



# Snoopy Gems

Volume 41 Number 6 June 2015

Mississippi Gulf Coast Gem & Mineral Society Inc.



MGGCMS Established in 1974

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## *Presidents Message*

This has been a hectic month for me. My family and I have suffered with a flu like illness. Not sure that I'm completely over it yet. I feel like my head is inside a drum and the medicine to clear my head makes me sleepy. I was not in real good shape for the Harrison County Gem Show, but made it through without losing to many friends; I think!

In past years having an annual club picnic was a very enjoyable event and some of our members wanted to start having the picnic again. We have a committee working on this and at present tentative plans are to have the picnic at the Methodist Seashore Assembly Pavilion, July 25, 2015. I don't think the time or exact menu has been determined yet as the plans are still in the works but we will keep you informed, so plan on being with us for food and fun.

I know that the summer months are a difficult time for many of you to make our workshops and meetings, but we sure do need for you to attend. Business could not be conducted during the May meeting as we did not have a quorum present. It would certainly help if you would call and encourage other members and former members to attend.

John Wright, President

## **Workshop**

### **Project for June**

A beading project taught by  
Barbara Saavedra.

Beaded Bracelet:

Supplies needed for a 7" bracelet are:  
(length does not include clasp)

# 6 or #8 fireline - 2 yards  
150 size 11 seed beads  
32 size 4mm fire-polish beads  
36 size 4mm bicone crystals  
clasp  
wax to condition thread (optional)

Tools needed:  
Scissors

Cabbing, Faceting, Gem cutting, and  
Testing will be available as always.



## June 2015 Birthdays

John Guglik

Don Riddle

Harrel Paul



## June Birthstone's



**Alexandrite** is a fascinating gemstone that changes color depending on the nature of the ambient lighting. For example, some alexandrite gemstones are green in daylight but turn red when indoors under incandescent lights. Other alexandrite stones change from a beautiful teal to an alluring magenta.

Abundant alexandrite deposits were first discovered in 1830 in Russia's Ural Mountains. Those first alexandrites were of very fine quality and displayed vivid hues and dramatic color change. The gem was named after the young Alexander II, heir apparent to the throne. It caught the country's attention because its red and green colors mirrored the Imperial Russian flag.

The spectacular Ural Mountain deposits didn't last forever, and now most alexandrite comes from Sri Lanka, East Africa, and Brazil. The newer deposits contain some fine-quality stones, but many display less-precise color change and muddier hues than the nineteenth-century Russian alexandrites. You'll still find estate jewelry set with some of the famed Ural Mountain alexandrites. They remain the quality standard for this phenomenal gemstone.

## June



### History of Pearls

Pearls are considered Symbols of wealth and power. Before the creation of cultured pearls in the early 1900s, natural pearls were so rare and expensive that they were reserved almost exclusively for the noble and very rich. A jewelry item that today's working women might take for granted, a 16-inch strand of perhaps 50 pearls, often costs between \$500 and \$5,000. At the height of the Roman Empire, when pearl fever reached its peak, the historian Suetonius wrote that the Roman general Vitellius financed an entire military campaign by selling just one of his mother's pearl earrings.

### Science of Pearls

A pearl is a hard object produced within the soft tissue (specifically the mantle) of a living shelled mollusk. Just like the shell of a clam, a pearl is composed of calcium carbonate in minute crystalline form, which has been deposited in concentric layers. The ideal pearl is perfectly round and smooth, but many other shapes (baroque pearls) occur. The finest quality natural pearls have been highly valued as gemstones and objects of beauty for many centuries. Because of this, pearl has become a metaphor for something rare, fine, admirable and valuable.

## PEARLS

June's Birthstone

By: John Wright, RPG

Four strand natural Pearl necklace from the Persian Gulf



Unlike gemstones produced by geologic circumstances that occurred deep within the bowels of the earth, this month's birthstone is created by living creatures commonly known as oysters or more technically as mollusks. Pearls are symbolic of purity, perfection, elegance, and affluence. The majority of pearls are white, but they do occur in a variety of color shades such as gray, tan, ivory, pink, gold, purple, and the very precious ones that are black.

Pearls are globular, usually almost spherical cysts, which form inside the tissues of living mollusks. While all mollusks that have a shell, in principle, are capable of producing pearls, the natural occurrence is extremely rare (about one in ten thousand), and contrary to popular belief pearls do not form from the accidental intrusion of a grain of sand, which they regularly expel or spit out. Instead, the pearl is formed when an irritant such as a wayward food particle becomes trapped in the animal's flesh. The mollusk senses the undesirable object that it cannot expel and coats it with layers of aragonite and conchiolin (the same materials used to produce its shell) in order to reduce the irritation.

