



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

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**Volume 49**

**Number 4**

**April 2011**

**Next Meetings**

Board Meeting  
3 May 2011  
Downtown Library  
6:00 PM– 9:00 PM

General meeting  
19 April 2011  
Watergarden Room  
Corpus Christi  
Museum of Science & History  
1900 No. chaparral  
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

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

**Your Membership**

Sandra Hinkle , Membership Chairlady

**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.

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**EULOGY FOR OWEN HOPKINS**

Those of us who knew Owen Hopkins will surely miss his educational and enjoyable lectures. Mostly we'll miss the joy of learning that Owen radiated when he spoke. He was fascinated with the handiwork of God as displayed in the foundations of this world. I know the angels clapped their hands and rejoiced in seeing him approach the Golden Gate. They said to each other, "Here comes one who will truly appreciate the handiwork of God in the foundations of this city." I can hear Owen exclaiming, "Look at the SIZE of that pearl!" I look forward to joining the tour group circling the inner walls as Owen explains the forming of the crystals to everyone. He'll show us a ruby the size of a boulder and urge us to "just look at this pebble that I found over at the eastern wall."

Thank you, Owen, for sharing your joy and love of life with us.

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

The Board Meeting was called to order at 6:49pm by President Kevin Schleicher.

Board members in attendance were Jerrold Simpson, Kevin Schleicher, Kyle Hinkle, Shanda Hinkle, Donna Grimes, Art Worley, Gene Schade, Mark Wolbrink, and Suzy Nick.

Members in attendance were Joe Grimes, Lois Patillo and Bill Patillo.

Shanda Hinkle gave the membership report as 81 Regular Members, 21 Junior Members and 11 Honoree Members. The board meeting minutes were published in the Cabs and Slabs. Kyle Hinkle had a correction to the membership from 80 Regular Members to 52 Regular Member. Mark Wolbrink made a motion to accept the minutes as published with the correction made by Kyle.

Kyle Hinkle seconded it and the motion was approved.

Gene Schade presented the Treasurer's Report. The preliminary report for the show is we made slightly more than last year. Kyle Hinkle made a motion to accept the report as presented and Donna Grimes seconded it. The motion was approved.

Mark Wolbrink presented a written report on the shop. A discussion followed about the silent auction. We pay Ed Reis \$200 for his travel expenses and give 1/2 of the profits to the American Federation Endowment fund. Mark Wolbrink made a motion to pay Ed and the Endowment fund the same amount. Gene Schade seconded the motion. An amendment was made by Suzy Nick and seconded by Donna Grimes to separate the money paid to Ed Reis and the money donated to the Endowment Fund. The motion to reimburse Ed Reis was approved.

An amendment to the donation to the Endowment Fund was made by Kyle Hinke to pay the Endowment fund \$500 per year from the profits of the silent auction unless changed by the board.

A discussion followed and a motion was made by Kyle Hinle and seconded by Jerrold Simpson to table the motion until after the Federation Meeting in April. Jerrold Simpson and Kevin Schleicher will be attending the Federation Meeting and will have more information on the Endowment Fund. The motion was approved.

Mark Wolbrink was concerned about an incident that happened at the Silent Auction since we don't have written rules. Mark will write up the rules to be posted at the Silent Auction in hopes this will prevent this problem occurring in the future.

The Field Trip Report was given by Kevin Schleicher and we need a permanent Chairperson. Kyle Hinkle made a motion to remove the interim Field Trip Chairperson until we can find a permanent Chairperson. Shanda Hinkle seconded the motion. A discussion followed about members using our name for commercial ventures. The motion was carried.

Jerrold Simpson gave a Show Report and had nothing from this year. He will be reviewing our contracts for next year. Donna Grimes suggested we have a poster contest for our 50th show next year.

Kyle Hinkle gave the Education Report. We have 19 children signed up for the camp. There will be another meeting on 4/23 at our shop to set up the curriculum, who will be doing what and to set up a budget. There was no old business.

Under new business Kevin Schleicher brought up dropping members at the end of the year rather than keeping on our membership after the dues for the new year are due. After reviewing our bylaws, it was determined that members would be on the membership list until after our show in March.

Kyle Hinkle made a motion to adjourn the meeting and Shanda Hinkle seconded it. The meeting was adjourned at 8:40pm.

