THE GOLDRUSH LEDGER

CHARLOTTE GEM & MINERAL CLUB

AUGUST 2017

THE PREZ SAYZ

August is our transition month. We had our annual picnic and are now turning our attention to the upcoming Matthews Alive. We will have 3 full days around the geodes and the sluice line. This means we will need quite a few volunteers to help the kids with their finds at the sluice line as well as awe at the gorgeous geodes that were just cut. Please contact Murray Simon at msimmonnc@gmail.com to let him know when you are able to come help.

We are also transitioning into a new workshop. The new location has a lot of advantages over the prior location, and will be discussed at the upcoming meeting.

Since time is still flying, we will soon begin to plan for our annual auction. As you are working your way through your workshop, please set aside all those rocks and/or machines that you no longer need and bring them to us to be put into our auction.

I look forward to seeing you at Matthews alive.

Kim Gwyn
President
Charlotte Gem & Mineral Club

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ROCK FACTS

The oldest rocks to be radiometrically dated are over 3,900 million years old.

At least 90% of all iron mined and quarried each year is in the form of the sedimentary rock called ironstone.

Many desert rocks ar red-colored because they contain iron oxide.

The heads at Mt. Rushmore are carved out of granite, an igneous rock.

Quartz is the most commor mineral on earth.

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2017 CGMC OFFICERS & BOARD

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WORKSHOPS AT THE HILL

This is our new home to our workshops.

1346 Hill Road.
Charlotte, NC

Please Note:
For insurance purposes, 2017 CGMC dues must be paid or be current before taking class. Non-members must join.
($20/yr single membership, $25 family membership)
Faceting Classes are available on an "as available" basis. If you are interested in learning to facet, contact Kim at gwynkim@gmail.com to arrange a time(s).

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Anyone who wishes to sign up for any of our classes should contact
Martha Rogers at :
charlottegemclub@gmail.com

Currently scheduled classes:

(Classes are from 9:00 am to Approx 4:00 pm)

August 19 Beginning Cabochon (2 openings) with Martha Rogers
$40.00 Class Fee
Materials and tools provided
Class starts at 9 am, breaks for lunch around noon,
(Bring a sandwich & Beverage)

Sept 9 Beginning Wirewrap (1 opening) with Martha Rogers
$30.00 Class Fee
Materials and tools provided
Class starts at 9 am, breaks for lunch around noon,
(Bring a sandwich & Beverage)

Charlotte Gem and Mineral Club
Monthly Meeting

Thursday, August 17, 2017

Snack/Social Hour 6:00-7:00
Meeting to Start at 7:00

Location:
Tyvola Senior Center 2225 Tyvola Rd.
Charlotte, NC 28210 (704) 522-6222

This month we are excited to have a "Show and Tell" for our meeting. We encourage you to bring one of your collection of stone or mineral , either rough or cut. Let us know what it is, where its from and what you like about it

Beryl

From Wikipedia, the free encyclopedia

Beryl is a mineral composed of beryllium aluminium cyclosilicate with the chemical formula $Be_3Al_2(SiO_3)_6$. Well-known varieties of beryl include emerald and aquamarine. Naturally occurring, hexagonal crystals of beryl can be up to several meters in size, but terminated crystals are relatively rare. Pure beryl is colorless, but it is frequently tinted by impurities; possible colors are green, blue, yellow, red (the rarest), and white.

Etymology

The name "beryl" is derived (via Latin: *beryllus*, Old French: *beryl*, and Middle English: *beril*) from Greek βήρυλλος *beryllos* which referred to a "precious blue-green color-of-sea-water stone"; akin to Prakrit *verulia*, *veluriya* ("beryl"). The term was later adopted for the mineral beryl more exclusively.

When the first eyeglasses were constructed in 13th century Italy, the lenses were made of beryl (or of rock crystal) as glass could not be made clear enough. Consequently, glasses were named Brillen in German (bril in Dutch and Briller in Danish).

Deposits

Beryl of various colors is found most commonly in granitic pegmatites, but also occurs in mica schists in the Ural Mountains, and limestone in Colombia. Beryl is often associated with tin and tungsten ore bodies. Beryl is found in Europe in Norway, Austria, Germany, Sweden (especially morganite), Ireland and Russia, as well as Brazil, Colombia, Madagascar, Mozambique, Pakistan, South Africa, the United States, and Zambia. US beryl locations are in California, Colorado, Connecticut, Georgia, Idaho, Maine, New Hampshire, North Carolina, South Dakota and Utah.

