

Tar Heel Tailings

A newsletter for Gem and Mineral enthusiasts in and around the Raleigh, North Carolina area.

Special Interest Articles:

- A word (or two) from our President.
- January means We have a new board.
- FIELD – TRIP coming soon.
- Dues are Due.
- East Coast Basalts and mineralogy may save the World.

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From the President

Greetings club members! I am looking forward to a great year filled with interesting programs, productive field trips, and a colossal show in the spring.

This isn't just my club though; it belongs to all of us. Not everyone has the same interests, but the executives of your club will try and bring you a varied program that will hopefully have something for everyone.

We have a great show every spring, which will need the help of all of us to make it a success. We are very lucky to have a great show chairman, Kenny Gay to be leading us in the right direction.

One thing I would like to see is to build on the main strengths of our show that I feel, are our instructional and children-oriented programs. We bring in many new people because of our collections that are put on

display, by the crafts we demonstrate such as cabbings, wire wrapping, and the always-popular Geode booth. I would like to expand this theme in a few ways.

The children LOVE the silent auction. Where else can you get a cool quartz or pyrite crystal for 40¢ to add to your collection! The grab bags are also a consistently popular area. They don't get filled by themselves though.

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Pangea-era rift makes East Coast perfect for carbon storage

Flood basalts left over from the breakup of Pangea, which can chemically sequester CO₂, exist up and down the US East Coast.

By John Timmer

As the years tick by with most of the planet doing little in the way of reducing carbon emissions, researchers are getting increasingly serious about the possibility of carbon sequestration. If it looks like we're going to be burning coal for decades, carbon sequestration offers us

the best chance of limiting its impact on climate change and ocean acidification. A paper that will appear in today's *PNAS* describes a fantastic resource for carbon sequestration that happens to be located right next to many of the US' major urban centers on the East Coast.

Assuming that capturing the carbon dioxide is financially and energetically feasible, the big concern becomes where to put it so that it will stay out of the atmosphere for centuries. There appear to be two main schools of thought here. One is that areas that hold large

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The 2010 Officers and Committee Members for 2010

From Left to Right;
Obsidian Harris, Corinne
Hummel, Walt Milowic,
Joe Moylan, Bob
Bendelow, & Cyndy
Hummel."



Tar Heel Meeting Minutes November 2009



Tuesday 11-17- 09
Head Count 29

Matt Cook called the meeting to order.

The door Prize Winner was Corinne Hummel. She chose a slab of polished Jasper. Congratulations!

Ron Simmons, the door Prize Winner back in September chose a mineral of Malachite. Congratulations! Walt Milowic was

elected for the office of President. Joe Moylan was elected for the office Vice President.

Obsidian was reelected for the office of Secretary.

Corinne Hummel was reelected for the office of Treasurer.

There was also voting for "At Large" committee members. The following members won. Cyndy Hummel and

Bob Bendelow. Matt also made a motion to make a donation of Excess of Funds to the Craft Center.

There was also a Auction during the meeting. Bob Bendelow was the auctioneer this time. A lot of bids and shopping was done on the goodies that were presented. Have fun!

Happy Rock Hounding Obsidian Harris

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...From the President

Coming in March, the rest of the bags have to be filled. To fill them, we are going to need material. That material comes from the members. Start checking your field trip spoils for things you can donate.

I would also like to start a "fossil box" for kids to hunt for shark's teeth. If we can get a truckload of Aurora "dirt" we can almost guarantee each child a shark's tooth. Perhaps we can encourage a future paleontologist! I would also like to show them just how to start a rock collection with a demo table consisting of some basic collections, good identification books, and also show them how to identify common minerals and rocks. What else can we think of?

Programs don't just happen either; someone has to plan them. Who of you would be willing to be on the program

committee with me? I would like to get a list of speakers from which we can plan for the year. On the other hand, the committee needs input from you. If you aren't interested in hearing about polishing a piece of clay or making jewelry from pieces of coal then we need to know that. Tell us the topics you are interested in!

