



THE GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB

JULY 2015

THE PREZ SAYZ

I want to thank all of you who took the time to send "Get Well" wishes following my surgery three weeks ago. The whole situation came on rather suddenly but I was fortunate to be able to get it done by an excellent surgeon soon after the diagnosis. I am about 90% recovered and in another week or two should be fully back and able to try out for the Panthers.

I know you're all busy with vacations, kids out of school and summer activities, but I suggest you keep an eye on what's happening in your favorite gem and mineral club. You would think the summer is a time for an organization like ours to relax, slow down and

take it easy. The opposite, however, seems to be the case for us. Our annual picnic is coming up on Saturday, July 11 at our place on Lake Norman. Free burgers, hot dogs and drinks; swimming, fishing and boating. . It doesn't get much better than that. Be sure to make your reservations via the newsletter or website. Last year we had people show up who forgot to make reservations and we came close to running out of food.

Probably the most unique event to take place this summer is the club's acquisition of the large Orchard Collection of fine quality lapidary specimens. Kim Gwyn and Brad Glover have been working their fool heads off (thank you Brad and Kim) installing

solar paneled lighting and industrial-strength shelving in the trailer in anticipation of storing the collection in mid-July. Those of you who saw a few of the pieces on display at the last meeting seemed quite impressed and there were several members who expressed an interest in acquiring one of the Citrine or Amethyst churches in the collection. We only have about 10 pieces but

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in response to that interest, we are going to hold a raffle of churches at the August meeting. This will enable some of you to purchase one at a wholesale price. Read your July newsletter and/or the CG&MC website for further details.

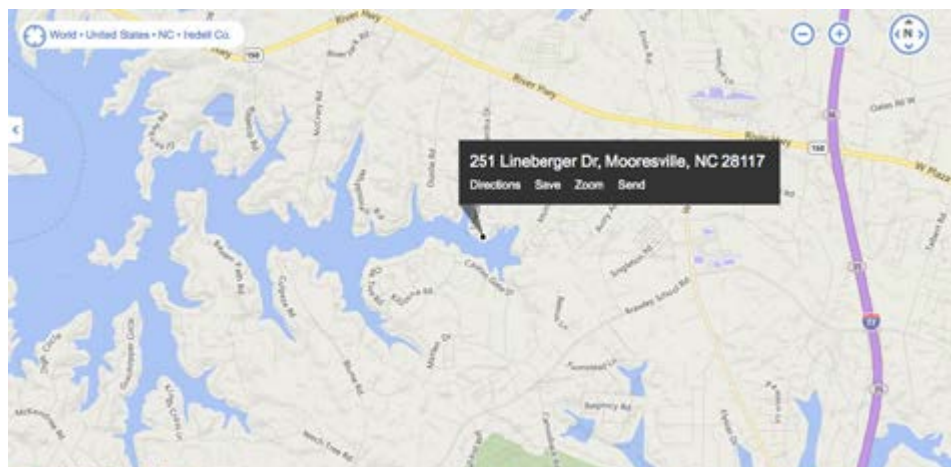
Last but definitely not least, the Matthews Alive Festival is just over the horizon. For those newer members who are not familiar with it, this is a Labor Day weekend event the club has been participating in for over 30 years. Over a 3 day period we sell and cut geodes, run our custom made sluice and raise funds for scholarships for UNCC and Appalachian State geology students. It takes 30 plus members working in shifts to run our tents and the equipment involved. But it's not all work – the look on kids' faces as they find hidden treasure in their sluice bags and/or look inside an ancient geode for the first time is priceless. We have customers who started out at the age of 5 or 6 and are now in their teens and coming back each year for another specimen. You will definitely want to be a part of this event and you will hear from the scheduling committee in August.

See you soon

Murray Simon

President

Charlotte Gem and Mineral Club



Charlotte Gem and Mineral Club Monthly Meeting

**There is no monthly meeting in
July because of the annual picnic.
No jewelry class either.**

THE 2015 CHARLOTTE GEM & MINERAL CLUB PICNIC

**Saturday, July 11 (raindate – July 12) from noon to 5PM
251 Lineberger Drive, on the lake at Mooresville**

**Swimming, boating, fishing, good food and splendid company.
The club provides hot dogs, burgers and beverages**

Here's what you have to do:

- ✓ MAKE RESERVATIONS!!! We need to know how much food to buy.**
- ✓ Kids, grandkids, spouses, significant others are most welcome**
- ✓ Side dishes and desserts are appreciated (keep it simple and non-gooey)**
- ✓ Bring your own bathing suits, towels and folding chairs**
- ✓ For reservations contact Martha Rogers – martha4854@gmail.com**

