



September Newsletter

9/2019

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Meeting at Miller Center
301 Grove Street
Lynchburg, VA 24501
3rd Wed of the month
7:00 pm until 9:00 pm

Dec. meeting will be in the Aviary again.

Workshop is the 2nd Saturday of the month.

President's Meanderings:

By Dave Woolley

Don and Neil McIntire

I have often fantasized about having a small mine in my backyard where I could go collect interesting gems and minerals, kind of like Bill Baltzley and later Sam Dunaway's Morefield Pegmatite Mine, but on a smaller scale. Bill offered me the Morefield for \$350,000 back when I was raising a family and earning VDOT pay. That sale could not happen. Don and Neil had the good luck to live at a small farm with local interesting mineral collecting, without the hard work of mining. They were located on a clear blue quartz and rutile deposit. Whenever Neil would tend the garden, she would dig up Rutile crystals. Don could pick up clear blue Quartz anytime he wanted to facet a piece. His driveway was especially rich. Visitors were always invited to collect both minerals. The nearby road cut to the Mansion Bridge over the Staunton River produced rocks and minerals comparable to the Catoctin Greenstone from the Mount Athos Quarry near Lynchburg. Further upstream about 200 yards from the inflow of the Otter River, along the Railway tracks, Don collected Apatite, Diogenite, Epidote, Feldspars, Malachite, and Azurite in a very small outcrop of a "black Smoker" deposit that I discovered. [It is now illegal to walk along Railway tracks!] Float under the Mansion Bridge and in a now obscure NBL Rt 29 ditch line produced several very rare crude clear blue Quartz crystals. Nearby was the Altavista Andalusite site that I nearly discovered, and the "Glory Pit" Golden Beryl Pegmatite at the Hurt Wayside picknick ground that I did discover. Don and Neil amassed a fine collection and their welcome was always out for visitors. Neil acquired many large, beautiful specimens of Fluorite, Barite, Sphalerite and Calcite from the Elmwood Tennessee Zinc Mine from an antique shop on one of their many travels. Don's favorites were his samples of fluorescent minerals from Franklin, New Jersey, Zinc mines; many field collected and some acquired from local collectors. He and I shared several trips to Franklin. Don, a self-taught faceter, added a Beale/Woolley Depth of Cut Indicator, a spring-loaded wear compensating pivot bearing, and an alignment tool of my design to his Graves faceting machine. He produced outstanding gems and jewelry for friends and

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Michael Staton &
Eric Routon

Youth Out Reach
Jennifer Staton

family. Three of his “top shelf” gems are on permanent display in the Lynchburg Gem and Mineral Society collection at Easter Island store. He and I went on several buying trips to Baltimore and DC to purchase faceting rough from New Era Gems. Don was a past president of the LGMS, and a Mason. He was a constant advisor in keeping the Executive Committee on the straight and narrow. Neil often provided cooking from her kitchen to enhance our club activities.

Definitions: Metamorphic Rock

by Dave Woolley:

A previously existing rock that has been altered by *changes* in heat and/or pressure.

Granite alters to Granite Gneiss. The uniform texture of Granite changes to gneissic *layers* of the same Granite minerals; Plagioclase, Orthoclase, Quartz, plus a little Biotite or Hornblende. Granitic Gneiss has a mineral content similar to Granite but may be metamorphosed from a Sedimentary Rock, or other similar-to-Granite Igneous Rock types. Composition varies.

Basalt to Greenstone; many metamorphosed Basalt minerals like Epidote, Serpentine, and Talc are often green colored giving metamorphosed Basaltic rock a common name of “Greenstone”. Hornblende Gneiss plus Hornblende Schist and Biotite Schist, all common in the Piedmont, may be metamorphosed Basaltic volcanic ash that were deposited in a Marine environment.

In a Schist the layers are fairly uniform; in Gneiss the layers are distinct and often irregular.

Quartz Sandstone metamorphoses to Quartzite. “Pure” Quartz sand to “pure” Quartzite.