Respectively Submitted

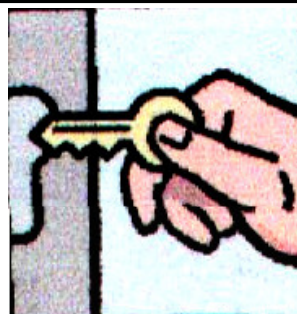
By Suzy Nick

Secretary

**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



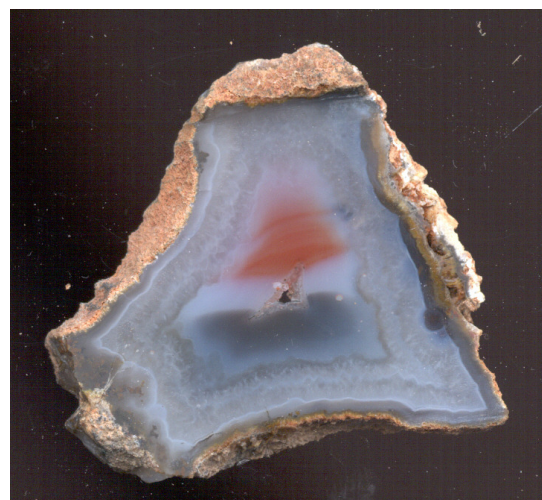
Those with keys to the Lapidary Shop are

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.



**Botswana Agate**



**Big Diggins Agate  
 South of Deming  
 New Mexico**

**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.**

## April Birthstone, Diamond

Compiled by Roger K. Pabian, Research Geologist, Emeritus School of Natural Resources, UNL  
*Diamond images courtesy of Bob Fixter.*

Although diamond is probably the most popular and discussed gemstone, it has probably been in use for a shorter time than any of the other gems that are commonly used in modern times. The reason for this is because lapidaries did not learn to fashion diamond until about the 15th Century when it was discovered that one diamond would abrade another.

India is probably the oldest known source of diamonds but South Africa became the major supplier by the late 19th Century. Historic sources of diamond have also been in Brazil. Review of current literature such as Levinson (1998a, 1998b) show that there have been important diamond finds in California, Colorado, Russia, Australia and Canada.

Diamond is composed of the element Carbon---it crystallized in the isometric system; that is, there are three crystallographic axes that are all of equal length and are perpendicular to one another. In addition to the axial relationships, the crystal can have a center of symmetry, 3 axes of fourfold symmetry, 4 axes of threefold symmetry, 6 axes of twofold symmetry, and 9 planes of symmetry. In a mineralogical text, these symmetry elements would appear as: C, 3A4, 4A3, 6A2, 9P.

An isometric crystal can be defined by numerous forms including a cube (6 faces), an octahedron (8 faces), a dodecahedron (12 faces), a pyritohedron (12 faces), tetrahexahedron (24 faces), a trapezohedron (24 faces) etc. To complicate issues, one form may be superimposed over another such as an octahedron modifying a cube such that the cube appears to have its corners cut off. The superimposition of faces can be quite extreme and an isometric crystal can show several forms superimposed over another. All of these different modifications of the basic isometric crystal can exist within a volume that fills a space occupying one unit by one unit by one unit.

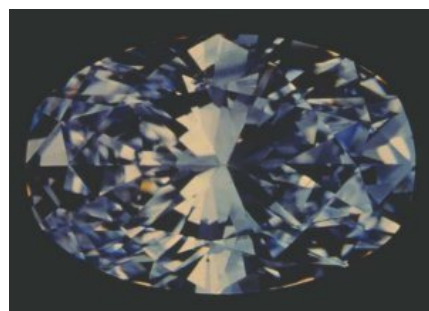
The hardness of diamond is 10 on the Mohs Scale---there is nothing harder. The figure 10 could be said represent the "average" hardness of a diamond. Diamond is not equally hard on all of the theoretical crystal faces that exist in the unit cube above. The dodecahedral faces are just slightly softer than the cube faces or the octahedral faces. If the cube or octahedral faces are 10 hard, then we may think of the dodecahedral faces as being 9.999... hard. It is this fact that makes it possible to shape and polish diamonds. In this figure, the crystal faces marked with d are just a bit softer than the others; those softer faces make diamond shaping and finishing possible.

