

Tips *and* Trips



The Georgia Mineral Society

Atlanta, Georgia

Volume XXXIV/Nine September 2005

President's Message



It is September – a most decent month, if I say so myself. The kids are back in school, and fall is just around the corner (officially, anyway).

There is hope that the muggy heat of late summer will ease up, making our collecting trips more tolerable.

September also means that the GMS “year” is coming to an end. Next month will be our annual banquet, at which we will install the new slate of officers. Some officers will continue on in their position, some will move on from their position, and some will accept a position, either for the first time or more. This is also when we honor members for outstanding contributions over the past year. Look for further information on the banquet in this newsletter [assuming it is available], and consider joining us for this yearly gathering.

As for moving on, by the time you read this, I will be into a new realm for me. It somewhat follows the GMS purpose – “to educate the Youth of the State . . . in the Field of Earth Science.” I will be teaching two geology courses, and the associated labs, at Georgia Perimeter College. I’ve been involved in petroleum exploration and environmental investigations, now I’m diving into education. This will definitely be an interesting four months. I’m hoping my experiences in the real-life world of geologic work, as well as the hobby-related aspects, will translate into a good experience for the students I’ll be involved with. Wish me luck.

Doug Daniels
President

September General Meeting

7:30 PM, Monday
September 12, 2005
Chamblee Library
4114 Clairmont Road
770 - 936 - 1380



Ages of Fossils

Fellow GMS member and man of many hats, Kim Cochran, will be speaking to us on the different Ages of Fossils. If you remember his talk on Geologic Time (with the Velcro Labels), you’ll agree that Kim can take a seemingly complicated subject (Eon, Era, Period, Epoch) and present a manageable topic. The Timescale of Fossils is much shorter than the Life of our Planet, but shows the equally amazing story of the diversity if Life.

Please join us for an enjoyable evening among friends & fellow Rockhounds, with Door Prizes & Treats to close the Meeting. Don’t forget to bring your favorite fossil for the after the speaker portion of the meeting. I’ll have some Show & Tell from “My Year of Road Side Collecting” or “My Year of Yard Rock Collecting”. (Get well soon George!!)

Looking Ahead:

October – Annual Banquet

November - Chamblee Library -Topic to be announced

December – GMS Holiday Party

Dylan Porter,
Vice President - Programs



The Georgia Mineral Society, Inc.
 A Non-Profit Educational Organization
 Seventy Years of Tradition
 Objective and Purpose
 To Educate the Youth of the State
 and the Members of this Society
 In the Field of Earth Science



AFMS Education - All American Club 2003

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Librarian	Julian C. Gray	770.888.9331
Parliamentarian	Joan White	770.478.5734
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Sunshine	Joan White Temporary	770.478.5734
Tips & Trips Labels	Joan White	770.478.5734
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The article submittal due date for the October 2005 newsletter is September 15, 2005.

GENERAL MEETINGS
 General meetings are held on the first Monday of each month. In the event that the first Monday is a holiday and/or the facilities are not available, the meeting will be held on the third Monday of the month. General meetings are currently held at the Chamblee Branch of the DeKalb County Library System. Any deviations from the above schedule will be announced in Tips and Trips.

The Georgia Mineral Society on the Internet:
<http://www.gamineral.org>
 E-mail Early Notification Program: A field trip and club news update service. To join, members are requested to send in their current e-mail address to:
gms@gamineral.org

December Show Committee Chairs

Show Chair	Kim Cochran	770.979.8331
Dealer Chair	Anita Westlake	404.761.7849
Exhibits	Jay Gorday	770.986.0822
Demonstrations	Margaret Ronan	404.636.0720
Hospitality	Nancy Marden	770.447.8542
Treasurer	Teresa Curl	770.751.7313
Advertising	Perry & Teresa Curl	706.764.2291
Dealer Dinner	Joan White	770.478.5734
Database	Joan White	770.478.5734
Auction	Kim Cochran	770.979.8331
Set Up/Take Down	Open to Volunteers	

**August 1, 2005
GMS General Meeting Minutes**



The meeting was called to order at 7:41 PM by President Doug Daniels at the Chamblee Library. Approximately 40 people were present, including 6 visitors. Anticipating the arrival of needed equipment for the evening's program, Doug conducted the business end of the meeting.

COMMITTEE REPORTS

Lizabeth McClain – VP Membership – 1 renewal.

Dylan Porter – VP Programs – not yet present, (Doug) next meeting September 12th, speaker TBA in Tips & Trips. October is the annual banquet.

