

Tar Heel Tailings

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

May Program - New-Old Minerals from the Crabtree Quarry

The title of my talk will be "New-Old Minerals from the Crabtree Quarry, Wake County, North Carolina".

Please bring in your best & unknown Crabtree specimens as a kind of expanded show & tell.

Thanks,
Kenny Gay P.G.
Geologist / Mineralogist /
Paleontologist



Special Interest Articles:

- President's Report
- Gemstone & Mineral of the Month
- Field Trip Report
- May Program

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Field Trip Reports by Kenny Gay

Hanson Aggregates

On Saturday, April 12, 2014, about a dozen club members visited Hanson Aggregates Rocky Mount quarry, just east of Rocky Mount in Edgecombe County. This quarry and the "new" quarry are two of the most easternmost hard rock quarries in the state.

The rock exploited at Hanson's Rocky Mount quarry is really two distinct types of felsic intrusive rock. The most common is a grey, equigranular, coarse-grained, biotite

rich granite or granodiorite. This grey rock is composed of plagioclase feldspar, quartz, and biotite. Accessory minerals include a red garnet,

brown titanite in small euhedral crystals, and rare pyrite in tiny cubic crystal aggregates. Mixed with the grey rock is a pink coarse-to very coarse-grained

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We're on the Web!

See us at:

www.tarheelclub.org

Program & Refreshments

REFRESHMENT SCHEDULE:

Coordinator: Need Volunteer

May	OPEN
June	OPEN
July	OPEN
August	Ice Cream Social
September	Walt Milowic
October	Hummels
November	OPEN

PROGRAM SCHEDULE:

May	Kenny Gay "Minerals from Crabtree"
June	Bob Crocker & Greg Dillon "Gold prospecting in NC"
July	Randy Bechtel "Volcanic Eruptions of Montserrat of the Leeward Islands"
August	Ice Cream Social AND Cabbing Demonstration by Robin Suddaby
September	The Smithsonian by George & Obsidian Harris
October	Grab Bags
November	Elections & Thank You from The Club

Remember, the club will reimburse you for up to \$75 (bring your receipts to the treasurer).

May B-Day Members

- Pete Barra
- Mickey Broadway
- Tom Byrne
- Emily Carabello
- Hui & Alex Cook
- Jim Davenport
- Pamela (Gail) Ferguson
- Shirley Green
- John Heinz
- Corinne Hummel
- Andrew Osborne



Membership applications may be mailed to:

Tar Heel Gem & Mineral Club, Inc.
Attention: Treasurer
10609 Chelsea Drive
Raleigh, NC 27603

Tar Heel Gem and Mineral Club, Inc. - April Meeting Minutes

Tuesday, April 15th, 2014

Attendees = 25

Opening of Club Meeting:

The potluck started at 7:35pm. At 8:20 PM, Cyndy Hummel called the meeting to order.

There was an array of foods provided by the members along with the door prize tickets & slips of paper for their commentary about the recent Gem & Mineral Show in March.

New Business:

Gem & Mineral Show Discussion:

Cyndy explained the process of the paper slips.

Jack Fried applauded the Geode booth for the canopy & the charge processing during the show.

The geode booth took in about \$2,600.00. using the credit card reader. Way to Go Folks!!

Of the east coast the Tar Heel G & M show is the earliest one to occur.

There was a discussion about the dates of the Hickory Rock show and the Tar Heel show being during the same time in 2015. And what month they would or may occur.

Also, there was commentary dealing with the folks at the Flea Market on the grounds, too.

There is also the discussion of doing the show during the first weekend of April instead.

The Easter holiday also has an effect on the timing of the show.

There was also a commentary about how the silent auction being watched over a little more carefully with adults holding bidding tickets and not allowing younger folks to bid just before the time was up.

I think it was Anthony who is a younger member of the club that suggested perhaps a separation of tables for the silent auction for those under 18 and adults.

Obsidian suggested using tape on the floor about 2 ft. away from the tables for folks to step back to after bidding is done.

Greg also mentioned that he learned that folks got pieces and sold them on E-bay.

Dr. Mike also mentioned about displaying a boards of "Rules" on the wall of the silent auction area for the folks attending.

Marion had commentary about the Hospitality booth, and the lack of folks to help with that area.