New England's pegmatites have produced some of the largest beryls found, including one massive crystal from the Bumpus Quarry in Albany, Maine with dimensions 5.5 by 1.2 m (18.0 by 3.9 ft) with a mass of around 18 metric tons; it is New Hampshire's state mineral. As of 1999, the world's largest known naturally occurring crystal of any mineral is a crystal of beryl from Malakialina, Madagascar, 18 m (59 ft) long and 3.5 m (11 ft) in diameter, and weighing 380,000 kg (840,000 lb).

Aquamarine and maxixe

Aquamarine

Aquamarine (from Latin: *aqua marina*, being, water : sea, *i.e.* sea water,[8]marīna, from marīnus; of the sea.[9]) is a blue or cyan variety of beryl. It occurs at most localities which yield ordinary beryl. The gem-gravel placer deposits of Sri Lanka contain aquamarine. Clear yellow beryl, such as that occurring in Brazil, is sometimes called *aquamarine chrysolite* The deep blue version of aquamarine is called *maxixe*. Maxixe is commonly found in

the country of Madagascar. Its color fades to white when exposed to sunlight or is subjected to heat treatment, though the color returns with irradiation.

The pale blue color of aquamarine is attributed to Fe^{2+}. Fe^{3+} ions produce golden-yellow color, and when both Fe^{2+} and Fe^{3+} are present, the color is a darker blue as in maxixe. Decoloration of maxixe by light or heat thus may be due to the charge transfer between Fe^{3+} and Fe^{2+}Dark-blue maxixe color can be produced in green, pink or yellow beryl by irradiating it with high-energy particles (gamma rays, neutrons or even X-rays).

Faceted aquamarine

In the United States, aquamarines can be found at the summit of Mt. Antero in the Sawatch Range in central Colorado. In Wyoming, aquamarine has been discovered in the Big Horn Mountains, near Powder River Pass. Another location within the United States is the Sawtooth Range near Stanley, Idaho, although the minerals are within a wilderness area which prevents collecting. In Brazil, there are mines in the states of Minas Gerais, Espírito Santo, and Bahia, and minorly in Rio Grande do Norte. The mines of Colombia, Zambia, Madagascar, Malawi, Tanzania and Kenya also produce aquamarine.

The largest aquamarine of gemstone quality ever mined was found in Marambaia, Minas Gerais, Brazil, in 1910. It weighed over 110 kg (240 lb), and its dimensions were 48.5 cm (19 in) long and 42 cm (17 in) in diameter. The largest cut aquamarine gem is the Dom Pedro aquamarine, now housed in the Smithsonian Institution's National Museum of Natural History.

Emerald

Rough emerald on matrix

Emerald is green beryl, colored by trace amounts of chromium and sometimes vanadium Most emeralds are highly included, so their brittleness (resistance to breakage) is classified as generally poor.

Emeralds in antiquity were mined by the Egyptians and in Austria, as well as Swat in northern Pakistan.[19] A rare type of emerald known as a trapiche emerald is occasionally found in the mines of Colombia. A trapiche emerald exhibits a "star" pattern; it has raylike spokes of dark carbon impurities that give the emerald a six-pointed radial pattern. It is named for the *trapiche*, a grinding wheel used to process sugarcane in the region. Colombian emeralds are generally the most prized due to their transparency and fire. Some of the rarest emeralds come from three main emerald mining areas in Colombia: Muzo, Coscuez, and Chivor. Fine emeralds are also found in other countries, such as Zambia, Brazil, Zimbabwe, Madagascar, Pakistan, India, Afghanistan and Russia. In the US, emeralds can be found in Hiddenite, North Carolina. In 1998, emeralds were discovered in the Yukon.

Emerald is a rare and valuable gemstone and, as such, it has provided the incentive for developing synthetic emeralds. Both hydrothermal[20] and *flux-growth* synthetics have been produced. The first commercially successful emerald synthesis process was that of Carroll Chatham.[The other large producer of flux emeralds was Pierre

Gilson Sr., which has been on the market since 1964. Gilson's emeralds are usually grown on natural colorless beryl seeds which become coated on both sides. Growth occurs at the rate of 1 mm per month, a typical seven-month growth run producing emerald crystals of 7 mm of thickness.[22] The green color of emeralds is widely attributed to presence of Cr^{3+} ions. Intensely green beryls from Brazil, Zimbabwe and elsewhere in which the color is attributed to vanadium have also been sold and certified as emeralds.

