September, 2012
Volume 40, Issue 09

Tar Heel Tailings

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

Special Interest Articles:

- President's Report
- A Walk Through Geologic History: The Devonian Period
- Beryl
- Silver

Individual Highlights:

President's Report - Tar Heel Gem & Mineral Club, Inc.

Happy Labor Day! The "official" end of summer. And we are now enjoying a welcome reprieve from the humidity and hot temperatures of the last few months.

There are only three more meetings this year. Jeff Schlottman will be our guest speaker for the September meeting. He hasn't narrowed

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Walk through Geologic History…The Devonian Period

by Dion Stewart, Cobb-L-Stones, July 2012

Life advanced quickly during the Devonian Period. Forests began to cover the continents for the first time, fish populations exploded (the Devonian Period is also called the "Age of Fish"), and amphibians emerged on the land. Reef organisms made major adjustment to a changing environment.

Devonian fish fossil can have a very scary appearance. Most of these early fish lacked jaws and teeth, had no scales – rather a skin made of amoured plates, and were ferocious predators. One fish, the Dunkleosteus, grew to over 30 feet in length, and its two front plates had self-sharpening "points" for slicing and dicing, for this organism was toothless. It is common to find piles of regurgitated, partially digested fish around

More on Devonian - page 4

The Dunkleosteus pic-tured to the left was collected out of the black shale beds in Cleveland, Ohio by Jay Terrell in 1897

Dunkleosteus: Photo by Mark Stenmetz

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

Membership applications may be mailed to:

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

Program & Refreshments

REFRESHMENT SCHEDULE:
Coordinator: Jeanette Baugh (919) 522-9044
villagegems@yahoo.com

September	Walt Milowic
October	Cyndy and Corinne Hummel
November	Karen Santala

PROGRAM SCHEDULE:

September	Jeff Schlottman
October	Grab Bags
November	Ryan O'Neal & Elections

Remember, the club will reimburse you for up to $40 (bring your receipts to the treasurer).
Thank you, Jeanette Baugh

September Treasurer's Report

Jul. Ending / Aug. Beginning Balance	$10,911.84
Deposits (+)	
Rock Auction	$547.00
Members	10.00
Sub total	$647.00
Checks Written (-)	
Rock Hounds supplies	$700.00
IMP newsletter	155.55
New Checks / New PO Box	32.00
Rock buckets for grab bags	16.95
Sub Total	$904.50
Aug. Ending / Sep. Beginning Balance	$10,564.34

Jo Ann Lail, longtime member, has moved to Matthews, NC to be close by her relatives. She was Secretary for many years, and held many positions in the club. She is retiring from all of her clubs in Raleigh. But she wanted to say Goodbye to all her friends in the Rock Club.

September B-Day Members

Steve Barrell
Jim Bilau
Eileen Breckstein
Kelly Homes Chappell
Mike Franklin
George Harris
Edie Hartley
Pat Jackson
Randy Jones
Gary McCutchen
Julie Niederkorn
Karen Santala
Ken Troutman

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

Tuesday, August 21, 2012

Attendees = 31

Ice cream Social and Auction

At 8:20 Joe Moylan call the meeting to order and welcomed some new members.

Joe then noted that the dates for next years Tar Heel Gem & Mineral Club Show will be 05-07 April 2013.

Joe then stated that Richard Dougand, a member through the 1990's, was moving and needed to liquidate his gem cutting equipment. A suggestion was made to make a list with pictures for the news letter.

The meeting was closed by unanimous acclaim and much ice cream was consumed followed by the very successful auction.

Respectfully Submitted

Michael Troutman, Secretary

President's Report

Continued from page 1

his program down to just one subject yet but any on the list he suggested sounded great to me. We all know what an interesting program Jeff can present from some of his previous visits, so I don't mind waiting to be surprised! Business will follow the program.

The October meeting is our Grab Bags meeting. Be cleaning and getting your donation rock specimens ready to bring to the meeting. We will start with our business meeting and adjourn to the Grab Bags.

The November meeting will start with a program given by new member Ryan O'Neal. Ryan will be telling us about the rock club he was a member of in Pennsylvania, where he is from, and a little about the minerals from that area they would collect. After Ryan's program we will have our last business meeting of the year. The highlight of which being, of course, the Election of Officers. Get your campaign posters ready!

If we have time to throw in another auction this year, that would be great!

See you at the next meeting,

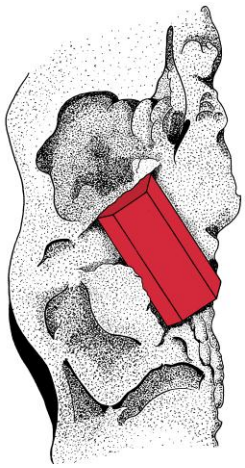
Joe Moylan, President, Tar Heel Gem and Mineral Club, Inc.