What are your thoughts on food? The club allots \$75 for food at our meetings. What do you want, a dessert, a light dinner, a snack? What type of drinks do you like? Do you want hot or cold food? (without going for the all you can eat buffet) Who would want to help me coordinate this? Personally, I enjoy a little hot food or a surprise snack now and then. Sandwiches, although relatively healthy, are boring if we have them all the time. Do we want a theme every meeting or is food

not even important to you? Are potlucks the way to go or should we always have a person designated to bring food?

If you have a problem please bring it to my attention. Too many times we discuss things that bother us with our friends but nothing ever gets done. I can't promise to do everything the way you want me to, but I will certainly listen to everything you have to say. Together the board and I will discuss it and then bring our findings to you to be voted on by the club.

How do you like our meeting space? Does it meet our needs or do we need something else? Are the meetings too long, too short, not interesting enough? How do you like the auctions at the meetings? Do you like the newsletter? If not, how can we make it better?

DECEMBER B-DAYS

Desiree Bapple
Dave Canady
Ken Carlson
John Coplen
Vicki Corporon
Michaela Dillon
Thurston Flynn
Sara Gray
Obsidian Harris
Becky Healy
John Krisko
Jonathan Lichtman
Robyn Neaville
Carole Shore
Claudia Sieminski
Frank Sinclair
Marilyn Sorin
Ray Starke

JANUARY B-DAYS

Roxanna Alexander
Stefanie Poe
Rebecca Kuprowicz
Marion Broadway
William Butler Jr.
Xan Dubrock
Christa Ennis
Cyndy Hummel
Bernadette James
Jason Jin
Bruce Lambert
Marc Lovick
Matthew Smith
Walt Milowic
John Nigro
Mary Obenchain
Christina Perry
Mimi Quick
Sarah Redpath
Ian Youngkin
Lela Walker
Michael Williams

It's a new year, Dues are Due!

Just a reminder: "Annual membership dues shall be paid at the first meeting of

the year" per club by-laws.

Membership has its benefits!

February Field Trip to Martin Marietta Quarry in Reidsville, NC

2010 Greetings, As your Field Trip coordinator I am pleased to invite all of our members to the 1st Tar Heel Gem & Mineral Club field trip for 2010 at the Martin-Marietta open pit mine in Reidsville, NC

Details

- Day: Saturday
- Date: February 6th
- Time: 09:00 to 1:00 PM
- Mine: Reidsville, NC Martin-Marietta open pit
- Mine Address: 7639 NC 87 Reidsville, NC 27320
- Finds: No info as I have never been here. Have you?
- Location: North of Greensboro
- Approx Driving time from Raleigh: <2 Hrs
- Standard equipment Req i.e. Steel toe boots, hardhat, goggles, gloves, buckets, picks, etc.
- Safety: All standard THGMC safety and common sense rules in effect.
- Children: As this is a working mine, no small children will be allowed. <10 yrs>

If Interested

- You are asked to reply back letting me know with a Yes/No/Maybe. I will also need to know how many people you will be taking. Car Poolers make it known if you will have extra room in your vehicle.

Thank you,

Tom Todaro
 Tar Heel Gem & Mineral Club Field Trip
 Coordinator
 919-639-7798, H
 919-349-9143, M
caribtomt@yahoo.com

DRIVING DIRECTIONS FROM RALEIGH:

1. Starting on interstate 40 West bound.
(go 57.7 miles)
2. Take the NC-49 exit, EXIT 145, Toward BURLINGTON DOWNTOWN/LIBERTY
(go 0.2 miles)
3. Turn RIGHT onto NC-49 / MAPLE AVE.
(go 0.3 miles)
4. Turn SLIGHT LEFT onto MAPLE AVE/NC-100.
(go 1.1 miles)
5. Turn RIGHT onto NC-100/ANTHONY AVE.
(go 0.2 miles)
6. Turn LEFT onto E WEBB AVE/NC-100/NC-87.
(go 3.7 miles)
7. Turn RIGHT onto NC-87. (go 19.3 miles)
8. Turn LEFT onto NC-87 W / FREEWAY DR.
Continue to follow FREEWAY DR.
(go 5.8 miles)
9. Take the NC-87/NC-65 ramp. (go 0.1 miles)
10. Keep LEFT at the fork to go on NC-65.
(go 2.4 miles)
11. 7639 NC HIGHWAY 87. (go 0.0 miles)

 Martin Marietta Aggregates, 7639 NC
 Highway 87, Reidsville, NC 27320 US

TOTAL ESTIMATED TIME: 1 hour 47 minutes |
 DISTANCE: 92.38 miles

To view a map, click on the link below or copy and paste it to your browser:

http://www.mapquest.com/mq/7-kSOPqdDrt3D83i3a**2W

NOTE: Make sure your membership dues are paid for 2010. You will **NOT** be allowed to attend this field trip if your membership dues are not paid up.

