



**SLABS & CABS**  
**OFFICIAL BULLETIN OF THE**  
**GULF COAST GEM & MINERAL SOCIETY**

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**Volume 49**

**Number 8**

**August 2010**

**Next Meetings**

Board Meeting  
7 September 2010  
Downtown Library  
6:00 PM– 9:00 PM

General meeting  
17 August 2010

**Informal Meeting**  
**Lapidary Shop**  
**3933 Timon Blvd.,**  
**Corpus Christi TX**  
6:30 PM

**Membership Fees for 2010**

Membership dues for 2010 are due in January 2010  
We have 4 types of memberships and they are as follows:  
Single \$ 15.00  
Spousal \$ 20.00  
Junior \$ 5.00  
This is for any member from the age of 6-17 years Of age  
Honorary  
Sandra Hinkle , Membership Chairlady

**INSIDE**

Notices ..... Pg 1  
Board Minutes..... Pg 2  
Shop Keys & Rules ..... Pg 3  
August Birthstone ..... Pg 4-5  
Brachiopods ..... Pg 6  
Coming Events..... Pg 7  
Info Page .....Pg 8



**Chisos Mountains**

**From Terlingua Ranch**

**Taken from my front Yard When I Lived On the Ranch**  
**The Park Boundary Is about 4 Miles Away**  
**The Mountains are about 40 Miles Away**

**We are on-line**

[www.gcgms.org](http://www.gcgms.org)

**Thanks to Chris Davis of Spurfire and Owen Hopkins**  
**For getting us back up and running! Take a look.**

### 3 August 2010 Board Meeting of the Gulf Coast Gem & Mineral Society

The meeting was called to order by president Kevin Schleicher at 6:48 pm. Present were board members Kevin Schleicher, Art Worley, Kyle Hinkle, Gene Schade, Jerrold Simpson, Mark Wolbrink and Suzy Nick.

The Membership Report was given by Kyle Hinkle and we have 78 Regular Members, 10 Junior Members and 8 Honoree Members.

The Treasure's Report was given by Gene Schade. Kyle Hinkle made a motion to accept the report as given and Art Worley seconded it. The motion was approved.

The Shop Report was given by Mark Wolbrink. He got the new wheels installed for the Genies and they have made a big difference. The big lap wheels were not the correct wheels. They have been returned and the company is now sending the correct ones. Last night there were quite a few members that came to the shop. There is not a steady number of members coming to the shop but it does seem to be increasing.

We need to fill the Field Trip Coordinator and if you know anyone that would like to fill this position please contact any of the board members.

The Show Report was given by Jerrold Simpson. We discussed the changes to the contracts that will be sent out to the dealers. We have a contract with the Fairgrounds until 2013. If we would like to change from the Fairground we need to start discussing other places that can accommodate our show. We discussed the American Bank Center and they are more expensive than the Fairgrounds, they want a dollar for each ticket sold and they charge for parking. The Ortiz Center was discussed and again they are more expensive but they do have free parking but they are closed on Sunday. If we continue with the Fairgrounds we will provide consistency with having it at the same place each year.

The Education Report was given by Kyle Hinkle. Kyle researched the South Federation Website to find videos to show at the meetings and would like to do one speaker meeting followed by a video meeting.

The minutes were published in the Cabs and Slabs for the July Board Meeting. Jerrold Simpson made a motion to accept them as published and Kyle Hinkle seconded the motion. The motion was approved.

The Federation Report was given by Jerrold Simpson. The meeting will be held on 12/11/10 at Deridder Gem and Mineral Show in Deridder Louisiana. We are now Patron Club 54.

There was no new business.

Old business was the scholarships. Gene Schade contacted Del Mar College and CC A&M with the information. He has not contacted Kingsville A&M yet. He sent Art Worley the files to be put on our website and Art will be adding it soon.

We talked about compiling a master file of all of the clubs procedures. Linda Simpson is in the process of working on it and then they will be sent to Shonda Hinkle to be completed.

Jerrold Simpson made a motion to adjourn the meeting and it was seconded by Art Worley. The meeting was adjourned at 7:52pm.

