



# Snoopy Gems

Volume 41 Number 7 July 2015

Mississippi Gulf Coast Gem & Mineral Society Inc.



MGGCMS Established in 1974

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## *Presidents Message*

Well summer is here for sure and it has been really hot for the past week. Fortunately we had some rain which helped make it a little more livable. I had plans for a couple of rock hunting trips but decided to wait until later. In the mean time I'm working in my air conditioned lapidary and clock room or in the study.

We have the faceting classes meeting in Gautier every Wednesday evening from 6:00 p.m. until 10:00 p.m. This is a new weekly program and Buddy Shotts assisted by his wife Reba is the instructor. At present we have seven members taking part in the classes. If you are interested contact Buddy as we hope this will be a continuing program.

The plans for our picnic are coming along just fine. We have invited members of the Harrison County and Mobile Societies to be our guest. I don't have room in this column for more details, but you will get all the important information at the meeting this Saturday. I hope we have a good turnout and enjoy a really great time of rockhound fellowship.

John M. Wright, President

<http://www.mggcms.org>

## **Workshop Project for July**

Project taught by Dave Cook:

July wire project --- FORWARD OR SPECIAL BAIL FOR PENDANTS

Materials needed: medium or large cabochon.

48 in 21 or 22 ga Square Dead Soft wire

24 in 21 ga Half Round Half Hard wire

Wire wrapping tools

(Copper practice will be available for \$1.00)

Hand knotted pearls taught by Barbi Beatty  
(Passing on a skill I learned from Aurora King)

Materials needed:

100 6 to 7mm drilled (standard size hole) pearls or smooth round beads #4 Silk bead cord with needle attached. beading mat and scissors. (Silk cord Available for \$2 Kits \$6)

**Sunshine report:** Louisiana Opal exhibitor Ben Stevens has passed away.

Regrets and funeral arrangements were conducted by Lakelawn Funeral Home LA.

Ben is survived by his wife Lynn Stevens. He will be missed.

Lois Meador broke her wrist. We hope she mends quickly.

## June Meeting Minutes 2015

Meeting was held at Ocean Springs Library John Wright presiding.

Patsy Primalue a founding member has sold her home in Biloxi. Liz Platt and John Guglik went to her home to get some of her rock collection. Some of her collection will be given away as door prizes, silent auction, or donations to schools.

The minutes of the April meeting as printed in the Snoopy Gems was accepted as stated.

The Treasurer's report was given by Barbi Beatty. It was accepted as read.

Bill LaRue gave the show report. He stated all was going as planned. Bill said there was club signs stored at the civic center and it will be used for the next show. We will need 210 tables at this year's show for our dealers, displays, and club use.

A Board Meeting was held prior to the general meeting. Members in attendance were David Cook, Barbi Beatty, Lisa Fitch, John Guglik, Bill Smith, Bill White and John Wright. John Wright proposed a picnic should be held. The proposal was to be presented to the general membership. The Picnic will be held July 25th from 11AM to 4 PM at the Seashore Methodist Pavilion. Neighboring clubs will be invited to attend the picnic. Our club will provide hamburgers, hot dogs, brats, charcoal, condiments, potato salad & baked beans. Members will be asked to bring a side dish or desert. The facility will have 2 grills and an ice machine. The facility does not allow tobacco or alcohol.

There was no official meeting in May due to a lack of a quorum.

The question was posed to those in attendance what constitutes a quorum?

The next question posed was by Buddy Shotts; what is an active member?

Liz Platt made a motion to define an active member as one who has paid his dues for the current year and has attended one or more club related function each quarter or have a valid excuse for not participating such as a medical problem that quarter or a family problem that prevents them from participating. The motion was put to a vote and the motion carried. The current membership was then counted using our meeting roles and dues records. It was a determined we had 22 active members; the member at hand numbered 15 validating a legal quorum.

Bill LaRue proposed an amendment to the passed motion that in order to maintain an active status a member must work at the yearly show. The amendment failed to pass.

