



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

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**Volume 49**

**Number 5**

**May 2011**

**Next Meetings**

Board Meeting  
5 July 2011  
Downtown Library  
6:00 PM– 9:00 PM

General meeting  
21 June 2011  
At the Shop  
3933 North Timon Blvd.  
On North Beach (across from  
Villa Del Sol)  
Corpus Christi, Texas  
6:30 PM

**Membership Fees for 2011**

Membership dues for 2011 are due in January 2011  
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, Does Not Pay Dues

If Dues are Not Paid by the time of the Show you will **Forfeit**

**Your Membership**

Sandra Hinkle , Membership Chairlady

**Pom Pom Agate**  
**Sierra Aguja**  
**South Brewster County**  
**Texas**

**INSIDE**

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**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.

**May 2011 Board Meeting of the  
Gulf Coast Gem & Mineral Society**

The Board Meeting was called to order at 6:43pm by President Kevin Schleicher. Board members in attendance were Jerrold Simpson, Kyle Hinkle, Kevin Schleicher, Mark Wolbrink, Art Worley, Gene Schade and Suzy Nick. Members in attendance were Lois Pattillo and Bill Patillo.

Kyle Hinkle gave the membership report as 81 regular Members, 21 Junior Members and 11 Honoree Members.

The April board meeting minutes were published in the Cabs and Slabs. Jerrold Simpson read the 4/19 General Meeting notes. Kyle Hinkle made a motion to approve the minutes and Suzy Nick seconded it. The motion was approved.

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

Mark Wolbrink gave the shop report by saying attendance is down due to the Winter Texans no longer using our shop. We have one member that is taking a class. The wire wrapping class that was being held has not been completed. Mark will not be here on 5/14 and Jerrold Simpson will open the shop on this day.

The show report was given by Jerrold Simpson and there is nothing to report at this time.

Linda and Jerrold Simpson are going to the different schools to present the Minerals and the follow up on the Geology on fossils that was started by Owen Hopkins.

None of the club members attended the South Central Federation meeting that was held in Alpine. Linda Simpson did receive the by laws for the federation and is in the process of determining why we are giving proceeds from the Silent Auction to their Endowment Fund.

Linda Simpson was reelected as the Regional Vice President for the South Central Federation.

Kyle Hinkle gave an update to the Summer Rock Camp. There are a total of 20 children scheduled to attend. This is over the number that we wanted but some of them will not be able to attend when the camp starts. Supplies have been priced, a place has been found that will print up the badges, vests have been priced, the curriculum has been set and they are ready to go! Jerrold Simpson made a motion for up to \$1500 to be spent on the camp. Mark Wolbrink seconded it and the motion was approved.

A short discussion was held about the club using vests as they have in the past, both for the show and at our meetings.

Under old business, Hank Swann would like to get back to teaching the classes he taught in the past. A discussion was held about non members being able to take the classes. Gene Schade will look at the lease from the city to determine if there is anything in our lease, Suzy Nick will look up the notes from the past, Art Worley will check the Cabs and Slabs and Jerrold Simpson will look up his notes.

There was no new business.

Jerrold Simpson made a motion to adjourn the meeting and Mark Wolbrink seconded it. The meeting was adjourned at 8:23pm.

Respectively Submitted

Suzy Nick

Secretary

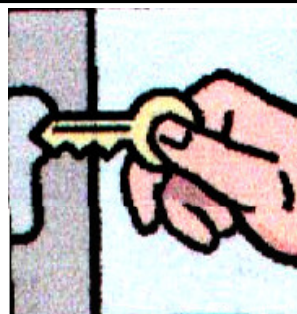
**Pom Pom Agate Geode  
South Brewster County  
Texas**



**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 Wolbrink 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.



**Pom Pom Agate  
 Sierra Aguja  
 South Brewster County  
 Texas**

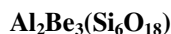
**Any Articles, Minutes are other items not received by Thursday Morning 9:00 am  
 After the Board Meeting. Will Not Be Published in That Months Newsletter.  
 The Editor.**

## May Birthstone, Emerald

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

Emerald is used to celebrate the 55<sup>th</sup> Anniversary according to the *World Almanac* and *Book of Facts*. It is probably suitable that such a rare gem as emerald is used for this event as few events or happenings, aside from birthdays, reach this many years. Fine emeralds are probably among the rarest of gems. They are probably rarer than fine diamonds (the 60<sup>th</sup> Anniversary Stone) but diamonds more strongly signify endurance than emeralds.