Golden beryl and heliodor

Faceted golden beryl, 48.75 ct, Brazil

Golden beryl

Golden beryl can range in colors from pale yellow to a brilliant gold. Unlike emerald, golden beryl generally has very few flaws. The term "golden beryl" is sometimes synonymous with *heliodor* (from Greek *hēlios* – *ἥλιος* "sun" + *dōron* – *δῶρον* "gift") but golden beryl refers to pure yellow or golden yellow shades, while heliodor refers to the greenish-yellow shades. The golden yellow color is attributed to Fe^{3+} ions Both golden beryl and heliodor are used as gems. Probably the largest cut golden beryl is the flawless 2054-carat stone on display in the Hall of Gems, Washington, D.C., United States.[26]

Goshenite

Faceted goshenite, 1.88 ct, Brazil

Goshenite

Colorless beryl is called *goshenite*. The name originates from Goshen, Massachusetts, where it was originally discovered. Since all these color varieties are caused by impurities and pure beryl is colorless, it might be tempting to assume that goshenite is the purest variety of beryl. However, there are several elements that can act as inhibitors to color in beryl and so this assumption may not always be true. The name goshenite has been said to be on its way to extinction and yet it is still commonly used in the gemstone markets. Goshenite is found to some extent in almost all beryl localities. In the past, goshenite was used for manufacturing eyeglasses and lenses owing to its transparency. Nowadays, it is most commonly used for gemstone purposes and also considered as a source of beryllium

The gem value of goshenite is relatively low. However, goshenite can be colored yellow, green, pink, blue and in intermediate colors by irradiating it with high-energy particles. The resulting color depends on the content of Ca, Sc, Ti, V, Fe, and Co impurities.

Morganite

Faceted morganite, 2.01ct, Brazil

Morganite

Morganite, also known as "pink beryl", "rose beryl", "pink emerald", and "cesian (or *caesian*) beryl", is a rare light pink to rose-colored gem-quality variety of beryl. Orange/yellow varieties of morganite can also be found, and color banding is common. It can be routinely heat treated to remove patches of yellow and is occasionally treated by irradiation to improve its color. The pink color of morganite is attributed to Mn^{2+} ions.[10]

Pink beryl of fine color and good sizes was first discovered on an island on the coast of Madagascar in 1910.[29] It was also known, with other gemstone minerals, such as tourmaline and kunzite, at Pala, California. In December 1910, the New York Academy of Sciences named the pink variety of beryl "morganite" after financier J. P. Morgan.[29]

On October 7, 1989, one of the largest gem morganite specimens ever uncovered, eventually called "The Rose of Maine," was found at the Bennett Quarry in Buckfield, Maine, US.[30] The crystal, originally somewhat orange in hue, was 23 cm (9 in) long and about 30 cm (12 in) across, and weighed (along with its matrix) just over 50 pounds (23 kg).

Red beryl

Faceted red beryl, 0.56 ct, Utah US

Red beryl (formerly known as "bixbite" and marketed as "red emerald" or "scarlet emerald") is a red variety of beryl. It was first described in 1904 for an occurrence, its type locality, at Maynard's Claim (Pismire Knolls), Thomas Range, Juab County, Utah.[32][33] The old synonym "bixbite" is deprecated from the CIBJO, because of the risk of confusion with the mineral bixbyite (both were named after the mineralogist Maynard Bixby). The dark red color is attributed to Mn^{3+} ions.[10]

Red beryl

Red beryl is very rare and has been reported only from a handful of locations: Wah Wah Mountains, Beaver County, Utah; Paramount Canyon and Round Mountain, Sierra County, New Mexico, although the latter locality does not often produce gem grade stones;[32] and Juab County, Utah. The greatest concentration of gem-grade red beryl comes from the Ruby-Violet Claim in the Wah Wah Mountains of the Thomas range of mid-western Utah, discovered in 1958 by Lamar Hodges, of Fillmore, Utah, while he was prospecting for uranium.[34] Red beryl has been known to be confused with pezzottaite, a caesium analog of beryl, that has been found in Madagascar and more recently Afghanistan; cut gems of the two varieties can be distinguished from their difference in refractive index, and rough crystals can be easily distinguished by differing crystal systems (pezzottaite trigonal, red beryl hexagonal). Synthetic red beryl is also produced.[35] Like emerald and unlike most other varieties of beryl, red beryl is usually highly included.