Cyndy inquired about someone helping to co-chair the booth along with Marion, and having the next year to get ready for that.

Cyndy made commentary about the timing of closing booths at the show so other booths have better coverage.

Cyndy did put out a call for more volunteers at next year's show. And we can do it.

A new visitor made commentary about at shows they attended where members would be able to do any one's job at the show regardless of what it was. So there was not a loss.

Also, there was mention about folks just joining the club to go to field trips and only such.

Corinne gave mention that the funds made from the Geode area go to the insurance coverage for folks that go to the field trips.

Jack gave mention that some changes would have to be made to direct how folks deal with field trips.

Dr. Mike also gave commentary about getting folks at the show to actually "handle" the minerals at the show.

The idea of bringing material from the field trips to go into the grab bags.

Joe Moylan mentioned who "donated" a labeled display of minerals, that Marion ask about.

One way of volunteering to help with the show is to waive the dues for that person for the year.

Dr. Mike noted that kids attending the show were "home schooled" and noting details of the trip.

Greg acknowledged several guys who helped him greatly during the show, and also noted that if someone is not busy to see if some area needs help.

Cyndy discussed with Greg about the break down and set up for the Geode areas.

George gave mention about for folks to get in their "4 hours" to do 2 during the set-up and 2 at the end of the show during the break down.

Joseph gave mention about one of the display cases wobbling. And needing help with stabilizing.

Greg made an idea of how to get folks to do various duties at the end of the show.

Dr. Mike also mentioned about students volunteering at the show.

Beth mentioned about noting additional chances for winning a trip to William Holland or Spruce Pine.

Old Business:

No Old Business

Door Prize:

Anthony Zapata won the door prize and he chose a Mimetite from Durango, Mexico. Looking forward to that report!

Close of Meeting:

Cyndy asked if there was a motion on the floor to close the meeting to which George Harris made a motion to close the meeting & Obsidian seconded it. The club meeting was closed at 9:35 PM.

Respectfully Submitted

Obsidian Harris,

Secretary, Tar Heel Gem and Mineral Club, Inc.

Prez Sez - Tar Heel Gem & Mineral Club, Inc.

Everyone who attends the May meeting will get to view the 3 new flats of specimens purchased in Franklin this past weekend. Corinne & I arrived to shop on Friday at 3PM. By 5 it was raining. We crossed state lines to Clayton, Georgia for our overnight stay. Our evening meal was eaten at Valley Café & Catering in Dillon. They have converted a bank building complete with the drive-thru OPEN signs and vault inside. I mention this place because you WANT to eat here if you are in the area. We even came back for breakfast. We returned to shop the next morning. It rained on (hard) & off until early afternoon. Thankfully the drive back was dry. We did manage to find a bag of sodalite chips for the grab bags. If a consensus is reached, more can be purchased and shipped here. They are local (mountains) to NC. They also crush their own stones to get the sizes they want. We have not been to Franklin for a long time as we usually go to Spruce Pine for the door prizes for the club. They now have 5

different mineral shows instead of the two I remember. Gems & Minerals are big business in the mountains.

I have made the initial contact with the webdesigner to update our website. I hope to have detailed information at the meeting.

Beginning with the May meeting, I intent to start the Board Meetings before each regular meeting at 7:00PM. The Board consists of 6 voting members. All club members are welcome to sit in on any meeting and listen. If any club member has a topic for discussion for the Board, please contact a Board Member to bring that to our attention. We may have a lot to cover in 25 minutes and need to keep to our meeting schedule.

Hope to see you all next week when Kenny Gay presents "Minerals of Crabtree", a multi-year research project.

Cyndy Hummel,
President, Tar Heel Gem and Mineral Club, Inc.

Field Trip Reports

Continued from page 1

granite. The pink rock contains lots of microcline feldspar, plagioclase feldspar, quartz, and biotite. These two rocks are cut across by black, fine-grained diabase. Secondary minerals that we found include epidote in pistachio-green prismatic crystals, white, pearly, thin seams of calcite, and very pale lime sherbet green prehnite. The prehnite occurs in small hemispherical aggregates of tiny crystals. In the coarse pegmatitic phase of the pink granite we located some nice large books of black biotite.