Beryl

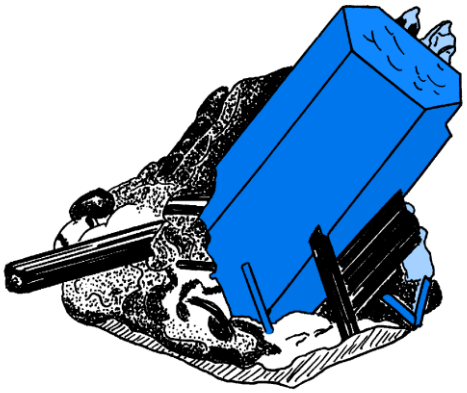
FromDiamond Dan's Mini Miner's Monthly

http://diamonddanpublications.net/index_files/page0009.html

Formula: Be3Al2(Si6O18)
Crystal System: Hexagonal
Hardness: 7.5 - 8
Specific Gravity: 2.65 - 2.8
Cleavage: Imperfect in one direction
Fracture: Conchoidal (shell-like)
Luster: Glassy (Vitreous)
Color: Colorless, blue, green, red, light yellow, pink, white.
Streak: None
Uses: Gemstones.



Interesting Facts: Beryl is the main source of the very important element beryllium. Beryllium is a very light, very strong metal. When it is mixed with other light metals, like aluminum, the mixture (called an alloy) is very strong. Aluminum-beryl alloys are used to make airplanes. Beryllium is also important in the nuclear industry.



Name: The green variety of beryl, emerald, is one of the most valuable gemstones. In fact, deep green, high quality emeralds are more valuable than diamonds! Emeralds are commonly created in laboratories. Only expert gemologists can tell the difference between natural emeralds and one created in a lab.

Left: Red beryl from Utah.

Right: Deep blue aquamarine from Africa.

A Walk Through Geologic History: The Devonian Period

by Dion Stewart, Cobb-L-Stones, July 2012

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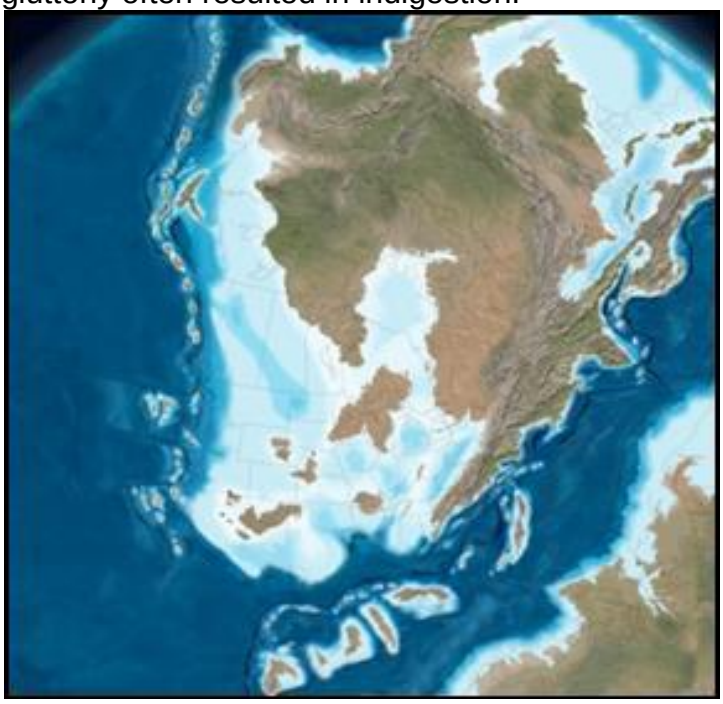
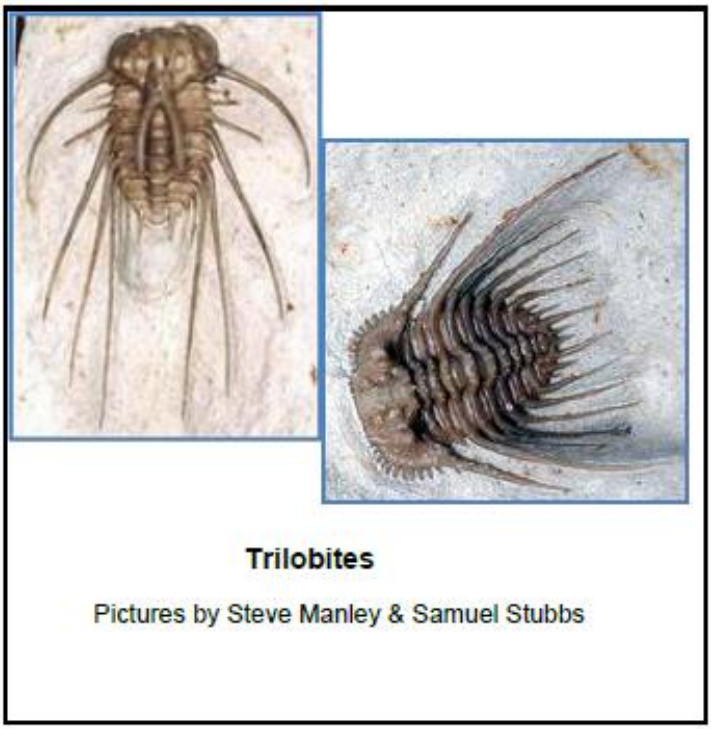
the fossils of a Dunkleosteus, suggesting that its gluttony often resulted in indigestion.