While gem beryls are ordinarily found in pegmatites and certain metamorphic stones, red beryl occurs in topaz-bearing rhyolites. It is formed by crystallizing under low pressure and high temperature from a pneumatolytic phase along fractures or within near-surface miarolitic cavities of the rhyolite. Associated minerals include bixbyite, quartz, orthoclase, topaz, spessartine, pseudobrookite and hematite.

UPCOMING NORTH CAROLINA SHOWS

An Official Field Trip of the
Gaston Gem Mineral and Faceter'sClub (Gastonia, NC)

Saturday, August 26, 2017

8:30AM – 4PM Eastern
Propst Farm
Lincoln County, NC
Fee: $25 per person

TRIP: The property recently reopened after several months following the passing of Mrs. Propst. The property has been producing corundum, since the 1960's. Digging will take place in front and behind the barn as well as other possible areas designated by the current owner, Ronald Lineberger.

COLLECTING: Some large and unusual corundum specimens have been coming out of the ground recently including a large Kyanite included specimen and a small clear ruby. Good specimens of magnetite and quartz crystals are occasionally found. The ground is hard packed red clay. Digging can be easy or moderately hard depending on the location and depth of the hole you dig.

BRING: Long and short shovels and small or large buckets minimum. 1 inch and half inch classifiers, small picks, tarps and probing tools may come in handy. Bring water or soft drinks and snacks. An extra change of clothes may be needed as the ground is red clay

REQUIREMENTS: All collectors will be required to sign a permission / liability form and pay $25 before setting up to dig. Digging is allowed in the designated areas only. All holes MUST be filled in before you leave the property.

SPECIAL CONDITIONS: Parking is on the grass near the dig area.

CHILDREN: Allowed with parental supervision.

PETS: Allowed on leash only.

FACILITIES: There is no toilet but there is a service station with facilities at the exit of HWY 321 and Startown Road.

ADDITIONAL INFORMATION:
Address: Propst Farm – 3668 Startown Road, Maiden NC 28650
Lodging: Rooms are available in nearby Lincolnton NC or Hickory NC

DIRECTIONS AND WHERE TO MEET:
About 13 miles south of I-40 via US321 and Startown Road-or-

About 26 miles north of I-85 via US321 and Startown Road

(Startown road intersects 321 and the Propst Farm is approximately 3 miles south of NC highway US 321).

Dig is on residential land, pull in between 2 brick houses – We will have a sign on road where to turn in.

CONTACT:

Lorell Dunlap, Field Trip Chair – Gaston Gem Mineral and Faceters club.
Phone: 704-692-1272
E-Mail: Lorell_Dunlap@yahoo.com

The Forsyth Gem & Mineral Club
The 46th Annual Jewelry, Gem, Mineral and Fossil Show and Sale
September 8-10, 2017
Educational Building, The Fairgrounds, Winston-Salem

Days/Hours Open: September 8 and 9 – 10 am to 7 pm
September 10 – 12 noon to 5 pm

Admission: Adults $3.00

Children through Grade 12 – Free when accompanied by an adult

The show is a combination of various rock and jewelry-related displays, plus numerous vendors selling mineral samples, jewelry components, completed jewelry, tools and various other items,

How you as a CGMC member can help at Matthews Alive

. **YOUR CLUB NEEDS YOU!**
Volunteer Now!

The Matthews Alive Festival
starts Saturday September 3
through Monday September 5.
We need several club member volunteers!!!!!
During busy stretches, it takes at least
12 people to manage our huge booth.

To volunteer for specific shifts,
go to our website at charlottegem.com
to see our current "Matthews Alive Schedule"
and volunteer for the time slots
where you are needed the most.

We look forward to seeing you at the
Matthews Alive Festival,
where rocks really do rock!

Please remember that Matthews Alive Festival is our majority money maker for the year. Your help is needed to make this show a winner for us. Additionally, we have to cover the other expenses for the weekend, such as booth rental, supplies such as sawblades and materials for the sluice as well as geodes.

How can you help?

