



**March 4, 2024 at 7:00 PM.**

### **Museum of Arts and Sciences**

Come early to chat with the early birds. Don't forget the mineral of the month (Diopside), fossil of the month (Sea urchins and sand dollars) and your rock art (see information in the president's message). Speaker for our March Meeting will be Sam Satterfield, owner of Satterfield & Dempsey Jewelers in Warner Robins, Ga. Sam will bring some of his equipment he uses to identify diamonds from lab created diamonds and other stones that are not diamonds. Also to help identify different types of gemstones. Sam is G.I.A. Certified.

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### **Upcoming Events**

Meeting	March 04
Cartersville Dig	March 23
Gordon Dig	March 23
Jr. Meeting	March 30

### ***President's Message***

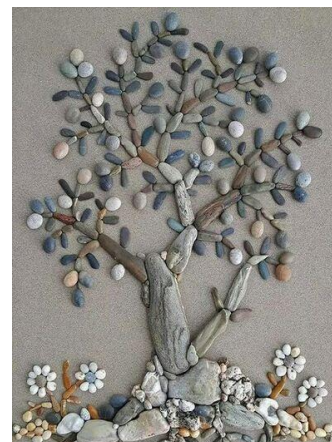
Hello to everyone!

It was good to see everyone again at the meeting. A warm welcome to the new members. I was glad to see so many people participate in the maker's challenge and I was

impressed by the samples turned in; excellent job by all who participated. Our next challenge is rock art, creating an image using rocks. I ask that we keep the size to no larger than 10"X10" (8X12, 6X14), etc. Here are a couple of ideas:



Miss Paty- from Pinterest



Craftionary.net from Pinterest

I hope to see a lot of you at the dig in Monticello, Ga. February 17, 2024 10:00am – 2:00pm. Don't forget there will be a junior scavenger hunt also. I will be attending the dig in Girard, Ga. on the 24<sup>th</sup> of February to look for Savannah River Agate.

Thanks to Treasurer Susan Hargrove for her many years in the position. Keeping up with the membership list and all the finances for the club. Susan also is our connection with the Georgia State Fair; helping with setting up the booth and handling all passes for all of us working the fair. Also, thanks for the many other things you do.

We hope to have a class on gem trees, wire wrapping, or capping soon. We still need people who are willing to teach, do you have



something with rocks, or gems you would be willing to teach? A skill like knapping, faceting, and carving. I am working on finding locations to have these workshops. Part of the reason in looking for public locations is to use the workshops to reach out and expand our membership. If you are looking for a resource for gems and minerals, try [Fantasia Mining - Rocks, Gems, Minerals, Fossils, Salt Lamps and More! \(fantasia-mining.myshopify.com\)](https://fantasia-mining.myshopify.com).

One of the topics brought up in the survey was to have a rock show, but there was only one person that showed any interest in participating. To make this work, we need more people who are willing to participate. Spring is around the corner and I cannot wait. See you soon!

Pres. Shawn

### ***February Meeting Minutes***

President Shawn Ripley called the Feb. 5, 2024 meeting to order at 7:09 P.M. with 31 in attendance. Shawn welcomed visitor Anna Bush, Virginia's Mother and new members Deana Hortman and her daughter Lizzie Hortman.

Adoption of the minutes: The reading of the minutes from the previous meeting is to be taken from the newsletter. A motion was made, seconded, and the members approved.

Treasurer Report: Susan Hargrove gave bank C.D. and checking balances. She also said we are waiting for the Club's insurance notice to pay the bill and she has been collecting club dues.

Programs: Tina said tonight's Speaker is Al Steffanini speaking on his William Holland Lapidary Class. Al won in the Club's Scholarship drawing at the 2022 Christmas Party. Sam Satterfield will be speaking March on identifying real gems especially diamonds from man-made and Rodney Moore will be speaking in April on his recent trip to Africa.

