

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

September 2011

Words from...

The President

Summer is over and it's finally time to get back to the business of sharing, fellowshiping and learning at our monthly club meetings. I'm looking forward to it, as I hope you all are.

For the benefit of the folks who joined the club since our last meeting in May, we'll gather Sunday, **September 25 at 2:00 PM** at the Tabernacle United Methodist Church Fellowship Hall (at the intersection of Brannon Stand Road and Hwy 52). Since it is the first meeting after the summer break we'll tend to club business, but we may or may not have a formal program. However, everyone with new pieces in their collections will be bringing them to show off, so feel free to bring some of your own collection also. If you don't have anything to bring, don't worry. There'll be plenty of food to eat and you might win your choice of rock or specimen to take home as a door prize.

Between now and our next summer break, we'll have our usual eight monthly meetings and a holiday social. We'll go on some digs, learn new skills, swap rocks and stories about rocks...and maybe even stories about swapping rocks. There will be the annual gem and mineral show to plan and host, and maybe some surprises along the way. Let's make this the best and most productive year in the club's history. See you on the 25th. Jeff

Announcement – Graves Mountain Rock Swap & Dig

For anyone who hasn't heard, the caretaker in charge of Graves Mountain near Lincolnton, GA has announced plans to hold a three-day rock swap and dig on October 7 - 9, from 8 AM to 6 PM. All participants must sign a liability release and make a small contribution to defray the cost of opening the mountain and providing port-o-lets. There will be tables set up for the rock swap.

You'll be allowed to park in a designated area on the mountain and there will be several golf cart-type vehicles available to transport those participants who have trouble walking long distances. For more information, call Junior (Mr. Clarence Norman Jr.) at 706.359.3862 (work) or 706.359.2381 (home). You can also check out the website: <http://www.gaminer.org/commercial-gravesmountain.htm>



L. J. Ward – September 21 – I carried rocks in my pocket when I was a kid. Now I have them delivered by the truckload. Seeing Arnie's and Mr. Grady's rock collections is what motivated me to build one of my own; I just wish I'd gotten started a little earlier in life. I pick up something most everywhere I go, but more than any particular kind of rock, I enjoy the experience of finding something of beauty.

Hogg Mine Dig by Pat LeDuc and Joan Blackwell

It began before daylight and ended after dark ...and gosh was it hot!!! We "sweated buckets" as we filled buckets with black tourmaline, green beryl and quartz of all colors. Here's a sample.



Along with a friend from work, we had the run of the place all day. Guides, Jerry, Hilda and Robert gave pointers on where to look.



Too hot, tired and dusty to run from Pat's ever-at-the-ready camera, I was "snapped" carrying a final load of small pieces in my shirt-tail; my normally pale face as red as Jerry's truck...but it was a fun day.

Learning Series: Birthstones – September

Sapphire – The September Birthstone

Background

Sapphire is a variety of the mineral species corundum. When one thinks “sapphire”, the color blue readily comes to mind—in fact, some experts contend the word comes from the Greek “sappheiros” meaning “blue stone”—but sapphires actually occur in all colors of the rainbow, with the exception of red which is technically referred to as ruby. Colors other than blue are referred to as “fancy” colors.

Typically mined from alluvial deposits or from primary underground workings, sapphires can also be found naturally by searching through certain sediments since their level of hardness make them resistant to being eroded like softer stones. Sapphires are common in metamorphic rocks, such as crystalline limestone, mica-schist, gneiss, etc., and can also be found as an original constituent of certain igneous rocks, usually those deficient in silica. In the field, associated minerals are commonly chlorite micas, chrysolite, serpentine, magnetite, spinel, cyanite, and diaspore.

Because of the remarkable hardness of sapphires—and of aluminum oxide in general—sapphires are used in many non-ornamental applications, including infrared optical components such as those in scientific instruments, high-durability windows, wristwatch crystals and movement bearings, and very thin electronic wafers which are used as the insulating substrates of very special-purpose, solid-state electronics, most of which are integrated circuits.

