



# Mid-TENN Gem'ers

Newsletter of  
The Middle Tennessee Gem  
and Mineral Society, Inc.  
P.O. Box 1256  
Murfreesboro, TN 37133-1256

## OFFICERS

*President*

**Bob King**  
615-754-0095

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615-884-8128

*2nd VP &*

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**Paula Vance**  
931-393-2491

*Treasurer*

**Will Smith**  
615-366-1022

## Board Members:

*1 year*

**Ken Swann**  
931-857-3435

*2 year*

**Lisa Trail**

*3 year*

**Lewis Elrod**

*Past President*

**Steve Henegar**  
615-896-1472

## Presidential Ramblings

This will be a busy year because we are not only making plans for this year, but for next year, as well. At our February meeting, we discussed the upcoming national convention (American Federation of Mineral Society), which our club will host in Nashville in August 2006. You will hear more about this in the future. Lewis Elrod is chairing this event.

We plan to have the membership cards available soon. This card will also allow MTG&MS members to visit the new MTSU museum without having to pay the entrance fee. The museum is progressing under the direction of the curator, Dr. Albert Ogden, and he hopes to have it open in April. We are still planning a field trip to the museum as soon as it is ready.

The Middle Tennessee Gem & Mineral Society will offer a new MTSU scholarship named in honor of member Bill Buckner. We appreciate the time and effort that Bill has spent helping our club and others in the community. It is a well-deserved honor. We will also continue giving two scholarships to Tennessee Tech and one to Motlow State.

We had a large crowd to see another great program in February. Peggy Sides did an outstanding job presenting her program "Bead Craft Person". She made it sound so simple. She brought some beautiful examples to show. It was nice to see how she combined her talent for wire wrapping and silver smith work together with beads. The best part was the way she could stand her ground with Smitty. (Thanks, Peggy, for presenting such a great program). John Martin is still looking for other good programs. If you have an idea, please contact him. Speaking of contacting, please send articles to Ingrid.

Thanks to Paula Vance, we now have a new wrapped crystal to be given to the person on the "rock pile". The person selected for this honor will give a five-minute talk about their interest in rocks and minerals. Next month's person on the "rock pile" is Stephanie Stump. The "rock pile" gives club members the chance to get to know more about our members.

The MTG&MS, Inc. is a non-profit educational society dedicated to the study and enjoyment of the earth sciences. We are open to the public for the education of all who wish to attend. Society membership is open to persons interested in the earth sciences. Applications are available on request.

## Meeting Dates 2005:

**March 17th**

**April 21st**

**May 19th**

**June 16th**

**July 21st**

**August 18th**

**September 15th**

**October 20th**

**November 17th**

## Dues are Due!!!

Dues are \$12.00 for the first person of each household and \$2.00 for each additional family member. Dues are payable January 1st and are prorated in April, July and October. Check the upper right hand corner of your address label for the year you are paid through.

## Send dues to:

**Will H. Smith**  
**5304 Bellcrest Dr**  
**Antioch, TN 37013**

## President Letter

## Meeting notes

## 2 field trips

## Juniors projects

Roses Are Red,  
Garnets Are Green

Coprolite, or This  
Dung is for You

and more...

The club has also purchased a new LARGER screen for the Farm Bureau building. This will be a nice addition for presentations.

Thought of the month: "How long a minute is, depends upon which side of the bathroom door you are on."

**Bob King**, President

### Board Meeting: 2/17/05

Meeting was called to order at 6:44 p.m. Lewis started things by announcing he has ID cards ready, and now only needs current membership list to make labels for them.

Will handed out proposed budget and gave us show totals. It was decided unanimously to give scholarships this year as follows: \$500 for Motlow, \$1000 for Tech, and \$500 for MTSU. The Motlow scholarship will be given in honor of Bill Buckner.

Marty mentioned the need to submit a rockhound of the year again. Steve will be in charge of picking that person and doing the writeup. Lewis is working on the September field trip, tentatively scheduled for 9/10/05.

John noted we will have a speaker coming from out of state for the July meeting. Tina has ordered some mineral workbooks for this year's dig. Lewis has the bellcaps for the kids' finds to make pendants. Lewis also has brought in a new projection screen.