Directions:

Rt. 77 North to Exit 36/Mooresville

Left at top of exit ramp onto Rt 150

In one mile pass a large QT station on the right

Another mile to the intersection of Rt150 and Dooley RD (Harris Teeter on your right)

Left onto Dooley Road

First left (approx. ½ mile) onto Lineberger Drive = a short paved road leading onto a dirt road (2 speed bumps)

Approx. ½ mile on dirt road, turn left at golf cart with CG&MC sign

A 50 minute drive from the Senior Center

If you drive your car into the lake call Murray at (704) 668-5658

ROCK OF THE MONTH

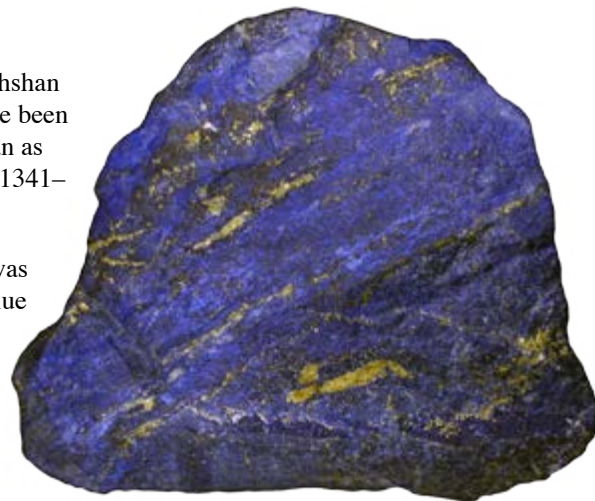
LAPIS LAZULI

Lapis lazuli /ˈlæpɪs ləˈzuːli/ or /-ˈlæzuːlaɪ/, or **lapis** for short, is a deep blue semi-precious stone that has been prized since antiquity for its intense color.

Lapis lazuli was being mined in the Sar-i Sang mines and in other mines in the Badakhshan province in northeast Afghanistan as early as the 7th millennium BC. Lapis beads have been found at neolithic burials in Mehrgarh, the Caucasus, and even as far from Afghanistan as Mauritania. It was used for the eyebrows on the funeral mask of King Tutankhamun (1341–1323 BC).

At the end of the Middle Ages, lapis lazuli began to be exported to Europe, where it was ground into powder and made into ultramarine, the finest and most expensive of all blue pigments. It was used by the most important artists of the Renaissance and Baroque, including Masaccio, Perugino, Titian and Vermeer, and was often reserved for the clothing of the central figure of the painting, especially the Virgin Mary.

Today mines in northeast Afghanistan and Pakistan are still the major source of lapis lazuli. Important amounts are also produced from mines west of Lake Baikal in Russia, and in the Andes mountains in Chile. Smaller quantities are mined in Italy, Mongolia, the United States and Canada.



Etymology

Lapis is the Latin word for “stone” and *lazuli* is the genitive form of the Medieval Latin *lazulum*, which is taken from the Arabic درواز *lāzaward*, itself from the Persian درواز *lāzavard*, which is the name of the stone in Persian and also of a place where lapis lazuli was mined.

The name of the stone came to be associated with its color. The English word *azure*, French *azur*, the Italian *azzurro*, the Polish *lazur*, Romanian *azur* and *azuriu*, and the Portuguese and Spanish *azul*, Hungarian *azúr* all come from the name and color of lapis lazuli.