Emerald is a green to blue green variety of the mineral Beryl, which has a slightly complex chemical formula:



a silicate of Beryllium and Aluminum. Crystals are hexagonal, 7.5 to 8 hard, 2.65 to 2.75 in specific gravity. Emeralds, as all other beryls, can range from being opaque to transparent.

Beryl has fairly low optical properties. The refractive index ranges from 1.57 to 1.60 with many gems falling in the 1.572 - 1.580 range. Beryl has a low birefringence and are only weakly doubly refractive. It would take a piece of beryl about 15 inches thick to show a double image. The dispersion of beryl is also quite low (0.014)

and emerald, as other beryl gems, has to essentially make it on color and pleasing appearance without the brilliant flashes of light that we associate with diamonds or gems with a very high refractive index or dispersion.

When one is looking at beryl gems, there is really no firm boundary between emeralds with a heavy blue tint or aquamarine with a heavy green tint and there is no firm boundary between the green to blue green of emerald and the green of green beryl. This might have been problematical in years past; however, there are now standardized color sets that are available from Gemological Institute of America that every reputable jeweler should have as a tool of the trade.

Emerald owes its color to a small percentage of Chromium Oxide in the crystal lattice---up to 3%. Strangely, this is the same oxide in the same percentage that imparts the red color to ruby when it is in the corundum lattice.

In my gemology classes at the University of Nebraska, I utilize a small color set. These are available from GIA and are produced by Pantone. I suggest that the bG 6/4 or the vslbG 6/4 colors are the only two in the set that represent emerald. The vstbG 5/5 is too blue (it would be a superb aquamarine) and the G 5/5 hasn't enough blue (it would be a superb green beryl).

Emeralds are quite rare because of the rather limited geologic environment in which they can occur. Most emeralds form in contact metamorphic rocks---that is, the narrow, baked zone where a hot magma (lava) comes into contact with sedimentary rocks such as limestone or shale. Many emeralds come from contact metamorphosed black shale beds. Black shale is often the thinnest bed that is in a sedimentary rock sequence so there is little potential host rock for starters. Some emeralds form in limestone that has been subjected to contact metamorphism.

Emeralds are usually clouded by many inclusions. The nature of the inclusions is usually indicative of the source of the emerald. Emeralds from Colombia normally have three phase inclusions. These consist of a solid (usually a pyrite crystal), a liquid (salt water?) and a gas (usually CO<sub>2</sub>). Emeralds from India usually have "square," dark inclusions (biotite) whereas those from South Africa have dark needle-like inclusions and those from the Ural Mountains in Russia have actinolite needles that resemble bamboo poles.

In the United States, few emeralds have been found and most have been recovered from near Hidden, North Carolina. A very large emerald that became the subject of a bitter law suit was mined there in the 1980's. The tragi-comic outcome was that one of the miners involved sawed the very fine 14 inch crystal (valued at several millions of dollars) in half and destroyed much of the value of this essentially priceless item. Except for the North Carolina finds, no other state has had any significant emerald production.

Almost all emerald is mined from *in situ* localities or deposits that are very close to the mother lode. This is because the



## Coming Events

**June 11–12—Casper, WY.** Natrona County Rockhounds 64th Annual Gem & Mineral Show. Yellowstone Garage, 355 W. Yellowstone Hwy. Info.—Randy Sternberg, 307/724-6156, or Helen Hoff, 307/266-2839, or [hmhoff@bresnan.net](mailto:hmhoff@bresnan.net).

