



September Meeting At the Museum of Arts and Sciences on Tuesday, September 05, 2017 at 7:30pm.

The speaker for the September meeting will be Tom Batcha. He will be speaking on Concretions, Agates, Thunder eggs, and Geodes, what they are and the differences between each of them.

President's Message

We are coming to the end of another summer. I trust everybody is healthy and had a great time. Once again we are getting ready for the State Fair in Perry.

I want to talk about a new occurrence that has been brought to light recently. That is the idea that we are entering or been in the *Anthropocene* epoch. The *Anthropocene* is a proposed epoch dating from the commencement of significant human impact on the Earth's geology and ecosystems, including, but not limited to anthropogenic climate change. As of August 2016, neither the *International Commission on Stratigraphy* nor the *International Union of*

Geological Sciences has yet approved the term as a recognized subdivision of geological time, although the working group on the *Anthropocene* (WGA) voted to formally designate the epoch *Anthropocene* and presented the recommendation to the *International Geological Congress* on 29 August 2016.

There are roughly 5200 minerals recognized and cataloged by the International Mineralogical Association. An additional 208 mineral species have arisen on Earth only, or primarily as a result of, human activities. It is best said that the anthropogenic minerals come from either direct or indirect actions of man. Be it the yttrium aluminum garnet from manufactured crystals that are used in lasers and as semiconductors, carbide grits for abrasives, various specialty metals and alloys for magnets, machine parts and tools. Other examples include bricks, earthenware, porcelain, Portland cement products which are used in concrete, mortar, stucco and grouts. It is also found in mine shafts, mine walls, mine dumps, and smelters.

Now we know that as many as 29 carbon minerals originated with human activities, of which 14 have no recorded natural occurrences. It is fair, therefore, to consider the 14 as the youngest carbon mineral species. Among the 14, candidates for the very youngest include a dozen minerals related to uranium mines. The mineral *andersonite*, for example, is found in the tunnels of certain abandoned uranium mines in the American Southwest. At places along the tunnel walls, sandstone becomes saturated with water that contains elements that form a beautiful crust of yellow, orange and green crystals. Another notable carbon-



bearing mineral is *tinnunculite*, determined to be a product of hot gases reacting with the excrement of the Eurasian kestrel (*Falco tinnunculus*) at a burning coal mine in Kopeisk, Chelyabinsk, Russia. It was subsequently discovered also on Russia's Mt. Rasvumchorr — an entirely natural occurrence.

The list is 208 minerals long and is slowly growing. There are an additional 135 carbon-bearing minerals that have been projected but not found yet by the *Deep Carbon Observatory's Carbon Mineral Challenge*. The *Carbon Mineral Challenge* sets the stage for both professional and amateur mineral collectors to make their mark by discovering never-before described minerals. Researchers predict at least 135 of Earth's carbon-bearing minerals remain undiscovered. How many can collectors find by 2019? <https://mineralchallenge.net>

I am looking forward to us having another great year again. If anyone has a suggestion for a field trip and/or presentation, feel free to contact me, Jay Batcha, or Phil Hargrove.

Sincerely,

Jim Souter, President
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Jay Batcha, Editor of Mid-Georgia Gem Clips
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The Fair News

This year the Georgia National Fair will be October 5-15. We will, as before, set up in the Miller-Murphy-Howard Building in the area next to the Fine Arts Hall. The primary purpose of what goes on in this building is to promote the Arts and hobbies of Georgia artists and residents. We use this time to educate the public about gems, minerals, fossils and the lapidary arts and to promote the Club. The Fair's expectation is that we will be demonstrating as much as we can manage. It is not necessary that you demonstrate — we need docents to talk with the public. People are generally eager to talk about gems & minerals, etc. and interested in the Club. If you would like to bring some of your collection to display while you are there as a docent, that would be great!

Since we are demonstrating, we are allowed to sell on a limited basis. As in prior years we may sell lapidary related items *that we have made; things that require some level of (your) skill to produce*. The only other people in this building allowed to sell are the Artists-in-Residence (in the Georgia Living section, not referring to the adjoining Fine Arts). If you plan on selling, the space allowed for your display is approximately 3 x 3 feet. If you plan on selling you must also be demonstrating. Please arrange for any equipment and tools you will need; do not assume any equipment will be provided.