Hopefully the Mineral Museum at MTSU will be ready to open in early April. Hopefully we can have a field trip there in late March. Meeting adjourned at 7:25 pm.

### General Meeting: 2/17/05

President Bob opened the general meeting at 7:35, and asked Joe Powell to give brief explanation of our Stamp Fund as there were several new faces in our group. Lewis announced a Show Committee meeting Sunday the 20th right after the Donelson meeting, to discuss the AMFED show. He gave a brief background of AMFED and our involvement with this parent group. The Annual AMFED Show is scheduled for the 2nd weekend in August, 2006. Our own Nashville show will be December 10-11, 2005.

Visitors and new members were introduced to the group: Bruce and Barbara Heflin, Fred Hembree, and Laura Deerr & Evan Bloomer. French had the honor of announcing that an MTSU scholarship will be given this year, in the name of one of our hardest working members - Bill Buckner. Tina then recognized and gave kudos to Cameron Byler for his extensive work done with a display case at her school.

Joe Powell conducted the Stamp Fund drawing, with items donated this month by Ken Swann, Bill Buckner, Norm Crocker, Al Johnson, Cameron Byler, and John Stanley. Thank you all for your generosity.

Paula Vance then got up and officially reinstated the tradition of "passing the crystal" for a monthly Person on the Rockpile feature, donating the large wrapped crystal. She bestowed the crystal on Stephanie Stump to be next month's featured Person.

John Martin, Program Chair, announced the delay on our field trip to MTSU Museum, expressing hope we will be able to go at the

end of March. He announced that all MTGMS members will soon have membership cards, one of the perks being free admission to the museum. He urged all members to fill out the information sheet for our new Resource Directory and send them to him.

Our featured speaker, Peggy Sides, then took over the show with a dynamic presentation on her current fav hobby of beading jewelry, using bead stones. Her multifaceted career and hobbies, her introduction to the lapidary process, and immense creativity and imagination wowed everyone in attendance. Thank you, Peggy, for a great program.

Meeting adjourned at 8:30 pm.

Respectfully submitted,  
**Paula Vance**, Secretary

### Donelson Meeting

The next meeting will be the Sunday, March 20th at 3:00 PM. The speaker is Al Johnson and the topic is "Hunting in South Dakota - Rocks, Mineral and Fossils."

I am always looking for speakers and topic suggestions for both the Murfreesboro and Donelson meetings. If you have a topic you would like to speak on, know someone whom I should call and get to come to our meetings to speak, or would just like to make a suggestion about a topic you want to hear, please feel free to call me on my cell phone (615) 210-5385 or email me at MBDjewelry@aol.com. Please put MTGMS in the subject or I might accidentally delete it without reading it :-)

Thanks...

**John Martin**, Program Chair

## Field Trip: Horse Mtn. Agate

By Will Smith

Ken Swan has agreed to take "Club Members" on a field trip March 26th to hunt Horse Mtn. Agate. It is on a large farm so should be easy for most members. Important that only members go due to insurance requirements.

Ken is going to lead the Tullahoma group from his house at 9 AM. I'm going to lead everyone else from the Beechgrove/Hwy 64 Exit at I-24 which is the second exit south of Murfreesboro.

If your interested, go to exit #97 which should be the Hwy 64 / Beechgrove Exit at I-24. Go down the exit ramp, turn right on to Hwy 64, go a short distance to a store on the right. Ken thinks it is at Jake Branch Road. It is the only store in the area.

We will meet at the store by 8:45 AM and leave by 9 AM. We will be going south on Hwy. 64.

Much of the area around Wartrace has Horse Mtn. Agate on it, but the property owners will not let people collect because many Rock Hound's in the past have not respected their property. Ken has been lucky to get this owner to allow our group to collect on their property, so we want to "Make Sure" we go the extra mile to keep everything perfect. For that reason, there will be no digging, no climbing of the fences, no taking food or drink on the property and if we damage "anything" you will let Ken or I know as soon as possible before we leave the farm. This is a working farm so the fields we are col-

lecting in will have farm animals so give them your respect too.

Since this is a farm, on a farm road, we're not sure where we can park cars. What we will need everyone to do is group together in one or two cars at the store before we go over to the farm.