Impure Quartz Sandstone, impure with clays or other minerals, alters to Impure Quartzite like the Kyanite Quartzite from Willis Mountain, Virginia, and Graves Mountain, Georgia.

Limestone metamorphoses to Marble Shale metamorphoses to Slate to Phyllite to Schist to Gneiss, sometimes to Granitic Gneiss.

All rock types can be buried such as in a Plate Subduction Zone, or be stressed by tectonic activity that raises mountains, both where increasing heat and/or pressure metamorphoses rock. Ultimately, all rocks can be melted to a Magma to again cool and crystalize into a new Igneous Rock. Water, especially from an oceanic subduction zone, helps the melting as a solvent and the creation of new minerals. [Remember my comments about water?]

From the Blue Ridge Mountains, Unakite, is a granite that was altered by a small *change* in heat or pressure; the Calcium to Sodium feldspar, Plagioclase, has been altered to Calcium Epidote. From Central to South West Virginia - Appomattox to Basset – Staurolite is found in the Alligator Back Formation. Staurolite is a metamorphic mineral formed in this case from the Sediments of a Marine

Sedimentary Rock, likely a shale that was metamorphosed to a Mica Schist. A “Fairy Stone” is a twined crystal of the mineral Staurolite altered by a *decrease* in heat and pressure making Clay Minerals while maintaining the shape of Staurolite crystals. A “Fairy Stone” is a Clay Paramorph after Staurolite. Andalusite is a metamorphic mineral formed from the Aluminum Silicate Marine Sediments of a Sedimentary Rock, likely a shale, metamorphosed to a Mica Schist. At higher temperatures and pressures, Andalusite may form from the Aluminum and Silicon of some of the clays. At increasing temperatures and pressures, Sillimanite, Kyanite, Mullite and then Corundum will crystalize from the elements in Andalusite. Andalusite, Sillimanite and Kyanite have the same chemical composition $AlSiO_4$ but their crystal structures are different in response to the pressure and temperatures of the environment. The Altavista Andalusite location is unique in that Sillimanite Paramorphs after Andalusite and the Kyanite Paramorphs after Andalusite and Sillimanite were found near Andalusite crystals, each a Pseudomorph or false form maintaining the shape of the original Andalusite crystal. From laboratory experiments the pressures and temperatures necessary to form these minerals is well known – a geologic pressure and temperature gauge. Locally, wild things happened along this very unique vein.

Program for the coming months

September – Kate Staton – Will give an account of her recent Glacier research on Mt. Baker.
Dave Callahan – Fieldtrip requirements- Dave Woolley will bring examples of what to look for on Willis Mountain.

October- Eric Routon – Fossils – Methods of Fossilization

November – Club Auction and Club Officer Nominations

December – Christmas Dinner and Secret Santa

Note from the Editor:

Hi All,

Here we go, summer is almost over and the cooler weather is upon us. I am looking forward to the Willis Mountain trip as it is on the weekend just before I deploy to site for work. Make sure you come to the September meeting if you are planning on going, as Dave Callahan is going to give the instructions that you will need while you are there.

Remember to send me your “Why I became a Rock Hound” short story.

Please send me your short story stevegordon@comcast.net

Field Trip Opportunities

Our club has a field trip to Willis Mountain on September 28th broadcast sent separately.



Dixie Mineral Council Field Trips

The Southeast Federation of Mineralogical Societies, Inc



The Friendly Federation - Founded in 1976 to serve
DMC Program of the SFMS Field Trip Committee
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An Official Field Trip of the Memphis Archaeological and Geological Society (Memphis, TN) (HOST)

Saturday, October 12, 2019
8:30 am to 3:00 pm Central Time
Memphis Stone and Gravel, Perry Plant
4053 Hogfoot Road
Senatobia, Mississippi

Meet at the Perry Plant, Senatobia, MS (directions below). When arriving do not leave the parking area until the safety briefing has been conducted. Each trip participant must sign in and include your club membership.