Respectively Submitted by



**Dinosaur Toe Nail  
Source Unknown**

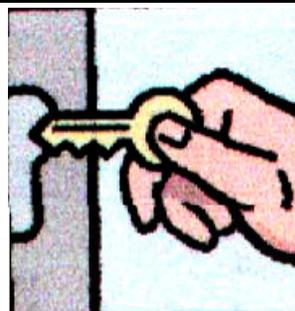


**Aragonite Pseudomorph  
Sierra Aguja  
South Brewster County Texas**

**GCGMS Lapidary Shop Rules**

1. The lapidary shop equipment may not be used by anyone who has not signed a liability waiver.
2. Shop equipment use flat fee is \$2.00 per hour. Sign in on arrival.  
Pay Supervisor and sign out before leaving the shop.
3. "Open shop" hours are to be used only by those who have taken the cabochon class or have shown proficiency on the equipment.
4. All children under the age of 17 must be accompanied by an adult trained on the use of the equipment.
5. Supervisor must inspect rock "set-up" prior to anyone starting slab saw.
6. Long hair should be tied back, loose sleeve should be secured, and safety procedures followed.
7. Safety glasses are recommended and are the responsibility of the individual. Some are furnished by the GCGMS, or you may bring your own.
8. The last person to use a piece of equipment before the shop closes is responsible for cleaning that piece of equipment and the work area. This may include tabletop, sponges, aprons, catch trays, etc.
9. Shop Supervisor is the final authority on shop rules and usage.

Revised May 2009



Those with keys to the Lapidary Shop are

Mark Walbrink 361-991-2495 Shop Supervisor  
 Jerrold Simpson—361-851-8788  
 Cell - 361-877-3073  
 Hank Swan—361-993-9861/361-857-2405

Please call one of these when you would like to use the shop. They will not all be available at the same time, and once in a while none of them will be available. Most of the time at least one of them should be able to work out a time and date the shop could be open for you. Remember the club has a lot of good equipment to use. Several different classes are being conducted on Monday evening from 6:00 PM to 9:00 PM. The shop is open during these times for use of the equipment even if you are not involved in a class. Shop is also open Saturday 9:00 Until Noon.

**Any Articles, Minutes are other items not received by Thursday Morning 9:00 am After the Board Meeting. Will Not Be Published in That Months Newsletter The Editor**



**Gold Plume—Flower Garden  
 Agate Hill  
 Brewster County Texas**



**Baby Rocky Flowstone  
 South Brewster County Texas**

## July Birthstone, Peridot

Compiled by Roger K. Pabian, Research Geologist, Emeritus  
School of Natural Resources

If you were born in the Month of August, your birthstone is peridot (pronounced: pair-uh-dough), a transparent yellowish-green, Magnesium/Iron Silicate. Peridot is actually a gem variety of the mineral Chrysolite or Olivene and its chemical formula is given by:  $(\text{Mg,Fe})_2\text{SiO}_4$ .

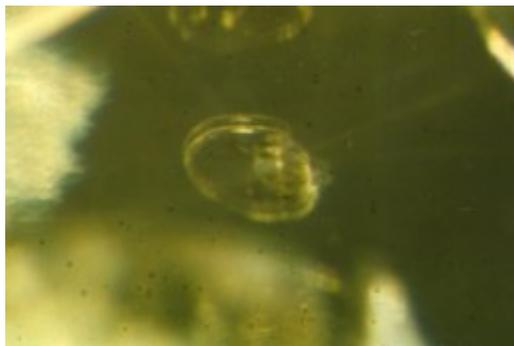
The ratio of Magnesium and Iron in the crystal is highly variable and the name Forsterite (Fo) is applied to Magnesium-rich/Iron-poor crystals whereas the name Fayalite (Fa) is applied to Magnesium-poor/Iron-rich crystals. Sometimes the formula may be expressed as some ratio such as  $\text{Fo}^{44}/\text{Fa}^{56}$  for an example that is 44% Magnesium Silicate and 56% Iron Silicate. For gemologic purposes, the  $(\text{Mg,Fe})_2\text{SiO}_4$  formula is entirely useable. Crystals are often flattened and much peridot is found in granular masses or embedded grains in a finer grained basic igneous rock such as basalt or gabbro. Peridot has a distinct cleavage (breakage along preferred planes) and a conchoidal (shell-like) fracture. It ranges from about 6.5 to 7 on Mohs hardness scale. Peridot is fairly dense with a specific gravity (weight of the crystal compared to the weight of an equal volume of water) ranging from about 3.27 to 3.37.

Peridot crystallizes in the orthorhombic system---there three crystallographic axes that are perpendicular to one another but all are of different lengths. Orthorhombic crystals have two non-crystallographic axes along which light travels at fixed velocities. These are called optic axes and since there are two, orthorhombic crystals are said to be biaxial. The refractive indexes (the numerical measures of how much a light beam is bent and slowed down when it enters a substance) of peridot range from about 1.654 to 1.690. Peridot has three refractive indexes, two of which remain fixed and one that is variable and numerically between the upper and lower index.

