Goldrush Ledger

Charlotte Gem & Mineral Club Newsletter September 2019

Prez Sez…...

What a fantastic year at Matthews Alive! The weather was perfect and we had constant crowds around the booth. We saw record sales this year, and had lots of smiling customers!

Thanks to Everyone who volunteered! Your gift of time helps to generate funds that run our club all year, including meeting costs, workshops, funding for scholarships to William Holland, and other activities. Special thanks to our new members who braved the commotion at the booth to learn more about our club activities and get to know other club members. Hopefully you had a lot of fun!

I would also like to personally extend a special thank you to youth member Xavier Bulla, who was there almost every hour we were open, and led the operation of the gem sluice. This young man has shown extraordinary effort and dedication to the club.

In August, Dr. Carl Lockwood gave a fantastic presentation on the Gemological Institute of America (GIA). It was interesting to hear about his personal experiences with obtaining GIA certification.

Our September speaker will be Kim Deacon, who will share some of the interesting rockhounding trips and great finds that he has made across the country.

Planning ahead, **Club Officer election nominations** are due by the October meeting; please consider serving on the Board in some capacity. Officer positions are shown on the next page.

Hope to see you at the next meeting!

Kim Gwyn
Club President

You might be a rockhound if...

-- You send your family on ahead at McDonalds so you can check out the landscaping gravel in the parking lot!

In This Issue

- Neat local find!
- Digs and Shows
- More on Faceting!

2019 CGMC Officers & Board

President
Kim Gwyn
gwynkim@gmail.com
(803)370-0244

Vice President
Martha Rogers

Secretary
Vickie Glover

Treasurer
Sam Baker

Directors at Large
Brad Glover
Mary Fisher
Anne Lockwood

Past President
Murray Simon

Club Chairpersons

Web Master
Kim Gwyn
gwynkim@gmail.com

Newsletter Editor
Mary Fisher

Geode Chair
Jimmy Strickland

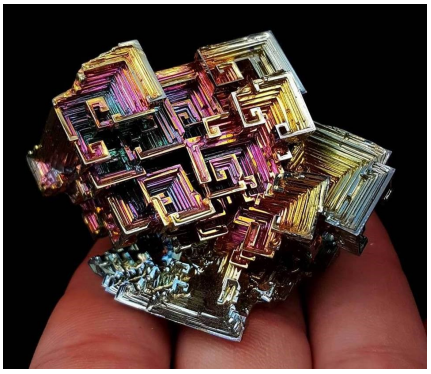
Speakers/Special Events
Anne Lockwood

Contact Info:
Charlottegem@yahoo.com

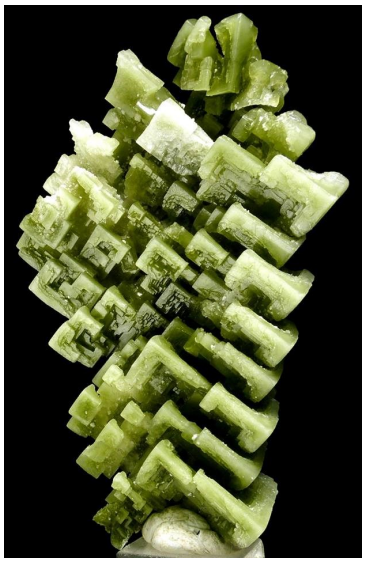
Next Club Meeting

Thursday, September 19, 2019
Social Time at 6:30 PM
Meeting at 7:00 PM

Tyvola Senior Center
2225 Tyvola Road, Charlotte



What is a Hopper Crystal?



A hopper crystal is a form of crystal, defined by its "hoppered" shape.

