Mid-Georgia Gem Clips
Official Bulletin of the Mid-Georgia Gem and Mineral Society
www.midgagms.org **Vol. 13, Issue 2, March, 2013**

March Meeting
At the Museum of Arts and Sciences on Monday, March. 04, 2013 at 7:30pm.

The speaker will be Tuell Walters.

Tuell will speak on: Choosing the best material for your lapidary needs.

President's Message

Hello fellow club members,

We had a great meeting this month with a lot of visitors and some members who hadn't been there in a while, it was great to see them. We have to think about fund raisers for the club, does your garage need to be cleaned out? Do you have a surplus of specimens someone might buy for a buck or two or three? It was suggested we get a slot at *Smiley's*, the local flea market and sell what we can for the club. This would also give us great exposure as far as publicity.

As the year progresses, it will come season for more field trips and I hope to see you all at the trips coming up. With the warmer weather, the insects and reptiles become more active so let's all be aware of where we are and take simple precautions; take plenty of water, take insect repellent, watch and listen to what's around you as some snakes will make sounds before striking. But let's have fun while we are at it.

I look forward to seeing you all next month if I don't see you on the dig to Sandersville on February 22, 2013.

Your president,

Jim

Feel free to call or email me if you have any ideas or questions.

jgsouter@windstream.net

478.454.7273

February Meeting Minutes

The meeting was called to order at 7:39 PM by Jim Souter with 22 members/guests present.

Old Business

The treasurers' report was read and approved. We signed up a new member as a result of our display at the perry fair. The visitors and new member introduced themselves.

New Business

This month's mineral was galena and several members brought in specimens to share.

Our own Mr Jack Jones, longtime member was our speaker for the evening. He gave a talk on his trip up to William Holland as our most recent scholarship winner. His talk covered the different courses that he attended including enameling and working with fused glass. The talk primarily discussed the enameling process. He touched on the types of gases available and the torches used depending on the heat required. He also displayed numerous colors of the dust used to color the beads and the techniques used. The primary surface involved in the process is sheet copper of approximately 24 gauge or smaller and silver foil can also be utilized. He also touched upon fused glass and some of the differences between the two arts. His talk was quite informative and provided some insights into how these lapidary arts form beads and assorted glass projects. A question and answer session was provided at

the end of his talk. The meeting was adjourned at 8:37 PM.
Upcoming Digs
February 9, 2013 Vulcan Limestone Mine Brooksville, Fla. For fossil sea urchins, druzy calcite crystals and chert for cabbing
February 22, 2013 Kaolin Mine Sandersville, Ga. For various fossils OUR CLUB Dig
March 2, 2013 Durham Mines Walker County Ga. For plant fossils of various species.
By: Richard Arnold

Large Sulfur Crystal - Agrigento, Italy

Sulfur

Background

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, SO2 , 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 (SO4). 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.

Substitutes and Alternative Sources

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."

Source From: ©2013 Mineral Information Institute

Sulfur specimen from Maybee, Michigan

Field trips coming up, lets go digging!!!

Mid-Georgia Field Trip
Friday, February 22, 2013
11:00 am
Thiele Kaolin Company, Avant Mine

Trip: To Thiele Kaolin Company's Avant Mine in Sandersville.
Meet at: 428 Adams Road in Sandersville, Georgia. It is where the two Adams Roads intersect. If you Google Map it you will understand.
Fee: Free
Collect: Kaolin, Indian Paint pots (Iron Geodes), and Pyrite. Maybe some petrified wood if we are lucky. We will also be touring the mine operations.
Bring: Hammers, chisels, scratching tools, buckets, paper to wrap Specimens, hat, sunscreen, food and drinks, safety glasses, Gloves. Dress for the weather. This should be easy collecting.
Directions: From Downtown Milledgeville head east on E. Hancock Street also known as GA-22E/Ga-24E towards Sandersville. 3.9 mile slight right onto GA-24 (GA-22 and GA-22 split apart here). Go 10.3 miles and turn

right onto GA-272 S. Go 1.7 miles and turn right onto Adams Road. Go 0.4 of a mile and the other Adam Road will be on the left (also this will be the first left). Gary Snow will meet us here at 11:00am.

Travel time from I-16 and Spring St. exit is about 1 hour and 10 minutes.

If Late: Jay's cell # 478-957-5002 (Please try to be on time.)
Note: This is on Friday, February 22, 2013!!!!

DMC Digs
An Official Field Trip of The Rome Georgia Mineral Society (Rome, GA)(HOST)
An Official Field Trip of the Mid-Ga Gem and Mineral Society

Pennsylvanian Age Plant Fossils
Durham Mines

Rockcastle Formation
Walker County, Georgia
March 2, 2013
9:00 AM EST - 4:00 PM EST

The Durham Mines are Georgia's best locality for beautifully preserved Paleozoic plant fossils. Commonly referred to as 'Fern Fossils", but more accurately described as "Coal Fossils", the site offers a wide variety of species: Lycopods such as *Lepidodendron*; giant horsetails such as *Calamites* (and its leaves known as *Annularia*); and seed ferns such as *Pecopteris* and *Alethopteris*. You can occasionally find fossilized seeds. For identification purposes, we will provide a sheet to get you started, but any good fossil book will be useful as well when you get home.

