Mid-Georgia Gem Clips
Official Bulletin of the Mid-Georgia Gem and Mineral Society
https://midgeorgiagemandmineral.com Vol. 23, Issue 2, March 2023

March 6th at 7:00 PM.

Museum of Arts and Sciences

Come join the early birds to chat. Speaker for the night is Jay Batcha. He will be talking about his adventures in his classes. The mineral of the month is Sulfur and the rock of the month is Basalt. Be prepared to talk about your specimens.

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President's Message

Hi to everyone!

Our sponsored DMC dig is this month on Sunday March 19th 2023 from 10:00am to 2:30pm. If you can help run this field trip, please arrive between 9:00am to 9:25am to help setup and to look over the site for parking and safety issues. We have 70 signed up and 22 on the backup list not counting our club. I set the max for other clubs to 70 people. If you are coming/helping please contact me or Bill, so we can add you to our list. We have 7 people signed up to help from our club so far, but the more the better! We can still use a few more door prizes to give away at the dig. If you want to donate some and you are not going to this field trip please bring it to the March meeting.

Kudos to our Treasurer Susan Hargrove for the many years at the position. Keeping up with the membership list and all the finances for the club. Also, with 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, the many other things you do. A **BIG THANK YOU** to Susan**!!!**

We have two digs setup by Bill Mayer coming up on February 25 and one in April. Info on the February 25 field trip is in this newsletter and the info on April's field trip will be in the April newsletter.

We hope to have a class on gem tree or cabbing in April some time. Spring is around the corner and I cannot wait. See you soon!

Pres. Jay

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February Meeting Minutes

Club President Jay Batcha called the February 6, 2023 meeting to order at 7:03 with 23 in attendance welcomed New Members Mallory Stone and Lorelei Catoe.

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

Treasurer Report: Susan Hargrove gave bank C.D. and savings balances. She also mentioned collecting most of the Members' dues and paying the SMSF dues. She is also getting ready to pay the Club Insurance Premium.

Newsletter: Tina Perkins said the deadline to put something in the Newsletter is February 12.

Programs: Tina Perkins said tonight's speaker will be our Vice President Bill Mayer talking about his William Holland Trip this past October and Jay Batcha will be Marchs speaker talking on the same trip. She said a guy from William Holland would be speaking in April possibly.

Field Trips: Jay Batcha talked about the Abbeville, SC Diamond Hill trip on February 18, 2023 collecting Quartz and other Minerals. He also mentioned our Club Sponsored DMC fieldtrip to Summerville, Ga. to collect Chert and Agate on March 19, 2023. He had 70 signed up with many (14) on a waiting list. He ask members for donations of drinks, snacks and door prizes to give away. Also he is in need volunteers to man the tables and work the parking lot. There was a sign-up sheet available on the table. Bill Mayer talked about a February 25 Monticello, Ga. Feldspar Mine field trip digging Smokey Quartz, Feldspar, Amazonite, and Quartzite. He also mentioned a Lagrange, Ga. Hogg Mine trip on April 1st digging Rose Quartz, Beryl, Mica and Tourmaline.

Web Master: Pam Mayer said the Clubs Web Site was doing well.

Old Business: Tina talked about the February 7th Heritage Elementary 20th Year Anniversary Event /150 years for Bibb County Board of Education with many Club members volunteering to show students Rock and Mineral exhibits, Rock ID, Crystal Growth, a walk through the solar system and also a telescope demonstration. Jay said the Christmas party had 25 in attendance and a good time for all. He also asked for member input for changing the Club's Christmas tree to a Fossil Theme saying we needed Member donations of Fossils and more information would be coming. Tina chimed in that there would need to be at least 175 ornaments to fill our 4ft tree. Bill mentioned the Annual SMSF Meeting held at the Suwanee River Festival in Florida on March 11th weekend with Rock Vendors selling specimens.

MOM: Mineral of the Month is Malachite. George Ruff said it's a Carbonate of Copper found in Copper and Limestone deposits. Has a bright green banding with a MOHs of 3.5 to 4. He said the Greek meaning of the word referred to the leaves of the Mallow plant. Members had specimens on hand and a raffle followed with prizes.

FOM: Anything from Morocco is Fossil of the Month. George said there were many Fossils of Orthoceras Horns, Trilobites and also the largest carnivorous Dinosaur Spinosaurus in Morocco. Many of the Fossils come from the Kem Kem Beds including the Spinosaurus Footprints. Members had specimens for viewing and a drawing was held for prizes.