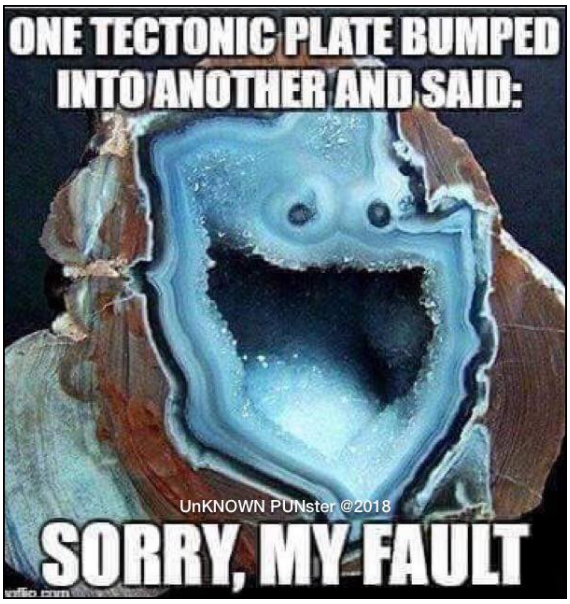
This form appears, when a crystal grows faster at the edges of each face, than at the center. This is due to a higher electrical attraction along the edges of the crystal, so they draw the mineral molecules stronger than the interior sections.

The edges of hoppered crystals are fully developed, but the interior spaces are not filled in. This results in what appears to be a hollowed out step lattice formation, as if someone had removed interior sections of the individual crystals. In fact, the "removed" sections never filled in, because the crystal was growing so rapidly that there was not enough time (or material) to fill in the gaps.

The interior edges of a hoppered crystal still show the crystal form characteristic to the specific mineral, and so appear to be a series of smaller and smaller stepped down miniature versions of the original crystal.

Read more at http://www.geologyin.com/2019/06/what-is-hopper-crystal.html

Photo credits: Pink Halite: crystalminer, Bismuth: Gem_stallion, Green Halite: Spirifer Minerals



Upcoming Field Trips

Graves Mountain Rock Swap and Dig

October 4th - 6th, 2019
Lincolnton, Georgia

Graves Mountain is a unique geological formation located in Lincoln County, Georgia. Quarry featuring rutile, Kknite, lazulite, iridescent hematite, pyrophyllite, pyrite, ilmenite, fuchsite, barite, aulfur, variscite, woodhouseite, crandallite, strengite, phosphosiderite, cacoxenite, blue quartz, quartz crystals, etc.

Site is open to the public two times per year for the Rock Swap and Dig. Details and fees are available online.

Dixie Mineral Council Field Trips

Note: DMC Field Trips are for club members of DMC-affiliated clubs and their families only. Liability issues mean that these trips cannot be attended by the general public unless otherwise noted. Because this dig is not open to the public, full details are not published in our newsletter. As a benefit of membership, our club is a DMC-affiliated club and CGMC members *who are current on their 2019 dues* may attend.

September 22

An Official Field Trip of the Rome Georgia Mineral Society (Rome, GA)

Quarry site in Georgia with lace agate.

October 12

An Official Field Trip of the Memphis Archaeological & Geological Society (Memphis, TN)

Quarry site in Mississippi with chert gravels containing fossils, petrified wood, agate, conglomerate and quartz.

For more information about these digs, please contact charlottegem@yahoo.com.

Upcoming Gem Shows

MAGMA Gem Show

Sept 13-15—MAGMA Fall Gem, Mineral, & Fossil Show located at: Camp Stephens Boyscout Camp Clayton Road, Asheville, North Carolina 28806

Gaston Club - October Gemboree

October 4-6—GASTONIA, NORTH CAROLINA: Show; Gaston Gem, Mineral and Faceters Club; An outdoor show with crystals, gem and mineral specimens, fossils, geodes and jewelry, and a sluice on site. The Show is located at: Gaston County Park 1303 Dallas Cherryville Hwy, Dallas, North Carolina 28034.

A Fascination with Faceting

Many gem and mineral enthusiasts enjoy faceting, and learn the art through connections and workshops available through clubs, combined with many hours of study and practice. Faceting is both art and geometry, a mechanical process of cutting surfaces on a stone. This introduction provides a history of decorative stone and faceting. In the coming months, this series will provide additional information on faceting.

This series is a collection of information from Ron Gibbs, a longtime Charlotte Gem and Mineral Club member who passed away in 2013. His contributions internationally to the world of gem and mineral collecting, and to our club in particular, will not soon be forgotten.