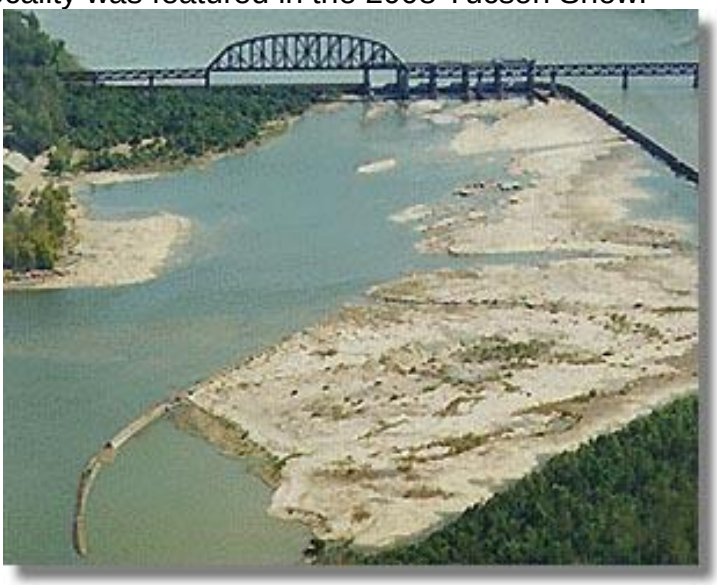


Marine organisms of Devonian age are common in the United States, as the Kaskasian sea slowly invaded the land over a period of 50 million years. The picture to the right shows how much of North America was covered by the end of the Devonian 360 million years ago. The very lightly shaded regions formed limestone, the medium shading indicates where organic-rich, black mud was deposited, which usually occurs in deeper regions. The regions that are very dark are parts of the deep ocean basin, and these regions will get completely destroyed as plate move and the ocean floor gets thrust under the continents

Some of the shallow area (light shades on the map) still had tri-lobites crawling around on the bottom of the sea. However, these trilobites had evolved as many as 16 long spines, see pictures to left, that are presumed to be defensive mechanisms to stop from being eaten by the growing fish population.



The premier Devonian trilobite locality in the U.S. is Black Cat Mountain in Coal County, Oklahoma. Here the trilobites are in an ancient near shore, white limestone, which makes for perfect preservation and display, although they must be carefully extracted, usually by sand blasting. This locality was featured in the 2008 Tucson Show.

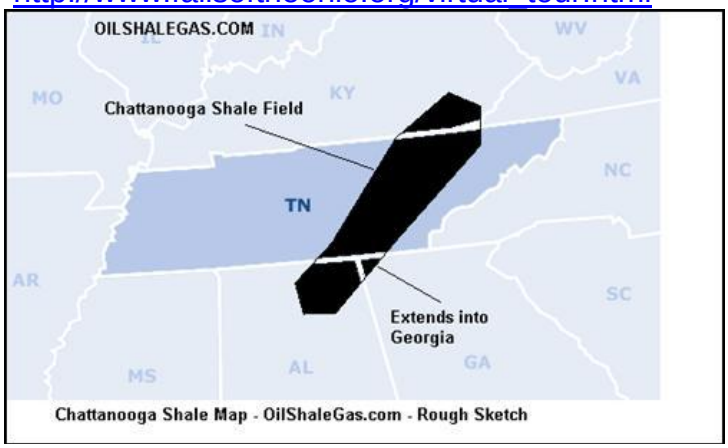


The Devonian reefs also occur in the shallow, lightly shaded, limestone. The best viewing of fossil

for the Devonian reef creatures is at “Falls of the Ohio State Park”, near Clarksville, Ohio (across the river from Louisville) with nearly 600 species already identified within the Park. Collecting is not allowed except in designated collecting piles located next to the parking lot behind the interpretive center. The park hosts nearly 500,000 visitors every year. It is best to go in the late summer or early fall, when the gauge on the river reads 13.5 feet or lower, indicating the lower fossil beds are exposed.