Program: Speaker Bill Mayer talked about his classes on Cabochon II at William Holland last October, saying it was 5 days of hands-on training in advanced cabbing. He had a slide show with pictures on the progression from taking rough slabs and laying out the shapes for trimming. After trimming a cabbing machine was used to rough grind, smooth a dome shape and then polish. He showed some of the techniques of gluing layers of slabs and also the making of heart shapes. He had many specimens on hand along with teaching articles and literature.

Bill also asked the members on hand how many would be interested in a Cabbing Class to be taught locally in the future. Many hands went up and a discussion was had for a future plan.

Meeting Adjourned at 8:11 P.M.
Respectively submitted by Al Steffanini

Heritage Elementary STEAM Night

The school fed us. They had over 300 guests including the superintendent and two board of education members. Jay gave out some sample minerals I had put together. James talked about the collection he brought. George did the telescope and solar system walk on the bus ramp. The sun was a bowling ball.

Virginia and Nathen did the crystal growth lab with more than 80 students. Alum makes neat crystals which sparkle as if they are faceted, but are easily broken.

I taught compass usage and how to make a circuit board. There was so much stuff going on. I got my picture with the Heritage Eagle (our own member- Katelyn).

A big thankyou to all who helped out. You are awesome.

Lets Go Diggin'

Remember that times are still strange and field trips can be canceled.

Mid-Ga Gem and Mineral Society
Field Trip
February 25, 2023 10:00am – 12:00am
Monticello, Georgia

Trip: Collecting at an old Feldspar mine.
Fee: Free
Meet at: "Valero" convenient store at the intersection of Hwy 83 and Hwy 23. Meet at 10:00 am on Saturday February, 25, 2023 in parking lot of the store.
Collecting: Milky and Smoky Quartz (massive only no crystals), Feldspar, Mica, maybe garnets (small) and Amazonite.
Bring: Hammer, chisels, buckets, safety glasses, gloves, food and drink, and dress for the weather.
Directions: From Macon, Ga. take I-75 north to Forsyth, Ga. Take exit #187 / Hwy 83 in Forsyth; turn Right onto Hwy 83 (north). When you get to Hwy 23's "4 way stop sign" the store is on the left across intersection. You can also take I-75 exit #171/ Hwy 23 (north) / Riverside Drive, in Macon, Ga. to Hwy 83 intersection. When you get to Hwy 83's "4 way stop sign" the store is on the right across intersection.
If late: Call Bill's cell phone at: 678-621-3457

SHOWS

Be mindful that shows may be cancelled due to Covid-19. Please call before you go and check the websites.

March 10-12, 2023
35th Annual Aiken-Augusta Gem, Mineral and Fossil Show
Julian Smith Casino
2200 Broad St.
Augusta, Ga. 30901
Friday & Saturday
10-6
Sunday
11-5
Adults $4 daily or $6 weekend
Children 12 and under free with paid adult
Member displays, lapidary demos, door prizes, treasure dig, grab bags, geode sales and cutting, snack bar. Show contact is Wayne Parker-afam.club at gmail.com.

Athens Rock, Gem, Mineral, Fossil and Jewelry Show- Spring
March 3-5
Grand Hall 8
The Classic Center
300N. Thomas Street
Athens, Georgia 30601

Bellpoint Gem Show Marietta
March 17-19
Cobb County Civic Center
548 S. Marietta Pkwy.
Marietta Georgia 30060

Fossil Fest
March 18-19, 2023
Florida State Fairgrounds
Tampa Florida 33610
https://tampabayfossilclub.com/index.html
Rock and Mineral Shows

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Mineral of the Month

Sulfur

The bright, lemon yellow, non-metallic element, sulfur, is a very soft mineral. It is only 2 on Mohs' scale of hardness. Sulfur was determined to be an element in 1809. Sulfur has a very low thermal conductivity meaning it cannot transfer heat very well. The touch of a hand will cause a sulfur crystal to crack because the crystal's surface warms faster than the interior. Sulfur melts at 108 degrees Celsius, and burns easily with a blue flame. Even the flame of a match is enough to set sulfur on fire. When sulfur is burned it combines with oxygen producing sulfur dioxide, SO_2, which smells like rotten eggs.