Diamond crystals have 4 perfect cleavages that are parallel to the octahedral crystal faces. These cleavages are useful to the lapidary as they make it possible to reduce a large, irregular shaped crystal to smaller, more manageable pieces. Apparent planes of cleavage where the stone might break easily are usually selected as separation planes when the crystal is cleaved. The cleavage operation is carried out with a specially shaped chisel and mallet. Many diamonds are now treated with a diamond saw rather than cleaving but the skilled diamond worker still must know the art of cleaving a stone as this is the only some pieces can be handled.

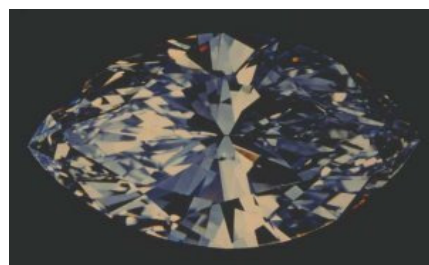
Diamond has a fairly high **refractive index: 2.417**. That figure measures how



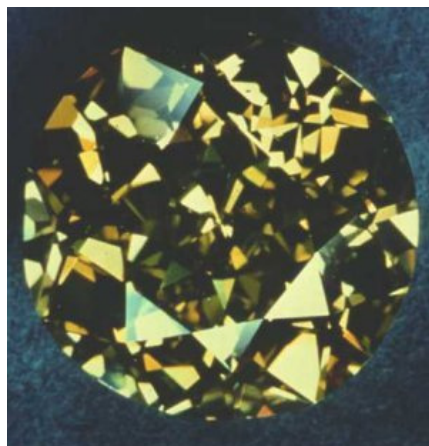
Tear drop cut.



Oval brilliant cut.



Marquise cut.



Round brilliant cut.

## Coming Events

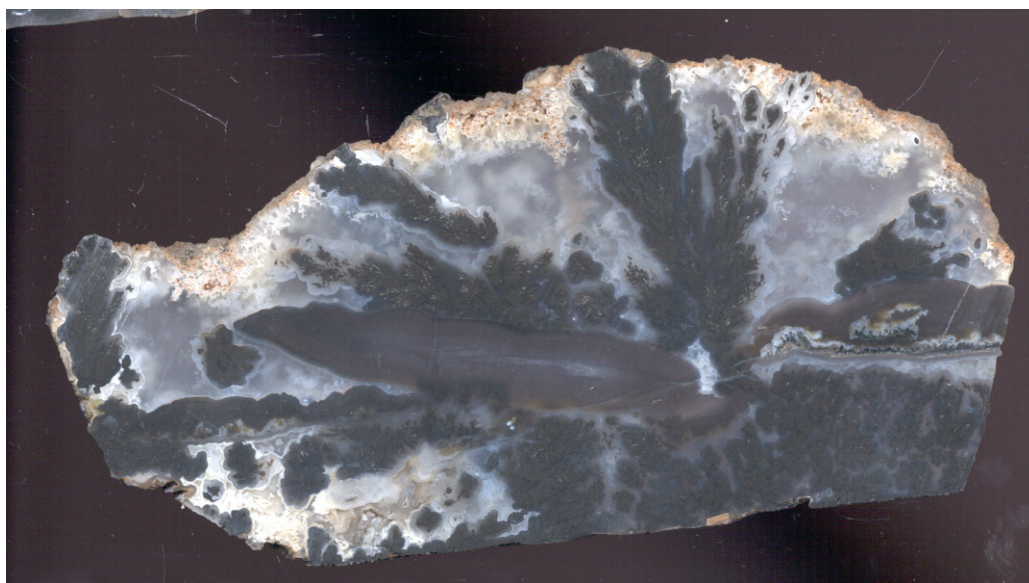
**April 30–May 1—Medford, OR.** Diamonds are Forever, Roxy Ann Gem & Mineral Society's Annual Gem & Mineral Show. Medford National Guard Armory, 1701 S. Pacific Highway. Info.—Sandra Roney, [msroney@prodialup.us](mailto:msroney@prodialup.us), or [www.craterrock.com](http://www.craterrock.com).

**May 15–16—Cheyenne, WY.** Cheyenne Mineral and Gem Society Annual Show. American Legion Post 6, 2001 E. Lincolnway. Info.—George Durako, [Bluebaritel@bresnan.net](mailto:Bluebaritel@bresnan.net).