Mary Porter - Secretary – minutes from July meeting available and in Tips & Trips. A motion was made, seconded, and passed to dispense of reading minutes.

Teresa Curl – Treasurer – not present, no report given.

Joan White – Tips & Trips – asked that anyone submitting articles to please do so in document format.

George Libby – Field Trips – still recuperating. Bill Waggener announced GMS trip August 20th – Ladds Mountain, Cartersville, GA.

Harry Yingst – Fossil Section – Doug announced we may have a new chairperson for the section, meetings may commence in the near future. He needs to speak with Harry, and the potential candidate.

Julian Gray – Mineral Section – no August meeting. Needs a host for next meeting, September 20th - topic TBA.

Julian Gray – Library – floor is not finished; moving date will be scheduled when complete.

Kim Cochran – Gem Section – thanks to Gracia Evens who hosted last week. Next meeting August 29th about quartz gems at Kim's, please RSVP for supper at 6:30.

Roxanne Lopez – Junior Section – not present. Next field trip August 14th – tubing down the Chattahoochee in Helen, GA. Bill Waggener will speak about GA geology along the trip.

Dave Babulski – Micromount Section – not present. No August meeting, next TBA in Tips & Trips.

Joan White – Temporary Sunshine Chair – mentioned the following as announced in Tips & Trips: Barbara Libby broke her wrist and George is still in Beverly Care, Bill Waggener's radioactive treatment on his thyroid. Joan likes to share good news also, e.g. birthdays and anniversaries. Sara Gorday and Jay Gorday's birthday was last week. Doug Daniels will be teaching at GA Perimeter College. Bill Waggener will be teaching at Paulding High School. Anita Westlake told us Louis Eldridge had emergency back surgery. He is in room 756 at Emory, loves Snicker bars, and would like to have any kind of pictures to look at rather than the ceiling.

Anita Westlake – SFMS – nothing to report.

Anita Westlake – Education Chair – Kim Cochran spoke in Murfreesboro, TN about pyrite. Anita spoke to teachers about rocks and minerals for next year's Science Olympiad.

Rod Peard – Adopt a Highway – not present, no report given.

Kim Cochran – December Show – dealer money/ contracts are due by September 17th. The Curls are already working on advertising.

Bill Waggener – Special Events - annual banquet in October. He is negotiating between two restaurants on the north side of town.

Kim Prakash – Refreshments – provided by Kim Cochran. Nancy has sign up sheet, asked if possible, to have two people sign up each month.

OLD BUSINESS

Doug – was contacted by Dr. Henry Barwood from Troy, AL, who has been asked to write an article about Hogg Mine to be published in a rock/mineral magazine. Dr. Barwood is requesting information from those who have collected at the mine in the past.

Carl Ziglin – asked if there is any new information on the church for sale being researched. Doug replied that there is nothing new to report. The possibility of it being too high priced was briefly discussed.

NEW BUSINESS

Doug – the next board meeting was announced in Tips & Trips to be on August 27th at the Ostrofsky's. Due to a prior commitment, the meeting has been moved to August 28th at 1:00 PM. A broadband email will be sent out – please RSVP to Eva if attending.

Anita – needs specimen donations for the Science Olympiad. Has two mini-grant applications for 2005-2006 with her if anyone would like to review them. They are the only apps she has received, and the deadline has already past.

SPEAKER (7:59)

Doug introduced himself as the speaker, and gave a (would be PowerPoint) presentation on causes of colors in minerals. Due to miscommunication, a projector was not available and Doug had to rely on mineral specimens for visual aids. He provided the history of his program and how it came about, and explained that three original ideas of mineral coloration developed years ago. Idiochromatic (self-colored) minerals are colored by an additional element (iron, copper). Allochromatic (other-colored) minerals contain trace impurities that cause color. Pseudochromatic minerals obtain color from light diffraction. From these three simple ideas, 12 causes within 4 main groups were developed: crystal field effects, molecular orbital effects, physical optics effects, and band gap theory. Doug then described in detail and gave examples of the 12 causes within the main groups. Afterwards, discussions included minerals that share the same chemical compounds (azurite and malachite), and how different sources of light can effect color.

DOOR PRIZES (8:34) – Margaret Ronan – Kim Cochran and Anita Westlake were recognized for donations. Door prize numbers were called.

A motion was made to adjourn the meeting at 8:44PM. It was seconded, and unanimously approved.