The birefringence (numerical difference between the highest and lowest refractive indexes) of peridot is fairly high:  $1.690 - 1.654 = 0.036$ . What this tells us is that when a beam of light enters the crystal, it is refracted (bent and slowed down) such that whatever is viewed through the crystal is seen as a split image. This fact is very valuable to the jeweler or gemologist for when one views a faceted peridot through the table of the stone, the junctions of adjacent facets are strongly doubled. Inclusions in peridot are also strongly doubled. Peridot may have small inclusions of biotite (brown), chromite (black), pyrope garnet (dark red), spinel (tiny octahedra) or liquid and gas-filled inclusions that resemble fried eggs. The strong doubling of facet junctions and inclusions as well as the pale yellowish green color are very characteristic of peridot.

Common substitutes for peridot include synthetic sapphire and synthetic spinel. Both of these are isotropic (have but one refractive index) and doubling will not be observed. Glass will show some elongated bubbles and no doubling.

Historically, the use of peridot goes back several thousands of years. Egyptians enslaved the people of St. John's Island in the Red Sea and forced them to mine peridot for use in ornaments and jewelry. Fine gem peridot has also been mined near Mogok, Burma, and Minas Gerais, Brazil. Some fine gem peridot has recently been found in Pakistan. Volcanic bombs containing small peridot crystals of nice gem quality have been found in basaltic rocks at the San Carlos Apache Reservation in Arizona. The San Carlos zone has yielded numerous stones uncut rough. Historically, most finished stones larger than 10 or 15 carats in weight were reproduced some stones weighing 50 carat weight range were reproduced some stones weighing stone that weighed over 300 carats.



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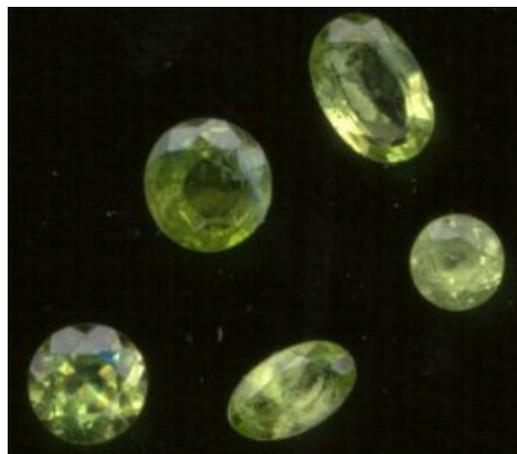
**"Fried-egg-like" liquid and gas inclusions in peridot. Note**

**Continued on Next Page**

Birthstone Continued from Previous Page



**Rough peridot crystals, San Carlos Apache Reservation, Arizona.**



**Faceted peridot, Arizona.**



**Volcanic bomb with numerous peridot crystals, New Mexico. these bombs are broken apart and crystals are size-sorted with sieves.**



**Rough peridot crystal, Pakistan.**

**Brachiopods** are **benthic** (bottom dwelling), **marine** (ocean), **bivalves** (having two shells). They are considered **living fossils**, with 3 orders present in today's oceans. They are rare today but during the **Paleozoic Era** they dominated the sea floors.

Though they appear to be similar to clams or oysters they are not related. They are not even mollusks. They belong to the phylum **Lophophorata** and are related to **bryozoans**.

### The Pedicle

One characteristic unique to brachiopods is the pedicle. It is a long thin fleshy appendage. The pedicle is used to burrow into the sea floor as an anchor.

Some Brachiopods have a muscular pedicle. They can raise themselves up off the bottom, looking like they are standing on their heads. For others it is more like a tether.

Not all orders have a pedicle. Some lay on the sand on one side. With these the bottom shell is usually larger than the top shell. There are even some types that cement themselves to the ocean floor.

### What's for Dinner?

All members of this phylum are filter feeders. They feast upon microscopic organisms and bits of organic matter.

This they gather from the water that flows by them with a specialized organ called a **lophophore**. This is a tube like structure with **cilia** (hair like projections). The cilia move food particles down the lophophore to the mouth.

The lophophore takes up about  $2/3$  of the space inside the shell, with the body of the animal occupying the remaining third.



larger of the two and has the pedicle opening.

### The Valves

The two shells are each symmetrical about the midline but they are most often not equal to each other.

In contrast clams are asymmetrical about the midline with each valve or shell equal mirror images of each other.

Each valve or shell has its own name. The valve that the pedicle is attached to is called, surprisingly enough the **pedicle valve**. It is usually the

The other valve holds the lophophore or brachia and of course is called the **brachial valve**. The lophophore is supported by a calcareous structure called the **brachidium**. This structure varies greatly in complexity from a simple loop to a double spiraled coil. The shape of the brachidium is important in determining brachiopod classification.

There is usually a central raised area on the pedicle valve called a **fold** with a corresponding depression on the brachial valve called the **sulcus**.

