of Lynchburg, Inc. and Roanoke Valley Mineral & Gem Society, Inc.

Continued on next page

9:00 AM, Saturday, August 13, 2011
Thermal City Gold Mine – Union Mills, North Carolina
Fee Area

The Columbia Gem and Mineral society, NC. would like to extend an invitation to fellow DMC clubs to join us panning for gold for genuine placer mining site in Rutherford County, NC. Thermal City Gold Mine consists of one-mile section of the Second Broad River and about 80 acres of Placer Gravel Deposits, having one of seven veins from the mountain supplying it. Panning material is brought from the river by backhoe for you to pan. The gravel is not "enhanced or enriched". The gold found in the natural state; right where nature deposited it. Gold found as flakes and maybe small nuggets. Ample shade, parking and instruction in panning are always available when needed.

FEE AREA: The fee is $5.00 to pan all day. The fee is $50.00 for a front-end load.
CHILDREN: Children under adult supervision are welcome. Rocky Rockhounds with leader are welcome.
PETS: Pets are allowed on a leash.
COLLECTING: We will be collecting gold.
WHAT TO BRING: Shovels and pans are furnished or you can bring your own. Other equipment is available for rent or purchase. For additional information on the site, including details about a "front-end load" or overnight stay contact the mine at 82-286-3016 or visit the website at http: www.thermalocitygoldmine.com".
HISTORY: This is an unsalted site and many people have had success finding gold here. The mine's aim is to provide an authentic experience. The mine is located on the actual site of the earliest placers in Rutherford County. It opened in 1839 and has produced gold ever since then.
SPECIAL CONDITIONS: Camping facilities with full hook-ups to primitive on a first come first served basis. Call 828-2863016. No drug, alcohol or firearms are allowed. The grounds are almost level and a short distance from panning to camping to restrooms.
DIRECTIONS FROM ASHVILLE, NC: From Ashville take I-40 east to exit # 85 (Marion/Rutherford); proceed south on US-221 for 8.5 miles to the Rutherford County line; the entrance to the mine is on the left (look for signs along the way). The mine address is: 5240 US-221 N Hwy, Union Mills, NC 28167. Travel time should be about one hour from Ashville.

THIS SEPTEMBER FIELD TRIP IS "GO-ON-YOUR-OWN" TRIP

An Official Field Trip of The Georgia Mineral Society, Inc. - Norcross, GA(HOST)
An Official Field Trip of
The Gem & Mineral Society of Lynchburg, Inc.
and
The Roanoke Valley Mineral & Gem Society, Inc.

9:00 AM, Saturday, September 17, 2011
Vulcan Materials Company, Bartow Quarry, Cartersville, GA

Where: Vulcan Bartow Quarry, 5840 Highway 20 SE, Cartersville, 30121
The Quarry began operations in 1995 at this location. They have 797 acres and their pit is approximately 1,200 feet wide and 250 feet deep at this time.

Continued on next page

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

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

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

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

Field Trip Contact:
David Callahan, Lynchburg and Roanoke Field Trip Chairman
Phone 540-297-1853 dbcall1@aol.com

Host Chair: George Libby. GMS Field Trip Chair
Phone 770-978-2117 Cell- 678-910-7476 Onsiteinatlanta@yahoo.com

OFFICIAL COMBINED MINERAL COLLECTING FIELD TRIP

THE GEM AND MINERAL SOCIETY OF LYNCHBURG, VA INC.
AND
THE ROANOKE VALLEY MINERAL AND GEM SOCIETY INC.

