THE MOUNTAIN GEM

Gem & Mineral Society of Franklin, North Carolina

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January 2022 Newsletter

WWW.FGMM.ORG

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Cover Photograph – West Texas Plume Agate
By Stacy Walbridge

PRESIDENT's REPORT

I hope that everyone had a great Christmas and New year. As we start off the new year we again are having to deal with covid. It seems that this variant is even more infectious than our last variant. Let's be safe out there.

We will be starting inventory soon. It has not been done in two years and should be done every year. If you would like to help - let me know. Helen should have some really great field trips coming up this year. I am looking forward to going on a few.

This coming February will be our museum's 50th anniversary. Ron Rossomando has a few things planned for this summer. Can't wait to see what he has planned.

I am looking forward to seeing you at our January meeting.

Mark

December General Meeting Meetings

With the Holiday Luncheon serving as the December meeting there were no minutes recorded.

Education/Tours

By Marsha Harmon

The High School Chemistry Class from Macon County Home Education visited our Museum on December 2. Four students and three adults requested a class on Radiocarbon Dating. Helen Rogers stepped up to the task and her PHD in Chemistry was apparent due to the well-received program. She also has experience working with the CDC. Lucky us!

After the program a short tour of our Museum took place with Mark Laing showing off our own collection of “hot rocks” and he used a working Geiger Counter,to show the group how to take some sample readings. Case # 52 in our World Room is where you will find Uranophane, Novacekite and Uraninite rocks with an antique Geiger Counter.

Helen has agreed to the possibility of the same presentation for one of our General Meetings in the future. As for me, my brain was fried through-out.

GIFT SHOP NEWS

By Anamay Rossomando

Wishing everyone a Merry Christmas season with A Happy & Healthy New Year. Make 2022 the year to shop local, support your museum, educate family & friends by bringing them down to see our new display.

We are a wonderful little gem to discover.

DIAMOND HILL FIELD TRIP

By Helen Rogers
Photographs by Helen Rogers & Gary Galbrecht

On December 4, five club members (Gary Galbrecht, Don MacDonald, Marsha Harmon, Philip Rogers and Helen Rogers) travelled to Diamond Hill Mine in Abbeville, SC. Diamond Hill Mine is a 6-acre parcel of land containing an astonishing variety of crystalline materials. Crystals that can be found include clear and smoky quartz, citrine, amethyst, aquamarine, and feldspar in clusters, as druzy

Left-Amethyst (30x43mm), Center-Blue Quartz (29x68mm), Right- (67x60mm)

and scepters. Parts of this mine resemble a pit, as soil has been dug and moved around with heavy machinery. Crystals can be hand dug from large piles of dirt (loose in soil) and occasionally found on the surface (especially after a rain). Some crystals can only be obtained by breaking larger pieces of feldspar to reach interior veins. We observed this being done, as well as the loading of what appeared to be several tons of cracked feldspar into a pickup. While there is always discussion of

whether certain crystals have been played out at this mine, some people were happy to show us very nice pieces of amethyst they had collected that day. Several of our members found very nice crystal clusters and other specimen stones.

While you can bring lots of tools with you, probably the most useful are gardening hand tools, a spray bottle or a basin for water to rinse off your pieces—and something to sit on. Sometimes the only way to know if the rock you just found contains crystals, is by spraying the rock down with water or soaking in a basin (thanks to Marsha Harmon for bringing that basin!). If you decide to go, check ahead on the mine's website to ensure they are open (https://diamondhillmine.com). The mine is 2+ hours away from Franklin! On the day we went, it was quite warm (mid 70s) with minimal shade available, so bring a hat. As there is no food or drinkable water, be sure to bring what you need.

Marsha Harmon showing off her crystals

Phillip Rogers (l) and Don MacDonald (r) sifting for crystals.

UPCOMING DMC FIELD TRIP

An Official Field Trip of the Tennessee Valley Rock and Mineral Society (Chattanooga, TN) (HOST)

Saturday, February 19, 2022
9:00 am CST
Ross Creek
Gruetli-Laager, TN

NOTE: DMC field trips will continue to be planned and scheduled, but may be cancelled or rescheduled pending COVID-19 status.

TRIP: Day trip to a Pennsylvanian/Mississippian scale and fern tree fossil site. The site is easily accessible by auto and is not a strenuous site. The site is a shallow creek that is wet year-round. This time of year, snakes and poison ivy are probably not a problem. Our club has been collecting at this site for 15 years.

COLLECTING: Collecting will include various genus and species of Pennsylvanian and Mississippian carboniferous plant fossils. Extensive digging is not required as most specimens are readily picked up in the creek or in the creek bank wash.