COLLECTING: Chert gravels with fossils (Mississippian, Devonian, and Silurian), petrified wood, agate, conglomerate, quartz and other rocks and minerals associated with regional alluvial terrace deposits of Pleistocene / Pliocene age. We will be collecting the gravel from stockpiles. Samples of material (tumbled polished) collected from North Mississippi Gravel Pits:





BRING: Bucket, rock hammer or hand rake. We will be surface collecting and no digging is necessary. Spray bottle with water is very helpful.

SAFETY REQUIREMENTS: A review of safety rules will be provided during the site orientation. This is an active mine with dangerous areas, including water hazards. Do not walk or climb under/on any equipment. All children must be under **CONSTANT ADULT SUPERVISION** and **NEVER** allowed to roam around. Shoes must be closed and/or laced (no flip-flops or Crocs) and Long Pants are required. Remember, any time eye hazards may exist, such as hammering or prying, safety glasses **MUST** be worn. Bring plenty of water and sunscreen and always stay with the group

TERRAIN AND ACCESSIBILITY: Easy walking, no long hikes or climbing required.

CHILDREN (Yes): Adult supervision at all times.

PETS (Yes): Must always be on leash.

FEE: No fee.

FACILITIES: Portable Potty. No other services available. See notes about food/drinks below.

ADDITIONAL INFORMATION: Memphis Stone and Gravel and MAGS will provide drinks and lunch.

RSVP: If you plan on attending, let a MAGS trip leader know (contact information below). We would like a head count so we will have enough buns for everyone.

DIRECTIONS:

- From Memphis, TN or Jackson, MS, take I-55 to Senatobia, MS
- At the I-55 Senatobia, MS exit (265), exit and go WEST on MS-4 / E MAIN ST toward downtown Senatobia 1.0 miles
- Turn LEFT onto US-51 / MS-4 / S PANOLA ST (then immediately get ready to make right at stop sign, as described next) <0.1 miles

- Turn RIGHT onto MS-4 / W TATE ST. Continue to follow MS-4. 5.1 miles
- Turn RIGHT onto JJ RANCH RD. 2.1 miles
- Turn LEFT at fork onto HOGFOOT RD and proceed up the hill until you see the plant on your right (north). 1.9 miles
- The plant entrance is all the way on the west side of the property on the right (north) side of the road. You should see the scale house.

CONTACTS: MAGS field trip leaders: WC McDaniel 901-490-3575, w.c.mcd@att.net or Kim Hill at 901-585-2268.

Why I became a Rock Hound

By Ann Maurice

I spent most of my life in the granite state of New Hampshire. Every time that I felt the need for rock energy I would plan a trip to Franconia Notch located in the White Mountains of New Hampshire. The basin was the area that I liked the most. Water swirling down from the mountains carving out an enormous piece of granite. I was completely happy with my experience. I have also traveled to Thunder Bay in Nova Scotia, Canada. The rocks were so colorful and beautiful, water washed, and small enough to carry away. Have been collecting ever since.

Happy Collecting,

Ann Maurice

EOTO, Each One Teach One Award

Congratulations to Thom Noble of the The Gem & Mineral Society of Lynchburg! EOTO, Each One Teach One Award the results are in! EOTO Trophy mailed out to a wonderful recipient of the Each One Teach One Award for 2018. And the winner is....drum roll occurring in the background... Thom Noble, Lynchburg VA Club Steve Gordon is the President and I'm sure he is as proud of Thom, as are we and Linda Noble. Linda actually nominated Thom, and who better than his wife who sees all the extra work that he has done for his club!! He is an awesome cab cutter and loves to teach others this skill. A true teacher; Thom "appreciates the opportunity to see the reactions of students showing off their creations." Anyone who has ever taught knows that is one of the best parts. The Federation congratulates Thom for his wonderful work and sharing his talent. Please keep in mind, we would like to award the trophy to someone in your club, but you have to help me out by nominating someone and telling me why they deserve it. Who teaches, helps, goes out and spreads the love of our hobby!