Mary Porter, Secretary

**August 2005 GMS
General Meeting Program Review**

Doug Daniels, GMS President, gave a (would be PowerPoint) presentation on causes of colors in minerals. Due to a miscommunication, a projector was not available. Luckily, Doug had his hand written notes as reference, and mineral specimens as visual aids. His initial idea of the program came about when the Daniels' hosted a mineral section meeting, and a discussion led his daughter to the question "what causes colors in minerals". The challenge began for a comprehensive explanation of said question, and he first presented the finished product at a mineral section meeting.

Doug began with the three original ideas of mineral coloration developed years ago. Idiochromatic (self-colored) minerals are colored by an additional element (iron, copper). Allochromatic (other-colored) minerals contain trace impurities that cause color. Pseudochromatic minerals obtain color from light diffraction. From these three simple ideas, 12 causes within 4 main groups were developed: crystal field effects, molecular orbital effects, band gap theory, and physical optics effects. Doug then described in detail and gave examples of the 12 causes within the main groups. The crystal field effects consist of two causes – transitional metal ions and color centers. Three causes make up the molecular orbital group – metal-metal, metal-nonmetal, and nonmetal-nonmetal. The band gap (quantum) theory includes three causes – conductors, semiconductors, and semiconductors with impurities. The final group, physical optics effects, contains four ways that light effects color – scattering, dispersion, diffraction, and interference. Doug added that the source of light also affects the colors of minerals.

For complete details, and mineral examples of the groups described above, refer to Doug's article on the GMS "writings" web page, or the March 2005 edition of Tips and Trips. There is a lot of information behind the answer to what seems to be such a simple question. My hat goes off to Doug for a job well done, without a "safety net".

**Mary Porter,
GMS Member**

**.....
EXCITING NEWS!**

I am pleased to announce that Julian Gray has accepted the position of Curator at the Weinman Mineral Museum.

Julian has been a long time volunteer at the Weinman, helping with collections, research and exhibit matters. He has also been very active in organizations such as the Friends of Mineralogy and the Georgia Mineral Society. He will begin this full-time position in September as soon as he finishes his dissertation at GSU. Julian brings a wealth of information and experience to the Weinman, and we look forward to having him on board now and for the future.

**Jose Santamaria, Director
Weinman Mineral Museum**

Request for Rock and Mineral Specimens

Anita Westlake is looking for donations of specimens of the following materials to help support science teachers in their educational efforts. You know you need to high-grade your collection (most of us need to). Please take the time now to do so. Most of the teachers do not have adequate specimens for teaching and purchasing specimens can become very expensive. Look through your summer finds and donate some of your excess material to the teachers. .

Please forward all donations to Anita. If you need help in moving the material, just ask for it.

**Joan White,
Editor**

MINERALS

- ALBITE
- [PLAGIOCLASE]
- ALMANDINE
- [GARNET]
- AMAZONITE
- [MICROCLINE]
- APATITE
- ARAGONITE
- AUGITE
- AZURITE
- BAUXITE
- BARITE
- BERYL
- BIOTITE [MICA]
- BORNITE
- CALCITE
- CELESTITE
- CHALCOPYRITE
- COPPER
- CORUNDUM
- DIAMOND*
- DOLOMITE
- EPIDOTE
- FELDSPAR
- [ORTHOCLASE]
- FLUORITE
- GALENA
- GOETHITE
- GOLD*
- GRAPHITE
- GYPSUM
- [ALABASTER]
- GYPSUM
- [SATIN-SPAR]
- GYPSUM
- [SELENITE]
- HALITE

HEMATITE

- HORNBLENDE
- KAOLINITE
- LEPIDOLITE
- MAGNITITE
- MALACHITE
- MUSCOVITE [MICA]
- OLIVINE
- OPAL
- PYRITE
- QUARTZ
- [AGATE/ONYX]
- QUARTZ
- [AMETHYST]
- QUARTZ
- [CHALCEDONY]
- QUARTZ
- [CHERT/FLINT]
- QUARTZ [CITRINE]
- QUARTZ
- [CRYSTAL]
- QUARTZ [JASPER]
- QUARTZ [MILKY]
- QUARTZ [ROSE]
- RHODONITE
- SILVER*
- SODALITE

IGNEOUS

- ANDESITE
- BASALT
- DIORITE
- GABBRO
- GRANITE
- OBSIDIAN
- PEGMATITE
- PUMICE
- RHYOLITE
- SCORIA

SEDIMENTARY

- ANTHRACITE
- COAL
- ARKOSE
- BITUMINOUS COAL
- BRECCIA
- CONGLOMERATE
- COQUINA
- DIATOMITE
- DOLOMITE ROCK
- LIGNITE
- LIMESTONE
- [CHALK]
- LIMESTONE
- [CRYSTALLINE]
- LIMESTONE
- [FOSSILIFEROUS]
- LIMESTONE
- [OOLITIC]
- LIMESTONE
- [TRAVERTINE]
- SANDSTONE
- SHALE