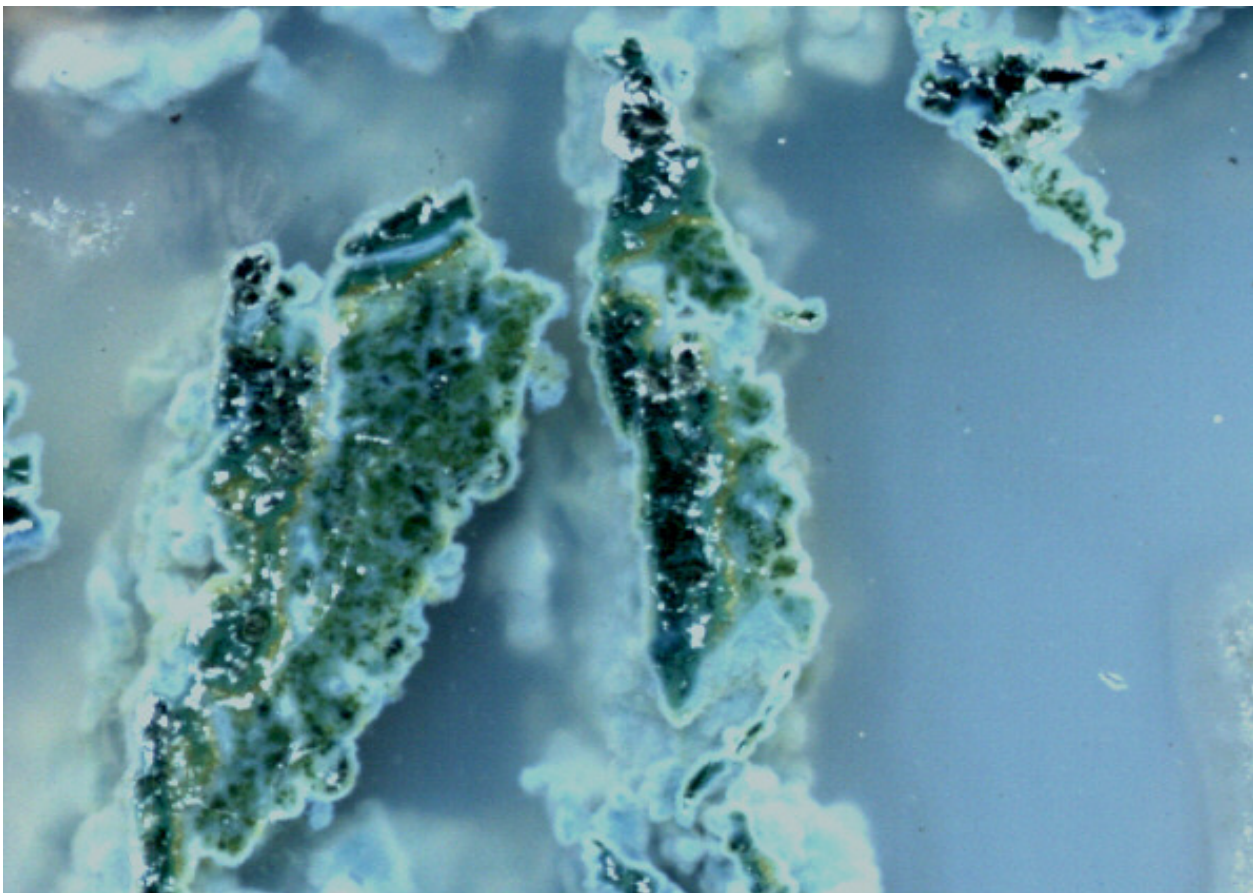
**August 27–28—Mountain Home, AR.** Ozark Earth Science Rock, Mineral & Fossil Club Show. Senior Center in Cooper Park, 1101 Spring St. Info.—Ed Hakesley, 870/242-0956, [edscamp3@yahoo.com](mailto:edscamp3@yahoo.com), or [www.earthscience.com](http://www.earthscience.com).

**September 3–5—Silver City, NM.** Grant County Rolling Stones Gem and Mineral Club 28th Annual Gem and Mineral Show. Grant County Business and Conference Center, Hwy 180 East. Info.—Marcia Andre, 575/534-0006, or <http://rollingstonesgms.blogspot.com>.