Source: Ron's website, www.theimage.com

History of Faceted Stone Shapes

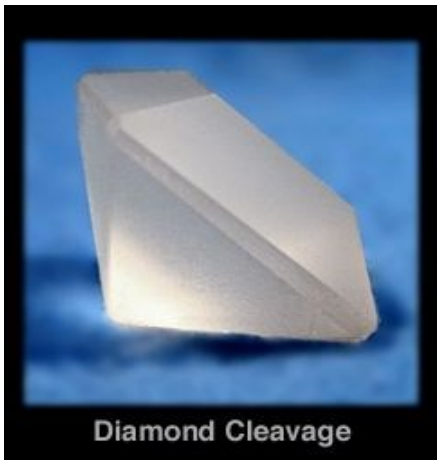
The idea for faceted stones may be related to the observation of nature and little luck. Crystals were observed in nature and occasionally a really clear one was found. It is not hard to imagine that an inquisitive person may have polished the base of a rock crystal (quartz) and discovered the reflected light from its hexagonal termination.

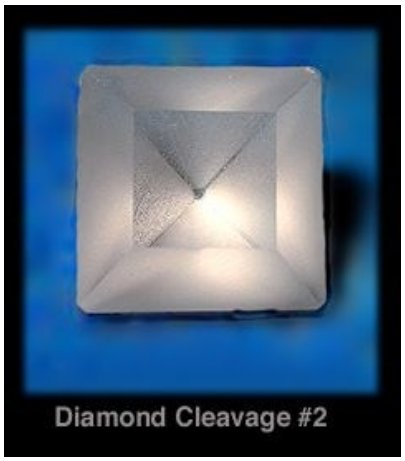
Some of the oldest "faceted" gemstones have designs based on polishing the natural faces of minerals as they were formed in nature. Sometimes just the long parallel side of a crystal were polished to remove the associated rock in which they formed.

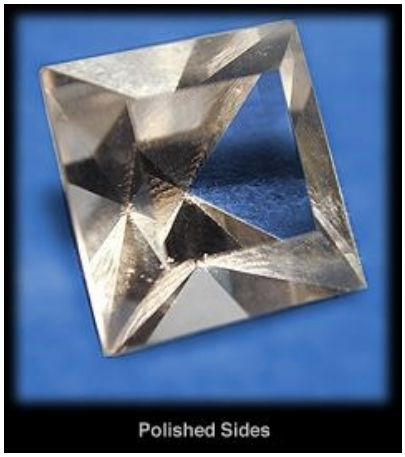
It was known that diamond was the hardest mineral found in the early days, the name is derived from the Greek "adamas" which translates to "I tame" or "I subdue". It is because it was recognized as the hardest stone and it could scratch all others. It was also discovered that it could be broken in 3 directions by a sharp blow. Probably due to erroneous reporting as the "hardest" of all materials, one early test was to strike a potential diamond material with a hammer, if it survived it was deemed as truly indestructible.

Crystalline diamond often forms in octahedral crystals. Because diamond has perfect cleavage, it will break parallel to any of its bases. If struck a glancing bow with a chisel or other knife edge in this alignment, the diamond is cleanly broken into two pieces. Of course if the knife blade is placed at the wrong angle, the diamond can also be converted to many somewhat irregular fragments.

A diamond model is shown in the first diagram below. Another model showing its perfect cleavage is shown in the second picture. Now imagine for a minute that someone cleans up the other faces (polishes them), the result is shown in the third picture, and as you can see it is actually a simple faceted stone.







This finished stone had 9 facets and followed exactly the original crystal shape designed by nature.

Early Faceted Shapes

The earliest cuts followed the natural crystal shape. With time more facets were cut and added surfaces began to appear. The earliest cuts still had few overall facets, but they added geometry and eventually lead to the 8-sided brilliant cut.

Some of the earlier cuts included the Old Single Cut with 17 facets which was developed in the 1400s, and the Mazarin Cut 33 facets which was developed in the 1600s. The Peruzzi Cut with 56 to 58 facets was developed in the 1700s, and Old European Cut with 58 facets was developed in the late 1800s. The Old European Cut is the predecessor of the modern Brilliant Cut.