Sulfur attaches to metal ions, creating a number of significant sulfide ore minerals such as galena (lead sulfide), pyrite (iron sulfide), chalcocite (copper sulfide), and sphalerite (zinc sulfide). Sulfur easily attaches to oxygen, creating the sulfate ion (SO_4). Sulfates are another significant group of minerals, some of which are important commodities. Gypsum (hydrous calcium sulfate) and barite (barium sulfate) are two commodities that include sulfur.

In the late 1800's, Herman Frasch developed a process for removing sulfur from underground deposits. This is still known as the Frasch process. In this process, hot water is forced into the sulfur deposit. The sulfur melts and is pushed to the surface where it is collected and allowed to cool and solidify, or shipped in molten form.

Name

Sulfur (also spelled sulphur) is derived from the Latin name for this element, sulphurium. It means "burning stone" in reference to its source from volcanoes and that it burns so easily.

Sources

Mined sulfur is mostly from salt domes or bedded deposits. The vast majority is produced as a by-product of oil refining and natural gas processing.

Uses

The majority of the sulfur produced in the United States is used to make sulfuric acid. Sulfuric acid has multiple uses in the production of chemicals, petroleum products and a wide range of other industrial applications. Sulfur's main use is in making chemicals for agriculture, mostly for fertilizers. Other uses of sulfur include refining petroleum, metal mining, and the production of organic and inorganic chemicals. A multitude of products (such as the production of rubber for automobile tires) require sulfur in one form or another during some stage of their manufacture.

There are no good alternatives for sulfur. Fortunately, the variety of sulfur resources in different fossil fuel deposits, as well as the large amount of sulfur contained in sedimentary gypsum, guarantees massive sulfur resources for future use. It is estimated that there are 600 billion tons of sulfur contained in oil shale, coal, and other sediments rich in organic matter but a cost-effective method of retrieving the sulfur has not yet been developed. The sulfur available in gypsum and anhydrite is described as being "limitless."

Specimen from Maybee, MI
© 2013 Mineral Information Institute

Rock of the Month

Basalt

Basalt is an aphanitic (fine-grained) extrusive igneous rock formed from the rapid cooling of low-viscosity lava rich in magnesium and iron. It can be found on earth at Yellowstone, the Giant's Causeway in Ireland and Hungary for some examples. It is also found on the moon. 90% of volcanic rock on the earth is basalt. Its opposite is the coarse-grained gabbro. Volcano observers see basalt formation in more than 2 dozen volcanoes around the globe. Mauna Loa forms mostly basalt. Basalt is also part of the plains of Venus and is a common rock on Mars.

Mindat.com
Amygdaloidal basalt
Canary Islands, Spain

Molten basalt lava has a low viscosity. That means that the lava flows move rapidly and can cover a large area fast. Most basalt magma originates in the upper mantle. Basalt has been associated with minerals such as stilbite, epidote, apophyllite, calcite, chalcedony, and fluorapophyllite.

Mindat.com
Specimen from India
Basalt with Apophyllite

Blast from the Past

Reprinted from Gem Clips March 2013
Jay Batcha was editor

MARBLES

By Jud Milburn

Marbles are, without doubt, among the oldest – it not the oldest – plaything in human culture. Clay and stone marbles are found in Indian graves all over America. The ancient Chinese worked agate and Jade into marbles. Glass and clay marbles have been found in Egyptian tombs. The Romans introduced them into England.

In modern times the production of marbles centered during the 19th century in the Austrian Alps and Southern Germany:
stone, agate, alabaster, onyx and glass were the common materials used. Imitations in the U.S. and elsewhere followed. Hand methods of making marbles tended to disappear when marble machines were invented about 1900. Chalk marbles were used by poor boys of the 18th and 19th centuries because they were cheap, being rough molded and dried. They are generally gray-white or yellow-white, made of compacted calcium carbonate with varying amounts of silica, feldspar, and/or other material impurities. The basic calcium carbonate is derived chiefly from fossil seashells. Blackboard chalk is made of refined calcium carbonate.