Field Trips: Jay said there is a Club Dig in Monticello, GA. on February 17, 2024 at the Feldspar mines and Tina indicated this would

be Junior's first meeting with collecting and a Scavenger Hunt. Jay also indicated that there was a DMC dig February 24, 2024 in Girard, Ga. For Savannah River Agate. There is also a Rock Swap at Graves Mountain, Ga. on April 26-28, 2024. There is a dig in Cartersville, Ga. for Corbin Gneiss (contains blue quartz) and a club dig March 23, 2024 in Gordon, Ga. at the KaMin Kaolin Mine for shark's teeth and Stingray dental plates. Jay had sign-up sheets for members. Shawn talked about the Club's January Buena Vista Goethite Dig saying lots of material was found and he also had on display his very large 50lb specimen he dug up. Shawn also talked about the possible upcoming Purple Knight Mine Dig with a sign-up sheet to see who was interested in going.

Newsletter: Tina said the deadline to put something in the newsletter was Feb. 12, 2024.

Web Master: Pam Mayer said the Club's Facebook page had 239 followers and 213 posts. She encouraged members to sign-up and get involved with the club.

Old Business: Shawn talked about the member survey sheets for the Club's 2024 direction and interest. He said results indicated the top choice was workshops with the top class being Wire Wrapping. He had a sign-up sheet for anyone interested in teaching a workshop class and anyone wanting to take a class asking to list what you're teaching and what you want to learn. He also said the Fine Arts Society of Middle Georgia in Warner Robins, Ga. has an outside lot our Club could use to have a Rock Show. He suggested we could set up tents in May or July and bring material to display and sell, saying members wanted Rock Shows and Auctions on the Survey. He had a sign-up sheet for the Rock Show. He also said the February meeting Makers Challenge had good participation with 29 Painted Rock entries. A raffle followed and prizes were awarded. He said when the club can get the workshops up and running students can use their new skills to participate in more difficult challenges. He took suggestions on the next Master's Challenge and



members decided to put an image on canvas or wood using rocks and glues. He asked everyone to keep the Rock Art size around 8" x 8" (size change in president's message).

**New Business:** Shawn talked to a Rock Shop owner in Warner Robins, Ga. who would let the club use his building to have workshop classes. He also said the Fine Arts Society would let the club host classes in the Gallery building for a fee. There was some discussion and the members showed interest in following up on the offers. Bill Mayer said if anyone at the meeting was interested in purchasing some rocks and materials online whole sale (only once) to get with him. He had found a seller that would be good to use.

**Mineral of the Month:** Silver was the M.O.M and George Ruff said it's white, malleable, and ductile. He also said in WW2 15000 tons of Silver was shipped to the military in Tennessee for windings in magnets to build the atomic bomb.

**Rock of the Month:** Garnet Schist is the R.O.M. and George said it's flakey having mica present and numerous garnets. He mentioned quartz crystals form with lower heat and lower pressure and Staurolites form from more pressure. Specimens were also on display with a raffle and prizes awarded.

**Speaker of the month:** Shawn introduced Club's Secretary Al Steffanini as our speaker tonight talking about his Cabochon I Class at William Holland. Al won the Club's Annual Scholarship at the 2022 Christmas party. His Class was held September 24th through 29th with 4 other students. The presentation had a slide show with pictures of the Lodge, Cafeteria, Classrooms, and surrounding Campus. Al also talked about tuition, different events, and his daily routine. There were pictures of classroom equipment and students at work. There was also a show and tell display of rough slabs, trimmed shapes, and finished polished stones.



Among the finished display pieces were polished shapes of a teacup fragment and 'Fordalite' a multicolored gob of paint from a Ford Motor Co. paint booth. Al had some left-over slabs from the class that he gave out to all the members who wanted them.

Meeting Adjourned at 8:45 P.M.

Respectively submitted by Al Steffanini



## Let's Go Digging

An Official Field Trip of the Georgia Mineral Society (Norcross, GA)

An Official Field Trip of the Mid-Georgia Gem and Mineral Society

Saturday, March 23, 2024

Meet no later than 8:30 AM Eastern

Caravan into quarry at 9:00 AM Eastern

Bartow County, GA

Limit 40 People

Registration Required (link is below)

Fee: None

**TRIP:** This location is part of the Corbin Gneiss Complex. The quarry is mining metagranite, i.e., metamorphosed granite. The rocks here are some of the oldest in Georgia – approximately 1.2 billion years. Some of the quartz in the metagranite is a beautiful blue





color that is caused by tiny traces of titanium minerals that scatter light.