In this quarry many years ago, numerous fossils could be found lying on top of the granite. However through the years, weathering, erosion and quarry operations seem to have covered or removed the fossils, because I did not see any.

"New" Rocky Mount Quarry

Then on Saturday, April 26, 2014 another group of brave club members ventured into the "new" Rocky Mount quarry just a mile or so from the old quarry (but on the other side of the Tar River). This newer quarry is currently only a couple of benches deep. We were not allowed to go into the hard rock portion of this quarry because they were working.

There were many nice fossils to be collected in the sedimentary material that overlies the granite. We collected lots of large whole scallop shells (*Chesapecten* sp.), large oyster shells, a small clam named *Mulina* sp., and a few other bivalve species. There were pieces of whale bones collected, including whole vertebrae and the very nice end of a whale humerus bone (think of your upper arm). I saw several nice whole shark teeth, up to an inch (maybe slightly larger). These fossils are from the Yorktown Formation of Upper Pliocene age (about 3 million years old).

I would like to thank our field trip coordinator Shirley Green for arranging these two very fun and enjoyable trips for our club!



May's Birthstone is the Emerald

By Obsidian Harris

The emerald belongs to the beryl family of minerals that include aquamarine (one of March's birthstones), heliodor, and morganite. Beryl, or beryllium aluminum silicate in chemical jargon, is a six-sided symmetrical crystal. Beryl contains beryllium, aluminum, silicon, and oxygen.



Emeralds vary in color from light to deep green. It's commonly thought that an emerald's color derives from the presence of chromium and/or vanadium replacing some of the aluminum in the mineral's structure. The stone can, however, lose its color when heated strongly.

Several famous historical artifacts were made of emeralds. Among them is the Crown of the Andes, said to be made from emeralds worn by Atahualpa, the last Inca (king) of Peru. The crown is set with about 450 emeralds, collectively weighing 10 ounces (1523 carats).

Emeralds are most frequently found inside a form of shale – a fine-grained sedimentary rock. Emerald-bearing shale has undergone recrystallization caused by changes in the physical environment such as pressure and temperature. Colombia produces the largest and highest quality emeralds. They were also discovered, and subsequently mined, in the Ural Mountains of Russia around 1830. In the United States, emeralds can be found in North Carolina. Around the

world, they also occur in Zambia, Brazil, Pakistan, Norway, Austria, India, Madagascar, and Australia.

Synthetic manufacture of emeralds was achieved by German chemists shortly before World War II. But growing synthetic stones of fine quality began in the United States in 1946. There are also excellent imitation emeralds on the market made of colored cut glass.

The emerald's name is indirectly derived from the Greek word "smaragdos," a term applied to several kinds of green stones. The history of emeralds can be traced back to antiquity. They were worn by royalty in Babylon and Egypt. Tools dating back to 1300 B.C., during the reign of Rameses II, have been found in emerald mines in Egypt. Queen Cleopatra's emeralds were believed to originate from mines in Southern Egypt, near the Red Sea.

When the conquistadors first arrived in South America from Spain, they saw indigenous rulers wearing emeralds. They took large quantities of emeralds from the Peruvians during the invasion, but the source of the emeralds was not discovered. Then in 1537, the Spaniards found Chivor in Colombia, now the location of an important emerald mine. They also took over the Muzo mine following the defeat of the Muzo Indians. Mining operations at Muzo have continued almost uninterrupted since the Spanish invasion. It is perhaps the most famous emerald mine in Colombia and is said to produce the world's best emeralds.

There are many myths associated with the emerald. The stone was once believed to prevent epilepsy, stop bleeding, cure dysentery and fever, and protect the wearer from panic. Its magnificent green color was said to rest and relieve the eye. To the ancient Romans, emeralds were dedicated to the goddess Venus because the green emerald symbolized the reproductive forces of nature. Early Christians saw it as a symbol of the resurrection of Christ. In the Middle Ages, emeralds were believed to hold the power to foretell the future.