Friday, October 21 (9am-5pm), 2011 Saturday, October 22 (10am-6pm) 2011

Sunday, October 23 (10am-5pm), 2011

Austin Gem and Mineral Society's Annual Gem and Mineral Show GEM CAPERS 2011 Austin, Texas  
Location Palmer Events Center 900 Barton Springs Road Austin, Texas



**Green Moss Agate  
Sierra Aguja  
South Brewster County  
Texas**

Emerald Continued From Page 4

emerald is a very weak stone---it will not endure the abuse and rigor of transportation in streams or in glacial ice. This observation does not rule out micro-emeralds as one of the local collectors recently brought in an example of a micro-emerald crystal that was collected from sand in the Dakota Group of late Cretaceous age in southeastern Nebraska.

Australia has been a fairly important producer of emeralds. Several important sites in New South Wales and Western Australia have been described. Many of the emeralds that have been shown in colored prints are probably closer to green beryl but some fine blue green stones are known.

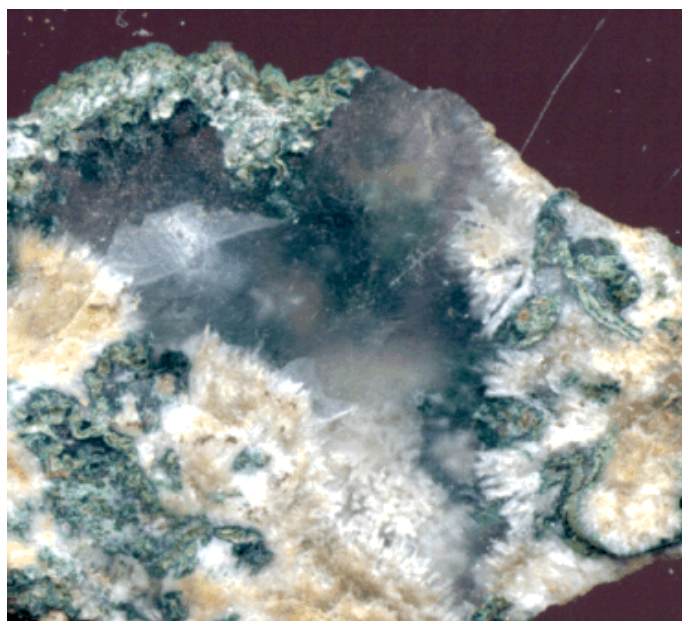
The low physical and optical properties of emerald make it easy to separate from other gems such as peridot (very strong double refraction); tourmaline (strong double refractions and thready inclusions); tsavorite garnet (singly refractive); and glass (bubbles, swirl marks, etc.).

Separating synthetic from natural emeralds is a bit more difficult. There are many would be tests that are non-diagnostic and one has to be careful. Synthetic emeralds are usually produced by some hydrothermal process in which beryl is caused to recrystallize from a saturated, heated melt or solution in a bomb. The synthetic will usually contain tiny crystals of the flux that was used in the solution, or it may contain micro-phenakite crystals or micro-platinum crystals. Inclusions that are wispy or cob-web like also are seen in many synthetic emeralds.

Carroll Chatham, the first person to make synthetic emeralds was only 15 years old when he developed the process. Chatham had a love for chemistry and did his first experiments with explosives. After destroying his laboratory, his father ordered research of a less violent nature. Other companies have followed and most synthetic stones are now called "created" stones.



**Big Eye Pom Pom Fossil Clam Shell  
Sierra Aguja  
South Brewster County  
Texas**



**Green Moss Pom Pom Agate  
Sierra Aguja  
South Brewster County  
Texas**

## WHAT ARE METEORITES?



Meteorites are naturally occurring objects that originate in space and survive a fall to the ground through Earth's atmosphere. Most are remnants of asteroids or possibly comets. However, a few have been shown to be pieces of Moon or Mars that were launched into space by an impact event. While moving through space these objects are known as *meteoroids*. The bright streaks that they produce while moving through Earth's atmosphere are known as a *meteors*.

The term *meteorite* is also used for a meteoroid that has landed on the surface of a celestial body other than earth.

There are three main types of meteorites. The most abundant are *stone meteorites* which are primarily made up of silicate minerals such as olivine, pyroxene and feldspar. As their name implies, *iron meteorites* are mainly composed of iron but also contain a significant amount of nickel. The rarest of the three are the *stony-iron meteorites*. They are a mixture of stony and metallic materials.