The fossils are found by splitting the abundant shale at the site. Most will yield twigs and bark, but with persistence you will find good leaves.

Meet: At the site, on Durham Rd. in Walker Co., Ga. This is in the NW corner of the state of Georgia.
430 Durham Rd., Rising Fawn, GA 30738

Directions: From Lafayette, Ga. follow GA Hwy. 136 West for 20 miles, to GA. Hwy 157. Turn right, going North on GA Hwy. 157 for 6.0 miles. Durham Rd. will be on the left. Turn left on Durham Rd. The mines and the parking area are .50 (1/2) mile on the right. Drive time from the intersection of US27 and GA 136 West in Lafayette, is approximately 30 minutes.

Tools: Bring digging tools. A flat chisel and hammer are essential. A small cart or hand truck may be useful for hauling larger pieces of take home material.

Other: Also, bring lunch and fluids. This is a good site for children. Any pets MUST be on a leash at all times. This is not a fee site. There is no required fee. However, the Rome Ga. Mineral Society will be collecting small donations for the owner of the site; Lula Land Trust.

This field trip will be postponed if there are any winter weather advisories; watches, or warnings, issued for Walker Co., GA, 24 hours in advance of the trip. Make up date would be the following Saturday.

Contact: Jeff Deere Rome Ga. Mineral Society Field Chair - H (770) 386-5447, C (770) 655-2298 wjdeere@comcast..net or jeff.deere@brownind.com

Southeastern Gem & Mineral Shows

March 1-2-3, 2013 St. Petersburg, FLORIDA
43rd Annual Gem, Jewelry & Mineral Show and Sale
THE SUNCOAST GEM & MINERAL SOCIETY
Fri: 10 AM to 6PM; Sat: 10AM-6PM; Sun: 10am-5PM
The Minnreg Building
6340 126th Ave. N., Largo, FL 33773
HOURLY DOOR PRIZES!
GRAND DRAWING AT END OF SHOW!
$1.50 GRAB BAGS, FREE PARKING

15+ Dealers
Demonstration exhibits on Beading, Wire Wrapping, Cabbing, Faceting,

and Metal Work.

Club display cases and exhibits.

Refreshments available.

Show contact: Bill Schmidt, Show Chair, 727 822-8279
Email contact: SGAMSgemshow@gmail.com
http://www.sgams.com/Shows/show.html

25th Annual Aiken-Augusta Gem, Mineral & Fossil Show

Always Held: 2nd Weekend in March
March 8th – 10th, 2013 Augusta, GA

Dealers, Gem Dig, Geode Cutting, Treasurer Dig, Hourly Door Prize, Grab Bags, Grand Door Prize, Demonstrators.

Sponsoring Clubs: Aiken Gem, mineral and Fossil Society and Augusta Gem and Mineral Society

Fri & Sat 10AM-7PM / Sun 10AM-4PM
Julian Smith Casino / 2200 Broad St. / Augusta GA
Admission: $3/Adults; Children under 16 Free with an Adult
Co-Chair: Richard McNutt and Chris Glass

The 34th Annual Valley and Ridge Gem and Mineral Show Sponsored by the Rome Georgia Mineral Society

March 15, 16, and 17, 2013
Friday and Saturday – 10 am – 6 pm
Sunday 11 am – 5 pm

The Forum in Rome GA

FREE ADMISSION!

Gems, Jewelry, Minerals, Crystals, Geodes and Fossils. All visitors will be eligible for free Door Prizes and a Grand Prize drawing. Club members will offer mineral and fossil identification, exhibits, and demonstrations. Hope to see you there!

For more information:
Jose Santamaria, Show Chair
678.488.9560 * rogams.show@gmail.com

For Dealer Information:
Bob and Dori Madden, Dealer Chairs
706.853.1748 or 706.767.5759 * kyanite325@gmail.com

Jose Santamaria, Show Chair
Rome Georgia Mineral Society

Tidbits

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

Mid-Georgia Gem Clips
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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.
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: Jim Souter, ph. 478-454-7273, jgsouter@windstream.net

Vice President: Rene' Smith, 478-788-1766 Cell 478-719-2413 grawolfvrs@msn.com

Secretary / **Photographer**, Richard Arnold, ph. 678-682-9860

Treasurer: Susan Hargrove, 86 Clear Branch Rd, Butler Ga. 31006, ph. 478-862-5327, susanbphilh@pstel.net

Editor / Programs / Web: Jay Batcha, 4220 Cyndy Jo Circle, Macon, Ga. 31216, ph. 478-784-1965, Cell 478-957-5002 rocky1s@cox.net

Education Chairperson: Thomas Thurman, ph. 478-329-1755, cell 478-293-7302 Tpangangan@aol.com

Stamp Program: Ron Davis, ph. 478-788-2616

Club year begins November 1st, a grace period of three months will be given before membership lapses.

Mid-Georgia Gem & Mineral Society
Application for Membership

Name(s)_____
_____
_____
_____
_____
Address_____
_____
City_____
State____ Zip Code_____
Phone_____
Adult(18+) $10.00 Junior $2.50 New _____
Renewal _____
E-mail
Address_____
_____
List your interests and reasons for joining_____
_____
_____
_____
_____

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
Member of American Federation of Mineralogical Societies

Mid-Georgia Gem Clips
Jay Batcha, Editor
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Save Commemorative Stamps