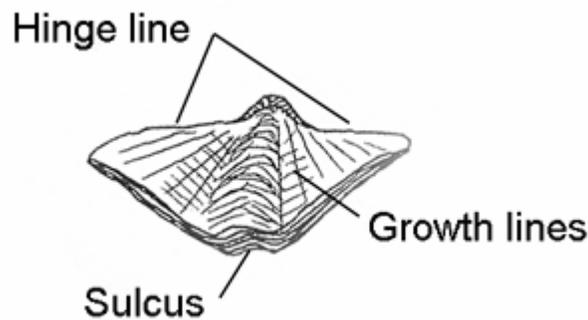
## Coming Events

### AUGUST 2010:

**7-8 AUSTIN, TX:** Austin Bead Society Show; Palmer Events Center, 900 Barton Springs Road; Sat 10-6, Sun 11-5; admission \$5, \$1 off with food donation; handcrafted jewelry, supplies, raffles; contact Austin Bead Society, PO Box 656, Austin, TX 78767-0656, or Michele Chesak; email: mchesak@gmail.com; Website: [www.austinbeadsociety.org](http://www.austinbeadsociety.org)

**13-15 PASS CHRISTIAN, MS:** Harrison County Gem & Mineral Society Show; West Harrison County Community Center (Espy Center), 4470 Espy Avenue; Fri 12-7, Sat 9-6, Sun.10-5; adults \$3, children 12 and under free; door prizes, grand prize raffle, bring your rock and stump the expert Sun; contact Tomsey Westermeyer, 9270 Serenity Drive, Pass Christian, MS 39571, (228) 586-5279 or (229) 326-2390; Website: [tomsey@cableone.net](mailto:tomsey@cableone.net)

**21-22 BOSSIER CITY, LA:** Ark-La-Tex Gem & Mineral Society Show; Bossier Civic Center, 620 Benton Road; Sat 10-6, Sun 10-5; adults \$4, students \$1, children 5 and under and Scouts in uniform free; door prizes, youth activities, exhibits, live demonstrations; contact Charlie Johns, 9314 Overlook Drive, Shreveport, LA 71118, (318) 687-4929; email: [cwsejohns@bellsouth.net](mailto:cwsejohns@bellsouth.net); Website: [www.larockclub.com](http://www.larockclub.com)



### Geologic History

Brachiopods have a long geologic history. They have been around since the **Cambrian Period**. From the **Ordovician Period** through the **Permian Period** they were abundant in genera and sheer numbers. The **Permian extinctions** reduced their numbers severely. Several orders survived the extinction but brachiopods have never regained the abundance they enjoyed during the Paleozoic Era. However, they may be the most plentiful fossil on earth. They are used as index fossils.

**GULF COAST GEM & MINERAL SOCIETY, INC.**  
**P.O. Box 60781 Corpus Christi, TX 78466**

<b>MEMBER of</b>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>American Federation of Mineralogical Societies</b> </div>		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>South Central Federation of Mineral Societies, Inc</b> </div>		
	<b>Meeting</b>	Held the third Tuesday of each month at 6:30 pm at the museum of Science & History 1900 North Chaparral September through May, and at the Lapidary Shop 3933 Timon Blvd., Corpus Christi TX for June through August.			
	<b>Membership Fees</b>	<b>Individual \$15.00 Couples \$20.00 Junior (under 17) \$5.00</b>			
	<b>2010 Officers</b>	President: Kevin Schleicher Vice President: Kyle Hinkle Past President: Suzy Nick		Secretary: Suzy Nick Treasurer: Gene Schade gene@casadeoro.net	
	<b>Board Appointees</b>	Membership: Sandra Hinkle Education: Owen Hopkins Librarian: Linda Simpson Treasurer Gene Schade Show Chair: Jerrold Simpson		Show Publicity: Donna Grimes Shop coordinator: Mark Wolbrink Field Trip Coordinator: Mike McCraw Dealer Chair: Jerrold Simpson	
<b>Standing Committies</b>	Shop coordinator: Mark Wolbrink Field Trip Coordinator: Mike McCraw Federation Liaison: Linda Simpson Historiorn: Frances Marten Librarian Linda Simpson Communications: Suzy Nick Refreshment Hostess; Letty Rodriguez		Bulletin Editor; Art Worley Webmaster: Art Worley E-mail artleew@agates123.com Door Prizes; Gilbert Rodriguez		

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**Slabs & Cabs Awards**  
**Small Bulletins**  
 2003 4th place SCFMS



**AFMS**  
**TROPHY**



**BULLETIN**  
**AWARD**  
**SCMS**

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 2001-4th place AFMS  
 2000 9th place SCFMS  
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