The only tool you will need is a bag, so don't show up with carts, tools, etc., just a bag and it does not have to be very large. We will not be on site long enough for you to have to have food. Feel free to take a water bottle provided you leave with it.

Horse Mtn agate will be in small pieces 1" - 2" inches in size and you will find it on top of the ground. Good practice for Easter egg hunt. The agate is clear to peach color. Some of the best will be red to brown Carnelian. We will be at the site 2 - 3 hours. The trip will be cancelled if it is raining or if weather alerts are issued for the area. Good Hunting!

DMC Program of the SFMS Field  
Trip Committee

An Official Field Trip of  
the Cotton Indian Gem and  
Mineral Society, Inc. (Host)

An Official Field Trip of  
the Middle Tennessee Gem and  
Mineral Society

**10:00 AM, Saturday,  
April 30th, 2005  
Savannah River  
Agate Site**

Girard, Georgia  
Burke County

**(FREE Dig)**

**Children:** Children are welcome but need to be supervised as we will be hunting on a dirt road and there is always a possibility for vehicles driving along the road.

**Pets:** Same as above.

**Contact details:** Harry Hyaduck Sr. at 770-471-2354 or Kim Cochran at 770-979-8331, hyaduckh@yahoo.com

**TRIP:** Savannah River Agate has been collected at this site for many years. Clubs from Georgia and South Carolina have been collecting for decades. I have been told that there is as much material there today as there ever has been, however, I understand the purple and red material is not as easy to find as it once was.

**COLLECTING:** We will be collecting Savannah River Agate which is actually a combination of agate, jasper, chert and opalite. The agate is great for cabbing and tumbling. The agate sometimes has vugs in them which other minerals can be found such as druse quartz, wavellite, variscite, selenite, etc... The agate comes in many colors; mottled brown to greenish reds and purples. Occasionally you may find Indian artifacts as well.

**SPECIAL CONDITIONS:** We will be hunting in the roadway and road cuts only. No one will be allowed to hunt off of the roadway and road cuts!

**BRING:** You can pick up agate off the road but you should at least bring scratching tools. You may also want to bring digging tools, buckets, wrapping paper or aluminum foil to wrap your specimens in. Bring plenty of water and food as there are no stores nearby.

## DIRECTIONS AND WHERE TO MEET:

**Where we will meet:** We will meet at the Girard city Post Office (on Hwy. 23)

**When:** 10 am, Saturday, April 30, 2005

**Directions to our meeting place:** From I-20 take Hwy. 520 west of Augusta south to Hwy. 56 south. Go through McBean and stay on Hwy. 56; \*do not take Hwy. 56 Spur\*! Turn left on Hwy. 23; meet at the Post Office in Girard.

**Drive Time:** From the Atlanta area it is a 3 to 3 & 1/2 hour drive.

**Contact:** Harry Hyaduck, Cotton Indian Field Trip Chair

Email: hyaduckh@yahoo.com  
Phone: 770-471-2354

## For Juniors: Make Your Own Stalactites and Stalagmites

*From The Mountain Gem 1/89 via The Glacial Drifter, November 2003, via The Pick & Shovel 02/04*

Supplies needed:

- Large box of Epsom Salt
- 2 glass jars
- Piece of cord
- Small colored plate or ashtray

Procedure:

Dissolve the Epsom Salt in a pint or more of hot water.

When cool, pour solution into glass jars, filling almost to the top. Place jars 4 inches apart. Place one end of the cord in each jar, letting cord sag slightly in the middle; Place the plate between the jars, under the sagging string.

The cord will begin to drip at the lowest point. In a few days you

will see a build-up of one or more stalactites. As the solution continues to drip, stalagmites will begin to build up on the plate. This experiment almost always duplicates the process going on in live caves.

## How To Make Rock Candy

from The Pegmatite, December 2002 (Author Unknown), via Quarry Quips 09/03, via The Pick & Shovel 02/04

You will need 5 cups granulated sugar, 2 cups water, food coloring, flavoring, a very clean glass quart jar, string or coffee stirrer, and a pencil.