The Fair allows us to sell grab bags as a fund raiser for the Club. Various Club members have been working on these grab bags since last year's Fair. We sold all of the bags we had prepared last year and likely could have sold more. A special Thanks to Tina Perkins for sewing "thousands" of bags over the past several years! And Thanks to everyone that donated fabric, donated items for the bags and stuffed the bags. A big THANKS to Jay Batcha (and Maxine!) for his generosity in tumbling and shipping expenses incurred supplying the majority of what goes into the grab bags, and for hosting the "stuffing parties". If you have something to donate



for the grab bags, please contact Jay at 478-957-5002.

We'll announce the setup and take-down dates at the September meeting. If you have any specimens you would like to have included in the display cases, bring them to the Fairgrounds when we setup or you may get them to Jay or bring them to the September meeting. Please mark all of your items in some way if you cannot be at the display setup and take-down. On the day of setup all of the cases are locked by the Fair personnel before anyone leaves. Same applies when we take the display down; the cases are not unlocked until everyone responsible for items in the cases is present.

If you would like to docent please contact Susan or Phil Hargrove as soon as possible so we can arrange the schedule. The absolute deadline to sign up is our September meeting. The Fair needs the name and addresses and how many days (or parts of days) you commit to. You will be mailed tickets and a parking pass. We need to be conscious of keeping our space neat and orderly and the display fully accessible to the public. Remember that no open drinks are allowed in this building and no eating. There is a dining area in the back of the building that we can use.

Contact Susan at 478-837-5327 or Phil at 478-550-8199 or email susanbphilh@pstel.net.

Thanks and see you at the Fair!

June Meeting Minutes

The meeting was called to order by President Jim Souter. A total of fifteen members and visitors were present. The Treasurer provided a summary report of the Club's balance and recent expenditures.

A discussion was held regarding increasing the sales price of the grab bags sold at the Georgia National Fair. Given the time and expense of preparing the bags, and the good variety and number of items

included in the bag, the general consensus of those members present was to increase the sale price to \$3.00 per bag. Discussion also included considering selling two bags for \$5.00. A final decision will be made before the Fair begins in October. Jay Batcha stated that he plans the next "bag stuffing" during the month of August.

Jay Batcha reviewed upcoming field trips. The Mineral of the Month was reviewed.

Jay Batcha introduced the speaker, Bonnie Sams. Bonnie was a student of our member, Tina Perkins, when she attended Central High School. Bonnie is currently a graduate student at The Colorado School of Mines. Bonnie holds multiple geology related degrees and honors. She has also participated in several research projects in geoscience. As part of her program, Bonnie reviewed geology and hydrogeology terms before speaking about her current research project. She is currently conducting research on column scale modeling and analysis of 1D homogeneous carbon flux through the Mancos Shale in the East River at Crested Butte, Colorado. This area lies in the Colorado Mineral Belt and is in the Mt. Gothic area. Bonnie stated her project is part of a larger study of the watershed (primarily snow melt) in this region. Bonnie outlined that changes in rock mineralogy, weathering susceptibility and pore structure due to contact metamorphism of the Mancos shale, result in changes in river morphology and channelization. Her study has produced preliminary findings that indicate the impact of carbon flux on unmetamorphosed versus metamorphosed samples. The study is designed to gain a greater understanding of the natural and human influences on Mancos shale and on how water and rock react with each other.

Minutes by Phil and Susan Hargrove



Insects in Baltic Amber

Mineral of the Month Amber

Amber is a beautiful stone that is cut and polished and used as a valuable gemstone. It is very light in weight which allows it to be used in a large jewelry piece without discomfort. Amber, or fossil tree sap, has been known since antiquity. A fossil itself, it can contain many preserved insects and other animals and plants that are tens of millions of years old. These frequent fossil inclusions were made famous in the movie "Jurassic Park". The odd inclusions that are often seen in amber usually add to amber's unique look and in many cases greatly increase its value.

The fossils that are encased in amber probably got there when they flew or crawled on to the fresh seeping sap and then got stuck. The sap oozed over the trapped animals and perhaps fell to the ground and was later covered by dirt and debris. The sap later hardened and became a fossil.