Betsy Oberheim (EOTO chair)

Taken from the American Federation News Letter

Upcoming shows/events

September 13-15—RICHMOND, VIRGINIA: Annual show; Treasures of the Earth, Inc.; Richmond Raceway Complex, 600 E Laburnum Ave.; Fri. 12-6, Sat. 10-5, Sun. 10-5; adults \$5 (tickets are good for the weekend), and free admission for youth 16 and under; Vendors offering mineral specimens, crystals, loose stones, beading supplies, pearls, displays of dinosaur bones and Virginia rocks and minerals presented by the Richmond Gem & Mineral Society; contact Ellen White, PO Box 59, Gloucester Point, VA 23062, (804) 642-2011; Email: Ellen@treasuresoftheearth.com

September 20th – 22nd The Shenandoah Valley Gem & Mineral Society presents:
The 52nd Annual Gem, Mineral & Jewelry Show
The Augusta Expo - 277 Expo Road, Fishersville, VA
<http://goo.gl/maps/4J8OI>
Information about our show can be found here:
<http://tinyurl.com/SVGMS-show-2019>

October 27th 2017 – Sponsored by th DC Gem, Lapidary & Mineral Society Chapter

NEW GEM, MINERAL, & JEWELRY SHOW

SUNDAY, OCTOBER 27, 2019, NOON TO 6 PM.

ADMISSION-\$4 NON-MEMBER, \$3 MEMBER,

CHILDREN 12 & UNDER FREE

ROUGH! GEMS! BEADS! MINERALS! JEWELRY!

DOOR PRIZES EVERY HOUR

LOCATED AT THE WOMAN'S CLUB OF BETHESDA

5500 SONOMA ROAD

BETHESDA, MD

CORNER OF SONOMA & OLD GEORGETOWN

PARKING IS FREE

WANT MORE INFO? CONTACT TIM MORGAN, SHOW CHAIR,

AT TIMOTHYMORGAN@MAC.COM OR CALL HIM AT 301-325-3171

(Print this announcement for free admission, one per customer)

August Meeting Minutes

Gem & Mineral Society of Lynchburg Meeting – August 21 2019 @ 7:00 PM

Attendance: 40 members
One Guest- Robert Osal
Meeting called to order by Dave Woolley- President

On Time Drawing Winners: James Tomlin, Kate Staton, Joan Moore, Sydney Tomlin, Pam Routon, Bernard Rivera, Mary McIntire, Debbie Wade.
Special Thanks to Eric Routon for assisting with on time drawing.

50/50 Drawing – no drawing

Hospitality:

James and Holly Tomlin hosted tonight's meeting and will host the September meeting.

Announcements:

Dave Callahan reported on Willis Mountain fieldtrip coming up in September. 10 other clubs have been invited and Lynchburg will be the host club. Signup sheet and directions available. He will give a full report at next month's meeting and Dave Woolley will bring examples of minerals collected there.

David Brogan spoke about their trip to Franklin Museum and encouraged everyone to visit. Thom Noble gave report on club's membership and will contact Casper Voogt to update club's website. Dave Woolley brought in a bucket of mine ore from Rio Doce in Spruce Pines. Suggested the idea of club members purchasing some buckets of ore to sluice and for a small fee of \$25 can be shipped. This could be a planned workshop and will discuss further.

Please send your article of "Why I Became a Rockhound" to Steve Gordon to publish in our Newsletter. It can be a short paragraph.

Workshops continue to take place on the second Saturday of each month at Dave Callahan's.

Treasurer's Report- Linda Noble gave the report on current balance of \$11,913.41. Records are available at each club meeting for review by club members.

New Business: Thomas Hale gave a brief presentation about the Virginia Mineral Project. – Collect Preserve Educate. Visit The Virginia Mineral Project on Facebook.
We hope to have a program from him in the near future.