KYANITE MINING CORP. ------- ANNUAL FIELD TRIP

WILLIS MOUNTAIN KYANITE MINE. NORTH END and EAST RIDGE MINE, SOUTH END
If the mine is working, we may have to limit our collecting areas

SEPTEMBER 24, 2011
9:00AM to 1 PM

Continued on next page

***Sign-up is required, call me, email me or sign-up at the meeting*. All club field trip leaders send me a list of your total collectors so that I can compile a list and forward to the mine management by 9-22-11. There is a total limit of 80 collectors from all clubs for this event**

SAFETY: Everyone should arrive at the office parking lot by 8:45 for a safety briefing. Each Club field trip leader, or his appointed replacement, will act as safety observer and will be expected to be on the lookout for and correct all safety infractions from any collector. Keep in mind that this site is one of the few that is still open for collecting. Not obeying the safety rules will cause this site to be closed to collecting as well.

DEPARTING TIME FOR THOSE IN THE LYNCHBURG AREA: If you choose to drive as a group, we will meet the Roanoke Club at the Sheetz Station on US 460 and Rt. 811 in New London under the gas price sign. We will depart promptly at 7:00 am the 1.5 hour 77 mile drive to the mine site.

LOCATION and ASSEMBLY TIME: If you choose to meet us at the Mine office for sign-in and safety instruction, be there between 8:30 and no later than 8:45am. The mine is located north of Farmville, Va. on Rt. 15 North. Proceed from US 460 North on Rt. 15 for a little over 12 miles to Willis Mt. Plant Rd. The stone mine office on the right. If you approach from Rt. 60 at Sprouses Corner, then go south on Rt. 15 for 4 miles to Willis Mt. Plant Rd. and the office will be on your left. Wait in the parking lot and do not block traffic. Many trucks may be using the road. While you're waiting, be sure to enjoy the beautiful blue kyanite bolder in the front yard from the old closed Baker Mountain.

COLLECTION: Willis Mountain is what's known as a monadnock. The kyanite exposure resisted weathering and, as the surrounding area was eroded and weathered away, the mountain outcrop was left standing. This is very much like the famous Graves Mountain kyanite mine in Georgia. The center of the mountain has been mostly mined away. We should be able to find plenty of white kyanite blades in the massive kyanite quartzite; pyrite; quartz; hematite with some iridescent, red mica and possibly some blue kyanite and pale green trolleite. Some of the white kyanite here fluoresces a beautiful light blue as well as some of the quartz. East Ridge is rather new but the finds are slightly different but very impressive. Rutile has been found here in the past

EQUIPMENT: Standard quarry gear is required such as hard hats, safety glasses, good strong boots, long pants, gloves, hammer and chisels, wrapping paper, buckets, food and water. Be prepared for windy, hot or wet weather. We will be on the mountaintop and it's always windy. We can drive to the collecting area, so hand trucks should not be needed. Bring a camera, as the view is awesome.

AGE LIMIT: There is no age limit, but all children must be signed for and supervised by an adult.

WEATHER: The trip will be canceled in case of hard rain or a thunderstorm. Call to confirm if there is any question.

CONTACT: David Callahan. Phone 540-297-1853 Cell 540-874-5201 Field Trip Chairman for the Lynchburg and Roanoke Clubs, email dbcall1@aol.com **web sites** www.LynchburgRockClub.org **……..** www.rvmgs.com

Fundamentals of Lapidary Part 3, Tumbling
By Donald Clark CSM- *Submitted by Jack Curtin*

Tumbling Procedures

It is best to follow the instructions that come with your machine. They are much more specific than this article can be. However, here is a general outline to show the beginner how the process works.

Fill the barrel 2/3 to 3/4 full with stones. Make sure that they are all the same hardness and in an even variety of sizes. For example, if your largest stones are three inches in diameter, there should be just as many two-inch stones, one inch, one half and one-quarter inch stones. These proportions are by volume, not by count.

Next, add water to the top of the stones. Measure the proper amount of abrasive and put it in. Put the top on the barrel and start it in motion.

This stage will take about a week. However, you should open the barrel and inspect your stones every day. Some stones release gases that build up inside the barrel. It is possible for the gas to blow the top off the barrel, creating a terrible mess! Simply opening it every day is enough to eliminate this problem.

