



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

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**Volume 49**

**Number 7**

**July 2010**

**Next Meetings**

Board Meeting  
3 August 2010  
Downtown Library  
6:00 PM– 9:00 PM

General meeting  
20 July 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

**Pom Pom Agate**  
**Mexico**



**INSIDE**

Notices ..... Pg 1  
Board Minutes..... Pg 2  
Shop Keys & Rules ..... Pg 3  
April. Birthstone ..... Pg 4-5  
No Reg Meeting Minutes ..... Pg 5  
Shop Safety Notes .....Pg 6  
Coming Events..... Pg 7  
Info Page .....Pg 8

**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.

### 6 July 2010 Board Meeting of the Gulf Coast Gem & Mineral Society

The Board Meeting was called to order by President Kevin Schleicher at 6:35pm at the Main Library. Present were board members Kevin Schleicher, Art Worley, Gene Schade, Kyle Hinkle, Shanda Hinkle, Linda Simpson, Jerrold Simpson, Mark Walberg, Donna Grimes and Suzy Nick. Member Joe Grimes also attended the meeting.

The Treasurer's report was given by Gene Schade. He presented both the May (no board meeting in June) and the June reports. There were no expenses for either month. Kyle Hinkle made to motion to accept the Treasurer's Report and presented and Art Worley seconded the motion. The motion was approved.

Gene Schade presented an updated Scholarship application. We would like to get the application on the website by September and also get the applications to the schools in September. Art Worley said there would be no problem adding it to the website.

The last minutes were published in the cabs and slabs for May. We had no board or general meeting in June. Mark Walberg made a motion to accept the minutes as published and Kyle Hinkle seconded the motion. The motion was approved.

The Membership Report was given by Shanda Hinkle. We have 80 regular members, 10 junior members and 8 honorary members.

The Shop Report was given by Mark Walberg. There was water in the shop about ankle deep from the storm last week. There was no damage to any of the equipment because all preventive steps were taken before the storm. However, the folding tables and other wood objects have sustained repeated water damage and at some point will need to be replaced. We need to replace the 80 and 220 grit discs on the Genie Machines. Mark did a cost comparison between Diamond Pacific and Kingsland and Kingsland cost less than Diamond Pacific. Kyle Hinkle made a motion to replace the discs from Kingland and Jerrold Simpson seconded the motion. The motion was approved.

Mark and Jerrold normally open the shop on Monday night and Saturday morning but since both of them will be gone next Saturday, the shop will be closed. Kevin will open the shop on Monday night.

Since we are having working meetings during the summer at the shop we talked about waiving the shop fees for that night only. Jerrold made a motion to waive shop fees during meeting night and it was seconded by Kyle Hinkle. The motion was approved.

Donna Grimes had copies of the contacts for the dealers for our show. There was minor updating needed and was done. We will no longer have just front table booths and the smallest booth would be a table set of both front and back tables. Jerrold Simpson will do the updating and will mail out the contracts.

The Education Report was given by Kyle Hinkle and there was nothing new to report.

The Federation Report was given by Linda Simpson and there was nothing to report.

She has completed the circulation for the Bones in Schools that is being presented by the Geological Society.

Mark Walberg made a motion to adjourn the meeting and it was seconded by Kyle Hinkle. The meeting was adjourned at 8:52pm.