ROCKS

- METAMORPHIC**
- GNEISS
- MARBLE
- PHYLLITE
- QUARTZITE
- SCHIST [GARNET]
- SCHIST [MICA]
- SLATE

**.....
HOGG MINE**

Several GMS members have been approached by others interested in this site. If you are interested in information on collecting at the Hogg Mine, the contact person is Rodney Moore - ONLY. **Do not contact the owner.** Rodney's number is 404-975-8005. This is a fee site and prior arrangements must be made to collect there. This is neither an endorsement nor recommendation from GMS. (Information per Kim Cochran).
Joan White

**GMS Annual Banquet
7:00 PM, October 3, 2005
Fire Mountain Grill**



The GMS Annual Banquet and Officer Installation will be held at Fire Mountain Grill, 7045 Jimmy Carter Boulevard, Norcross, GA, (770) 840-9096. The festivities will begin on 3 October at 7:00 PM in the banquet room. Service will be self-serve at the Fire Mountain buffet and grill with individual bills (everyone pays for themselves). The meal charge is \$8.59 plus tax plus 15% gratuity per person. There will be no reservations nor advance payment needed. I have eaten at two Fire Mountain Grill restaurants and the food is excellent with a good choice of meats, vegetables, and desserts. Please join us to celebrate the successes and accomplishments of the past year and to welcome the new officers of the Society.

Directions: Yahoo and Mapquest have good directions to the restaurant.

The URL is <http://www.firemountaingrill.com>.

From I-85 and Jimmy Carter Boulevard, go west on Jimmy Carter Blvd. (GA 140). 4 miles. Fire Mountain is located on the right.

From I-285 and Peachtree Industrial Boulevard, go north on Peachtree Industrial Blvd. to Jimmy Carter Blvd. (GA 140), turn left and Fire Mountain is located on the right.

Respectfully submitted,

**Bill Waggener,
Special Events Chair**

Hope Diamond Stolen!!!!



I don't know if you have heard, but the Hope Diamond has been stolen from the Henderson County Mineral and Lapidary Museum, of course this is not the real diamond but an exact replica that means a lot to the members of our club, it was cut to exact dimensions by one of our members and was mounted in a replica of the original necklace that was acquired from the Smithsonian in Washington, we believe that the necklace with the mounted stone was taken sometime last Saturday or Sunday (September 3rd or 4th). Unless someone wanted to take it for themselves, they may try to pawn it or sell it at a local rockshop. Please alert the rock shops and mineral dealers in your area to be on the lookout for this piece. The diamond matches the original, blue faceted stone around 44 carats, with a diamond studded necklace. All help is appreciated and I know it will mean a lot to the members of the Henderson County Mineral Club and Museum.

Thanks,
Rick Jacquot

December Show News

Teresa and Perry Curl have been working on advertising. Perry has even gotten a head start on advertising for the 2006 Shows. Anita is busy handling incoming contracts from the dealers. The other chairs will soon be signing up people for demonstrations and exhibits. We still need someone to oversee setup and takedown. Please pick up show flyers. These will be available at the September meeting.

**Kim Cochran
December Show Chair**

December Show Committee Chairs

Show Chair	Kim Cochran	770.979.8331
Dealer Chair	Anita Westlake	404.761.7849
Exhibits	Jay Gorday	770.986.0822
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Dealer Dinner	Joan White	770.478.5734
Database	Joan White	770.478.5734
Auction	Kim Cochran	770.979.8331

Set Up/Take Down Open to Volunteers

Please Volunteer



Keep in mind that you do not have to chair a committee to volunteer. All the committee chairs will be asking for other members to volunteer to assist with the various tasks of putting on the show. If you are interested in helping, just call one of the people on the list and they will help you find something to do - believe me. At the last two shows we have been somewhat shorthanded in many areas. Everyone loves to attend the show so please just plan to take a couple of hours to lend a hand to your club.

Joan White, Dealer Dinner Chair

For Sale

14" Slabsaw, Large Kiln, 3 Potters Wheels - 2 manual and 1 electric, Assorted Specimens, Cutting Material. For information call Lowry Zuber Day at 770.414.9718.