You also need to keep track of your progress. The only way to do this is to take a few stones out, rinse them off and have a look at them. Seeing the daily changes adds to the fun of the project!

Do not rinse your stones in a sink; take them outside. The waste from your tumbler can plug up a drain. In fact, it is nicknamed the "Plumbers Best Friend."

When your stones are all nicely rounded and have no angular surfaces left, it is time for the next stage. Take them outside, place them in a colander, and rinse them thoroughly. Wash the barrel out completely using soap, not just water. You need to get all the coarse grit out before moving on to the next step.

Place the stones back in the barrel and add water to the top of the stones. Do not fill to the same level as before. Your stones are now smaller and will not fill the barrel as high. For the abrasives to work properly, your water level needs to be to the top of the stones in every step. If you did not have quite enough stones in the beginning, you are now short. You may still be able to finish, but it will take longer as there isn't as much friction as when it is properly filled.

Add the proper abrasive and set the machine to work.

This second step is usually done with fine grit silicon carbide. It also takes about a week and you should inspect your progress daily. It is complete when all the coarse scratches are removed and the stones are smooth as a baby's bottom.

Now variations enter and you need to read the instructions that came with your machine, or the abrasive kit. Some processes will go directly to the polish stage; others will have a prepolish first.

Regardless of which step you are on, the procedures remain the same. Clean the stones and barrel outside. Replace them, add water and abrasives, and then set the machine to work. Check the progress daily.

If you are using a prepolish, your work will be complete when they have a smooth and satiny surface when dry and look polished when wet. In the polishing stage, you are finished when sparkle and shine from every direction. If ever you aren't sure, give the stones an extra day or two. More time will not hurt them, but too little will result in a substandard polish.

The whole process will take approximately a month to complete, although the actual work is only a couple of hours. If you go away for a few days, you can simply turn the tumbler off and restart it when you come back.

As with any lapidary project, it is that final day when it all becomes worthwhile. You have spent considerable efforts in all the preliminary stages. While it is fun to see the progress, your great reward is when you dry your stones and they glisten with vibrant, beautiful colors. They are now a delight to the eye, and a welcome gift for friends and family.

Up Coming Events

August 19th -21st Gem Miners Jubilee- Lebanon Expo Center, Lebanon, PS. www.gem-show.com or call 717-838-8870 for information.

August 27th-28th- Mountain Home, AK Show and Sale sponsored by the Ozark Earth Science Gem, Mineral, and Fossil club. Senior Center, 1101 Spring St. Cooper Park. Website www.ozarkearthscience.org

Sept 3rd -6th- Hendersonville, NC gem show and sale Ihitmire Activity Bldg, Lily Pond Rd, Hendersonville, NC.

Sept 9th -11th- Winston Salem NC Forsyth Gem and Mineral Club. 40th annual Gem and Mineral Show - Educational bldg. Dixie Classic Fairgrounds, Winston Salem #9 from 27th St only. Contact wariona1@yadtel.net

Sept. 17th-18th- Annual Gem & Mineral Show sponsored by the Central Pennsylvania Rock and Mineral Club. Zembo Shrine, 2801 N 3rd St. Harrisburg, PA.

Sept 30th-Oct 2nd- Dallas NC, Gaston Gem, Mineral & Faceters Club. Show and swap. Resource Center; 1006 Biggerstaff Park, Dallas Cherryville Highway, Dallas., NC. Free admission. 9-6 each day. Contact Jackay McDaniel at 704-865-6748

August 2011

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17 Meeting 7 PM	18	19	20
21	22	23	24	25	26	27 Work-shop @ Callahan's
28	29	30	31			

Announcing the 20th Annual
Richmond Gem & Mineral Society
Rock Swap 2011

Saturday, November 12, 2011; 9:00 am to 3:00 PM - Free Admission

The Rock Swap is indoors, so come rain or shine
Open to all children and adults to swap or purchase the various mineral gem, fossil, shell and lapidary specimens.