Procedure:

Bring water to a boil; dissolve as much sugar as you can. Pour this into a very clean jar. Add food coloring and flavoring after the solution is poured. Tie a string to a pencil and hang the string into the jar with the pencil resting on the rim. The string must not touch the bottom or sides of the jar. (If using a coffee stirrer, be sure it sticks out the top of the jar. It can touch the bottom.) Put a piece of waxed paper over the top of the jar to slow down evaporation.

As the sugar solution cools, it becomes supersaturated, and the excess sugar crystallizes onto the string or stirrer. Do not move or touch the entire apparatus while the crystals are growing. **No! No! Do not remove the cover either! Not even for one little peek!**

## Roses Are Red, Garnets Are Green

by Ed Johnson

from JAXGEMS 3/03, via Mountain Gem 12/03 and The Roadrunner 01/04

Well, not all roses are red and few garnets are green, but the garnet we'll take a look at—the demantoid garnet—can be a spectacular green even rivaling an emerald for color. As a result, the demantoid garnet is the most valuable member of the garnet family.

With one exception, the characteristics of demantoid garnet are fairly typical of the garnet family. Hardness is 6.5. The refractive index is 1.88. The specific gravity is 3.85, and it has the ability to scatter light into all the colors of the rainbow. Demantoid is a champion in this respect with dispersion even higher than that of a diamond.

A member of the andradite group of garnets, the demantoid is composed of calcium iron silicate. The green coloration can vary from a true green to a yellow green or a brownish green with a golden shine and comes from the presence of chromium. Being rarer, the true or emerald green color is by far the most valuable. Unfortunately, most demantoid garnets are small. Most cut stones average a carat or less. Cut stones reaching two carats are considered quite rare.

Demantoid was first discovered in the Ural Mountains of Russia in 1868. Because of its unusual sparkle and brilliance, it became a favorite of Russia's premier jeweler, Faberge. Unfortunately, after World War 1, Russian demantoid virtually disappeared from the world's gem markets. Small deposits of demantoid were later found in northern Italy, the Congo, Korea, and Canada. None of these deposits were large enough to be commercially viable. Finally, in 1996 larger deposits were discovered in Namibia, and demantoid again appeared in

the gem markets on a more regular basis. Further development of Canadian resources has also increased production from the area.

When appraising most gem stones, freedom from inclusions significantly enhances value. Again, demantoid garnets dare to be different. Under a 10 X loupe, virtually all Russian demantoid exhibits inclusions of yellow Bysso-lith. In the better specimens, the inclusions form what are known as "horse tails" and can add significantly to the value of the stone. Interestingly, only demantoid of Russian origin exhibit this phenomena.

Demantoids from other areas are virtually inclusion free.

On the same subject from New Mexico Faceter 3,4/03 Buyers at the Tucson show saw a new supply of demantoid garnets for sale. About 20 kilos were unearthed from a new vein at the old Kladvovka mine. Another company is developing a large demantoid garnet mine in South America that promises even more of a supply of the gems. The mine's location remains a secret, but the company reports a lot of gems being produced. Prices of the South American gems range from \$180 to \$6,000 per carat.

## Coprolite, or This Dung is for You

by Brett Whitenack  
from *The Stone Chipper* 8/03, via  
*Stoney Statements* 1/04  
and *The Southwest Gem* 02/04

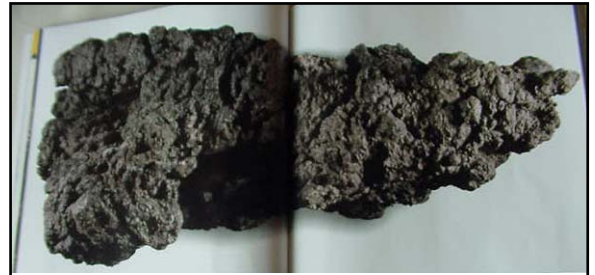
This article deals with a subject that some people find rather offensive and vulgar. Others find it quite amusing. There are a few people

who find it extremely fascinating and worthy of study. What could exhibit so many varied reactions? I'm speaking of petrified poop, Dina doo, fossilized er, ah, pardon me. I don't wish to offend anyone reading this article. I'm talking of the much maligned, the lowly, the humble, coprolite.

"What is coprolite?" I'm glad you asked. Coprolites are fossilized feces, dung, scat! Yes, ladies and gentlemen, coprolites are the extruded remains of meals that prehistoric animals deposited.