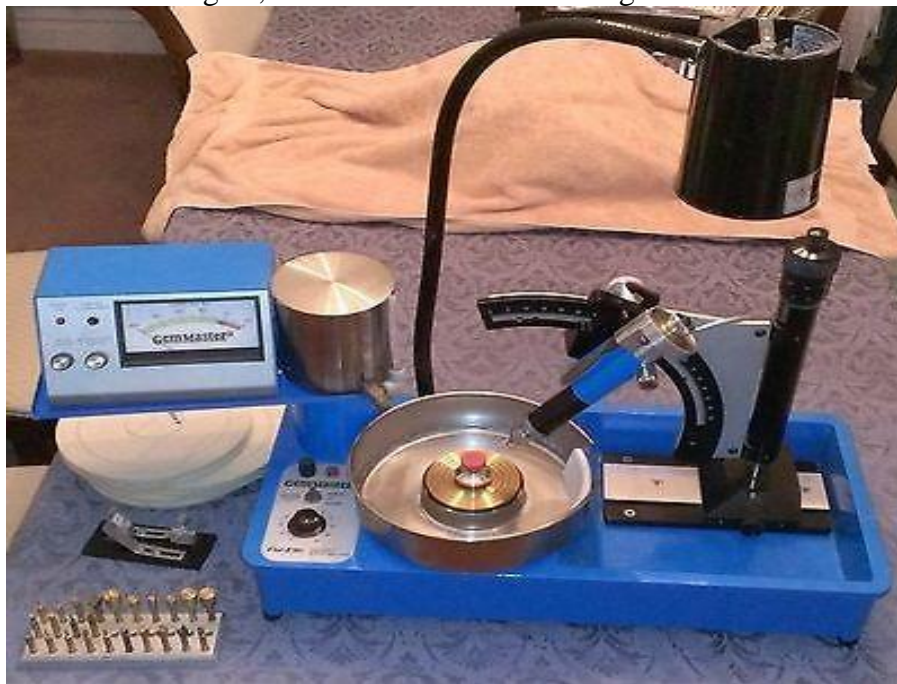
Program: Dave Woolley gave a nice presentation about Quartz

Thanks to Warren Darling for bringing items for Silent Auction which earned **\$26**

Welcome new members: Milissa & James Herrman and son Eddie Van Eaton



39. “Fac-Ette” – A Mast Type Faceting Machine. The very large and *easily read* Protractor has enough weight on one side of the Mast to reduce Tube-on-Mast Bearing Wobble. Note that even this Protractor reads to half of a degree, estimated to a tenth of a degree



40. “Fac-Ette GemMaster” an improved “Fac-Ette” with an *electronic Strain Gauge* to *eliminate* the Mast Flex problem. This is the first successful Depth of Cut Indicator. Cut until the needle reaches the green band on the meter; stop before hitting the red band. Repeat for subsequent facets. Movement of the needle shows the speed and progress of the cutting.



41. The “Fac-Ette GemMaster” **Strain Gauge Meter** with a warning **Audio System**. An alarm sounds after just passing the green band at Zero.
The Fac-Ette GemMaster patent “prevented” all other manufacturers from using “any kind of electronic device” as a Depth of Cut Indicator. This restriction kept the Fac-Ette GemMaster off my list of the most important contributions to faceting, even though it belongs. Electronic development came to a standstill because of this patent.

[Other Links that you may want to check out:](#)

A Guide to Ethical and Conflict-Free Jewelry

<https://www.77diamonds.com/engagement-rings/ethical-jewellery/introduction>

Insurance Institute of Jewelry Appraisal

[https://instituteofappraisal.com/Investigation of Artificial Color Infusion of Gemstones.pdf](https://instituteofappraisal.com/Investigation_of_Artificial_Color_Infusion_of_Gemstones.pdf)

https://instituteofappraisal.com/Exposing_the_GIA_Juggernaut.pdf

Rock collecting guide for geology beginners

<https://www.basementguides.com/rock-collecting-and-geology-basics/>

If you need to renew your club membership you can let me or Thom Noble know and we can email you the form. You can make checks out to GMSL.

Our Mailing address is:

The Gem and Mineral Society of Lynchburg, VA, INC.

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