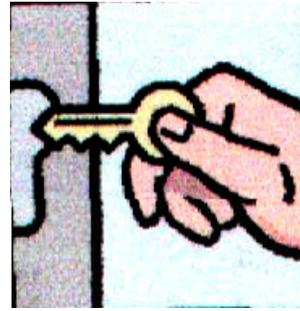
Petrified Wood  
Agua Fria Mtn



**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



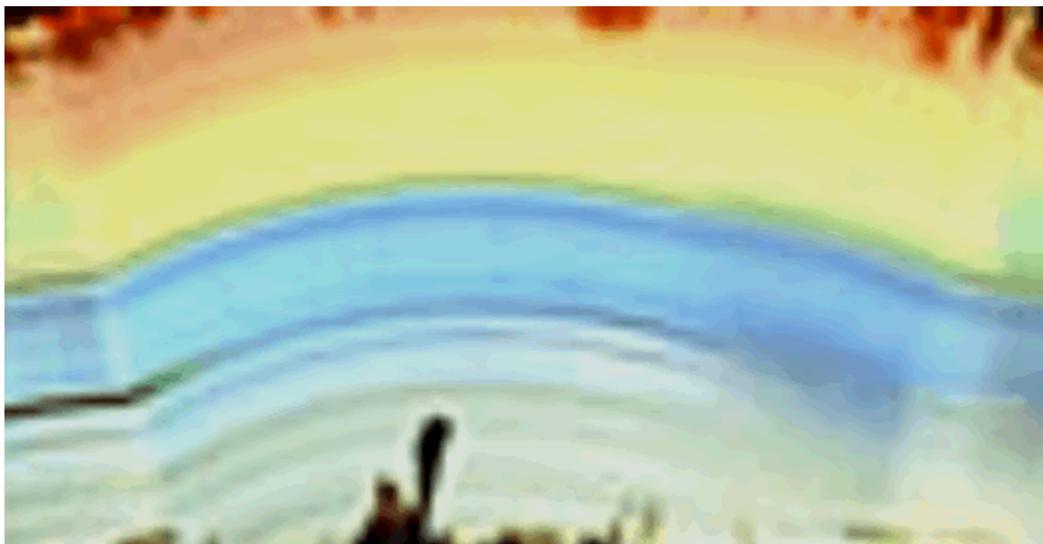
Those with keys to the Lapidary Shop are

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**

### Montana Moss Agate



## July Birthstone, Ruby

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

Ruby celebrates the birthday of those born in the Month of July. The ancient *lapidaries* (books that described the physical and metaphysical aspects of gems) spend considerable time with ruby. "Those be rubies, fairy favors:" a line from Shakespeare's *Midsummer Night's Dream* provided the theme for Lincoln (Nebraska) Gem and Mineral Club's 40<sup>th</sup> anniversary show in 1998. Shakespeare mentioned rubies several times in his various writings and you are referred to the classic reference by George Frederick Kunz for the remainder of these. So not only is ruby the stone to celebrate July's births but it is also the stone to celebrate the 40<sup>th</sup> anniversary of special occasions.

Fine rubies are probably one of the world's rarest gems. If you were to walk into any jewelry store, the jeweler could probably show you many fine diamonds but probably only a few fine rubies.

**Rubies** are a red to orange-red to purple-red variety of the mineral **corundum**, aluminum oxide ( $\text{Al}_2\text{O}_3$ ). Ruby and its companion variety of corundum, **sapphire**, are very hard---9 on **Mohs** scale of 10. Only diamonds and a few manufactured abrasives such as boron carbide and silicon carbide are harder.

Ruby crystallizes in the **hexagonal** system---well-formed crystals often appear to be tiny barrels. There are three crystallographic axes of equal length that intersect one another at  $120^\circ$  and a fourth longer axis that is perpendicular to the other three. Ruby as all other varieties of corundum is very tough. It shows no cleavage but the crystals sometimes exhibit a basal parting. Rubies are fairly dense---the specific gravity ranges from 3.95 to 4.10 but most is almost exactly 4.00.

Because of its high specific gravity rubies that come from alluvial sources such as Sri Lanka and Burma are collected in a deep cone-like separator. Gravel and water are placed in the cone and the cone is rotated. Minerals with low specific gravity such as quartz, mica and calcite wash out of the cone as it is rotated. The miner will finish with an aggregate of higher specific gravity minerals near the vertex of the cone. If the miner is fortunate, a few of these stones might prove to be rubies. Red spinel may also be included in these heavy minerals but they are easily separated from ruby by both physical and optical properties.

Since ruby crystallizes in the hexagonal system it has two **refractive indexes**, the numerical measures of how much a beam of light is refracted (bent) and slowed down when it enters the crystal. These range from the **extraordinary ray** (the one that varies) of 1.762 on the low end to the **ordinary ray** (the one that remains fixed) of 1.770 on the high end. Since the stone has only one index of refraction that remains fixed (the optic axis), it is said to be **uniaxial**. Since the lower refractive index varies upward to meet the higher, the stone is said to be **negative**. Ruby is said to be uniaxial negative.