BRING: Bring a bucket, digging trowel, geology hammer, magnifying lens, packing material to protect finds, wet weather gear especially boots, gloves, change of shoes and pants as you will get wet. It will be cold this time of year and you will be on top of a mountain, so bring warm dry clothes to change into and check weather for Monteagle, TN for forecast.

REQUIREMENTS: There are no age restrictions but must be able to negotiate uneven terrain and cross a creek. It may be muddy and slippery. Remember this is undeveloped land and has many roots and vines on the ground. Loose rocks everywhere.

TERRAIN/SPECIAL CONDITIONS: Parking will be ample on a dirt road. It may be muddy depending on the weather. There are no facilities in the area, so bring water, food and first aid meds if needed. Cell phone reception at best is unreliable.

CHILDREN: Children encouraged, but must be able to walk on uneven terrain. Adults are expected to supervise your children.

PETS: No pets allowed.

FACILITIES: There are no adjacent facilities for this site, this is a remote site, very primitive.

ADDITIONAL INFORMATION: A brief safety/orientation meeting will be held at the rendezvous site. Samples of collection material will be available for inspection.

FEE: There is no fee.

Contact Helen Rogers if you are interested in attending.

SPECIAL ANNOUNCEMENT
DELLA ELLEN SAMUEL

1920 – 2021

Long time FGMS member and instructor, Della Ellen Samuel, passed away December 25, 2021 at the age of 101. She was very active in the club and loved teaching others about rocks and gems.

Her obituary is online and may be found at https://www.conradandthompson.com/tributes/Della-Samuel.

BENCH TIPS
by Bradford Smith

SILVER DISCOLORATION

Working with jewelry involves an ever increasing number of skills. Chemistry is one of them that comes into play when dealing with a discoloration on the metal caused by a chemical reaction between it and the environment.

In the case of Sterling silver, there are three discolorations we typically encounter: a tarnish, a firescale, and a firestain. Each is different in its cause, in its cure, and in its prevention. All three have to do with components of the Sterling alloy (92.5% silver and 7.5% copper) and how they react with oxygen and the heat of soldering or with pollutants in the air over the long term. Firescale and firestain also occur in 14k or 18k gold because of the copper content.

Tarnish is a grayish coating that builds up slowly on the surface as a result of a reaction of the silver with sulfur-based compounds in the air. Typically these are pollutants from the burning of petroleum fuels, but they can come from other sources as well. I once tarnished all the silver in my display case by putting a pretty specimen of iron pyrite in with the jewelry. Turns out pyrite has sulfur in it!

Tarnish Examples: Photo Courtesy of:
https://blog.centimegift.com/does-sterling-silver-tarnish/

Sulfur from air pollution or any other source combines with the silver to form a grayish silver sulfide film on the surface. Preventing tarnish involves keeping sulfur away from the metal. Plastic bags will help, and anti-tarnish strips are available from jewelry supply companies to pack near your items. Tarnish is easily removed by hand polishing with a jeweler's cloth or with one of the products sold for cleaning the good silverware for holiday dinner.

Another way is to remove it chemically. Put a piece of aluminum in the bottom of a dish large enough to contain your piece. Heat enough water to cover the silver. Mix in 2 tablespoons of sodium carbonate per cup of water and pour into the dish. Be sure the silver touches the aluminum. Sodium carbonate is the main ingredient in washing soda. Read the labels in grocery and hardware stores.

The second type of tarnish is called firescale. It is the dark gray to charcoal colored film that forms on Sterling or other copper alloys like brass or bronze when we heat it with a torch. The copper in the alloy reacts with oxygen in the air to form a dark cupric oxide coating on the surface. Luckily, the oxide is easily removed by

dissolving it in a mild acid - generally called a pickle. It's important that we not let firescale form on a solder joint because it will block the flowing solder over the joint.

Firescale Example: Photo Courtesy of:
http://lees-papers.blogspot.com/2010/10/improved-anti-fire-scale-vacuum-casting.html

There are two ways to prevent firescale. Most common is to use a flux, a borax-based solution applied to the metal before soldering. When melted, borax forms a thin glassy layer that keeps oxygen away from the metal. A second way is to do your soldering on a charcoal block. Together with the flame, charcoal greatly reduces the amount of oxygen in the area being soldered. In either case, oxygen is prevented from reaching the metal, so no cupric oxide firescale is formed.

A second oxide can also be formed when soldering copper or a high copper content alloy like bronze or brass. It's called cuprous oxide and is reddish in color. That's why a black looking piece you put in the pickle sometimes comes out red. Problem is that while the black cupric oxide is dissolved by a pickle, the red cuprous oxide is not. The discoloration can be sanded or polished off, but an easier way is to use a "super pickle". This is a mixture of fresh pickle with a healthy shot of hydrogen peroxide from the local store.