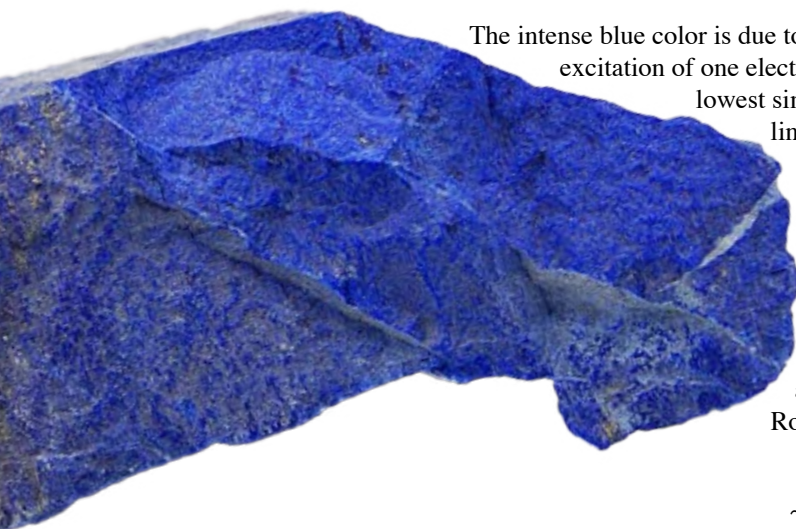
Composition

Lapis lazuli is a rock whose most important mineral component is lazurite (25% to 40%), a feldspathoid silicate mineral with the formula $(\text{Na,Ca})_8(\text{AlSiO}_4)_6(\text{S},\text{SO}_4,\text{Cl})_{1-2}$.^[10] Most lapis lazuli also contains calcite (white), sodalite (blue), and pyrite (metallic yellow). Other possible constituents: augite; diopside; enstatite; mica; hauynite; hornblende, and nosean. Some lapis lazuli contains trace amounts of the sulfur-rich löllingite variety *geyerite*.

Lapis lazuli usually occurs in crystalline marble as a result of contact metamorphism.

Color

The intense blue color is due to the presence of the S_3^- radical anion in the crystal. An electronic excitation of one electron from the highest doubly filled molecular orbital (No. 24) into the lowest singly occupied orbital (No. 25) results in a very intense absorption line at $\lambda_{\text{max}} \sim 617 \text{ nm}$.



Sources

Lapis lazuli is found in limestone in the Kokcha River valley of Badakhshan province in northeastern Afghanistan, where the Sar-e-Sang mine deposits have been worked for more than 6,000 years. Afghanistan was the source of lapis for the ancient Egyptian and Mesopotamian civilizations, as well as the later Greeks and Romans. Ancient Egyptians obtained this material through trade from

Afghanistan. During the height of the Indus valley civilization about 2000 BC, the Harappan colony now known as Shortugai was established near the lapis mines.

In addition to the Afghan deposits, lapis is also extracted in the Andes (near Ovalle, Chile); and to the west of Lake Baikal in Siberia, Russia, at the Tultui Lazurite deposit. It is mined in smaller amounts in Angola; Argentina; Burma; Pakistan; Canada; Italy, India; and in the USA in California and Colorado.

Alternatives

Lapis lazuli is commercially synthesized or simulated by the Gilson process, which is used to make artificial ultramarine and hydrous zinc phosphates. It may also be substituted by spinel or sodalite, or by dyed jasper or howlite.^[15]

Uses

Lapis takes an excellent polish and can be made into jewelry, carvings, boxes, mosaics, ornaments, and vases. It was also ground and processed to make the pigment ultramarine, widely used during the Renaissance in frescoes and oil painting. Its usage as a pigment in oil paint largely ended in the early 19th century when a chemically identical synthetic variety became available.

In the Ancient World

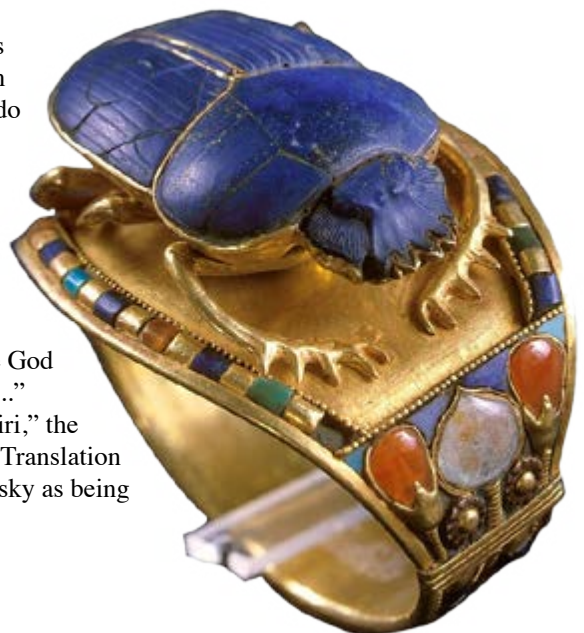
Lapis lazuli has been mined in Afghanistan and exported to the Mediterranean world and South Asia since the Neolithic age. Lapis lazuli beads have been found at Mehrgarh, a neolithic site near Quetta in Pakistan, on the ancient trade route between Afghanistan and the Indus Valley, dating to the 7th millennium BC. Quantities of these beads have also been found at 4th millennium BC settlements in Northern Mesopotamia, and at the Bronze Age site of Shahr-e Sukhteh in southeast Iran (3rd millennium BC). A dagger with a lapis handle, a bowl inlaid with lapis, and amulets, beads, and inlays representing eyebrows and beards, were found in the Royal Tombs of the Sumerian city-state of Ur from the 3rd Millennium BC.