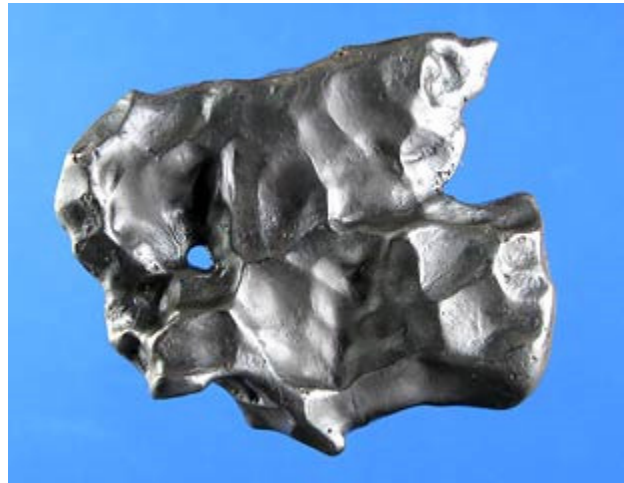
Pictured top: A part slice of the beautiful Imilac pallasite from Chile

### Stony Meteorites



A complete stone meteorite (L6 chondrite) recovered in McLennan County, Texas, only a few days after it fell to earth. This meteorite was part of the spectacular February 15, 2009 fireball filmed by a cameraman in Austin. Note the black fusion crust which is typical of freshly fallen meteorites, and the numerous flow lines—both created by the intense heat generated by the fireball. Photograph by Leigh Anne DelRay / Callisto Images

### Iron Meteorites



This [Sikhote-Alin iron meteorite](#) (IIAB) was seen to fall in a remote area of Siberia in 1947. It was part of the largest documented meteorite event of modern times. Note the indentations, known as *regmaglypts*, and the natural hole, caused when the meteorite melted during flight. Iron meteorites that exhibit attractive sculptural qualities, such as this example, and highly prized by collectors for their beauty.

## Meteorites for Sale

Thousands of people collect meteorites and they are served by a relatively small number of reputable dealers. A few select dealers are listed below. They all provide a fine range of genuine meteorites and related materials. Many fake meteorites are offered for sale, so we strongly recommend buying from dealers who display the International Meteorite Collectors' Association (IMCA) logo on their websites. The IMCA sets the highest possible standards for commercial dealers and all vendors must be recommended and approved for membership.

### [Aerolite Online Meteorite Sales Catalog](#)

- [How to buy a meteorite](#)
- [Meteorites-For-Sale.com](#)
- [Campo Meteorites](#)
- [Meteorite Exchange](#)
- [2011 Tucson gem and mineral show](#)

Meteorite.org recommends these excellent television documentaries about meteorites and meteorite hunting:

- [Meteorite Men on The Science Channel](#)
- [Wired Science "Meteorite Hunters" on PBS](#)
- [Best Places to find Cash & Treasures "Meteorites"](#)

## Hunting Meteorites

A few websites share information about how to hunt for meteorites. Here is some recommended reading.

- [Meteorite Hunting: The Search for Space Rocks](#)
- [Meteorite Adventures](#)
- [ANSMET: Antarctic Search for Meteorites](#)
- [Meteorite hunter Sonny Clary's cosmic gift to UK](#)

Meteorite Clubs & Associations Groups dedicated to communication, education, outreach and collaboration related to meteorites.

- [Club Space Rock – Online Meteorite Community](#)
- [International Meteorite Collectors Association](#)
- [The Meteoritical Society](#)
- [British and Irish Meteorite Society](#)

Meteorite Articles and PublicationsThe following websites contain interesting articles on meteorites, meteorite hunting and related topics.