Physical properties

Family: Aragonite (Organic)

Chemical Composition:  $\text{CaCO}_3$   
(Note: Pearls consist of about 92% calcium carbonate in the form of aragonite crystals held together by conchiolin, about 6%, which is identical to the horny outer layer of oyster shells, plus a small quantity of water, about 2%.)

Crystal System: Aragonite crystallizes in the orthorhombic system

Birefringence: Seldom used for pearls  
Determined only by use of very complex procedures.

Reflective Indices:  $n_e$  1.53,  $n_w$  1.69  
Seldom used, based on aragonite, the principal mineralogical component.

Density: Natural: 2.68 – 2.74 g/cm<sup>3</sup>  
Cultured: 2.73 – 2.78 g/cm<sup>3</sup>

Hardness: Variable, 2.5 – 4.5, but they are fairly resilient due to compact concentric layering and special organic content.

Cleavage: Concentric, because of layering pearls normally peel, but a sharp blow or pressure can cause pearls to fracture conchoidally.

Pleochroic: Intensity varies according to body color, nacreous or "pearly" luster and may also be iridescent.

Continued on page 4:

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One of the most distinctive features of a “nacreous” pearl is the way it seems to glow from within. This property, known as “luster”, gives pearls their unusual beauty. Luster results from the reflection of light waves not only off the surface of the pearl, but also off the concentric inner layers of nacre. Because a pearl’s surface is rounded, it acts as a convex mirror, reflecting light so that it appears to emanate from within the pearl. The multiple layers of nacre also give rise to the “iridescence” or “orient” of pearls, a characteristic that resembles the shimmer seen on a soap bubble. The layers of nacre act like tiny prisms, refracting light so that it appears as all the colors of the rainbow.

In most pearls, the mineral aragonite is arranged in sheets of flat, six-sided crystals. Between each sheet, the mollusk secretes a very thin layer of the membrane-forming protein conchiolin. This composite material is called “nacre” or mother-of-pearl. The crystalline structure of nacre reflects light in a unique way, giving so-called nacreous pearls their high luster. In contrast, some pearls are not nacreous and instead have a low-luster, porcelain like surface. The needle like crystals of aragonite in these pearls are arranged perpendicularly or at an angle to the surface of the pearl. As a very general rule-of-thumb, edible oysters have the low luster pearls; unfortunately that’s the ones we find here on the Gulf Coast.

Because a pearl is the product of a biological process, its surface often shows minor imperfections. Furthermore, when a mollusk secretes the microscopic layers that make up a pearl, each layer does not always encircle the entire pearl. These uneven layers create additional irregularities on the surface. As a result, it is easy to distinguish a real or cultured pearl from an artificial one by rubbing it gently across your teeth: a real or cultured pearl will feel gritty like sand and an artificial pearl will feel smooth and slippery.

Prehistoric humans gathered mollusks for food and it’s assumed that they were impressed with the beauty of the mother-of-pearl shells and started to use these shells for decorative purposes. Wooden tools with mother-of-pearl inlays have been found that according to scientist are more than six thousands years old. Drilled pearls strung on hairs from horses’ tails in the form of necklaces and bracelets were popular with the ancient Egyptians, Chinese, and people living in areas bordering on the Indian Ocean.

The popularity of pearls has not diminished and with the expanding growth in world population, the demand for pearls far exceeds natural production. Man-made pearls have never been able to match the natural pearl’s nacreous luster. The Japanese began to cultivate or “farm” pearl mollusks in the early 20th century and in a few short years they learned to successfully implant nuclei in mollusks

that would cause the animal to respond the same way it would to a natural irritant. These artificially induced or “cultured pearls” match natural ones in nacreous luster and beauty. Although cultured pearls first became available in the 1930s, they did not become popular until after World War II. Near rounded or spherical shaped pearls are preferred for most jewelry. Large tear drop shaped pearls are also highly prized. Unfortunately, irregularly shaped pearls are the most common in nature and the preferred shapes are extremely rare. Pearl farmers learned to increase their chances of obtaining large well rounded pearls by using large perfectly spherical nuclei. Other shapes could also be obtained by preformed nuclei, but in most cases are considered a novelty and have not gained wide acceptance in the jewelry trade.