**COLLECTING:** We will be collecting metagranite with blue quartz and white feldspar that contrast nicely. Small pieces can be collected by hand and larger pieces can be collected with hammer and chisel. This material can be cut and polished and it also makes nice specimens.

**BRING:** Tools needed include rock hammer, small sledge, chisel, scratching tools, buckets, and a spray bottle with water to wet the rocks so you can see the color better. You will also need sunscreen and gloves.

**REQUIREMENTS:** Gloves, safety glasses, hard hat, and steel toed or sturdy boots with ankle support (e.g., hiking boots) are required. No open toed shoes allowed. All participants must be present for on-site training and to fill out quarry paperwork. This is an active quarry. **STAY AWAY** from all heavy equipment, high walls, ponds, and quarry machinery.

**TERRAIN AND ACCESSIBILITY:** There are flat areas and areas with loose rock. People with mobility issues may have some difficulty navigating over and around boulders. There may also be soft, muddy areas if it rains before or during these trips. Collecting areas are within 100 yards from where we park.

**FEE:** There is no fee.

**CHILDREN (Yes):** The quarry allows children, but they must always have adult supervision. And, they must have all the required safety equipment.

**PETS (No):** No pets allowed.

**FACILITIES:** There are NO facilities at this location. Food and restrooms are several miles away.

**REGISTRATION:** Click [here](#) to fill out a registration form. If you register and are unable to attend the trip, please be considerate to your fellow rockhounds and let us know as soon as possible so someone on a potential waiting list can take your slot(s).

**DIRECTIONS AND WHERE TO MEET:** Registered participants will be sent a

confirmation email with directions and meeting place details. Quarry employees will escort a caravan into the quarry. You are not allowed to drive around the quarry un-escorted. Everyone must enter and leave the quarry together. If you arrive late, you will not be able to enter the quarry!

**CARPOOLING:** The registration form has a place for you to indicate if you need a ride; if you can offer a ride; or if you would like to drive or share a carpool ride. If you choose any of these options, your name, email address, and club name will be shared with other members who also choose one of the options. Then, you can communicate with one another to arrange carpools.

**CONTACT:** Charles Carter, 770-998-1127, [fieldtrips@gamineral.org](mailto:fieldtrips@gamineral.org)



**A Mid-Ga Gem and Mineral Society  
Field trip at  
KaMin Kaolin Quarry  
On March 23, 2024 at 10:00am to  
2:00pm  
Gordon, Georgia  
No Fee**

**Registration Required - 30 people Max**

**REGISTRATION:** Participants must **register** no later than **March 2nd** because property owner needs a head count. **Must RSVP with Jay (cell# 478-957-5002 or email [batcha.jay@gmail.com](mailto:batcha.jay@gmail.com)) to find out meeting location and directions!**

This is to give you time to plan.

**LOCATION:** This field trip is in Gordon, Georgia.

**COLLECTING:** Shark's teeth, stingray dentals, whale bone, and many other marine fossils (from formations above the Kaolin layer mostly Tivola Limestone). Also, can collect Kaolin and Limestone.



**SAFETY REQUIREMENTS:** You must have the following safety equipment or you will not be allowed into the quarry: hard hat, safety glasses, steel toed boots/shoes, safety vest (orange/yellow) and gloves. Long pants are also a must. **Note from quarry:** Closed toe shoes with tread (trail/running shoes or hiking boots recommended, steel toe boots or shoes preferred).