The fossils are mostly insects such as gnats, flies, wasps, bees and ants. Occasionally more exotic insects are trapped in the amber such as grasshoppers, preying mantises, beetles, moths, termites, butterflies, etc. Other non-insect animals are found in amber too such as spiders, centipedes, scorpions and even frogs and lizards. No really large animals like mammals or birds are seen in amber but feathers and fur have been seen. Invaluable plant remains have also been found in amber including flowers, mushroom caps, seeds, leaves, stems, pine needles and pine cones. The rarity of the trapped fossils controls the value of the amber more so than the quality of the amber. Remember these are fossils and are not the same species that are alive today. Amber has greatly increased the knowledge of the evolution of insects and plants as well as enlivening the interest in paleontology in general.

Amber is often imitated by plastics, colored glasses and some modern tree resins. However, its hardness is usually greater and it is tougher than other resins. Its low specific gravity (amber can float on salt water) and inclusions can distinguish it from plastics and glasses.

PHYSICAL CHARACTERISTICS:

- **Color** is amber yellow to orange.
- **Luster** is resinous.
- **Transparency:** Transparent to translucent.
- **Crystal System** does not apply because amber is **amorphous** (meaning it does not have an ordered structure).



- **Habits** include nodules embedded in shales or sandstones and those that are washed up on beaches.
- **Fracture** is conchoidal.
- **Hardness** is 2+.
- **Specific Gravity** is approximately 1.1 (extremely light and can float in salty water).
- **Streak** is white.
- **Other Characteristics:** Can be burned, **fluorescent** under UV light and is much tougher (will not crumble as easily) than modern tree resins.
- **Notable Occurrences** include all Baltic countries; Venezuela; Russia; Romania; Burma; in coal seams in Wyoming, USA and the Dominican Republic.
- **Best Field Indicators** are color, density, toughness, softness and trapped insects.

From: URL <http://www.galleries.com/>



The Dominican Republic is one of the world's main sources of authentic-Amber a fossilized resin from the tree *Hymenaea Protera* which became extinct about 25 million years ago.



Some field trips coming up, time to do some digging!!!



Kyanite Blades from Clarkesville, Ga.

An Official Field Trip of the Knoxville Gem & Mineral Society (Knoxville, TN) (HOST)

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

**Saturday, September 30, 2017
Clarkesville, GA**

10:00 AM Eastern (9 am Central)

Fee: \$10 per person

TRIP: This location is located in a band of kyanite bearing material. The material has been moved around so the kyanite is not in situ. Small blades are easy to find, but digging and some perseverance is



required to find the larger specimens. This site is fun and productive site for all ages.

COLLECTING: Kyanite blades and cobbles, small mica books, and graphite specimens (rare). The Kyanite ranges from gray to pale blue and may contain graphite. Some of the blades can be polished and, because of the graphite, they have a curious depth and shimmer when they are polished.

FEE: \$10 per person

BRING: Small blades can be found weathering out onto the surface. Bigger blades and cobbles are found by digging 8" to 24" deep. You will need scratching tools and baggies for surface collecting, and a shovel and pick for digging. **All holes must be refilled.** This site can be muddy at times, so a change of clothes would be good too.

FACILITIES: There are no bathroom facilities at the site, but there is a McDonald's Restaurant in Clarksville and also restrooms at a public park a few miles from where we will be collecting. The Knoxville Gem & Mineral Society members will have free water and snacks available for everyone.

CHILDREN: This field trip is suitable for children but they must be supervised at all times.

PETS: Because this is a working farm,

pets are not allowed.

SAFETY: There are electrified fences on the farm so **do not** touch any fences. Field trip leads will open and close gates. This is a working farm and there may be animals present – **do not** approach any of the animals. **Do not** enter pastures where animals are present.

DIRECTIONS AND WHERE TO MEET:

We will be meeting at 10:00 am Eastern time

Ingles Market (the only Ingles in Clarksville)
199 East Louise Street (US Old/Historical 441)
Clarksville, GA 30523
Coordinates: 34.603124,-83.517801

- 1) **From Atlanta**, take I-985 North towards Gainesville
- 2) I-985 will transition to GA 365/US 23
- 3) Continue on GA 365/US 23 to GA 197
- 4) Take GA 197 north to Clarksville (about 3.5 miles)
- 5) Ingles is on the right, we will meet in the parking lot close to the highway.