Rubies may be **dichroic**---that is, one wavelength of light is transmitted along a crystallographic axis while another wavelength may be absorbed along the same axis. A small instrument called a dichroscope is needed to detect dichroism. A dichroscope may be made with a pair of calcite prisms that are oriented to take advantage of the strong birefringence (numerical differences in refractive indexes) of this mineral. One of the calcite prisms will transmit a certain wavelength and the other will absorb it. Thus, the viewer sees two different colors in the two windows of the dichroscope. A simple dichroscope can be constructed by orienting two pieces of polaroid material perpendicular to one another. The Polaroid separates the two beams just like the calcite prisms do.

Color is the most important character of a ruby when it comes to a jeweler properly representing the stone. All rubies must be shades of red, orange-red, or purple red. There is no such thing as a pink ruby. By definition pink corundum is a sapphire. There are standard color sets such as those manufactured by Pantone<sup>TM</sup> that will guide the jeweler or hobbyist in determining where rubies leave off and where sapphires begin so far as color is concerned. I utilize such a set in my gem stone classes at UN-L. It quickly clears up any distinctions for the students.

**Continued on Next Page**

**Birthstone Continued from Previous Page**

There are not many stones that can be confused with a ruby (spinel has a much lower RI and tourmaline is strongly doubly refractive) and the biggest problem the jeweler or hobbyist usually faces with these stones is separating the natural from the synthetic stone. In earlier times all of the synthetic rubies were made by the flame fusion process where powdered aluminum was passed through a very hot gas flame. The Aluminum melted and combined with Oxygen to produce synthetic corundum. These stones all had curved growth lines, gas bubbles and flecks of aluminum powder in them. They were easy to spot. Such is not the case now. There are some synthetic (now called created) rubies that are grown in bombs or crucibles of various kinds that are much more difficult to detect. Diffusion treatment may impart a red to colorless or pale corundum.

Kashan™ rubies are a flame grown form---as I write this I am looking at an example with veils, step-like and rhomboid crystal inclusions. Douros™ synthetic rubies are produced in Greece and have been marketed only since about 1995. I recently obtained a piece of Chakravorty™ ruby with only the word of the dealer telling me that it contains about 15% natural ruby.

The pages of the last decade of *Gems and Gemology* and its 15 year Index (1996) show many kinds of synthetic rubies, as well as other gems, have come onto the market. Gemological Institute of America now offers a course on detecting natural, synthetic and treated gems. Where curved growth lines and bubbles once sufficed to separate a natural from a synthetic ruby, new technologies have now forced the jeweler and the hobbyist to learn a whole new set of skills to determine the nature of the stone.



**Man Made Ruby**  
⇐ **Facetted**                      **Boule** ⇒



⇐ **Massive Ruby**  
**Madagascar**



**Natural Star Ruby Crystal,**  
**Sri Lanka.** ⇒



## No Minutes of the June Regular Meeting of the CCGMS

**Lapidary Shop Safety**

[Health and safety in the workshop](#) Unknown Author

A note on a few safety reminders in your shop, lab, work room, basement, etc. These reminders may sound like I know all that but sometimes we need to run them threw our mind again.

As a rock hound sometimes the thing that I most look forward to the most is getting my "stuff" back to the house. I may have to use a pressure washer to blast off mud from my petrified wood, agate, jasper or what ever priceless pieces I have found, or maybe use some tools, be they hand or pneumatic, to chip off the tougher crust. Maybe if I'm lucky I found a good "round" of pet wood that I want to cut and polish. Ooooh, and I just found some beautiful agate and I don't know what I can do to that yet! What ever it is that I do there is almost always some inherent risk in the process. Below is a list of different hazards to consider in your shop..

Eye protection. As I mentioned above power washing is a good example of something a lot of us do that can potentially injure your eyes however certainly not the only thing. Almost every type of prep-work that we practice necessitates eye protection: grinding, polishing, cutting, shipping, sand blasting, soldering, chemical cleaning, etc. Different types of eye protection should be used depending on your activities. For most of us protective glasses are good, however, goggles may need to be worn when using chemicals or when grinding certain materials. No matter how advanced modern medicine has become, glass eyes still don't look real.

Respiratory protection. Similar in some ways to eye protection respiratory protection can be very important when handling certain cleaning chemicals and when dealing with certain dusts. Asbestos is a common example of a respirator dust that although not inherently toxic can cause cancer, especially with smokers. Other dusts can temporarily clog breathing passages thus impacting, sometimes critically, the body's ability to get oxygen into the blood. Chemicals can be very bad, too, as the lungs can quickly introduce toxins into the blood. Grinding and polishing things like malachite or any kind of shell like abalone is very dangerous without a mask. Note some of the oils that we use in our cutting saws can be dangerous. Keep in mind that dust masks may not stop some dusts and certainly no airborne chemicals.