Ridge Baptist Church Meeting Hall,
1515 East Ridge Rd, Richmond, VA

To defray swap costs, the RGMS asks that swappers donate a specimen for future RGMS raffles and auctions.

Tables are limited and no table reservations will be accepted

Swappers please label your materials

For additional information contact Murray Rosenberg, Swap Chairman 804-740-0019 or email rgms_info@yahoo.com

GOOD NEWS ! ! !

After the Club voted to purchase a rock collection from the Appomattox area, there were about a dozen members that came to the July 23rd workshop and washed and sorted some 100 specimens to get them ready for the monthly silent auction and the yearly Club auction. We now have to offer for sale several sizes of Amethyst Crystals, clear and smoky Quartz crystal clusters, Rose Quartz, Citrine Crystals, Lazulite from Graves mountain, Watermelon Tourmaline, Zoisite with Rubies, 12 flats of Rock Slabs, Rutilated Quartz and several large specimens of Rhodolite Garnets in matrix. Many smaller specimens along with some nice Coral and seashells. These will give everyone a chance to add some nice specimens to their collections. I hope you will come to the meetings and put your bid in on your favorite choice. Nice collections like this don't become available very often; I hope everyone will be able to take advantage of this opportunity.

Pictures of some of the treasures from our recent collection purchase.

Article submitted by John Haskins, Photographs by Natalie Darling.

Fundamentals of Lapidary Part 4, Tumbling
By Donald Clark CSM-

Cabbing is the most popular form of gem cutting. It requires a fair amount of skill, but is something almost everyone can master. Rough material for cutting can be found or purchased inexpensively. Many people never buy their rough and are content to cut the many stones they find or trade for. As one gains skill, you can move into more desirable materials like turquoise and lapis lazuli. If you wish, you can graduate to highly valuable materials like cats eye chrysoberyl and black opal. *Submitted by Jack Curtin*

Tools

The tools used for cabbing can be as inexpensive or elaborate as your taste runs. The most popular cabbing machine is the Genie by Diamond Pacific. It has six, permanently mounted wheels. The first two are 100 and 260 grit diamond on solid wheels. The other four range from 280 to 14,000 grit. They have a foam backing, which conforms to the curvature of the stones. There are two moveable "geysers" which supply water to the wheels for lubrication. You cannot polish everything with one method, so there is a flat disk that can be mounted on the end. This disk can hold a variety of pads and polishing compounds; enough to be able to polish anything that you might encounter.

The advantages of the Genie are that you never spend time changing accessories and that the diamond wheels last almost forever. Its primary disadvantage is cost. At approximately $1500, this is a major investment. It is also large and heavy, which is fine for a permanent setup. However, if you need portability, this is not the right unit for you.

Going down in cost, Loretone offers a unit for approximately $500 that has a built in saw, a silicon carbide grinding wheel, an expanding drum and a flat disk for polishing. The quality of the machine and the work you can do with it are both excellent. The cost reduction comes in the wheels.

Silicon carbide wheels round in the center. They soon become difficult to use and eventually unusable. To flatten them you need a diamond tool that costs about $30. Nor do they do not last nearly as long as a diamond wheel. A good six-inch diamond wheel will cost you between one and two hundred dollars, where an equivalent silicon carbide wheel will run about $30. While the initial cost of silicon carbide is much lower than an equivalent diamond wheel, in the end the diamond is less expensive. You should bear this in mind when replacing a wheel, or building your own machine.

The Loretone also uses an expanding drum that is four inches wide. To use it, you place a belt around the drum and, as the machine comes up to speed, the drum expands and holds it in place. There are a wide variety of belts available. They come in silicon carbide or diamond and in grits from 100 to 50,000.

In the long run, these belts cost more than a wheel with imbedded diamond, but the difference is not as significant as with the silicon carbide grinding wheels. The primary disadvantage is the time it takes to change belts between grits. The machine needs to come to a complete stop; remove the old belt, replace it with a new one; then bring the machine back up to speed. To some people this will be insignificant, to others just a minor disadvantage. You need to look at your needs to determine how much this will effect your enjoyment.