"But how can these be fossils?" The oldest coprolites date some 400 million years ago from the Silurian Period and are from fish. The most recent coprolites are from Ice Age animals and may still contain much original organic matter—a fact your nose may discover if the coprolite gets wet! Coprolites form just like any other fossil. They must have been buried rapidly in fine grain sediment and kept away from biological agents that could destroy them, such as scavengers or the environment. Ground water percolating through a potential fossil must be of a correct nature, not too acidic, and full of minerals that can replace the soft materials. Of course, these requirements only pertain to those coprolites that are petrified. Some younger coprolites have been found desiccated in southwest caves and date from the last Ice Age.

Being of a soft nature, dung doesn't preserve as readily as bones, teeth, or scales. However, coprolites aren't exceedingly rare by any means, and you too can easily own a piece of this most intere-



Extra large dinosaur poop (17" long, 2.5 quarts, bone fragments found within the specimen; this coprolite was found in Saskatchewan, Canada, photo compliments of National Geographic magazine, March 2003 issue

ing geologic wonder. Given its detached nature, a coprolite can't be identified with the exact species of animal that left it. In some instances, coprolites from sharks can be determined from the grooves and markings on them, as sharks have distinctive spiral valves in their intestines. By studying the makeup of a coprolite, one can tell if the animal was a carnivore (meat eater) or herbivore (plant eater). It is interesting to note that carnivorous coprolites are more readily preserved due to their higher mineral content from the bones the animal ate.

Other things that can be told by studying coprolites are such things as the paleoenvironment where the animal lived, other organisms that were associated with it, and how this animal interacted with its surroundings.

The name coprolite has two sources as to how they were named: one fact, the other fiction. During the great "bone wars" of Professor O.C. Marsh and Professor Edward Drinker Cope during the latter years of the last century, Professor Cope's men apparently stole an allosaur skeleton from a quarry of Professor Marsh's. This incensed Professor Marsh, and to

To: \_\_\_\_\_

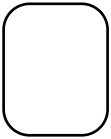
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Next Murr Meeting:  
March 17th  
7:30 pm

Next Don Meeting:  
March 20th, 3 pm

Next Tull Meeting:  
April 11th, 7 pm

First Class  
Postage



Middle Tennessee Gem and Mineral Society, Inc.  
c/o 2510 Essex Pl  
Nashville, Tennessee 37212

“immortalize” Professor Cope, Professor Marsh named the fossilized fecal remains “coprolites” to get even with his archenemy. A quaint legend, but entirely untrue.

The name coprolite has more humble and mundane origins. The English geologist, William Buckland, deduced their true nature and named them from the Greek *kopros*, “dung,” and *lithos*, “stone,” literally dungstone. Buckland thought they would be important in agriculture as a source of fertilizer due to their high calcium phosphate content. In addition to the information they can tell us, coprolites have become fashionable as a cutting material. Believe it or not, some coprolites exhibit beautiful colors when cut and polished. It has been said that the reds are from the meat the animal ate, brown from nuts and seeds, green from plant material, and black from the juices of blackberries. Actually, these colors come from the minerals deposited by ground water that percolated through them as they were fossilized.

**Once again due to construction delays, the trip to the MTSU Geology Museum has been postponed. We are currently hoping to reschedule this for April and more information including directions will be in the newsletter when we are able to plan our trip.**

**Swap and Shop -**

**For Sale:** FOR SALE: Sandblaster-new \$50.00 Large selection of polishing compound. Call George Jones (615) 333-3781 5025 Franklin Rd Nashville, TN 37220 georgejones@comcast.net

**For Sale:** Now available for sale! Large garage stuffed full of 35 yrs of rock collecting. Large selection of yard rocks still available priced by the pound. Petrified wood and quartz \$1/lb, other rocks \$.50/lb. 1 case is 21x21x4; 1 case is 19x21x4 1/2, each is \$25.00. Call Francis Mangrum to setup a time to visit: 228-8577.

**For Sale:** Rough Rock \$.50/lb. Your pick, by appointment only - June Miller 931-598-9740.

Swap and Shop is for members and friends to advertise goods and services for sale or swap & want ads. All ads must be submitted to the editor each month that you want an ad to run!