CONTACT: Daniel Miller: 423-273-0487



Kyanite cobbles from Clarksville, Ga.



Check website

<http://www.amfed.org/sfms/>

**For more shows coming up in the
Southeast and other great information!**

**September 2 - 5, 2016
Hendersonville, NC
Labor Day weekend**

Henderson County Gem & Mineral Society
35th Annual Gem & Mineral Spectacular
Colorful World of Jaspers

Friday-Sunday September 2-4: 10 AM to 6 PM
Monday September 5: 10 AM to 5 PM

Whitmire Activity Center
301 Lily Pond Rd
Hendersonville, NC

*Demonstrations*Exhibits*Hourly
Prizes*Refreshments Available*
*Raffle*Grand Prizes*

For more info check our website: HCGMS.com

Admission: \$4.00 Adults

Children under 12 accompanied by an adult are free
\$1.00 off admission with coupon on our website!

**Sept. 23 - 25, 2016
Jacksonville, Florida
28th Annual Show
Jacksonville Gem and Mineral
Society**

Morocco Shrine Auditorium
3800 St. Johns Bluff Road, Jacksonville, FL
32224

Friday 1:00pm-6:00pm
Saturday 10:00am-6:00pm
Sunday 10:00am-5:00pm
Admission: \$4 or \$6 for three day pass
Children under 12 FREE with guardian;
Seniors and Military with ID get \$1 OFF

80+ dealers from around the world, hourly door prizes, 5 Grand prize drawings, Moon rock display on loan from NASA made possible by Dr. Mike Reynolds. Club Hospitality table, 20+ Club competition display cases, Sky Lab exhibit. 4 special faceting Lectures from noted Faceters. All major faceting equipment dealers and National tool and equipment dealers will be represented.

Special Large lapidary demos each hour.
Continuous Educational exhibits on
Silversmithing, Cold Connections, Faceting,



Cabbing, Beading, Gem trees and more. Large junior's booth, Gem ID and Gem mining sluice. Scouting educational sessions to earn merit Badges in rocks and metal work.

web site : www.jaxgemandmineral.org/
3800 St. Johns Bluff Rd
Jacksonville, Florida 32224

Show contact: Jason Hamilton, Show Chair, 904-294-4744, JGMS-SHOW@hotmail.com
<http://www.jaxgemandmineral.org/show.html>

Tidbits

Gemstone Dyeing - Mix a box of Rit dye with a couple of ounces of wood alcohol. Let your stones, polished or tumbled, soak in this solution in a small jar until the desired shade has been reached. This could take 30 minutes or overnight. If too much dye is absorbed, soak in clear wood alcohol. Slicing after being dyed can result in some fantastic results. *Source: Pineywoods Rooter—Feb. 2012*

Black petrified wood, when polished has no resemblance to wood at all. It looks like a plain black polished stone. You can highlight some of the beautiful grain structure by bleaching it. Soak the cut and sanded pieces in household bleach for 2 to 4 weeks, replenishing the solutions when needed. When the desired grain contrast has been obtained, remove the pieces, and polish. Some extremely interesting pieces

can be obtained by this method. *Source: Gems of the Rogue—May 2012*

When cutting jade, the more milky the water is the better grade of jade. If the water isn't milky, then you don't have true jade—you have something else. Save the inner plastic ring from scotch tape rolls. They make great stands for spheres. When working with a soft stone such as Onyx or Marble, soak it in water a couple of days before cutting. This will keep oil from soaking in to discolor the stone and will result in a higher polish. *Source: Gems of the Rogue—May 2012*



Election time for Officers of the club is here once again. Think about being an officer of the club, it is time to step up to the plate and help out our club. Please let one of the present officers (Jim, Phil, Susan, or Richard) know that you are interested in a position



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. 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 / Web Master: Jim Souter,
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Education Chairperson: Tuell Walters,
ph. 478-922-7200
firecomet46@gmail.com

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 _____

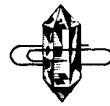
Renewal _____

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.



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**



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