Lapis was also used in ancient Mesopotamia by the Akkadians, Assyrians, and Babylonians for seals and jewelry. In the Mesopotamian poem, the Epic of Gilgamesh (17th-18th Century BC); one of the oldest known works of literature, lapis lazuli is mentioned several times. The Statue of Ebl-ki, a 3rd millennium BC statue found in the ancient city-state of Mari, uses lapis lazuli inlays for the irises of the eyes.

Lapis lazuli also made its way across the Mediterranean to ancient Egypt, where it was a favorite stone for amulets and ornaments such as scarabs; Lapis lazuli jewelry has been found at excavations of the Predynastic Egyptian site Naqada (3300–3100 BC). At Karnak, the relief carvings of Thutmose III (1479-1429 BC) show fragments and barrel-shaped pieces of lapis lazuli being delivered to him as tribute. Powdered lapis was used as eyeshadow by Cleopatra.

In late classical times and as late as the Middle Ages, lapis lazuli was often called sapphire (*sapphirus* in Latin, *sappir* in Hebrew), though it had little to do with the stone today known as the blue corundum variety sapphire. In his book on stones, the Greek scientist Theophrastus described “the sapphirus, which is speckled with gold,” a description which matches lapis lazuli.

There are many references to sapphires in the Old Testament, but most scholars agree that, since sapphires were not known before the Roman Empire, they most likely are references to lapis lazuli. For instance, Exodus 24:10: “As they saw the God of Israel, and there was under his feet as it were a paved work of a sapphire stone..” (KJV). The term used in the Latin Vulgate Bible in this citation is “lapidus sapphiri,” the term for lapis lazuli. In modern translations of the Bible, such as the New Living Translation Second Edition, references a surface like brilliant blue lapis lazuli as clear as the sky as being under God’s feet.



CHARLOTTE GEM AND MINERAL CLUB ANNUAL PICNIC

Saturday, July 11

(Raindate – July 12)

12:00 - 5:00

251 Lineberger Drive Mooresville, NC

- Make reservations by contacting Martha Rogers at: martha4854@gmail.com
- Hamburgers, hot dogs, and beverages will be provided.
- This is a lake side location, so bring your swim suit and towels!
- Kids, spouses, and significant others are welcome.
- See page 2 of the June newsletter for more information and directions.



UPCOMING SHOWS

July 23-26—FRANKLIN, NORTH CAROLINA: Retail show; Gem & Mineral Society of Franklin, NC, Robert C. Carpenter Community Building; 1288 Georgia Road; Thu. 10 am-5 pm, Fri. 10 am-5 pm, Sat. 10 am-5 pm, Sun. 11 am-4 pm; Adults \$2.00, Children Under 12 FREE; 50th Annual Macon County Gemboree featuring dealers from across the country. Rough and cut gemstones, gold and silver jewelry, minerals, findings, beads and demonstrations. Door prizes drawn every hour. Repairs and settings done at the show. ; contact Linda Harbuck, 425 Porter Street, Franklin, NC 28734, (800) 336-7829; e-mail: lindah@franklin-chamber.com; Web site: www.visitfranklinnc.com

Sept. 4-7—RALEIGH, NORTH CAROLINA: Retail show; Treasures of the Earth, Inc., NC State Fairgrounds; 1025 Blue Ridge Blvd; Fri. 12 noon-6 pm, Sat. 10 am-5 pm, Sun. 10 am-5 pm, Mon. 10 am-4 pm; Adults \$5.00, Military Free with ID, Children 16 and under Free; Vendors from across the US bring their merchandise to you. You will find • 14K and sterling silver, classic, estate, fashion and handmade jewelry • Loose stones, beads and findings, pearls • Mineral specimens, crystals, lapidary supplies • Books, carvings and gift items ; contact Jane Westbrook, PO Box 59, Gloucester Point, VT 23062, (804) 285-4281; e-mail: jane@treasuresoftheearth.com; Web site: www.treasuresoftheearth.com

Sept. 11-13—WINSTON-SALEM, NORTH CAROLINA: Annual show; Forsyth Gem And Mineral Club, Education Building, Winston-Salem Fairgrounds; Enter Gate 9 from 27th Street; Fri. 10:00 am- 7:00 pm, Sat. 10:00 am-7:00 pm, Sun. 12 noon-5:00 pm; Adults \$3.00, Students K-12 Free; Activities; Gold Panning, Geode Cutting, Grab Bags and Mineral Identification.; contact W. A. Marion, 1163 Bear Creek Church Road, Mocksville, NC 27028; e-mail: mariona1@yadtel.net; Web site: www.forsythgemclub.com