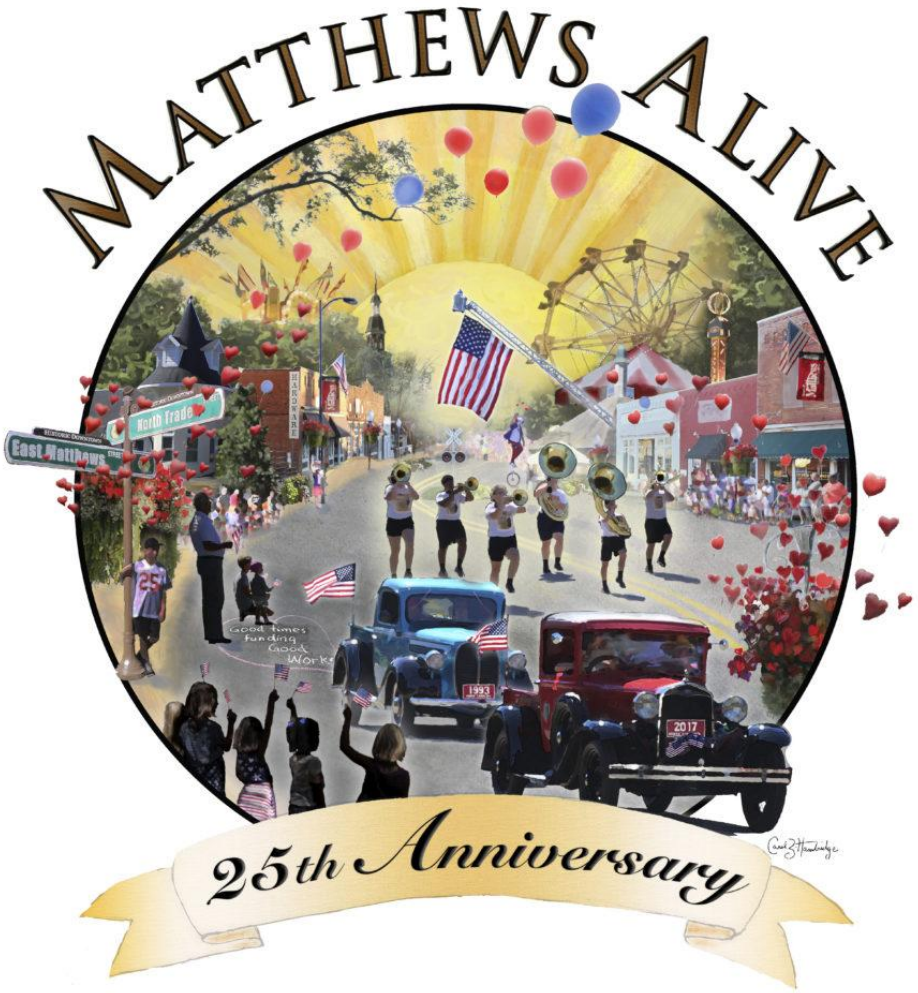
First, you can sign up to work during one of the time segments that doesn't have enough volunteers. Second, you can come ready to promote our booth as well as our club. We have the opportunity to let people know what our club (and club members) do. This is a valuable source for reaching potential new members.

What do you get out of it?

You get to spend time with other members, friends you already have and ones you get to make. You get to meet the people who come by the booth, as customers, or possibly new members. The satisfaction of knowing you did something important for our club. Donating your time and effort to make our club a little bit better.

Thank you,

The CGMC Board Members



This is the current list of members who have volunteered their time to help work our both at

Matthews Alive 2017

Please contact msimonnc@gmail.com
to have your name added to the list

Saturday – September 2

11:00 – 3:00	3:00-7:00
Archie Graham	

Sunday – September 3

11:00 – 3:00	3:00-7:00
Archie Graham	

Monday – September 4

11:00 – 3:00	3:00-7:00

It happened in August....

August 6, 1945 – The first Atomic Bomb was dropped over Hiroshima

August 10, 1846 –The Smithsonian Institution is founded

August 14, 1935 – President Roosevelt signed the Social Security Act establishing the pension system.

August 15, 1969 – Woodstock began in a field near Yasgur's Farm at Bethel, NY

August 16, 1986 – Gold was discovered in Rabbit Creek, Alaska

August 18, 1920 – The 19th Amendment was ratified, granting women the right to vote

August 27, 1955 – The first edition of *The Guiness Book of Records* was published