Buddy Shotts proposed a faceting class be given. The following members signed on: Barbi Beatty, Liz Platt, Jim Kischner, Lisa Fitch, Reba Shotts and John Wright. Classes have been held using the Sports Pavillion Gautier provided by member Angie Troutman. It was agreed that the club would provide a fee to cover electricity used and that the property would be secured after usage. At this time two classes have been conducted and a third class on Wednesday 7/1/15 will be conducted from 6PM till 10.

Door prizes were given out and a 50-50 was held. The meeting ended at 1:49 PM. Those in attendance were: David and Jane Cook, Liz Platt, John Guglik, Barbara Savaadra, Lisa Fitch, Ileana and Jim Kirchner, Barbi Beatty, Bill LaRue, John Wright, Buddy and Reba Shotts, Bill Smith, and Bill White.

Minutes presented by Secretary John Guglik



## July 2015 Birthdays

Edward King  
Lois Meador  
Nora Meador  
Kathy Riddle



July



### History of Ruby

The ruby is one of the most highly valued of all gems. Ancient Hindus referred to it as "the king of gems," and royalty used ruby to ward off evil because it was believed to have magical powers. One such magical power was that the ruby would get darker in the presence of evil and lighter when the evil was gone—but only if possessed by its rightful owner.

### Science of Ruby

Ruby originates from metamorphic rock, and is a variety of the mineral corundum, second only to the diamond in hardness. Rubies exist in a wide variety of colors, including blue, which is more commonly known as sapphire. Chromium is what causes the red color of rubies, however. Rubies can range in color from pale pinks to the deepest possible red, known as "pigeon blood." When rutile crystal inclusions are oriented in a specific pattern, a six-pointed star (called an asterism) becomes visible—these prized gems are called "Star Ruby."

RUBY

July's Birthstone

By

John M. Wright, RPG



### Physical Properties

**Family:** Corundum

**Chemical Comp.:** Aluminum Oxide  $Al_2O_3$

**Crystal system:** Trigonal (bar  $3\ 2/m$ )

**Crystal Habit:** Typically a six-sided elongated tapered crystal with close transverse striations that resemble a bipyramid (barrel shape that's been stretched a little); sometimes hexagonal prisms; can also be tabular.

**Birefringence:** (0.4)

**Reflective Indices:** *ne* 1.760, *nw* 1.769  
(+0.009, -0.005)

**Density:** 4.00 (+/- 0.05)  $g/cm^3$

**Hardness:** 9

**Cleavage:** Absent, sometimes there is parting which occurs in three directions.

**Fracture:** Conchoidal

**Pleochroic:** Variable from different viewing directions. Red color intensifies in strong artificial light, ultraviolet  
Light or direct sunlight.

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Rubies are now and have throughout history been one of the most popular, highly prized, and valued gemstones. The name comes from the Latin word “rubrum” for red. It is considered an emblem of authority by some and because it is the red color of blood deemed a symbol of passion by many. Ruby was said to be the most precious of the twelve stones God created and one was placed on a chain around Aaron’s neck by God’s command. Rubies are extremely hard and durable (exceeded only by diamond) making them well suited for jewelry and many other applications that benefit or enhance our lives.

The colors of rubies can range from fiery vermilion to a deep ox-blood red. They often have other colors that are subservient to the red which can add to an overall tonal quality that may significantly enhance or detract from the stone’s appeal. Violet is the most common subservient color and if prevalent enough becomes an undertone that will darken the stone. If the violet or another color is predominant and red is subservient, then the stone is not ruby, but a sapphire. In a faceted ruby, these colors can be seen as “flashes” when the ruby is rotated or moved around in the light source.

If you were to say that a ruby is just a red sapphire you would probably be more correct than not, but for the sake of this article we are going to treat rubies as much as possible in the time honored fashion as an independent gemstone in its own right. Actually, it like the other sapphires is a variety of the mineral Corundum, so there will be distinct similarities. Even the lighter shades of red are not considered to really be rubies and are usually classified as pink sapphires. If it’s opaque (cloudy), it is also a sapphire no matter how red it is.

