

SOUTHWEST GEM AND MINERAL SOCIETY
NEWSLETTER

Volume 51 No. 6.....June, 2010

P O BOX 17323, San Antonio, Texas 78217-0323

Our Website: www.swgemandmineral.org

General meetings will tentatively be held the second Tuesday of the month, except in September and December. Board meetings are usually held the second Monday after the general meeting.

GENERAL MEETING: June 8, 2010

TIME: 6:15 pm – 8:00 pm

THIS MONTH ONLY

UNIVERSITY OF TEXAS @ SAN ANTONIO, TEXAS

BIOSCIENCE BLDG, LOEFFLER AUDITORIUM

PARKING IN LOT #6

PRESIDENT'S MESSAGE

Many thanks to Lee Cook for his very interesting presentation on Faceted Gemstones and his commentary about the current state of the gemstone appraisal market. I found it very interesting to hear that a very high percentage of faceted gems on the market today have been treated in some form to enhance their beauty. Even though this may make gems more affordable, I really believe the average customer has no idea that they are not buying a fully natural stone. We also need to send Lee some prayers as he is to undergo surgery to remove his left foot and will be rehabilitating for the next 6 months or so.

In June we have been invited to UTSA for our monthly meeting, June 8th. The school is making a special effort to honor our club for all the

scholarship gifts they have received over the years. They plan a tour of their Mineral Museum and facilities and a very interesting presentation. The program will be "Deep Time" The Search for the Age of the Earth. A historical review of the development of the basic principles of geology, the geologic basis for suggesting an ancient Earth and the search for an analytical method by which the absolute age of rock and earth events could be determined. We are invited to arrive by 6:15. 6:15-7:00 a tour of the Geology Labs and Collection. The program at 7:00. Our Business meeting will then take place 7:30-8:00 PM. Let's have a good turnout to show our appreciation!!

BOB BOWIE

UTSA TRAVELING AND PARKING TIPS FOR COMING MEETING

- 1) Take I-10 West or East to UTSA Boulevard exit**
- 2) Exit onto UTSA Boulevard and travel to the second light, or James Bauerle.**
- 3) Turn right at James Bauerle**
- 4) Immediately veer left onto O'Neill Ford**
- 5) Turn right on Ransom Drive, which will take you into Lot 6**
- 6) Parking spaces will be blocked for our meeting**

MINI CLASSIFIEDS

Items for Sale: Dayton Lap unit...works great! Is a variable speed with clamp for table or workbench and drip. Comes with Owners Manuel \$100.00

Also, Ultra Tee faceting unit, variable speed cw/ccw, with light tools and drip post. (needs new riostat) \$500.00

Call D. Peterson 830-627-8200

Debbie Krause has Century Cactus pups looking for new homes. 210-659-7125

If you have anything to sell, trade or get rid of, contact Gail Hyatt.

Minutes of the MAY Meeting

President Bowie called our meeting to order at 7:00 PM. We began with the Pledge of Allegiance. There were several Guests recognized and welcomed.

Jim Meloche, Treasurer, gave the Treasurer's Report. He also reported that, following the Board's direction; he had turned the club's financial information to an accountant to have a tax return completed.

Sam Rodgers, Hunt Chairman, gave a briefing on the recent Rock Hunts in Eagle Pass and Llano. He reported that a good number of members turned out for each hunt and returned home with many pounds of new specimen to examine.

Kyle Qubrosi, Program Chairman, announced that June's meeting on the 8th will be held at UTSA and that further details will be given in the coming newsletter.

Eva Meloche asked everyone to mark Saturday, October 23 on their calendars, as this is the date that we will have our Annual Picnic. Again, further details will be coming soon.

At 7:20 PM, following our short business meeting, Bob turned the floor over to Lee Cook. Lee not only presented an educational program, but also had hundreds of gemstones for us to enjoy viewing. Many thanks to Lee for the time and effort he put out to bring us such an interesting program. (We wish Lee well during the coming months.)