January Program

Our program for the meeting will be a show and tell. Please bring in your best piece or specimen. Bring in a mystery mineral that we have to guess what it is. Bring in some of your best handiwork from your faceting or cabbing shop, or even

just pictures from that great gem and mineral show you went to in Brazil. Be creative.

We're going for interesting and fun at this meeting. (anyone know any good rock jokes?)

As far as I know, I also

need someone to volunteer to bring the food for the meeting. Please email or call me if you can help out. Remember, we will reimburse you at the meeting. **SAVE YOUR RECEIPTS!** This isn't too hard (a 2 on the Moh's scale) Thanks!

"When was the last time you were invited to "Show & Tell"?"

Vugsites

The following are some links to Web-Sites that may interest some of our members:

<http://www.meetup.com/raleighjewelry/> Jen Hilton, a club member is the founder and coordinator of the Raleigh Jewelry Meetup Group: If jewelry making is your passion this site should be in a must go to.

<http://fasttex.diia.utexas.edu/vargas/search/> You will mark this as a "FAVORITE". A new searchable database of information & photographs of over 6300 specimens from the Glenn & Martha Vargas Gem & Mineral Collection.

http://www.msnbc.msn.com/id/29726500/ns/technology_and_science-science This site highlights a half dozen of the most recent significant fossil finds.

<http://www.amfed.org/> / <http://www.amfed.org/sfms> These are the official sites for the organizing body that the Tar Heel Gem & Mineral Club is founded under. I would strongly urge all members to check them out on a regular basis.

<http://www.rockhoundlounge.com> Scott Laborde a member of our club maintains his own web site that might be of interest to people collecting in and around Wake County.

I would like to encourage all members of the THG&MC that maintain their own presence on the internet to send me a link to their site to be published in future Vugsites so that other club members may learn and enjoy the craft, the art, the interests that many of us have in common.

Upcoming Local Events

January 15-17, 2010: Largo, Florida-Pinellas Geological Society. 34th Annual Gem, Jewelry and Mineral Show

and Sale, Largo Cultural Center, Parkside Room, 105 Central Park Drive. Hours: 15th & 16th, 10:00 A.M.-6:00 P.M.; 17th, 12:00 Noon-5:00 P.M. Contact: Hugh Sheffield (727) 894-8440.

January 16-17, 2010: Deland, Florida-Tomoka Gem and Mineral Society. 39th Annual Jewelry, Gem Minerals and Fossils Show and Sale, Volusia County Fairgrounds, Tommy Lawrence Building, State Route 44 (1 mile east of I-4, Exit 118). Hours: 16th, 10:00 A.M.-6:00 P.M.; 17th, 10:00 A.M.-5:00 P.M. Contact: (386) 226-4032 or fnesign@aol.com.

January 30-31, 2010: Panama City, FL—Panama City Gem & Mineral Society. 19th Annual Show, Bay County Fairgrounds, American Legion Hall, U.S. 98 & Sherman Ave. Hours: 30th, 9:00 A.M.– 5:00 P.M.; 31st, 9:00 A.M.– 4:00 P.M.. Contact: Ruth Alldredge at 850.784.0740.

JAN 30 - FEB 14, 2010 Tucson, AZ, The largest Gem, Jewelry & mineral show in the world.