How do you determine where the change in color zone and/or clarity versus opaqueness is? (Note: The clarity I am referring to here is the crystalline properties and is not to be confused with the content of inclusions or specks of contaminants which most rubies have.) In most cases, the color or clarity is pretty obvious, but for those stones bordering on the “zones of transition” it’s really a judgment call which often results in disagreement even among certified professionals. Rule of thumb: If questionable and you are the buyer, it’s a ruby of course, but if you are selling, it’s unquestionably an el-cheap-o pink sapphire.

Okay, so now we have some general idea of how to determine a ruby from a sapphire. Basically it is red and crystalline, but there are a lot of other stones that fall into this category, so how do we know which ones are rubies?

Probably the safest way is to have it checked by an expert gemologist, but this could be expensive. If you wish to gamble and make your own decision, I recommend that you start by using corundum as your basic reference in determining the distinct physical properties that will be necessary to

differentiate the ruby and/or sapphires from other similar materials.

Corundum crystals in most cases are normally pretty easy to spot because of their unique shape (looks like a barrel that has been stretched a little bit) and that would be the key factor” that I would use in the field for initial identification. If the crystal doesn’t have a shape that is easily recognizable, pick it up anyway (as if I had to tell you), as there are other ways to check it out.

Corundum is second only to diamond in hardness, so a scratch test would be another good field check. I definitely don’t recommend the scratch test method if you are shopping or checking out a red gemstone that was inherited from someone’s grandmother.

You can also do a streak test. It should be “white” for corundum. I usually carry a small piece of tile with me on field trips for streak test and the one I now have is beginning to look like it’s been used for playing tic-tac-tow.

Specific gravity would be another test that could be used under proper circumstances if the stone in question is not mounted as part of an item of jewelry. I would recommend using a gemstone heavy liquid test kit if one is available or if you know how to prepare our own. Many of your better gemological books cover in detail the chemicals you need and the directions for properly preparing your own heavy liquid kits and their use. Using scales and a container of water will get you in the ballpark, but unless done under strict laboratory conditions, the results will not be accurate enough to be of real value.

If you are fortunate enough to own a gemological refractometer, binocular microscope, optical spectroscope, or other specialized instruments, you will be able to do additional very in depth testing. The rest of us will have to depend on some of the other well known visual characteristics that will assist the careful observer in making a reasonable distinction as to whether or not the stone in question is indeed a rub, or to put it another way, we can learn to make a somewhat enlightened guess.

Continued on page 5

Because of their hardness, rubies take a really fine surface polish which gives it a **very high luster**. The luster may be further enhanced by color flashes, sheen, and a few other physical factors.

**Rubies are pleochroic** (display more than one color due to the different absorption of light in different directions), so as you view the stone in one direction it may be a bright red, but in another direction appear dull and you may also see a hint of color changes (in this case more like a spark or flash of color over a large area). The appearance of changes in color tones may also occur (i.e., ox-blood to burgundy or vermilion to carmine, etc).

Rubies are fluorescence and turn a **brighter red under strong light** and particularly when exposed to the ultraviolet rays of direct sunlight. Even the purplish ones (strong violet undertones) are “redder” under bright light.

**Some rubies have a very distinctive silky sheen** caused by the interference with light in areas containing minute rutile needles (sort of lie fiber optics).

Using the visual characteristics that I have in **bold**, let’s compare rubies to a few other red crystalline gemstones:

Spinel can be similar in color and luster, but it is not pleochroic and never has a silky sheen.

Red garnets can also be similar in color and luster, but are not pleochroic.

Red tourmaline is usually a completely different shade of red from rubies, but has pleochroism and luster similar to ruby; however, tourmalines do not brighten in strong light and the physical properties are very different.

You should now have a very general but reasonable idea of how to proceed in using the visual characteristics and physical properties of a ruby to separate them from sapphires and the many other red crystalline gemstones. In the year 1837 rubies became the first synthetic gemstones to be man made. You may be surprised to learn that they were not intended for jewelry, but to be used in clocks and watches. These earl stones contained a lot of impurities, but around 1900 a Frenchman named Verneuil perfected the “drip” or flame fusion method and produced beautiful transparent ruby boules suitable for use as gemstone material. This method is still in use today and although much improved, these rubies can usually be identified with an eye loop by their internal growth rings or platelets, which resemble saucers or shallow bowls that have been stacked up-side-down.