I've saved the worst form of discoloration, firestain, for last. Think of firescale (above) as like getting dirt on your shirt that you have to wash off. Firestain is like getting ink on it. The discoloration is not just on the surface, it seeps down and stains the material. Firestain happens when we heat a piece of silver too hot, too long, and/or too many times.

Firestain Example: Photo Courtesy of:
https://www.instagram.com/gempjd25/

A much better approach for a piece that will require a large number of solderings is to

protect the metal from developing firestain by applying liberal amounts of a firecoat. Regular soldering flux will provide some protection but is not as effective as preparations made specifically for the task. Jewelry supply companies offer several commercial solutions, but my favorite is the Prips mixture. I use it every time I intend to do more than two solderings on a piece

Smart Solutions for Your Jewelry Making Problems
Amazon.com/author/bradfordsmith

COVID TEST KITS

by Helen Rogers

Welcome to 2022! The new year is here full of promise, but unfortunately, we are still dealing with the COVID-19 Pandemic. As a former federal scientist for the Centers for Disease Control and Prevention, I was heartened to learn that at-home COVID tests are becoming available free of charge to households that want them. And I hope everyone will take advantage.

I know I'm guilty of wondering whether I've been exposed to COVID if I get a scratchy throat, or a headache, or my joints ache. As a matter of fact, I had that concern in December and luckily had a test kit at home. The test was negative, thank goodness, and my relief at the result was immediate. I was able to continue my plans without worry.

I'm sorry to say that this disease isn't going away anytime soon. We all want things to get back to normal, but in the meantime, we still need to be careful, and that includes going to meetings, services, shopping, field trips, etc. So, do yourself a favor, get these free tests delivered to your home (I'll add the link below), keep using a face mask (N95 or KN95) and social distance whenever possible.

And most importantly, if you don't feel right, get tested or test yourself at home. Remember, you're doing this for yourself, and also to protect your neighbor. You don't know who is immune-compromised, and trust me, those of us who are, appreciate you for caring.

To order your free COVID home tests: https://www.covidtests.gov

MINERAL ITEMS OF INTEREST

by Stacy Walbridge

Several members have sent me links to articles on minerals and silversmithing that may be of interest to you:

"A 683-pound giant blue sapphire — thought to be one of the largest in the world — is heading to auction and is expected to fetch millions"
https://news.yahoo.com/683-pound-giant-blue-sapphire-043444200.html

"Rare 'double diamond' discovery comes as race to restart mothballed Ellendale mine heats up"
https://share.smartnews.com/2bR83

"More than the Mohs Scale – Understanding Gem Durability"
https://4cs.gia.edu/en-us/blog/more-than-mohs-scale-gem-durability/

Super Diggg™ For fluorescent rockhounds, the Sterling Hill Mining Museum in New Jersey is planning a Super Diggg™ on Saturday, April 23rd. We have several world class specimens in the Fluorescent Room at the Museum from this location so if you're in the area this is a perfect opportunity to obtain some special fluorescent minerals.. More information is available at:
http://SuperDiggg.com

"Researchers have unlocked the secret to pearls' incredible symmetry"
https://www.sciencenews.org/article/pearl-symmetry-round-formation-oysters-nacre-math

Southeast Federation of Mineralogical Societies Newsletter
https://www.southeastfed.org/newsletter

UPCOMING SHOWS

February 18-20; Live Oak, FL
SFMS ROCKHOUND ROUND-UP - 2022

February 26, 2022; Lakeland, FL
2022 Annual show;
Imperial Bone Valley Gem, Mineral & Fossil Society;
First Presbyterian Church; 175 Lake Hollingsworth Dr.; Sat. 9-4:30;
adults $3, students, children and teachers free; door prizes, Spin & Win Mineral Wheel, kids' Treasure Dig, demonstrations, educational displays, silent and Chinese auctions, dealers with rocks, minerals, fossils, jewelry, gifts, hobby supplies, lapidary demonstrations, wire wrapping, cabochon making.

March 4-6; Athens, GA
6th Annual Spring Athens Rock, Gem, Mineral, Fossil, and Jewelry Show
More than a two dozen professional dealers of all things mineral, gemstone, jewelry, and fossil.
Classic Center's Grand Hall 8, in downtown Athens, Georgia.
$6 tickets for adults 16+, kids free! Admission good for all three days. Tickets are available now online, no cash will be accepted at the door, per Classic Center policy.