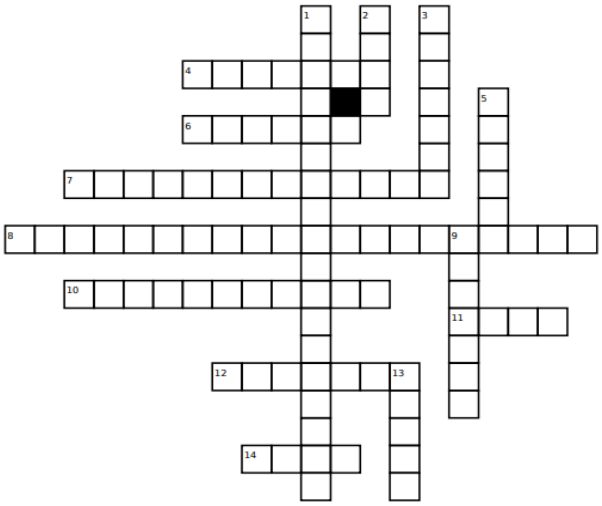
Clay marbles were very inexpensive and common in the 19th century. They are found in great numbers on Civil War battlegrounds, lost by soldiers who whiled away spare time playing games with them. They were rough-shaped from wet clay, mostly hydrated silica of aluminum, and fired in kilns; some were left in natural colors, and others were dyed solid, mottled, spotted or marked with lines. Ohio was one center of their production.

Stone marbles were made in great numbers in the German provinces of Saxony and Thyringen in the 19th century. They were rounded mechanically by being rubbed between larger heavy plates of stone and wood. The common stone material was quarried out of local deposits of calcareous limestone. Most of them show the layers of sedimentary deposits. Agates are among the most beautiful of marbles, showing solid or banded colors of red, brown, white, and green chalcedony. This semiprecious material is fine grained and takes a high polish. Some agates, depending on the luck of the cut, show white or yellow spots at one or both ends. These were called “bulls eye” agates. They were made mostly in Germany.

Like all earth marbles, pottery marbles, or Benningtons, were crude and irregular. They are distinguished by small “eyes” over their surfaces caused by bubbles forming on the colored glaze of brown, blue, green or mottle. The marble’s base is clay, mostly hydrated

silicate of aluminum. They were known as "Bennies." China marbles are made of mostly porcelain or pure white clay, the material of which fine dishes, cups and saucers were made, hence, the name "China." China marbles are found in several forms: unglazed marked, glazed plain, and glaze marked. The various marks were hand-painted – a series of lines or parallel bands in colors of black, blue, red or green, bull's eyes, and floral designs. They were often called "Chinas" and were made in the last century. Swirls, among the most beautiful marbles, were hand-blown glass and have a pontil at both ends. The large ones were not for boys' games, but for decoration. Most of them were made in Germany. The glass consists of silicon dioxide, boric oxide, aluminum oxide, etc. Each marble was originally a segment of glass cane, which had been built up of colored rods embedded in clear or colored glass. One end of the cane was heated, one segment twisted in a spherical shape, then broken off. The pontils were ground down when the marble had cooled. The first glass marble made by machines competed with the attractive agates and were called "Imitation agates" or acro agates. The colors were dark red, brown, green, blue, and purple mixed with small streaks of white.
There were also plain white mixed with clear glass. These first appeared in the l890's. Milk glass was a popular substance for Victorian bowls, water glasses, kerosene lamps, etc., so it is not surprising that it was used for marbles. Milk glass is opaque or translucent white glass made from silicon dioxide or boric dioxide mixed with stannic oxide. They are still manufactured. Opalescent glass marbles are a refinement of milk glass. These marbles are trans-opals. They come in various colors, mostly varying intensities of white.
From The Shawmish Roktawk 11/96, Via Stoney Statements 8/12 9/02

Geo Puzzle



Down:
1. the erosion or disintegration of rocks, building materials, etc. caused by a chemical reaction.
2. a stiff sticky fine grained earth typically yellow, red, or bluish-gray that forms and impermeable layer in the soil.
3. the process of being eroded by the wind, water, or other natural agents.
5. yellow non-metallic element
9. green color in basalt.
13. rocks mad from mud.

Across:
4. large volcanic crater.
6. remains of once living organisms.
7. is the process that turns sediment into rocks.
8. weakening and subsequent disintegration of rock by plants, animals and microbes
10. relating to sediments.
11. blows in the wind.
12. one of three main rock types formed when magma or lava cools and solidifies.
14. a loose granular substance pale yellowish brown, resulting from the erosion of siliceous and other rocks.

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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/ Field Trips: Jay Batcha, 4220 Cyndy Jo Circle, Macon, Ga. 31216, ph. 478-957-5002 **rocky1s@cox.net**

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Web Master: Pam Mayer, 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.

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Macon, Georgia

Member of Southeast Federation of Mineralogical and Lapidary Societies
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