March 19-21, 2010: Rome, Georgia—Rome Georgia Mineral Society. 32nd. Annual Valley and Ridge Gem and Mineral Show, The Forum, 2 Government Plaza (one block from Broad St at the end of 3rd Ave in downtown Rome). Hours: Fri & Sat 10-6 and Sun 11-5). Fee parking & admission. Contact Tim Biggart at (706) 232-7143 or tbiggart@berry.edu

APRIL 9,10,11 – RALEIGH, NC: Annual Tarheel Gem & Mineral Show, Free Admission,

April 17—18, 2010: Dothan, Alabama—Dothan Gem & Mineral Club. 3rd Annual Gem & Mineral Show, Westgate Park (James Grant Rec center, 501 Recreation Road. Free parking & admission. Hours: Sat 9-5 & Sun 10-4. Contact Arnie Lambert (334) 792-7116 or arlambe@comcast.net

"You realize that that's only 87 days until the Great Annual Tar Heel Gem & Mineral Show – Don't ya?"

Pangea-era rift

Continued from Pg. 1



deposits of natural gas should be able to trap other gasses for the long term. The one concern here is that, unlike natural gas, CO₂ readily dissolves in water, and may escape via groundwater that flows through these features. The alternative approach turns that problem into a virtue: dissolved CO₂ can react with minerals in rocks called basalts (the product of major volcanic activity), forming insoluble carbonate minerals. This should provide an irreversible chemical sequestration.

The new paper helpfully points out that if we're looking for basalts, the East Coast of the US, home to many of its major urban centers and their associated carbon emissions, has an embarrassment of riches. The rifting that broke up the supercontinent called Pangea and formed the Atlantic Ocean's basin triggered some massive basalt flows at the time, which are now part of the Central Atlantic Magmatic Province, or CAMP. The authors estimate that prior to

some erosion, CAMP had the equivalent of the largest basalt flows we're currently aware of, the Siberian and Deccan Traps.

Some of this basalt is on land—anyone in northern Manhattan can look across the Hudson River and see it in the sheer cliffs of the Palisades. But much, much more of it is off the coast under the Atlantic Ocean. The authors provide some evidence in the form of drill cores and seismic readings that indicate there are large basalt deposits in basins offshore of New Jersey and New York, extending up to southern New England.

These areas are now covered with millions of years of sediment, which should provide a largely impermeable barrier that will trap any gas injected into the basalt for many years. The deposits should also have reached equilibrium with the seawater above, which will provide the water necessary for the chemical reactions that precipitate out carbonate minerals.

Using a drill core from an onshore deposit, the authors show that the basalt deposits are also composed of many distinct flows of material. Each of these flows would have undergone rapid cooling on both its upper and lower surface, which fragmented the rock. The core samples show porosity levels between 10 and 20 percent, which should allow any CO₂ pumped into the deposits to spread widely. The authors estimate that New Jersey's Sandy Hook basin, a relatively small deposit, is sufficient to house 40 years' worth of emissions from coal plants that produce 4GW of electricity. And the Sandy Hook basin is dwarfed by one that lies off the Carolinas and Georgia.

They estimate that the South Georgia Rift basin covers roughly 40,000 square kilometers.

The authors argue that although laboratory simulations suggest the basic idea of using basalts for carbon sequestration is sound, the actual effectiveness in a given region can depend on local quirks of geology, so pilot tests in the field are absolutely essential for determining whether a given deposit is suitable. So far, only one small-scale test has been performed on any of the CAMP deposits.

Given the area's proximity to significant sources of CO₂ and the infrastructure that could be brought into play if full-scale sequestration is attempted, it seems like one of the most promising proposals to date.

Source: arstechnica

Tar Heel Gem & Mineral Club

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We're on the Web!
See us at:
www.tarheelclub.org

Treasurer's Report

NOVEMBER REPORT;
Beginning Balance: \$22,839.76
Deposits – Auction: 544.00
Membership: 35.00

Sub Total: 23,418.76
Checks Written: 291.20

Ending Balance:\$23,127.56

DECEMBER REPORT;
Beginning Balance: \$23,127.56
Deposits – Dealers: 1,150.00
Members: 65.00

Sub Total: 24,342.56
Checks Written
EFMLS Dues: 292.25

Ending Balance:\$24,050.31

Membership Grows: The last few months has seen a growth in club membership. I know that everyone will join with me and say **“WELCOME!”** to the following new members:

- | | |
|--------------------------------|----------------------|
| Tom & Desiree Bapple | Nancy McLendon |
| Daniel & Kimberly Cathey | Chris & Bryan Schild |
| Bernadette James & Jeffrey Lee | John Stranzl |
| David McAllister | Lela Walker |

Volunteers needed for Programs, Refreshments, Newsletter Contributions

I would like to echo some of what Walt had to say; We have a lot of talented members in the Tarheel Gem & Mineral Club, please consider signing up to share what you know about a craft, a subject, consider doing a presentation or some kind of demonstration. Show us, teach us what you know about Rocks, Gems, or minerals.