**Note to all: If you do not have all the required safety equipment you will not be allowed to enter the mine!!!**

**CHILDREN (Yes):** Age 6 and up only. Must be accompanied by an adult and watched.

**PETS (No):** No pets allowed.

**BRING:**

- Bottled water or a reusable bottle to fill before we depart
- Snacks or bag lunch (not a lot of options to eat around here)
- Sunscreen (or a breathable long sleeve shirt)
- Baseball cap, hat, or visor
- Small tools
- Container(s) for collecting samples

**VERY IMPORTANT!!!** Field trip attendees must be always escorted by quarry personnel, so we will caravan into and out of the quarry as a group. If you have an emergency and must leave before the trip is over, you must be escorted out by quarry personnel. **YOU CANNOT ENTER OR LEAVE ON YOUR OWN. Please obey all rules so we can return in the future.**

**Special Conditions:** This is an active quarry. **STAY AWAY** from all heavy equipment, high walls, ponds, and quarry machinery.

**TERRAIN AND ACCESSIBILITY:** This location has flat areas and areas with loose rock. People with mobility issues may have some difficulty navigating over and around boulders. Collecting areas are within 25 yards from where we park.

**DIRECTIONS:** Directions will be sent via email to registered attendees only. Meeting place

will be in Gordon, Georgia and is 21 miles from the I-75/I-16 split in Macon, Ga.

**Note:** Must RSVP with Jay (cell# 478-957-5002 or email [batcha.jay@gmail.com](mailto:batcha.jay@gmail.com)) to fine out meeting location and directions!



## SHOWS

Please be aware that respiratory illnesses are spiking and events may be cancelled. Always check before you head out.

Athens Spring Gem, Mineral, Fossil, and Jewelry Show

03/01/2024-03/03/2024

10 to 6 Fri & Sat, 11 to 5 Sunday

The Classic Center, Grand Hall 8

Address: 300 N Thomas St

Athens, GA 30601

<https://www.facebook.com/events/722512902961882>

<https://www.facebook.com/SoutheasternMineralSpecimens/>

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H&R Gem Shows  
West Palm Beach Gem Show  
3/15/24-3/17/24  
All days 10:00-5:00  
South Florida Fairgrounds  
9067 Southern Blvd  
West Palm Beach, FL 33411

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## MINERAL OF THE MONTH

### Diopase

Diopase is a bright emerald green to bluish green copper cyclosilicate mineral found in Arizona near Mammoth-Saint Anthony Mine and Christmas Mine. It is transparent to translucent. It has a vitreous to sub-adamantine luster. It is a 5 on the Mohs Hardness scale the same as tooth enamel. It has a specific gravity of 3.28- 3.35. It has three cleavage directions with two that are considered perfect and one that is good. It is very fragile and must be handled with great care. It forms 6-sided



crystals. It is popular with collectors. Three sculptures found in Ain Ghazal, in Amman, Jordan have the outline of the eyes done in diopside. The statues were created between 7200 and 6250 BC. In the late 1700's copper miners thought they had found the emerald deposit of their dreams, but in the veins of quartz within limestone rock were diopside crystals which were easily distinguished from emeralds using the hardness scale. Diopside is usually found in desert areas.



Kimbedi, Republic of Congo  
Wikipedia

Diopside and chrysocolla are common copper silicate minerals. As a ground pigment diopside can be used for printing. Ingestion of dust from powder form can lead to serious health problems.



Wikipedia  
Tsumeb Mine, Namibia



## FOSSIL OF THE MONTH

### Sea Urchins and Sand Dollars

Some fossil sea urchins can date back as far as 450 million years ago to the Ordovician period whereas sand dollars only start in the fossil records about 1.8 million years ago during the Tertiary. Today both abound in the ocean and can be found on the beaches along the Atlantic and Gulf of Mexico as well as all over the world. Sand dollars, Sea urchins, star fish, brittle stars, and sea cucumbers all belong to the phylum Echinodermata and have five-point radial symmetry. Sand dollars have a flatten

disk shaped test whereas sea urchins have a globe-shaped test. These invertebrates have had many professional papers written about them including Cenozoic Echinoderms of the Eastern United States (Geological Survey Professional Paper 321). This report details all the areas where they have been found as well as identification. It is a wonderful read as a pdf on the computer (196 pages). This is the link for it: [report.pdf \(usgs.gov\)](https://pubs.usgs.gov/professional_papers/321/)



Image from fossilera.com  
Mississippi Periarthrus sp.