- [Meteorite Times Magazine](#)
- [Meteorite Hunting and Collecting Magazine](#)
- [Meteorite Impact Structures](#)
- [Upheaval Dome, Utah](#)
- [How much is a meteorite worth?](#)

## Meteorite Books

Recommended books about meteorites

- [Meteorite Hunting: How To Find Treasure From Space](#) by Geoff Notkin of *Meteorite Men*
- [The Fallen Sky](#) by Christopher Cokinos [review]
- [Oscar E. Monnig Meteorite Collection Catalog](#)



Highly oriented Sikhote-Alin (IIB)  
iron meteorite with well-defined roll-  
over lip



AUSTIN GEM & MINERAL SOCIETY

Presents GEM CAPERS - QUEST FOR KNOWLEDGE

GRADE LEVEL: 9 – 12 COLOR: **SILVER**

LOOK FOR THE **SILVER** BALLOONS – THEY WILL HELP YOU WITH YOUR QUEST

NAME DATE

**QUEST 1: Visit the Dealer with WHITE Balloon # 1**

What is amber?

---

**QUEST 2: Visit the Dealer with WHITE Balloon # 2**

The Mohs scale was developed to compare the \_\_\_\_\_ of minerals.

**QUEST 3: Visit the Dealer with WHITE Balloon # 3**

What beautiful blue mineral can be found within Austin city limits?

---

**QUEST 4: Visit the Dealer with WHITE Balloon # 4**

Name the largest mineral group.

---

**QUEST 5: Visit the Touch Table**

What are the 3 types of rocks?

---

**QUEST 6: Visit the Illumination Station**

What mineral was first discovered to have the property of Fluorescent?

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**QUEST 7: Visit the Crystal Displays**

Name 3 minerals of the ORTHORHOMBIC form.

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**FINISHED!**

Come on by the TOUCH TABLE for your FREE mineral specimen

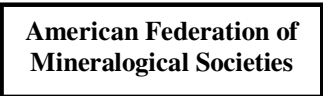

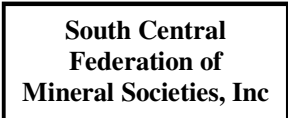

LOOK FOR THE **SILVER** BALLOONS – THEY WILL HELP YOU WITH YOUR QUEST



**Aragonite PseudoMorph  
Sierra Aguja  
South Brewster County  
Texas  
Collected by Myself  
Year 2000**

Suggestion for next show  
By Art Worley

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

<b>MEMBER of</b>					
	<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>	Individual \$15.00 Couples \$20.00 Junior (under 17) \$5.00			
	<b>2011 Officers</b>	<b>President: Kevin Schleicher</b> <b>Vice President: Kyle Hinkle</b> <b>Past President: Suzy Nick</b>		<b>Secretary: Suzy Nick</b> <b>Treasurer: Gene Schade</b> <b>gene@casadeoro.net</b>	
	<b>Board Appointees</b>	<b>Membership: Sandra Hinkle</b> <b>Education: Owen Hopkins</b> <b>Librarian: Linda Simpson</b> <b>Treasurer Gene Schade</b> <b>Show Chair: Jerrold Simpson</b>		<b>Show Publicity: Donna Grimes</b> <b>Shop coordinator: Mark Wolbrink</b> <b>Field Trip Coordinator: Johnny French</b> <b>Dealer Chair: Jerrold Simpson</b>	
<b>Standing Committies</b>	<b>Shop coordinator: Mark Wolbrink</b> <b>Field Trip Coordinator: Johnny French</b> <b>Federation Liaison: Linda Simpson</b> <b>Historiorn: Frances Marten</b> <b>Librarian Linda Simpson</b> <b>Communications: Suzy Nick</b> <b>Refreshment Hostess; Letty Rodriguez</b>		<b>Bulletin Editor; Art Worley</b> <b>Webmaster: Art Worley</b> <b>E-mail artleew@agates123.com</b> <b>Door Prizes; Gilbert Rodriguez</b>		

**Slabs & Cabs**

Art Worley  
 2561 Raintree Trail  
 Ingleside, TX 78362

**Slabs & Cabs Awards**




**Small Bulletins 4th place**

**PUBLICATION**

<b>2nd 2002</b>	<b>2001 1st</b>
<b>2001-4th place AFMS</b>	
<b>2000 9th place SCFMS</b>	
<b>1999-8th place SCFMS</b>	
<b>1999- 9th place (new editor) AFMS</b>	

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