The material used for the nuclei is extremely important in producing high quality cultured pearls. A North American mollusk that inhabits a particular area of the Mississippi river and its tributaries was found to have the best results. These mollusks have produced beautiful fresh water pearls and in the past their mother-of-pearl shells were extensively used for buttons. Today, these particular mollusk shells provide the material for bead nuclei used around the world by pearl farmers as implants to create cultured pearls. Just think, most of those beautiful pearls we see advertised, or on display in jewelry stores, probably started out in north Mississippi or Tennessee. Contrary to popular opinion, fresh water pearls can rival their marine counterparts in luster and diverse color. Most fresh water pearls available in today’s markets are cultured pearls. Japan, China, India, and Australia are the major producers. The majority of fresh water pearls produced in the United States come from Tennessee.

#### References:

American Museum of Natural History, website:  
[www.amnh.org/exhibitions/pearls/](http://www.amnh.org/exhibitions/pearls/)

The picture of the 4 strand pearl necklace is from  
Website: [www.amnh.org/exhibitions/pearls/](http://www.amnh.org/exhibitions/pearls/)

Simon and Schuster’s Guide to Gems and Precious  
Stones ISBN 0-671-60116-4

0-671-60430-9 Pbk



# SFMS Workshops for 2015

## Session 1, William Holland, 6/7-13/15

Cabochons	Pat Davis	*Channel Inlay (Adv)	Dave Wayment
Casting	Bill Harr	Tool Making	Tom & Kay Benham
Chain-Maille-Beg & Int.	Kathy Morris	Jr. Rockhounds	Scott Forward
Faceting—Beg. & Int.	Bill Roberts	Jr. Wire & Chain (12-18 Year Olds only)	Sandra Bergquist
Glass Fusing	Rich & Linda Dillon	Opals	Sarah Lee Boyce
Silver I	Nancy English	Wire for Beaders	Leslie Wayment
Seed Beads	Barbara Green	Wire—Beg & int.	Rowan Rose-Morgan

## Session 2, Wild Acres, 8/17-23/15

Chain-Maille	Roy Deere
Beg. Flint Knapping	Michael Miller
Gem ID	Teresa Polly
*Metalwork Special Proj.	Jeff Sheer
Meteorite—Symposium	Various Speakers
*Silver Filligree	Shannon Stafford
Wire Wrap—Beginners	Rowan Rose-Morgan
Stakes & Hammers	Annette Gibney
Stone Carving	Tom & Kay Benham

## Session 3, Wild Acres, 9/21-27/15

*Advanced Beading	Self Study
*Adv. Flint Knapping	Michael Miller
Cold Connec. & Enamel	Debora Mauser
Jewelry Bench Building	Danny Griffin
Meteorite—Symposium	Various Speakers
*Soldered Chain-Maille	Roy Deere
Opal Crafting	Don McLamb
*Intarsia	Dave Wayment
Wire 4 Beaders	Leslie Wayment
Silver Beginners	Pattie Appleby

### \* Advanced Class

(Non SFMS/AFMS Members Add \$50 to all Tuition Fees) Please mail application and fees (or \$50 Nonrefundable deposit\*) to:

SFMS William Holland Workshop

Rosemary van Wandelen

William Holland Registrar

3051 Keyport St

Deltona, FL 32738-5356

386-860-5586 Home

386-479-1509 Cell

alternate Email: sfms.wh@gmail.com (call for details)

(\* At Education Committee's Discretion)

Tuition Cost per Person

Double Occupancy \$370

Single Occupancy \$530

Day Student \$200

Campground \$320

SFMS Wildacres Workshop

Paula Griffin

Wildacres Registrar

PO Box 430 Double

Kingston, TN 37763

865- 248-8393

865- 406-8801

Email: waregistrar2015@gmail.com

Tuition Cost per Person

Occupancy \$370

Single Occupancy \$530

Day Student \$200

This year we can accept credit card payments online. Ask your Registrar for more information.

**This is a wonderful perk of belonging to the SFMS. Join in and support your Federation.**

## Snoopy Gems

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<b>SFMS</b> John Wright	Past President (228) 875-9192
<b>SFMS</b> Buddy Shotts	Long-range Planning & Past President (601) 947-7245

**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 \*\*

# June 2015

**Su M Tu W Th Fri Sa**

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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



# Snoopy Gems

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<http://www.mgcgms.org>



**Snoopy Gems MGCGMS**

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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