March 25-27; Lexington, KY
Bluegrass Gem & Mineral Club of Kentucky
Clarion Convention Center, 1950 Newtown Pike
Lexington, Kentucky (Exit 115 I-75)
$5 admission, children under 12 are free.
Stunning 42 inch Amethyst cathedral Grand Prize

CLUB ANNOUNCEMENTS

January Board Meeting
4:00 pm Tuesday, January 25th, 2022

First Christian Church of Franklin
156 Belleview Park Road
Franklin, NC

January General Meeting
6:00 pm Thursday, January 27th, 2022

First Christian Church of Franklin
156 Belleview Park Road
Franklin, NC

Newsletter Deadline for February is 2/19/2022

Looking Ahead to 2022

The past two years have been difficult for everyone with our club being no exception. But 2022 is looking up and full of promise. In person meetings are planned, DMC is restarting field trips, and the workshop will be opening soon. (Many thanks to Larry Ellert for fixing the water leak!)

As we look forward to 2022 we have a need for a Secretary, Program Coordinator, and Gemboree Shows Coordinator. If you have an interest in one of these positions please speak to Mark Laing. You don't need any experience, just a willingness to support the club. You will get a lot of help from the members.

We also need members to volunteer to provide snacks and drinks for our meetings. The meeting break is a great time to meet and socialize with other members so please consider volunteering to bring snacks and drinks to a meeting (you will be reimbursed for your expenses).

2022 SCHEDULE (Subject to change.)

Date	Event	Time	Program	Snacks
January 25, 2022	Board Meeting	4:00 PM		
January 27, 2022	General Meeting	6:00 PM	TBD	Volunteers Needed
February 22, 2022	Board Meeting	4:00 PM		
February 24, 2022	General Meeting	6:00 PM	TBD	Volunteers Needed
March 29, 2022	Board Meeting	4:00 PM		
March 31, 2022	General Meeting	6:00 PM	TBD	Volunteers Needed
April 26, 2022	Board Meeting	6:00 PM		
April 28, 2022	General Meeting	6:30 PM	TBD	Volunteers Needed
--- May 13-15, 2022 Gem Show ---				
May 24, 2022	Board Meeting	6:00 PM		
May 26, 2022	General Meeting	6:30 PM	TBD	Volunteers Needed
June 28, 2022	Board Meeting	6:00 PM		
June 30, 2022	General Meeting	6:30 PM	TBD	Volunteers Needed
July 23, 2022	Board Meeting	6:00 PM		
July 25, 2022	General Meeting	6:30 PM	Ice Cream Social	
--- July 29-31, 2022 Gemboree ---				
August 23, 2022	Board Meeting	6:00 PM		
August 25, 2022	General Meeting	6:30 PM	Club Officer Election	Volunteers Needed
September 27, 2022	Board Meeting	6:00 PM		
September 29, 2022	General Meeting	6:30 PM	New Club Officer Installation	Pizza or ???
--- October ??, 2022 Leaf Lookers Gemboree ---				
October 27, 2022	Board Meeting	6:00 PM		
October 29, 2022	General Meeting	6:30 PM	TBD	Volunteers Needed
November 15, 2022	Board Meeting	4:00 PM		-
November 17, 2022	General Meeting	6:00 PM	TBD	Volunteers Needed
December 13,2022	Board Meeting	4:00 PM		
December 17,2022	Holiday Party	11:00 AM		

Club Officers and Board of Directors

President: Mark Laing, (864-910-1580)
Past President: Jane Morgan, (828-342-8703)
Vice President: Al Pribble, (828-342-3119)
2nd Vice President: Larry Ellert, (727-455-1849)
Secretary: Vacant
Treasurer: Kathi Walbridge, (802-598-7025)
Assistant Treasurer: Charlotte Frye, (727-455-1849)
Museum Manager: Larry Ellert, (727-455-1849)
Director (2023): Matt Castor, (828-421-8701)
Director (2023): Marsha Harmon, (828 369-7262)
Director (2022): Susan Fritz, (828-524-4936)
Director (2022): Charlotte Frye, (828-200-6023)

The Club is a member of the American Federation of Mineralogical Societies and the Southeast Federation of the Mineralogical Societies.

Committees

Membership: Tom Parker and Diane Mason
Museum Curator: Mark Laing, (864-910-1580)
Curator Emeritus: Fred Plesner, (828-349-4224)
Museum Gift Shop: Anamay Rossomando (828-349-2807)
Gift Shop Assistant: Bushy Hartman (850-868-1576)
Museum Workshop: Matt Castor, (828-421-8701)
Publicity: George Fritz, (828-524-4936)
Field Trip Coordinator: Helen Rogers (404-784-2531)
Program Coordinator: Vacant
Museum Calendar: Vacant
Gemborees: Vacant
Education/Tours: Marsha Harmon, (828 369-7262)
Asst Education/Historian: Ron Rossomando (828-349-2807)
Web Master: Melissa Barfield (803-724-8312)
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