

Tar Heel Tailings

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

Special Interest Articles:

- Prez Sez
- Door Prize Article - Stibnite
- John Preston (Prep) Maynard
- Cruzeiro Tourmaline Mine

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Prez Sez By Cyndy Hummel

I hope to have an update on the Website & T-shirts at the meeting.

Note the field trip for this month to Fountain, NC.

The program will be jewelry artist from our club demonstrating their art.

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



Door Prize Article - Stibnite By Charles Weil

STIBNITE (Sb_2S_3), - the most important ore of Antimony - has the following properties:

Hardness - 2 on Moh's Scale

Density - 4.63

Color and Streak - lead grey to black; Opaque

Cleavage - is perfect in one direction.

Fracture - Sub-Conchoidal

Luster - Metallic - brilliant on fresh cleavage surfaces but may dull with age.

Crystallography - orthorhombic; dipyramidal. Crystals may be steeply terminated, sometimes curved or bent, often in radiating crystal groups

or in bladed forms.

Occurrence - found in hot spring deposits or in hydrothermal vein and replacement deposits.

Special Storage/Display Requirements - Stibnite, like graphite, is a very soft mineral and will leave a streak when rubbed against

paper. To avoid bruising the sample, stibnite should be attached firmly to a stable base in an enclosed perky box for display or kept in an open container with a soft cushion like cotton to prevent contact with the container walls which might cause damage.



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We're on the Web!

See us at:

www.tarheelclub.org

Program & Refreshments

REFRESHMENT SCHEDULE:

Coordinator: Need Volunteer

June TBA

PROGRAM SCHEDULE:

June	Jewelry Artist Feature (Linda Searcy and possibly others)
July	Scott LaBorde, Photographing Minerals
August	Ice Cream Social
September	Dan Cathey, Poland Mining Camp, Maine
October	Gary McCutchen, Filing a Claim, How to Get Your Own Mine, grab bags
November	Elections/Movie: Mount St. Helens

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

No Treasurer's Report

June B-Day Members

Cleo Gallian
Susan Korn
Anthony Michaick
Henry Michaick
Danny Michaick
Lara Ryan
Angie Tunney



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, May 19th, 2015

Attendees = ??

Opening of Club Meeting:

Meeting was called to order by the president, Cyndy Hummel at 7:35

New Business:

Visitors

James Adams was visiting us for the first time today.

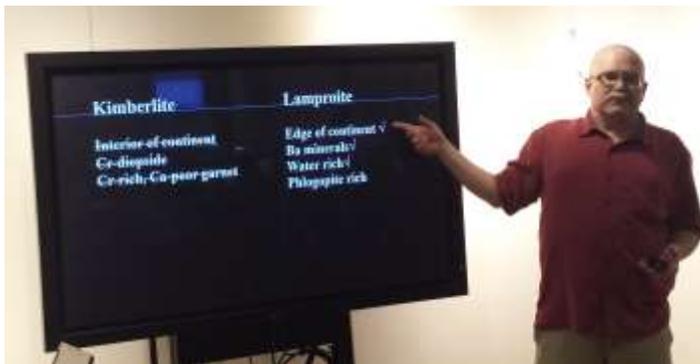
Stephen Morris from NC State is a recent graduate. He is a long-time collector from childhood (mostly quartz) but he is getting into it more these days.

Mike & Carol Shore and their dog Brandy were visiting. They are on and off members of the club and a dealer at our show.

Sean was visiting from Ohio, and he works with Chris Tacker

The Locki family visited and talked about a recent rock-hunting trip where they caught the rock hound bug, now they want to find rubies!

Program:



Chris Tacker has been with the NC Museum of Natural Sciences for 18 years. He is the curator of Geology. Thirteen diamonds were found before 1893, many times in the same places where they were mining for gold. An additional 13 new diamonds were found recently by Jeff Moyer. But, were they man-made or natural? Synthetics are usually the same crystal shape and these are all different. Some had colored inclusions. Our state's metamorphic temperature and pressure are not high enough to make diamonds. The diamonds had to come from much deeper and then they must have come up to the surface very quickly otherwise it would have been mostly graphite from the mantle. Since we have no Kimberlite sites, the source seems to be Lamprolite. Diamonds are here, we just have to find the source!

The program ended and refreshments were served.

The meeting was called back to order at 8:47.

Door Prize:

Cyndy called the winning number and John Guerriero won and chose a very nice Sodalite slab.



Birthday babble:

Mickey Broadway said that he got started with rocks when he met his wife Marion at Prayerstone park in VA.

Shirley Greene began her rock-hounding hobby by picking up fossilized shells as a child but always liked rocks as well.

Stephen Morris also had a birthday this month. He wants to make new friends and become more knowledgeable about rocks.