Sapphires exist in various mixtures of primary and secondary hues, tonal levels and saturation, and are evaluated based upon the purity of their primary hue. Trace amounts of elements such as iron, titanium, chromium or vanadium are what give the stones such a wide variety of colors, e.g., iron and titanium result in blue, chromium will produce pinks, iron will create yellow to green, vanadium gives you the rare violet stones and the combination of iron and vanadium will produce orange tones. Further, rutile needle inclusions will result in a silky shine to the stone. If these needles are aligned in the same direction it will cause the six-rayed star sapphire affect.

Composition, Chemical Formula, Colors, and Sources

Composition – Aluminum oxide

Chemical Formula – Al_2O_3

Colors – Blue is by far the most popular color for sapphires, but they can be almost any color, including yellow, green, white, colorless, pink, orange, brown, and purple. The most valuable blue sapphires can be described as vivid, medium-dark violet to purplish-blue where the primary hue is at least 85% blue and the secondary hue no more than 15% of the total. Importantly, any hint of black, gray, or green overtones in the secondary hue will reduce a stone's value. In general, a more pastel blue would be less preferred to a vivid blue, but it would be priced higher than an overly dark blackish-blue color. Padparadscha is the name for a rare orange-pink variety of sapphire which actually has a higher value than even the best blue sapphires. A second rare variety exhibits different colors in different light. A color-change sapphire is usually blue in natural light and violet in artificial light.

Sources – Sapphires were first discovered in Sri Lanka (known then as Ceylon) in the 7th century. As of 2007, Madagascar is the current world leader in fine sapphire production, however, most stones used in ordinary jewelry come from Australia or Thailand because they have the most productive mines and create the most affordable stones. The highly prized stones usually come from Kashmir. Other producers include Afghanistan, Brazil, Cambodia, China, India, Kenya, Myanmar, Nigeria, Pakistan, Tanzania, Vietnam, and the United States (specifically from deposits around Helena, Montana, with a few gem-grade sapphires also coming from Franklin, NC).

Note: It is common practice to heat natural sapphires to enhance color or reduce cloudiness that is caused by rutile inclusions so about 90 percent of all sapphires on the market have been heat-treated. Other methods, such as diffusion treatment, are used as well, but are somewhat more controversial because they add elements to the sapphire for the purpose of improving colors in an attempt to garner higher prices.

Identification

Streak – white

Hardness – 9

Crystal system – hexagonal

Transparency – transparent to translucent

Specific gravity – 3.9 – 4.1

Luster – vitreous, adamantine

Cleavage – none; often conspicuous parting in three directions

Fracture – conchoidal, uneven, brittle

Refractive index – 1.762 - 1.788 +0.08 -0.04

Pleochroism – strongly

Birefringence – 0.008

Folklore, Legend and Healing Properties

Sapphires have long been a favorite among priests and kings, who considered them symbolic of wisdom and purity. However, the stones were also thought to be protective against envy, and even against poisoning. A common belief was that a venomous snake placed in a sapphire vessel would rapidly die!

Ancient civilizations believed that the world was set upon an enormous sapphire which painted the sky blue with its reflection. This legend, as well as the belief that the Ten Commandments were inscribed upon tablets made of sapphire, gives September's birthstone a royal place among gemstones.

Ground to a powder, the blue stone was believed to cure colic, rheumatism and mental illness, and to strengthen eyesight. It opens and heals the thyroid and the throat chakra and has a calming and balancing effect on the nervous system.

Trivia

Sapphire is the gem designated for the 5th, 23rd and 45th wedding anniversary; a star sapphire is typically given on the 65th wedding anniversary.

At 733 carats, the priceless Black Star of Queensland is believed to be the largest star sapphire ever mined. Once thought to be worthless, it was used as a door stop for over a decade.

The Star of India (weighing 563.4 carats) is thought to be the second-largest star sapphire, and it is currently on display at the American Museum of Natural History in New York City, from where it was once stolen by the infamous burglar Jack Murphy, aka Murph the Surf.

The 423-carat Logan Sapphire, an egg-sized, cushion cut stone is displayed in the Smithsonian Museum of Natural History and is the largest faceted sapphire on public display; perhaps the largest blue sapphire known.