Chemical safety. The most common chemical accidents usually have something to do with the above mentioned issues and involve acids, soaps, other caustics and solvents. PLEASE READ the safety notes or MSDS (Material Safety Data Sheets) on all chemicals you may use. Some need to be used in areas where there is good ventilation, others require high-end respirators and still more may necessitate protective clothing. Not common in the shop, but you never know! Also, be aware of the potential danger of mixing chemicals and as a general rule don't do it. Most of us have probably heard that mixing chlorine and ammonia, two of our most common household chemicals is bad. Essentially the mixing of the two releases chlorine into your air -very bad.

Hearing protection. What? You didn't hear me the first time? Do you remember the pictures of all the trees blown down in the same direction after Mount St. Helens erupted? Loud noise does the same thing to the ear and much like the trees once the filia (hearing fibers) are damaged they don't stand themselves back up. If you are working with noisy equipment wear ear plugs or something like you would wear at the shooting range.

Ideally flammable liquids will be stored in a flammables storage cabinet. If you have a pretty good sized shop then one of these is a good investment. Be sure to have an adequate fire extinguisher at easy access. Hazards involving fire and electrical vary in type and risk level. Overloaded plugs can be a problem in shops. Keep in mind that just because a tool isn't turned on doesn't necessarily mean that electricity still isn't running through it. Fire and shock are both risks in this situation. It's safer to keep your equipment unplugged and properly stored when not in use.

For some general rules: Always wear eye protection. Keep your shops cleaned and well organized. Make sure electrical chords are in good condition. Keep reactive things away from each other, be they chemicals, electrical, fire hazards or combinations of each. Don't mix chemicals. Practice safety in your shop and enjoy your hobby.

## Coming Events

### JULY 2010:

**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)

**28-29 JASPER, TX:** Pine Country Gem & Mineral Society 16th Annual Show; The Event Center, 6258 Hwy 190 W, 5 miles west of Jasper; Sat 9-5, Sun 10-5; Adults \$2, students and children free; silent auction, Spinning Wheel, door prizes, grand prize raffle, rock food table, lapidary demonstrations, educational exhibits; contact Jonetta Nash, Rte 2, Box 248, Jasper, TX 75951, (409) 384-3974; email: [jonetta.nash@yahoo.com](mailto:jonetta.nash@yahoo.com)

**28-29 MOUNTAIN HOME, AR:** Ozark Earth Science Gem, Mineral & Fossil Club Show; Senior Center in Cooper Park, 1101 Spring Street; Sat 10-6, Sun 10-5; free admission; door prizes, mineral and gem displays, interactive children's events, minerals, fossils, handmade jewelry, demonstrations, silent auction, touch and feel area; contact Edward Hakesley, 821-1 Alexis Circle, Mountain Home, AR 72653, (870) 424-0956; email: [edscamp3@yahoo.com](mailto:edscamp3@yahoo.com); Website: [www.ozarkearthscience.org](http://www.ozarkearthscience.org)

**30-1 PRESCOTT, AZ:** Prescott Gem & Mineral Club Show & Sale; Prescott Gem & Mineral Club; Embry Riddle Aeronautical University Activity Center, 3700 Willow Creek Road, Bldg 84; Fri- Sat 9-5, Sun 9-4; adults \$2, children under 12 free; handcrafted jewelry, rough rock, slabs, cabochons, beads, fossils, crystals, equipment, raffle; contact Maggi Lieber, 4855 E Diamond Drive, Prescott, AZ 86301, (520) 831-0017; email: [maggiscratch@msn.com](mailto:maggiscratch@msn.com); Website: [www.prescottgemmineral.org](http://www.prescottgemmineral.org)

### 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](mailto: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@cablone.net](mailto:tomsey@cablone.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)

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



**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		

**Slabs & Cabs**  
 Art Worley  
 2561 Raintree Trail  
 Ingleside, TX 78362

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



**AFMS**  
**TROPHY**



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

**PUBLICATION**  
 2nd 2002                      2001 1st  
 2001-4th place AFMS  
 2000 9th place SCFMS  
 1999-8th place SCFMS  
 1999- 9th place (new editor) AFMS

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