A modern day laser’s performance ability is in a very important way directly linked to the purity of its ruby rod (sometimes referred to as a lens or cylinder). Intensive research for methods to meet the requirements for purity has in recent years led to some new and very guarded or secret manufacturing process that produce “almost perfect” distortion free, optically correct, rubies without inclusions or any undesirable contaminant. This material is available in the market place and you stand a really good chance of finding some of the boules (synthetic rough) at one of the local gem and mineral shows. Very little if any synthetic ruby is produced for the gemstone market. The synthetic material that is available has more than likely been rejected for technical or industrial use. So if the ruby is “near perfect” and especially if more than a couple of carats, it’s probably synthetic, unless of course it’s one you found on a field trip and in that care, I get a percentage for the technical assistance. Happy Hunting!!!.

(This article is a reprint of the July 2005 Snoopy Gems. Sources of information contained in this article are: The Audubon Society Field Guide to North American Rocks and Minerals by Charles W. Chesterman, a Borzoi Book, published by Alfred A. Knopf, Inc, 1978 and Simon & Schuster’s Guide to Gems and Precious Stones, by Curzio Cipriani and Alessandro Borelli; Kennie Lyman, U.S. Editor, 1986. Also Simon and Schuster’s Guide to Rocks and Minerals, 1977, 1978.)



## Snoopy Gems

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S.C.R.I.B.E. (Special Congress Representing Involved Bulletin Editors)

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**Annual dues are:**

**\$16 Individual**

**\$20 (2) Members in same house hold**

**\$6 Junior**

## 2015 Workshop/Meeting Dates

February 14, 2015 St Paul's Church 9:00-4:00

\*March 14, 2015 OS Library 1:30-4:30 (1/2 Day)\*

April 11, 2015 OS Library 9:30-4:30

May 9, 2015 OS Library 9:30-4:30

June 6, 2015 OS Library 9:30-4:30

**July 18, 2015 OS Library 9:30-4:30**

August 8, 2015 OS Library 9:30-4:30

September 12, 2015 OS Library 9:30-4:30

October 10, 2015 OS Library 9:30-4:30

November At Show

December TBA

\*Be sure to check Dates each month! \*

\*\*The November meeting is the Thursday evening of the gem show after the dinner for the dealers at the Jackson County Fairgrounds Civic Center Building. December will be our Christmas Party and Installation of Officers \*\*



## July 2015

Su M Tu W Th Fri Sa

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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

# We always welcome new members! Tell a friend!

Date: **Mississippi Gulf Coast Gem and Mineral Society**

<a href="http://www.mgcgms.org">http://www.mgcgms.org</a>		Application for Membership	
Individual: \$16.00		Individual +1 relative Same Address: \$20.00	
		Junior Under 18: \$6.00	
Name: _____		Home Phone: _____	
Address: _____		Cell 1. _____	
City: _____		Cell 2. _____	
State: _____		Email 1: _____	
Zip: _____		Email 2: _____	
<b>Members in the Same Household</b>			
Adult: _____		Birthday M/D: _____	
Adult: _____		Birthday M/D: _____	
Junior: _____		Birthday M/D/Y: _____	
Junior: _____		Birthday M/D/Y: _____	
Junior: _____		Birthday M/D/Y: _____	
<b>Please Check All Applicable Interests</b>			
<input type="checkbox"/>	Beading	<input type="checkbox"/>	Cabbing
<input type="checkbox"/>	Chain Mail	<input type="checkbox"/>	PMC
<input type="checkbox"/>	Field Trips	<input type="checkbox"/>	Faceting
<input type="checkbox"/>	Fossils	<input type="checkbox"/>	Wire Wrapping
<input type="checkbox"/>	Others: _____		<input type="checkbox"/>
			<input type="checkbox"/> Jewelry Making
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The Mississippi Gulf Coast Gem & Mineral Society is a Non-profit Organization Dedicated to Education, Science, and the Lapidary Arts and Crafts