Other famous sapphires include the intensely blue 330-carat Star of Asia, the 182-carat Star of Bombay, the 116-carat Midnight Star, and two 104-carat stones—the St. Edward's and the Stuart—both listed among the English Crown Jewels.

Any freshly exposed surface of aluminum is quickly oxidized to corundum, so it can be said that your lawn chair or screen door—or any other aluminum object—is coated with sapphire.

Sources:

<http://www.bernardine.com/birthstone/sapphire.htm>

<http://www.about-birthstones.com/septemberbirthstone.html>

http://www.gemsbrokers.org/gemstone/gems_and_gemology/sapphire_myths.htm

<http://www.bernardine.com/gemstones/sapphire.htm>

<http://www.birthstoneofthemoonth.com/September-birthstone-Sapphire>

http://www.gemaffair.com/content/Sapphire_Jewelry.htm

<http://www.gemselect.com/gem-info/sapphire/sapphire-info.php>

http://nevada-outback-gems.com/mineral_information/Corrundum_sapphire_mineral_info.htm

<http://en.wikipedia.org/wiki/Sapphire>

<http://www.galleries.com/minerals/gemstone/sapphire/sapphire.htm>

<http://jewelry-blog.internetstones.com/famous-gemstones/the-black-star-of-queensland-famous-black-sapphire-gemstone>

Who What Where When Why How

Upcoming Shows

October 1 - 2	Rockhounds of Central Kentucky	Lexington, KY
October 7 - 9	Huntsville Gem & Mineral Society, Inc.	Huntsville, AL
October 7- 9	Gaston County Gem, Mineral & Faceters Club	Dallas, NC
October 14 - 16	The Gem & Mineral Society of Franklin, North Carolina, Inc.	Franklin, NC
October 14 - 16	Knoxville Gem & Mineral Society, Inc.	Knoxville, TN
October 29 - 30	Saint Lucie County Rock & Gem Club	Stuart, FL

Upcoming Field Trips

TBD – Hopefully, the hot weather will break soon.

Meeting Information

Time: 2:00 PM
Date: Fourth Sunday of each month (except June, July and August)
Place: Fellowship Hall – Tabernacle United Methodist Church
4329 S. Brannon Stand Road
(intersection of Brannon Stand Road and Hwy 52)
Dothan, AL

Officers

President – Jeff DeRoche
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Vice President – Chris Wisham
334-774-0964

Secretary/Webmaster – Pat LeDuc
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Membership Chair – JoAn Lambert
334-792-7116

Show Chair – Arnie Lambert
334-792-7116

Field Trips Chair – Ken Wilson
850-547-9577

Hospitality Chair – Meredith Capshaw
334-684-9448

Club Hostess – Laural Meints
334-723-2695

Website: www.wiregrassrockhounds.com

Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

Classified Ads

Looking for an item to round out your rock collection?

Got a specimen, tool or handicraft for sale or trade?

Submit the pertinent details to me by the 10th of each month and your inclinations will be made known to the membership in the next bulletin.

N. J. Blackwell
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Phone: 334-503-0308
Email: Tsavorite7@aol.com

Annual Dues

Single \$15
Family \$20

Refreshments

SEP – Pat LeDuc & Joan Blackwell

OCT – Laural & Gary Meints

NOV – JoAn & Arnie Lambert



Where you might hear...

Four basic physical properties used for identifying rocks include:

1. **Rock fabric** – the shapes, sizes, and distribution of mineral grains or crystals in a rock.
2. **Hardness** – whether the constituent minerals are generally higher or lower than 5 ½ on the Mohs scale. (Rocks below 5 ½ are softer and can be scratched with the blade of an ordinary pocket knife; the harder ones cannot.)
3. **Texture** – properties such as density, smoothness or roughness, color, and color index (e.g., the proportion of dark-colored minerals in the rock).
4. **Structure** – the large-scale features of the rock's environment, such as outcroppings and other formations.

Source: National Audubon Society Field Guide to North American Rocks and Minerals, Alfred A. Knopf, New York, 1994

Member of
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American Federation of Mineralogical Societies

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