On the very bottom of the price scale is the Rock Rascal. Its cost is just $240 if you add your own motor. It only has one station, so you are constantly changing accessories, and it will only hold one-inch wide wheels. However, it has been on the market for several decades, which speaks volumes for its durability.

There are a number of other machines on the market with a variety of features and prices. Many people have made their own machines. The requirements are an axle of the proper diameter for the wheels you chose; a motor; a pulley system to attain the proper speed and a method to keep the wheels wet. This is usually a drip system. Another simple system is a sponge that is arranged to sit in water and constantly wipe the wheel clean.

It should be pointed out that you can cab on a faceting machine, but you cannot facet on a cabbing machine. Bear this in mind if you are a beginning lapidary and budgeting your equipment costs.

You can shape your cabs with the same coarse laps you use for faceting. Clean your coarse lap, then put a piece of firm, ¼" thick, foam rubber on top of it. This will hold pieces of 600-wet/dry sandpaper, (that you have to cut to shape,) for smoothing. To polish, replace the sand paper with an Ultra Lap, a piece of leather, or other polishing pad charged with your favorite compound.

Techniques

In this section we will describe how to cut an oval cabochon. This is the most common shape for cabs and the other shapes just require a minor adjustment of technique.

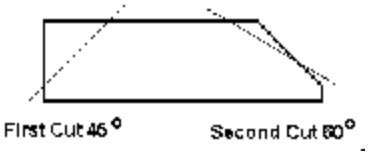
Most cutting begins with a slab. Yes, that means you will need a saw. Some pieces can be cut without slabbing, but most will need to be cut into 1/4" to 3/8" thick slices.
(See our article, "Making Smaller Pieces.")

Begin by placing a template over the slab. If your material is a solid color, you are just looking for the largest piece you can cut. If it has a pattern, then you are looking for the shape and size with the most eye appeal. This is a bit of a guessing game, as the pattern will change as you round the top. Look at both sides of the slab to get an idea of how it will change. It isn't always necessary to use a template. Some valuable materials, most notably opal, are usually cut freeform for maximum weight retention. However, on most materials you will want to end up with a calibrated size and shape. That is because they fit into pre-made settings. It isn't cost effective to save a little weight on most cabs and then have to spend a dozen hours, or hundreds of dollars, to make a setting for it.

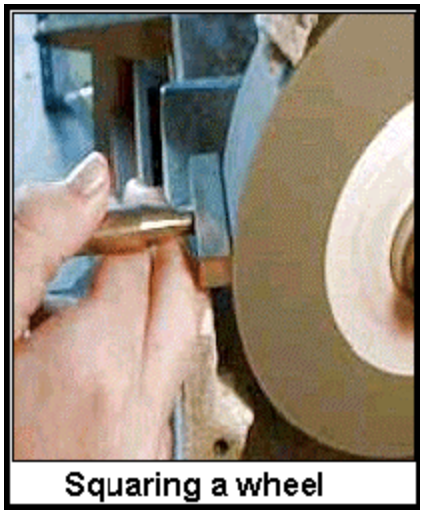
When you have chosen your area, mark it for cutting. An aluminum pen is ideal for this purpose. It will make a mark that will not wash away, as a pencil will. Many materials will absorb liquid ink, which leaves an unsightly mess that has to be cut away.

Now that you have your cab outlined, take it to the saw and cut away as much excess material as possible. Until you get used to this process, it is helpful to draw guidelines with the aluminum pen and a ruler.

If you are working with a large gem, you can move on to the grinding stage. Smaller stones should be dopped to save your fingers from unnecessary abuse. (See the article on "Dopping Techniques.")



Saw Lines



Squaring a wheel

Next month, we will continue with shaping, smoothing, and polishing.