In Georgia there are several places to find different echinoderms. In the Tivola limestone of Houston County you can find sand dollars including Periarthrus lyelli (Conrad). Fossiliferous rubble is found in roadbeds of in Bleckley County. One such area is Red Dog Farm Road which has Rhyncholampus gouldii internal casts or steinkerns. A steinkern forms when a sea urchin dies, is eaten by scavengers leaving the test, then the test gets buried, the material that is inside the test hardens forming an internal mold.



Rhyncholampus Steinkerns  
Georgiasfossils.com  
By Thomas Thurman

**Middle or late Eocene echinoids**  
*Cidaris pratti* Clark





Phyllacanthus mortoni (Conrad)  
Coelopleurus infulatus (Morton)  
Psammechinus santee Cooke  
Porpitella micra H. L. Clark  
Oligopygus rotundus Cooke  
Fibularia texana (Twitchell)  
Echinocyamus parvus Emmons  
Periarchus lyelli (Conrad)  
Protoscutella mississippiensis (Twitchell)  
Neolaganum dalli (Twitchell)  
Echinolampas appendiculata Emmons  
Cassidulus conradi carolinensis Twitchell  
Santeelampas oviformis (Conrad)  
Eurhodia rugosa (Ravenel)  
Linthia wilmingttonensis Clark  
Linthia hanoverensis Kellum  
Unifascia carolinensis (Clark)  
Maretia arguta (Clark)  
Eupatagus (Gymnopatagus) carolinensis Clark



### Junior Meeting

March's Junior meeting will be on March 30<sup>th</sup> from 10:00-12:00 and we will be working on Rock ID. I have boxes and labels so bring 10 specimens and we will get them identified and labeled correctly. If you are planning to attend, please have parents send me an e-mail so I can send directions to the meeting location. I will have snacks and drinks for the meeting. We will also discuss activities that we want to do for the next two meetings. You should have received a newsletter link for the AFMS junior newsletter. If you would like to have a newsletter of your own, I will be happy to put together your ideas and send everyone a copy.

Tina



### Heritage STEAM Night

Five members of the club came to help with all the fun as students and parents got to observe the stars, get a glance at geology, and participate in STEAM activities designed by Tina for the evening.



Club members with specimens set up in a classroom.



Jay's collection, meteorites from George, and the giveaway specimen bowl with samples donated by Tina and Jay.



Over 99 students with parents and siblings in tow came through the room.



### A Mineral of Antiquity: Ocher

For those of you who like dabbling in paint as well as collecting gems and minerals here are some interesting facts about the mineral ocher (limonite) that you might not know.

Ocher has been mined in Georgia since 1905 by the New Riverside Ochre Company,



Inc. They mine and process natural iron oxide pigments and barite in Bartow County.



Ocher (yellow iron ore or limonite) has a brown streak, is 4-5.5 on the Mohs hardness scale, and has a specific gravity of 2.7-4.3. Ocher can also be found in Utah and Arizona. Ocher is formed at the surface and near surface environments when iron encounters oxygen and water and is common in tropical climates, the Mediterranean areas and where there are red rocks.

Ocher, however has a history that goes back much farther than the 20<sup>th</sup> century and has been used in countries around the world. Ocher is a natural clay earth pigment made of iron, oxygen and hydrogen and ranges in color from yellow to deep orange or brown and even red (contains hematite that has been dehydrated) and purple (has larger particles).