See more at:

· <http://earthsky.org/earth/may-birthstone-emerald>

Amethyst

Amethyst is the purple variety of quartz and is a popular [gemstone](#). If it were not for its widespread availability, amethyst would be very expensive. The name "amethyst" comes from the Greek and means "not drunken." This was maybe due to a belief that amethyst would ward off the effects of alcohol, but most likely the Greeks were referring to the almost wine-like color of some stones that they may have encountered. Its color is unparalleled, and even other, more expensive purple [gemstones](#) are often compared to its color and beauty. Although it must always be purple to be amethyst, it can and does have a wide range of purple shades.

Amethyst can occur as long prismatic crystals that have a six sided pyramid at either end or can form as druzes that are crystalline crusts that only show the pointed terminations. As a [mineral specimen](#), amethyst is popular for its color and nice crystal shapes that produce a handsome, purple, sparkling cluster. However, amethyst is not the same everywhere. Different localities can produce a unique amethyst to that particular region or even to that particular mine. Experts can often identify the source mine that a particular amethyst came from. The key to this is the specimen's color, shape of crystal, inclusions, associations and character of formation.

Often cut gems of amethyst are graded using the terms: Siberian, Uruguayan or Bahain; to represent high medium and low [grade](#) respectively, regardless of the actual source. Because of the patchyness of the color distribution in the crystals, Amethyst is often cut as brilliant round cuts to maximize the color. Other cuts can be used when the color is better distributed.

VARIETY INFORMATION:

- **Variety of:** [Quartz](#), SiO₂ .
- **Uses:** [Gemstones](#) and ornamental stones.
- **Birthstone for:** [February](#)
- **Color:** various shades of purple.
- **Index of refraction:** 1.544-1.553
- **Birefringence:** 0.009
- **Hardness:** 7
- **Cleavage:** none
- **Crystal system:** trigonal
- **Pleochroic:** no



metaphysical

Amethyst is a meditative and calming stone which works in the emotional, spiritual, and physical planes to provide calm, balance, patience, and peace. In the psychic and spiritual realms, amethyst is an excellent all-purpose stone that can increase spirituality and enhance intuition and psychic powers of all kinds. It does this by making a clear connection between the earth plane and other planes and worlds. Amethyst is also excellent for meditation and lucid dreaming. It is used to open one's channels to telepathy, past life regression, clairaudience, clairvoyance, and communication with angels. Amethyst also protects against psychic attacks, especially during spiritual work.

Amethyst is not only a psychic protection stone, but is also used to protect one from thieves, and to protect travelers. Emotionally, amethyst is used in crystal healing to help heal personal losses and grief, bringing one gently past. Amethyst has a gently sedative energy that can promote peacefulness, happiness, and contentment. It also is said to bring emotional stability and inner strength. Amethyst is very well known – as from the ancients – as a sobriety stone. It has been used for millenia to prevent drunkenness, and is used to assist in getting rid of addictions to alcohol, drugs, smoking, etc, and destructive compulsive behaviors of all kinds.

see more at: <http://www.galleries.com/rocks>

UPCOMING SHOWS

June 7 - 8, 2014: Birmingham, AL - Alabama Mineral & Lapidary Society 40th Tannehill Gem, Mineral, Fossil, & Jewelry Show located in the Tannehill Historical Ironworks Park, 12632 Confederate Pkwy. Mc Calla, AL. 35111. Hours: Sat. - Sun. 9 am to 5 pm. Admission to the show is free with paid admission to the park. Dealers offer mineral specimens, fossils, beads, slabs, geodes, jewelry, loose stones, jewelry repair and all things rocks. Door prizes, club demonstrations, and Kids Korner games near our club booth. Contact Gene Blackerby geneblackerby@labidaryclub.com or 205-807-6777. www.lapidaryclub.com

October 3 – 5, 2014: Dallas, NC - 36th Annual Gaston Gem & Mineral Show. Gaston County Park, 1303 Dallas Cherryville Hwy, Dallas NC. 28034 (HWY 279), or GPS 120 Leisure Lane, Dallas, NC 28034. Hours: Fri & Sat, 9am - 6pm - Sunday 9am - 5pm. FREE ADMITTANCE and FREE PARKING. Minerals and Fossils from around the world. Cutting material, Quality Gemstones, Wire wrapping, settings, Geodes, Jewelry, etc. SLUICE - A real working sluice, \$3 & \$5 sand buckets; perfect for children and adults.