Corinne was not here but Cyndy told her story for her. She was camping out in a canvas tent with her husband. The campsite had some very nice small crystals. She began digging even with her nice clothes and painted fingernails! This was back in the 1950's..

Show comments:

The show dates for next year are April 1-3. For the next two years we have the first week of April.

531 person hours were donated to the show this year. If you had 8 hours, your name was put in a container for a drawing to win a week of classes affiliated with the Eastern or Southeastern Federations held at Wild Acres.

The winner was Linda Searcy. Mike Franklin was the second winner. Obsidian Harris was the first runner up. The second runner up was Eileen Breckstein. The third runner up was Laurie Larue. The final runner up was Gerald Cook. Many times people have already gone or can't make the dates so alternates often go in place of the winners.

Close of Meeting:

The meeting was adjourned at 9:16 PM.

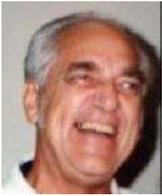
Respectfully Submitted

Walt Milowic,

Secretary, Tar Heel Gem and Mineral Club, Inc.

Obsidians Sentiments on Prep's Crossing Over

By Obsidian Harris



Having worked in the Demonstration area with Prep Maynard at the Gem & Mineral show when he attended, it was hard for me to write about his crossing over. He was a quick wit and helpful to folks who asked. He will be missed and yet I expect him to walk among folks there giving a nudge here or there to folks about minerals and whisper

in their ear maybe. Now, he's out walking about the mineral fields trying to get his grip on the crystal structures but, they are slipping through. Hey Prep, have fun in those fields beyond the platinum gates.

Be thinking about you. Take care.
Obsidian

Expedition to the Cruzeiro Tourmaline Mine in Minas Gerais, Brazil

Author: Andrew Lucas, Duncan Pay, Tao Hsu, Shane McClure, and Pedro Padua



This handful of crystals is just a small portion of the production we saw during our short visit to the Cruzeiro mine. These multicolored crystals range from rubellite to green, with black terminations. Photo by Andrew Lucas/GIA, courtesy Cruzeiro mine.

In April 2014, a team from GIA visited major emerald and tourmaline sources in Brazil. One of the most exciting mines the team visited was the Cruzeiro tourmaline mine in the state of Minas Gerais, about two hours outside the city of Governador Valadares.

Although the authors had been to many gemstone mines, the size of the mine's gem-bearing pegmatites and veins and the quantity of tourmaline being produced made this one of the most prolific gemstone mines visited by GIA. You don't often get a chance to see large, impressive crystals being constantly hauled out of a mine tunnel, with walls and pockets mined with picks and by hand. The tourmaline crystals seemed to be just laying embedded in the enormous pegmatites, waiting to be removed.

The Cruzeiro tourmaline mine is blessed with magnificent surroundings. Its owners work the mine in harmony with nature. Photo by Andrew Lucas/GIA, courtesy Cruzeiro mine.

The other visually striking aspect of this mine was the beauty of the setting and surroundings. The Cruzeiro mine is on a mountain, with a lush green landscape lining the road leading up to it. The mine location itself offers a spectacular view of hills, mountains, sky, and greenery.

History

The history of the Cruzeiro mine is intertwined with the rich mineral composition of the area, tourmalines mistaken for emeralds, mica mined for war efforts, unwavering belief in the richness of the deposit, tragedy, family unity, perseverance, and triumph.

Cruzeiro Mine Location



The Cruzeiro mine is located about two hours outside of Governador Valadares in the State of Minas Gerais, Brazil.

An Area Rich in Minerals

As far back as the mid-sixteenth century, the Portuguese were searching for emeralds. They thought they had discovered them in Brazil, but what the so-called bandeirantes had actually found was green tourmaline. During the seventeenth century, a Portuguese explorer documented the gemstones found in the area where the Cruzeiro mine is now located.

By the 1800s, the government's will was strong to discover more of Brazil's mineral wealth, including gold and precious stone deposits. When explorations in the Minas Gerais area revealed the presence of green tourmalines, explorers again initially thought they were emeralds. This belief led to much interest in further exploration of the area.

The actual mine deposit in the Cruzeiro area is said to have been discovered in 1915, and the first mining lease was established in 1938. In the 1940s, the US government was greatly interested in exploiting the mica deposits of the area for the war effort. The American company mining the mica employed 800 men, producing an estimated twenty percent of global mica production. The closest significant city, Governador Valadares, experienced significant economic growth during the mica mining period.



Today, mica is used in a decorative display at the Cruzeiro mine. In the war-time 1940s, it was of major strategic importance. Photo by Duncan Pay/GIA, courtesy Cruzeiro mine.

Mining for tourmaline began in the 1950s when Jose Neves and his brother Antonio De Assis Neves started what is now the Cruzeiro tourmaline mine. The brothers had been mining mica in the area and taking it to Governador Valadares to sell.