The Mineral Stilbite

Via
http://www.galeries.com/minerals/silicate/stilbite/stilbite/htm

Reprinted from Tips and Trips, Georgia Mineral Society Newsletter, August 2011

Chemistry: $NaCa_2Al_5Si_{13}O_{36}- 14H_2O$, Hydrated sodium calcium aluminum silicate

Class: Silicates
Subclass: Tektosilicates
Group: Zeolites
Uses: mineral specimen and chemical filter

Specimens:
Stilbite is a common and perhaps the most popular zeolite mineral for collectors. Stilbite crystals can aggregate together to form a structure resembling wheat sheafs. This hourglass structure looks like several crystals stacked parallel to each other with the tops and bottoms of this structure fanning our while the middle remains thin.

Stilbite's hallmark crystal habit is unique to sitlbite and a rarer but related zeolite called stellerite. Whether in the wheat sheafs or not, stilbite can be a handsome specimen with its pearly luster and often colorful pint tints.

Stilbite commonly forms nice crystals inside the petrified bubbles called vesicles of volcanic rocks that have undergone a small amount of metamorphism.

Stilbite's structure has a typical zeolite openness about it that allows large ions and molecules to reside and actually move around inside the overall framework. The structure contains open channels that allow water and large ions to travel into and out of the crystal structure. The size of these channels controls the size of the molecules or ions and therefore a zeolite like stilbite can act as a chemical sieve. Stilbite's structure contains rings of alumino-silicate tetrahedrons oriented in one direction and this produces the prominent pinacoid faces, the perfect cleavage and the unique luster on those faces.

Physical Characteristics:

- ?? **Color** is pink or white; also tinted yellow and red
- ?? **Luster** is vitreous to pearly especially on the prominent pinacoid and cleavage surfaces
- ?? **Transparency**: crystals are transparent to mostly translucent.
- ?? **Crystal System** is monoclinic; 2/m
- ?? **Crystal Habits** include platy often-thin crystals that can aggregate together into a wheat sheaf like structure. He prominent pinacoid is sometimes but rarely modified by other pinacoid and prism faces. Cruciform (cross like) twins can also be found. Also form radiating nodules.
- ?? **Cleavage** is perfect in one direction parallel to the prominent pinacoid
- ?? **Fracture** is uneven
- ?? **Hardness** is 3.5-4
- ?? **Specific Gravity** is approximately 2.2 (very light)
- ?? **Streak** is white
- ?? **Associated Minerals** are quartz, calcite, babingtonite, apophyllite, heulandite, naturolite and other zeolites.
- ?? **Notable Occurrences** include Poona, India; Scotland: Iceland: New Jersey and Nova Scotia, Canada/
- ?? **Best Field Indicators** are crystal habit, luster, density and associations.

For Our **July Program**, Natalie And Siglinde shared photographs, stories, and actual "treasures" from their Middle East Travels last year.

Photo to the right shows first VP Jack Curtin wearing a typical head cover, (thanks for being our model Jack), and below is Abegale Allbeck, grand daughter of Siglinde Allbeck wearing an Abaya, which is the cover used by many middle eastern women. Some also wear nicab or masks, also being modeled by Abey in this photograph.

Bottom right is one storefront photo taken in the Gold Souq in Dubai. All of the items in the photo are handmade jewelry in 18-22 Karat gold.
This is just one window of the many shops in the souq. Talk about sensory overload!

While we brought back our share, I don't think we even made a dent in their supply, so we will plan to return and continue our "treasure hunting."