Following the program we enjoyed our raffle. There were so many great pieces to choose from. Thanks to all that brought/donated and to all that bought tickets.

Gail Hyatt, Secretary

HAVE YOU EVER WONDERED....

.... What makes a **STAR** appear in gemstones i.e. rubies or sapphires for example? Stars can appear in many stones. But, how does that happen? Let's look at this article about Star Stones and Cat's Eyes (taken from Smithsonian's "Rock and Gem" book).

The apparent presence inside a gemstone of a single band of light, or a number of intersecting light bands, can give it an ethereal, even magical quality. Foremost among such gems, both in beauty and in value, are star stones and cat's eyes.

Star stones and cat's eyes are not the names of specific mineral gem varieties. They are certain types of gemstones that exhibit a property called chatoyancy. Chatoyancy is the reflection of light from microscopic inclusions of other minerals within the gemstone. It is best observed when light from a single source, such as the Sun, is directed at the stone; under multiple light sources, the single or intersecting bands of light appear ill-defined or may disappear altogether. A single band is called a cat's-eye effect, intersecting stars are known as asterism.

A common cause of chatoyancy is the presence of the mineral rutile (titanium oxide). Corundum crystals, for example, grow during the metamorphism of clayrich limestone. As the corundum (pure aluminum oxide) crystals grow, they incorporate atoms of titanium. As each crystal cools, the titanium atoms bond with oxygen atoms to form minute needlelike crystals of rutile (titanium oxide) within the corundum crystal. The rutile crystals are forced to align, forming sets of parallel crystals. In star sapphires, microscopic inclusions of rutile orient themselves in three bands lying horizontally at 120 degrees to each other. Viewed from above, the bands intersect as a star. Star sapphires (and other star stones) are cut en cabochon so that the dome of the cabochon is oriented to coincide with the point of intersection with the rutile crystals. If oriented in any other direction, no star appears.

Gems that produce star stones include sapphire and ruby, quartz (which produces six- or twelve-rayed stars), garnet (four-, six-, or eight-rayed stars), spinel (both four- and six-rayed stars), and rarely, kornrupine (four-rayed stars). In every case, the gemstone must be cut in such a way that the optical effect is made visible, and the intersecting sets of light-reflecting tiny, hollow tubes or fibrous crystals appear as bright bands. The most valuable star stones have well-centered stars with straight arms of equal intensity, as well as excellent background color.

CAT'S EYES *The simplest form of chatoyance is the cat's eye, in which the needlelike inclusions are oriented in only one direction, producing a single band of light – reminiscent of the narrow, vertical pupil in the eye of a cat. When a cat's-eye stone is to be cut, the cabochon is oriented along the direction of the inclusions, perpendicular to the length of the crystal. Often, a jeweler making a brooch from a cat's eye will center*

the single line of light that appears so that it bisects the stone. In many smaller pieces the band of inclusions may be allowed to appear to the side of the gem.

*Some well know **Star Stones** are the Star of India, in addition to the rutile bands in this 56.3 carat star sapphire, rutile crystals throughout give it a milky appearance; The Rose Quartz, the relative depths of the three bands of inclusions may be seen inside; Black Sapphire, a 70.8 carat from Sri Lanka shows a rare 12-rayed star; Star of Asia, weighs 330 carats, originating in Burma, it is famous for its size, color, and sharply defined star; Rosser Reeves Star Ruby, is 138.7 carat gem from Sri Lanka and is probably the world's finest star ruby (in an earlier incarnation, it weighed 140 carats, but it was recut in the mid 20th century to center the star); Star of Bombay is a striking star sapphire from Sri Lanka and weighs 182 carats. Movie star Douglas Fairbanks gave it to his wife, Mary Pickford, who bequeathed it to the Smithsonian Institution in Washington, DC.*

Website for South West Gem and Mineral Society:

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