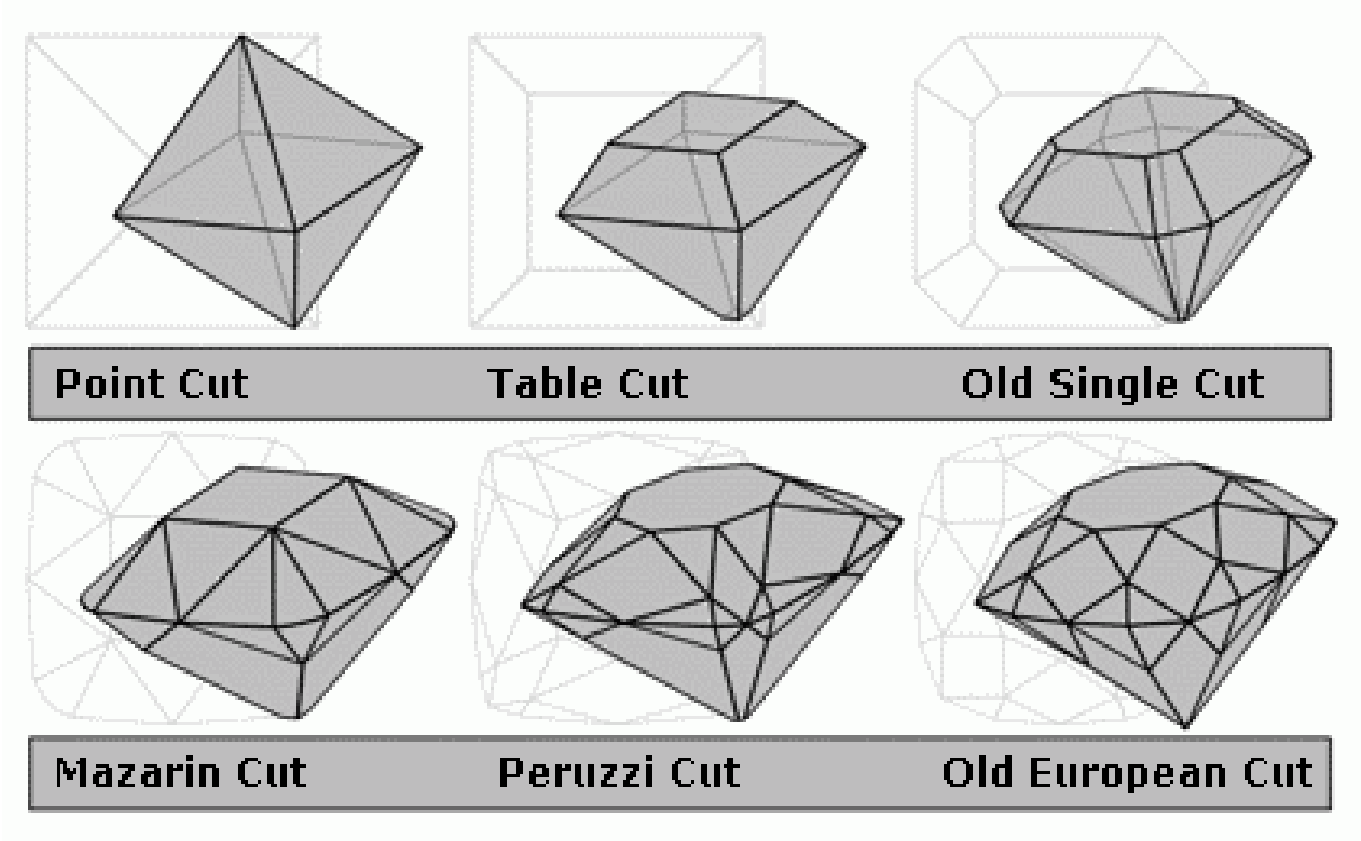


Diagram by Juergen Schoner (July 2004), with English translation by Gregory Phillips. - Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=86343