The lower bed when exposed has been extensively carved by the flowing water into many small caves, where the fossil stick out of the walls and sometimes litter the floor as black, petrified organisms against the white limestone and chert nodules. The fossils are so abundant that you can not help stepping on them as you walk across to the cave zone. In the Devonian strata, some horn corals grew to large lengths. The horn coral Siphonophrentis giganteas, specimen shown below was discovered in the Park, and this organism may have reached lengths of 6 feet!

There are also about 16 known species of trilobites in the Park, but you will have to look harder to find them. The Park has a virtual tour: http://www.fallsoftheohio.org/virtual_tour.html

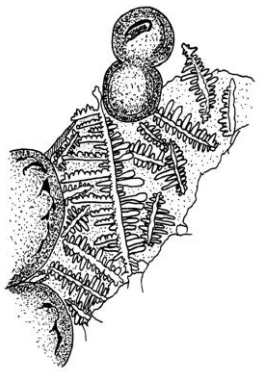


Closer to home, in Northwest Georgia, is the Chattanooga Shale Formation, a deeper water, Devonian, mud deposit. Although the bed is loaded with organic matter from dead microscopic organisms, the presence of pyrite and the complete lack of larger marine fossils suggest the formation was deposited in a stagnant, oxygen-deficient ocean. However, this is not all bad... because the abundant micro-organisms have decayed over time and the shale bed has produced a considerable amount of oil and gas, especially in Tennessee. The gas bearing horizon barely cuts across Georgia, and although we are not currently extracting any oil or gas from it, several companies are currently prospecting for natural gas in this region of Georgia.

Jr. Rockhound Page from the June 2012 Diamond Dan's Mini Miners

Silver

Silver is a metal. It is also an element. Its chemical symbol is Ag which is from the Latin name for silver, argentums which means shining. When an element is found naturally it is called a native element. Other "native elements" include gold, copper, mercury, bismuth, arsenic, antimony, sulfur, graphite and diamond. Some elements, like gold, are very, very stable and don't react with other elements to form other minerals. Silver, however, re-acts very easily with other elements to create minerals like proustite and argentite. In some very rare deposits, it is possible to find native silver.



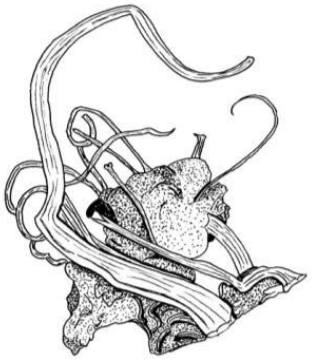
Native silver can be found as long, thin wires and bundles of wires; it can be found as very thin sheets; it can also be found as crystals. Pure silver is very bright and metallic. Its color is described as "silver white." How-ever, when silver is exposed to the air, it quickly reacts with sulfur compounds (hydrogen sulfide) in the air and it tarnishes. Tarnished silver is dark gray to black. For you chemists out there, this is the chemical reaction that turns pure silver into silver tarnish:

$$4Ag + O2 + 2H2S \rightarrow 2Ag2S + 2\ H2O$$

Some Fun Facts

Silver has the highest electrical conductivity and the highest thermal conductivity of any element. This means that electricity and heat move through silver better than they move through any other metal. Silver is also ductile and malleable which means it can be stretched into long wires (ductile) and hammered into very thin sheets (malleable) without breaking. Silver is used to make jewelry, "silverware" (that is, spoons, forks and knives), decorative items, and even coins (however, most modern coins do not contain silver; many people like to collect old silver coins - you may find this an interesting hobby for yourself.) It is also used to help cause some special chemical reactions. Before the invention of antibiotics, silver was used to kill germs that cause infections. Microscopic pieces of silver have been added to cloth fibers to make socks that are resistant to bacteria and fungus - and there-fore, they are less likely to smell bad!!