Amethyst, Quartz Crystals, Faceted Stones mixed at random in buckets; you must might get that special stone or treasure! Contact Show Chairman, Rick Perkins, at 704-825-9456 or online at <http://gastongemclub.weebly.com/our-show.html>

November 22 - 24, 2014: Columbia, SC - The Columbia, SC Gem & Mineral Society will hold its 46th Annual Gem, Mineral, & Jewelry Show 2014. Jamil Temple, 206 Jamil Rd. (Exit 106A off I -26), Columbia, South Carolina 29210. Hours: Friday November 22, 10:00 - 7:00. Saturday November 23, 10:00 - 6:00. Sunday November 24, 12:00 - 5:00. Jewelry, beads, loose stones, fossils, minerals, gold, silver, & tools for sale. Geodes sold & cut. Club member's rock collections on exhibit & lapidary demonstrations. Admission is \$5.00 for adults, children sixteen & under are free with adult. All military & their dependants are free. Contact information is: Sue Shrader...Publicity...803-736-9317 ashrader@mindspring.com Fax 803-736-2578. Sharon Sterrett...Dealers...803-356-1472 ssterrett@sc.rr.com The society website is www.cgams.org

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

<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.amfed.org/sfms/lodestar_newsletter.html The SFMS Lodestar Newsletter

<http://www.carolinageologicalsociety.org/CGS/Home.html> This site provides numerous downloadable field-trip guide books, maps, and charts of the Carolinas. It will prove to keep any avid rock hound busy for years. Great Site!

http://www.ncminerals.com/ncmineralswebsite_files/page0011.htm And while we are on the subject, try this link. Its titled: Links of Interest to Rock hounds in NC. It will take you to a list of links for North Carolina gems and minerals.

<http://www.rocksforkids.com/> Just like the name says, a nice place to steer the younger members.

Information & photographs of over 6300 specimens from the Glenn & Martha Vargas Gem & Mineral Collection.

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

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://appmodo.com/13971/mole-quest-for-the-terracore-gem-app-review-for-the-iphone-and-ipod-touch/> If you have an iphone or an ipod touch, this rock-hounding may be the game for you.

http://diamonddanpublications.net/index_files/page0009.html Diamond Dan's Mini Miner's Monthly

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.

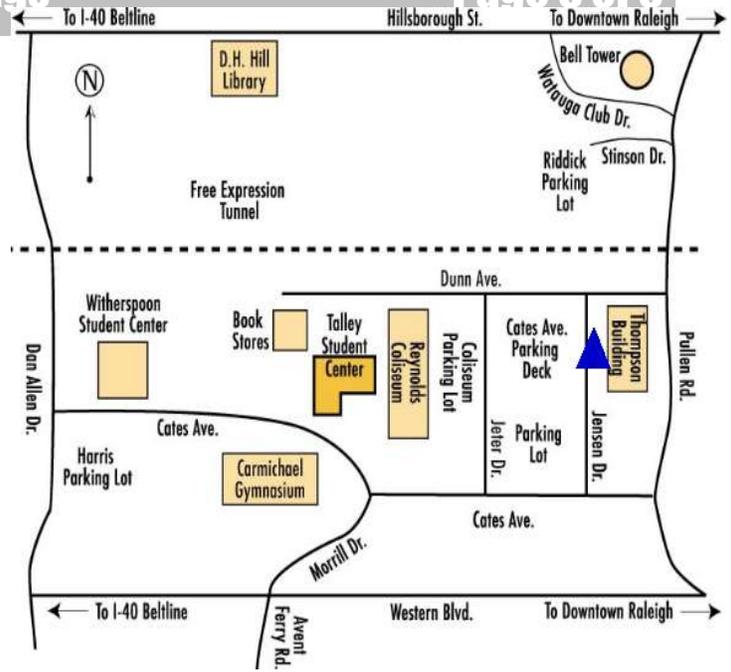
Park in the Cates Ave. Parking Deck off Jensen Dr. Enter Thompson Building directly across from the parking lot.

Our Next Meeting is May 20, 2014 @ 7:30PM Thompson Building / NCSU Campus.

About Our Organization...

The Tar Heel Gem and Mineral Club, Inc. 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!



TAR HEEL GEM & MINERAL CLUB
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