In Australia the native populations started using Ocher some 50,000 years ago while in Asia evidence show that it was used 40,000 years ago. Abstract designs used ocher in the Blombos Cave, South Africa dates to around 75,000 years ago. In the UK a paleolithic burial called the Red Lady of Paviland (she was coated in the pigment) dates 33,000 years ago. Animal paintings in Pech Merle, France dating back 25,000 years ago were made with red and yellow Ocher pigments. It was also used by Eastern Woodland Indians in North America with some areas around North America dating back around 12,000 years ago. The list of sites with paintings and burials are lengthy, but the use of the mineral continued into the mid-20<sup>th</sup> century when synthetic paints began to appear on the market. Some cultures around the world still use ocher for specific rituals, to prepare

animal skins, to treat some diseases, to paint with, and as a food adulterant (this got some people in trouble). If you want to learn more about pigments that come from minerals and their lengthy history, read “Color: A Natural History of the Palette” by Victoria Finlay. She traveled the world visiting all the sites, gathering the history, and then seeing how each pigment was obtained. Thanks to George Ruff for letting me borrow the book. Maybe Ocher will be the mineral of the month someday in the future.

Editor

## Blast from the Past

Mid-Georgia Gem and Mineral Society  
Club History 1960-1985 by Margaret Brewer

From the very beginning the Mid Georgia Gem and Mineral Society realized that to have some form of newsletter or bulletin was in the best interest of the members. A simple one-page notice of time, place, program, and field trip was started at once. The machine used for this purpose (as of 1985) was still owned by the club. We have not been able to ascertain just who did do the printing but strongly suspect it was the secretary. In November of 1973, we3 started a multipage bulletin and have continued to put out such a bulletin until the present time. In December of 1973 we ran a contest to name our bulletin. Mrs. Louise Jackson came up with a winner and we use the club logo with pride. We call the bulletin *The Gem Clip* and use the symbol.



The multi-page bulletin was started by Magaret Brewer and she remained editor until 1977.

Our second editors were Carl and Lenna Kimberly who served until 1980. Our third and present editor (1980-1985) who runs the bulletin off with the help of a computer is Howard Binkley.

*During these 25 years (1960-1985), the bulletin was entered into several contest and won awards. Those first editors deserve a lot of praise.*

Editor





**Resources** for rock and other lapidary materials are Kingsley North, Fire Mountain Gems, The Rock Shed, Lapidary Mart, and the Rock Peddler. All have online catalogues to browse through.

**Mid-Georgia Gem Clips**  
**Official Bulletin of Mid-Georgia**  
**Gem and Mineral Society**  
**Macon, Georgia**

The Club meets on the First Monday of each Month, at The Museum of Arts and Sciences, in Macon, Georgia at 7:00 PM.

**Except:** No meeting January, July, and August. The annual Christmas Party is the first Monday in December. September the first Tuesday of the Month

**Purpose:** To promote the earth sciences, the lapidary arts, and the collection, study and display of rocks, minerals, and fossils; to promote the public awareness of these efforts in educational and recreational activities.

**Club Officers:**

**President:** Shawn Ripley, phone: 509-499-5946  
[ripleystudio@yahoo.com](mailto:ripleystudio@yahoo.com)

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**Web Master/ Facebook:** Pam Mayer,  
[pam5mayer@gmail.com](mailto:pam5mayer@gmail.com)

**Mid Ga. Gem and Mineral Society**  
**Application for Membership**

Name(s) \_\_\_\_\_

\_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Adult (18-64) \$15.00      Junior \$ 5.00  
Family (2 adults and 2 children under 18) \$25.00  
Additional children \$5.00  
Seniors (65+) \$10.00      Newsletter mailed \$5.00  
New \_\_\_\_\_      Renewal \_\_\_\_\_  
E-mail \_\_\_\_\_  
Address \_\_\_\_\_  
How did you hear about us?

\_\_\_\_\_

Circle your interest(s):

Gems and Minerals      Lapidary      Fossils

Education      Rocks

Make checks payable to:  
Mid-Georgia Gem & Mineral Society  
Mail to the Treasurer (listed on this page) or  
bring to a meeting.



## **Mid-Georgia Gem Clips**

**Official Bulletin of Mid-Georgia Gem  
and Mineral Society  
Macon, Georgia**

**Member of Southeast Federation of  
Mineralogical and Lapidary Societies  
Member of American Federation of  
Mineralogical Societies**



## **Mid-Georgia Gem Clips**

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