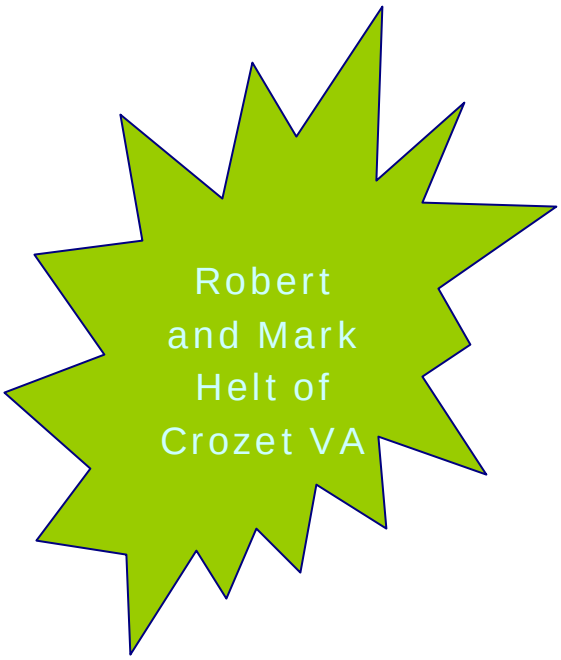
Presidents Message: *Continued from page 1*

Stromatolite Fossil found in the Boxley Quarry at Blue Ridge, VA has taken center stage as soon as you enter the Museum, it's a must see specimen.

Jack Curtin, our First Vice-President, has had several articles on lapidary work and rock tumbling in the Club's newsletter. If there is someone interested in tumbling stones the Club has a book in our library on all phases of rock tumbling. Call me and I can bring it to the next meeting. My home phone is 434-525-8430. I hope to see you all there at the August 17th meeting.

Keep looking down,
John Haskins

Welcome New Members



Dear Geology Club Members,

Falls of the Ohio State Park and the Falls of the Ohio Foundation announce the 2011 Falls fossil festival! This is our 11th annual event, will be held Sept. 17-18th at one of the world's most spectacular naturally exposed fossil beds! Visitors are encouraged to explore our rich Middle Devonian patch reef packed with fossils on the riverbed at the Falls of the Ohio.

Look for giant colonial corals, horn corals up to four feet long, trilobites, and numerous other types of ancient marine organisms.

This show, held rain or shine, features outdoor vendors selling fossils, minerals, books, items with a geo-science theme and food. There are fossil ed tours and special programs from knowledgeable paleontologists and geologists in the Interpretive Center. At 9:30 each morning (river level permitting) you can explore the outer fossil beds, guided by two knowledgeable leaders. There is an impressive line up of speakers and topics this year.

Collecting at the Falls of the Ohio is prohibited, however, a quarry donates tons of fossil-bearing Silurian Waldron shale and another provides Devonian Fossils from Jeffersonville Limestone residual soil. Dig for brachiopods, bryozoans, corals, crinoids, cystoids, snails, clams, and trilobites at our fossil collecting piles. A mineral collecting pile from the largest mine dump in Rosiclare, Illinois will also be available for fluorite, sphalerite, barite, calcite, etc. We can direct your club to other localities to collect fossils and or minerals. The parks website lists more than a dozen collecting locations in the area. This would be an ideal weekend field trip. We hope members of your group will be able to attend.

Details can be found on the festival website from our home page:
http://www.fallsoftheohio.org or directly
http://wwwfallsoftheohio.org/fallsfossilfestivalprogram.html

Please contact me at agoldstein@dnr.in.gov if you have any questions.
Alan Goldstein, Interpretive Naturalists & Falls Festival Coordinator

The Gem & Mineral Society of Lynchburg, VA Inc.
Natalie Darling, Editor
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Lynchburg, VA 24502 **www.lynchburgrockclub.org**

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

Lynchburg Rock Raiders is the official FRA association of The Gem & Mineral Society of Lynchburg, VA INC

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

ON THE WEB: Lynchburg Gem and Mineral Society: ***www.lynchburgrockclub.org***
The SFMS Newsletter, the Eastern Federation Newsletter, and the
AFMS Newsletters are available for all members
to read on line at the Federation Websites:
www.amfed.org/sfms, ***www.amfed.org*** *and* ***www.amfed.org/efmls***