They also bought and sold the production of other mica miners.

Interest in Tourmaline Increases

As the market for mica softened, the brothers started mining and selling tourmalines. At first they were only interested in large, clean tourmaline crystals. As a result, much of the production that was disposed of in waste piles might contain useable material today. The brothers also began cutting and selling tourmalines, as they were interested in moving farther up the value chain.

Not long after they became tourmaline dealers, they caught the interest of Julius Sauer of the world-famous Amsterdam Sauer gemstone and jewelry company. Mr. Sauer bought a large portion of the mine's tourmaline production, then also bought the mine. Mr. Sauer worked the mine for about 15 years during the late 1960s through early 1980s. He then offered it for sale to Jose Neves, who was working for Mr. Sauer, buying tourmaline in the area and in Teofilo Otoni. Jose Neves sold everything he owned and invited his brother Antonio De Assis Neves to partner with him in the mine, which they purchased in 1982.



While the mine is rich in minerals, tourmaline is the main focus and its most commercially important product. Photo by Andrew Lucas/GIA, courtesy Cruzeiro mine.

While the mine is rich in minerals, tourmaline is the main focus and its most commercially important product. Photo by Andrew Lucas/GIA, courtesy Cruzeiro mine.

At the time, Julius Sauer advised Jose Neves not to take too many risks, as gemstone mining is a very uncertain business, and you never know for sure what you are going to get. But Jose Neves believed strongly that this would be an extremely rich mine and pursued mining it with all the energy and resources he could muster. One month after the warning by Mr. Sauer, Jose Neves hit a big deposit of pink tourmaline. Soon afterward, the mine began producing large amounts of red and pink, green, blue, and bicolor tourmaline, including 26 kilos of very clean rubellite.

Tragedy, Perseverance, and Success



The Cruzeiro mine is truly a family business. It owes its success to the close ties of the Neves family and their will to overcome tremendous tragedy. Photo by Duncan Pay/GIA, courtesy Cruzeiro mine.

The family suffered a tremendous tragedy in January 1992, when both Neves brothers died in a plane crash in Brazil. At that time Beatrice Neves, the wife of Antonio De Assis Neves, her son Antonio de Neves Jr., and Douglas Williams Neves, the son of Jose Neves, took over the mine. Douglas was a teenager at the time, but had already spent a considerable amount of time at the mine with his father, where he would mine for tourmaline using a pick. He'd then wash and clean the stones he found and sell them directly to his father.

Adding to the event's tragedy, Douglas's mother and another aunt also died in the plane crash.

Even at that young age, Douglas stepped up and took over running the business with his Aunt Beatrice and her son Antonio. In running the business, Douglas built upon what he learned from his father and followed his own instincts and intuition.

Discovery, Tragedy, and Triumph

The mining operation today is very successful, with 150 employees. One hundred of them are miners, and the mine has produced an annual average of more than eight tons of tourmaline over the last five years. This was only possible because these resilient family members came together as a team. Along with the loyal employees of the mine, they came through their tragedy and built one of the most successful colored gemstone mining operations in the entire world.



<http://www.gia.edu/gia-news-research-cruzeiro-tourmaline-mine-expedition>

Field Trip Information

By Shirley Green

Fountain M M Quarry Field Trip

When:

Friday, June 19, 2015, 9:00 am until. (They close at 5:00 pm). We must arrive at the quarry no later than 8:45 am. for for the safety briefing. No Latecomers!! The quarry manager's name is Ken Price. The quarry phone number is 252-749-2641. The quarry manager wants us to stay together as a group and not be on different levels at the same time.

Where:

5368 Allen Gay Rd., Fountain, NC 27829

Collecting:

This is a decomposed granite quarry. He said we might find shark's teeth here.

I have never been here, so not really sure what else besides Quartz.

Requirements:

- Must be 18 or older
- Regulation hard hat
- Steel toed boots
- Green or orange safety vest
- Safety glasses
- This is not an absolute requirement, but I think it's safer if you wear long pants and not shorts.

Tools:

- Sunscreen
- Bug spray - not sure if we will need or not
- Rock hammer
- 3 pound hammer or sledgehammer
- Backpack or bucket or both
- Newspaper to wrap your specimens in
- Plenty of fluids to drink
- Snacks
- Chisel or pry bar
- Long screwdriver
- Hand truck

Who:

I would appreciate everyone's cooperation in making sure we follow all of the rules given to us by the Quarry Manager. If we do this we can be allowed to return again. Please RSVP to Shirley. 919-848-1085 or Richard60Green@yahoo.com

Directions:

5368 Allen Gay Rd., Fountain, NC 27829

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
June 16, 2015 @ 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