And **PLEASE!** Send me more articles to include in our Newsletter.

additional thanks again sometime soon.

I think we can all agree that the newsletter is far more enjoyable to read due in part to the contributions that some of our members have made.

I want to thank those that have contributed in the past and hope to extend

At this point in time all slots are open for programs and refreshments.

PROGRAM SCHEDULE:

- January – Show & Tell
- February – OPEN
- March – OPEN
- April – Pot-Luck?
- May – OPEN
- June – OPEN
- July – OPEN
- August – OPEN
- September – OPEN
- October – Grab Bags
- November – Elections
- December – No Meeting

REFRESHMENT SCHEDULE:

- January – Walt Milowic
- February – OPEN
- March – OPEN
- April – OPEN
- May – OPEN
- June – OPEN
- July – OPEN
- August – OPEN
- September – OPEN
- October – OPEN
- November – OPEN
- December – No Meeting

Park in the Cates Ave. Parking Deck off Jensen Dr. Enter Thompson Building directly across from the parking lot.

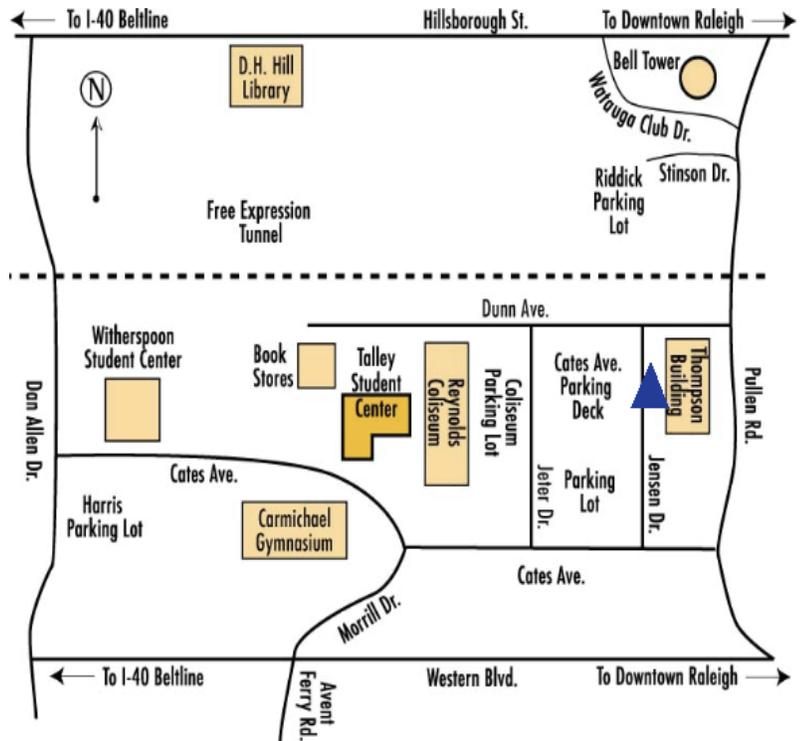
Our Next Meeting is January 19, 2010 @ 7:30PM in the Thompson Building on the NCSU Campus.

About Our Organization...

The Tar Heel Gem and Mineral Club was formed in 1974 as a nonprofit educational organization for people who enjoy the lapidary arts, earth sciences, and related subjects. The main objectives of the club are to investigate, preserve, and share knowledge of rocks, minerals, and precious stones, and to

promote interest in mineralogy, paleontology, earth sciences, and lapidary techniques, among club members and among the general public. The club pursues these goals through publications, meetings, lectures, field trips, exhibits, demonstrations, and other activities.

Come and be a part of the Fun!



We meet the third Tuesday of every month except for the month of December.

**TAR HEEL GEM & MINERAL CLUB
513 CAROLYN CT.
CARY, NC 27511**