**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>.



**Black Plume Agate  
Harte Ranch**

Diamond Continued from Page 4

much a beam of light is bent and slowed down when it enters the diamond. The high refractive index is what causes the diamond to have its **adamantine** luster. Diamond has a very high **dispersion (0.044)**, the ability of a substance to break white light down into its component colors. The dispersion is what causes a faceted diamond to show many colors when it is moved about in the light.

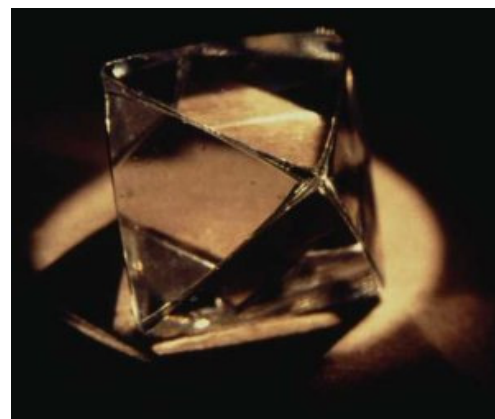
Lapidary hobbyists have finished very few diamonds. There are several reasons for this. First is the availability of rough material. Most of the world's diamonds are sold by a monopoly that makes parcels of stones available to cutting houses at **sightings** that are held only several times a year. The parcels are priced at several millions of dollars each and there is no high grading. The buyer must buy either all or none. In many instances several cutting houses must act together as one to purchase a parcel of diamonds. This effectively eliminates Corner Lapidary Shoppe from the list of potential buyers.

On rare occasions, a piece of suitable rough diamond might reach the hobbyist. The typical faceting unit that is used by the hobbyist or even a commercial colored stone lapidary won't begin to handle a diamond. A small hobby unit will have a 1/30 horsepower to 1/15 Horse Power motor for power. The units used for diamonds have at least a one horsepower motor. The typical hobby unit will have a 6 inch or 8 inch lap whereas the units for diamond will have an 18 inch lap. The shaping and polishing of a diamond generates enough friction that a mechanical dop must be used as dop waxes will melt when diamonds are being fashioned. Neutral oil such as olive oil is usually used to reduce friction in diamond finishing.

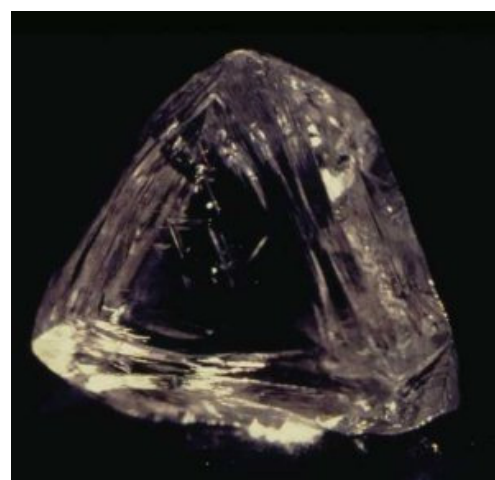
Proportions of the finished stone are important to produce the best result. The diagram below shows the ideal proportions for a diamond; these have been determined both experimentally and in practice. If the pavilion is too deep, the center of the stone will appear dark and if is too shallow, the stone will appear washed out.

A diamond appraiser will determine the weight of the properly proportioned stone that can be derived from a finished stone and use that as the weight of appraisal. The cost of refashioning the diamond to a properly proportioned stone is then deducted from the evaluation. This prevents the lapidary from inflating the price of the stone by inflating the weight.

Diamonds are useful for several geological purposes. Petrologists have thought that the tiny inclusions in diamonds that are commonly called "**carbon spots**" (but rarely are) and include such minerals as pyrope garnet, olivene, and pyrrhotite are tiny samples of the earth's mantle, that zone that is about 30 miles beneath the earth's crust. Thus, inclusions in diamonds may provide some examples of the mantles makeup. Some geologists have suggested that the distribution of diamonds between continents shows examples of spreading ocean basins and provides strong evidence for plate tectonics.



Uncut octahedral diamond crystals.



Uncut octahedral diamond crystals.



Heart cut.