Silver's Physical Properties
Crystal System: Isometric (Cubic)
Hardness: 2.5 - 3
Specific Gravity: 10.5
Color: Bright silver-white Luster:
Metallic Streak: Bright silver-white
Fracture and Cleavage: No



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

UPCOMING SHOWS

Sept 21-23, 2012: Jacksonville, FL - Jacksonville Gem & Mineral Society. 24th Annual Show, Morocco Shrine Auditorium, 3800 Saint Johns Bluff Road, Jacksonville. Hours: Fri 1-6, Sat 10-6, Sun 10-5. Admission $4. Contact: Karen Olson (904) 448-5182 or e-mail jgmsnews@gmail.com

October 6-7, 2012: Lexington, KY - Rockhounds of Central Kentucky (ROCK). 22nd Annual Gem, Mineral, & Jewelry Show, Kentucky National Guard Armory, 4301 Airport Road, Lexington, KY. Show includes minerals, jewelry, equipment dealers, club sales, exhibits, KY Agate, fluorescent displays, hourly prizes, and Grand Prize drawing. Admission: $1 adults, $0.50 children, $3 max family; Scouts in uniform free. Hours: Sat 10-6, Sun 12-5. Contact: Allen Ferrell, 859-277-2469 or kyrock2010kentucky@yahoo.com.

November 16-18, 2012: Marietta, GA - Cobb County Gem and Mineral Society. 27th Annual Rock, Mineral & Jewelry Show, Cobb County Civic Center, 548 South Marietta Parkway, Marietta, GA. Hours: Fri & Sat 10-6, Sun 10-5. Free Admission. Contact Mary Ingram: 404-915-3588 or mandmingram@gmail.com.

November 17-18, 2012 (Always held the weekend before Thanksgiving): West Palm Beach, Florida - Gem & Mineral Society of the Palm Beaches. 46th annual gem, mineral, jewelry, bead and fossil show, South Florida Fairgrounds Expo Center East, 9067 Southern Blvd., West Palm Beach. Hours: Sat 9-6, Sun 10-5. Free Parking. Admission $7, children under 12 free. Visit website for $1 off coupon. http://www.gemandmineral.cc. Contact show chairman, Barbara Ringhiser at bar5678@aol.com

December 8-9, 2012 (2nd weekend each December): Franklin, TN - Mid-Tennessee Gem & Mineral Society. Gem, Jewelry, Mineral, Fossil Show & Sale, Williamson County Ag Expo Park,4215 Long Lane, Franklin (this is a new location rather than the old location at the TN State Fairgrounds in Nashville). Drive 20 miles south of Nashville on I-65 and take exit #61, turn east onto Peytonsville Road for 1/3 mile, and turn left onto Long Lane. Hours: Sat 9-6, Sun 10-5. Admission $4 (2-Day Pass $6.00), students 18 and under $1, children under 12 free with adult. For additional information and maps visit www.MTGMS.org. Contact John Stanley, Show Chair, (615) 885-5704 or e-mail show@mtgms.org.

Vugsites

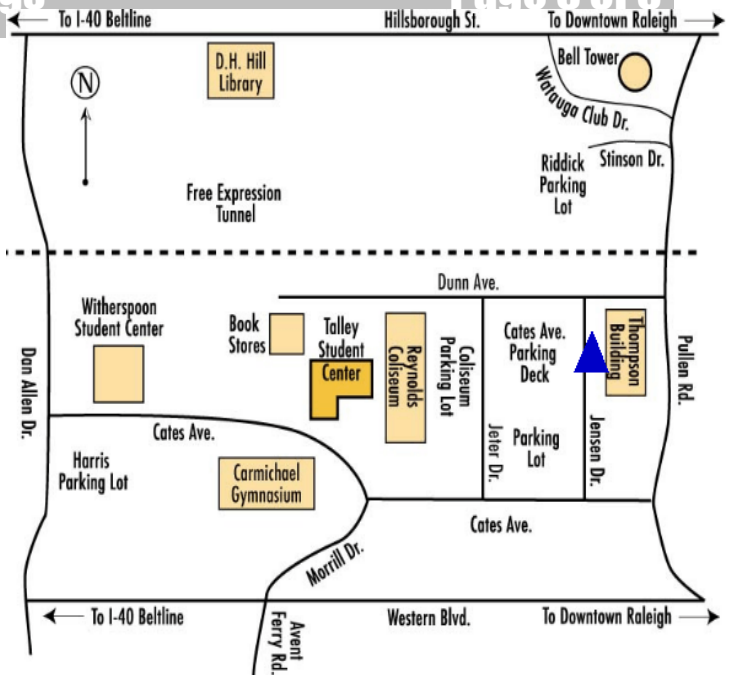
The following are some links to Web-Sites that may interest some of our members:

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.htmlThis 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 September 18, 2012 @ 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
10609 Chelsea Drive
Raleigh, NC 27603