Call for Award Nominees



If you would like to nominate a member for special recognition through our awards program at the Annual Banquet in October, please send your suggestions to iowhite@bellsouth.net or telephone 770.478.5734 or 404.354.8754. Thank you for your input.

Joan White, Awards

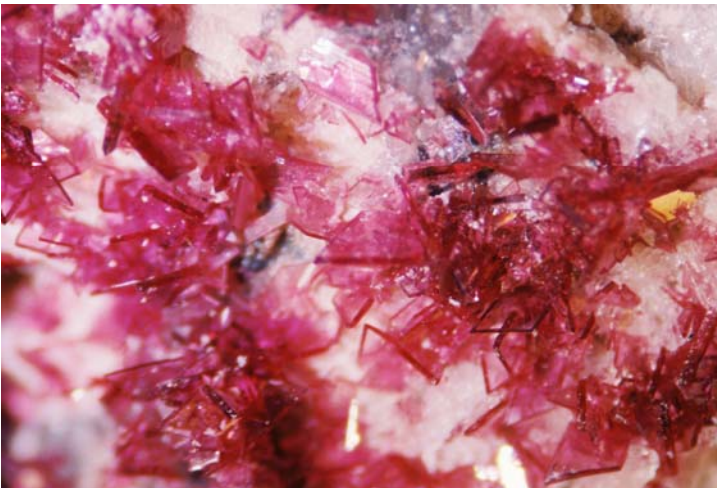


THE MICROMOUNT CORNER

Dr. David Babulski

Erythrite – “Pretty in Pink”

One of the striking aspects of the mineral world is the large variety of colors that minerals present. One of the most striking of these colors is the pink to red of the cobalt arsenate hydrate mineral erythrite. Cobalt deposits often feature erythrite as a secondary mineral from alteration of the primary cobalt minerals such as the siegenite (cobalt nickel sulfide) and linnaeite (cobalt sulfide). This mineral is called “Cobalt Bloom” by miners and is used to indicate the presence of cobalt ore minerals. Its pink to red color is distinctive and stands out against the drab coloration of the host rocks. The mineral gets its name from the Greek, erythros for “red”.



(photo and specimen courtesy of Dave Babulski)

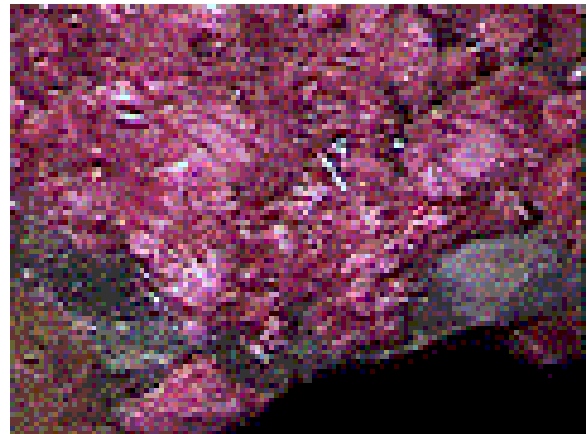
From the micromounters perspective erythrite is somewhat rare but produces striking specimens. At mineral shows, I have found that this mineral fetches a princely sum for really good micromount specimens. In micro form the mineral forms flattened monoclinic form plates, usually a transparent pink or red color. As the crystals become larger, the mineral becomes less transparent and deeper in color. It is interesting that erythrite forms a solid solution series with the nickel arsenate annabergite. The crystal form for both minerals is almost the same. The photograph shown below is of erythrite from the Aghbar Mine, Bou Azzer, Anti-Atlas Mountains, Morocco. The mineral was photographed through the microscope at a magnification of 30X with Fuji ASA 200 color print film using a white LED as the light source and a 4 second exposure.

Although good micromount specimens of erythrite are a bit hard to come by, the beauty and unique color of the mineral makes a must have for the micromount collection.

I have found that the easiest specimens to obtain and that have good micromount potential are those from the Bou Azzer area of Morocco.

On another note, the micromount section will again be meeting every other month alternating with the Mineral Section. The first meeting of the micromount section is tentatively scheduled for October. An announcement will appear in the Tips and Trips Newsletter.

Until next time may all your skies be blue and may all your vugs be crystal filled.



Chemistry: $Co_3(AsO_4)_2 \cdot 8(H_2O)$

Photo from website:

<http://mineral.galleries.com/scripts/item.exe?LIST+Minerals+Phosphates+Erythrite>



Photo below from website:

<http://webmineral.com/data/Erythrite.shtml>