Pictures of Mexico Agate  
Taken at 10X  
With a Digital Blue  
Microscope



## Hunting Meteorites

Meteorites have some features in their makeup that allow the hunter to use simple and fancy tools in the search. Nearly all meteorites have some nickel-iron in them. So magnets and metal detectors are very useful in helping to find them.

But, before talking about the high and low tech tools some attention should be given to the most important tools of all. A well informed mind and well trained pair of eyes.

Meteorites look different many times from ordinary rocks of the Earth. They are for instance heavier and dark black or brown in color. They have characteristic pits or thumbprints on the surface some times. They have a melted outer coating called the fusion crust that they received when they passed through the atmosphere. Learning to recognize a meteorite and knowing the various types is the best way to make use of your natural tools.

The low tech tools begin with shovels and spades to dig them up and magnets connected to sticks so you can test rocks without bending over hundreds of times in a day of hunting. The rare earth magnets made today are very powerful and will suck a small meteorite up like a vacuum cleaner.

But, if a meteorite is buried and they often are, there is the metal detector for hunting them down. Iron is not one of the most desirable metals for many metal detector applications. If you are hunting gold or buried coins then all the iron contacts the detector sounds off on are a bother. So most metal detectors are discriminators. They are able to tell the difference between iron or ferrous metals and non ferrous metals like gold, silver, and copper. But, the meteorite hunter wants the detector to sound off on iron. So the discrimination features on the detector need to be turned off or at least turned down so the buried iron will create a response in the detector.

Unlike the magnet cane or stick the metal detector needs a lot of practice to become proficient in finding meteorites. But, once you have found one there are a couple other tools you should have as well.

A camera to record the find on the ground for history and science. A GPS unit to record the location of the find. You will want to have the meteorite classified by a laboratory and want to get a name for the find. To do this you need to record the who where and when of the recovery.

## Meteorites

Meteorites come from many different types of bodies in the solar system which results in many different types of meteorites.

Iron meteorites are those made of nickel-iron. These may represent the material from the core of a large body or several bodies in space. Canyon Diablo, Odessa, Henbury, Muonionalusta, Sikhote-Alin Individuals, and Sikhote-Alin Shrapnel.

Chondrites are stony-meteorites with small spherical structures called chondrules.



## Meteorites For Sale Continued fro Page 8

Chergach, NWA Meteorites or Northwest Africa Meteorites, and Sahara 99676.

Carbonaceous chondrites make up a small percentage of all stony-meteorites and are a type of chondritic meteorite which contains carbon in the form of organic compounds. Allende Meteorites and Karoonda Meteorites.

The "A" on Achondrite means no or not and refers to the fact that these stony-meteorites have no chondrules. They may have been heated or smashed by impacts or formed on a larger body where gravity prevented the formation of spherical structures and formed layers instead.

Lunar and Martian meteorites. These are very rare and have reached Earth because of impacts on the Moon or Mars which have sent a small amount of material out into space eventually reaching our planet as meteorites. .

Stony-Irons are made up by the Pallasites which have crystals of olivine mixed with nickel-iron and the Mesosiderites which have silicate minerals mixed with the nickel-iron.

Anyone Wishing to buy Meteorites  
Google Search Meteorites for sale

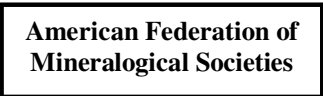

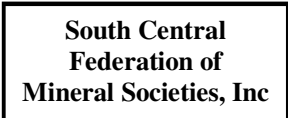

## Tektites For Sale

Bediasite tektites are found in a small region of eastern Texas. As increased exploration has been done for them the area in which they are found has grown eastward. They are generally a very dark black color and often a little abraded from natural weathering. Most splash form types are present in this strewn field with spheroid form most abundant. Rarely cores of aerodynamic flanged types have been found as well as a very few pieces of what appears to be Muong Nong type tektite glass. The evidence for Bediasite tektite formation being a result of the Chesapeake Bay impact is growing stronger especially as a result of recent coring into the crater itself and oceanic sampling. Bediasites are among the oldest of the tektites dating at over 30 million years. Bediasite tektites often have a very interesting and almost unique texture on their surface. Because of their age smaller numbers of tektites exist for this strewn field than as with the indochinites.



**Usan Angus Agate**  
**Usan Angus**  
**Scotland**

**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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