

Pleasant Oaks Gem & Mineral Club of Dallas, TX

Chips and Chatter



September 2016
Vol. 50, Issue 9

1st Place, 2016 SCFMS Mini-Bulletin
1st Place, 2015 SCFMS Mini-Bulletin
1st Place, 2014 SCFMS Mini-Bulletin
1st Place, 2014 AFMS Mini-Bulletin

Member of
SCFMS



Affiliated with
AFMS



Purpose

The Pleasant Oaks Gem and Mineral Club of Dallas is organized for charitable and educational purposes to promote interest in the various earth sciences, particularly those hobbies dealing with the art of cutting and polishing gemstones, the science of gems, minerals and metal crafts, as well as their related fields.

Birthstone for September - Sapphire

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Corundum is the crystalline form of Aluminum Oxide, Al_2O_3 . Corundum of red color is called Ruby, corundum of a pinkish-orange color is called Padparadscha, and corundum of any other color (including clear) is known as Sapphire. Often the color of the stone will be attached to the name such as blue sapphire or white sapphire. The most desired color for sapphire is a deep blue, but sapphires may also be yellow, purple, pink, orange, green, yellow, brown, black, and white. Sapphire is colored by trace elements which replace the aluminum in the crystal structure; the trace elements include chromium, iron, copper, magnesium, and titanium. Trace amounts of iron and titanium cause the blue color in sapphire, and increased amounts of iron and titan cause the blue color to be deeper. If iron without titanium is the trace element, the sapphire will be yellow to pale green. Sapphire is the defining stone for Mohs' hardness of 9.

Transparent sapphires are generally faceted. However, some sapphires (and rubies) exhibit asterism,

more commonly called a star, and are cut as a cabochon. An inclusion of needle-like material, generally rutile (titanium oxide), causes the star. The needles normally align to produce a six pointed star. If there is a second layer of inclusion, the star may be 12 pointed. If the titanium oxide inclusion forms as twinned crystals, a second star with the same orientation as the first star may occur but will be slightly displaced producing a double star.



In addition to jewelry, sapphire has many commercial applications including abrasives, watch face crystals, small bearings for mechanical movements such as watch movements, and as an insulator in semiconductor microchips. Sapphire and ruby were also used as the lasing element in some of the earliest lasers.

Most sapphires are heat treated to improve the transparency and to deepen the color. The one exception is the Yogo® Sapphire. The Yogo sapphire is deep cornflower blue in color. Yogo sapphires became popular in the 1980's when it was revealed that over

95% of sapphires were heat treated; Intergem Limited was able to market Yogo sapphires as guaranteed not to be heat treated.

Infusion is another technique to enhance sapphires. Beryllium is added infused into the sapphires at a very high temperature and initially resulted in orange sapphires which were very similar to natural padparadscha corundum. With improvements in the process, they are now able to create many different colors of sapphire.

Sapphires are mined in many parts of the world. The largest supplier of sapphires is Madagascar, but significant mining operations also occur in Australia, the Kashmir regions of India and Pakistan, Myanmar, Columbia, Malawi, Sri Lanka and Tanzania. Sapphires are also found in the United States, primarily in



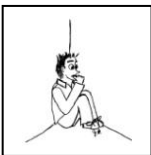
Montana with a few found in North Carolina. The Yogo sapphire comes from the Yogo Gulch near Lewistown, Montana.

In addition to treating of gem sapphires, now many of the commercial stones are synthetic sapphire. The first synthetic corundum (ruby) was created in 1902. In 2003 about 250 tons (that is 1.25×10^9 carats) of synthetic sapphire were produced, mainly by the United States and Russia. As mentioned earlier, the first laser used ruby as the lasing element, and the ruby was synthetic. Sapphire lasers were also popular. Many titanium-sapphire lasers were produced due to their unique capability to be tuned to various red and infrared frequencies.

References

American Gem Society, <https://www.americangemsociety.org>
Wikipedia, <https://en.wikipedia.org/wiki>

Pictures by Don Shurtz of Star Sapphires on display at the Perot Museum of Nature and Science



Editor's Corner – Step Up and Be Counted

Club elections are coming up in the near future. But first we must have nominations for the various elected officers. The Elected Officers, according to our constitution are President, First Vice President (programs), Second Vice President (field trips), Secretary, Treasurer, and Editor. A nominating committee has been appointed and must report out in October with a slate of officers. Elections are in October with new officers installed in November. I think it is time for a major shake-up in our officer cadre. New blood is needed. We need to take the club in a new direction to increase membership and participation. The complaint of the nominating committee in the past has been finding people willing to help out by holding an elected position. I would encourage each member to contact a member of the nominating committee and tell them you are willing to step in. The members of the committee are Carolyn Grady, Ling Shurtz, and Warner Ragan. As a person stays on in a position (and that includes the Editor), it becomes too easy to just coast along doing things the way we always have. Are you willing to step up and be counted?

Show Calendar – Upcoming Show Dates

Sept 3 – 5, Silver City, NM, Grant County Rolling Rock G&MS, Western NM Univ. Gym, jweiner2011@hotmail.com
Sept 10 – 11, Siloam Springs, AR, NW AR G&MS, Hwy 43N & Lawliss Rd, hulagrub@aol.com, www.nwarockhounds.org
Sept 10 – 18, Denver, CO. Multiple shows at multiple locations
Sept 16 – 18, San Antonio, TX, Event Show Management, San Antonio Event Cntr, info@eventshowmanagement.com
Sep 30 – Oct 2, Albuquerque, NM, Jay Pen, NM Expo State Fairgrounds, jaypen246@gmail.com
Oct 1 – 2, Jacksonville, AR, Greater Little Rock Area MF&G Show, Jacksonville Comm. Cntr, thom61847@yahoo.com
Oct 7 – 8, Mount Ida AR, Annual Quartz, Quiltz, and Craftz Festival, Montgomery Cnty Fairgrounds, 870-867-2723
Oct 8 – 9, Temple, TX, Tri-City G&MS, Mayborn Center, burnette@aceweb.com or trinity4112@me.com
Oct 14 – 16, Dallas, TX, International Gem and Jewelry Show, Market Hall, www.intergem.com
Oct 14 – 16, Westwego, LA, G&MS of LA, Inc, Alario Center, greatmre@aol.com
Oct 21 – 23, Austin, TX, Austin G&MS, Palmer Events Cntr, showchairman@austingemandmineral.org
Oct 29 – 30, Oklahoma City, OK, Oklahoma M&GS, Modern Living Bldg, tgabrish@gmail.com

Ref:

- July - August 2016 SCFMS Newsletter
- Rock & Gem Show Calendar, <http://www.rockngem.com/show-dates-display/?ShowState=ALL>

Safety Matters – Safety 101

Ellery Borow, AFMS Safety Chair, from the July – August SCFMS Newsletter



To my knowledge there is no rockhound, mineral collector, fossilhound, lapidary, jewelry maker, Safety 101 class being offered anywhere. In my years and years... and years of safety research I've sort of made up an informal list of what might be offered if there was such a course.

Now, I'm sure you all as good rockhounds, mineral collectors, fossilhounds, lapidary, jewelry makers are aware of, in one form or another, and follow pretty much a self-made list of similar guidelines and one more specifically tailored to your particular activities. So, the following list may be more of a reminder for veteran collectors and a good reference list for newcomers to our great hobbies.

1. Prepare yourself both mentally and physically for the task at hand
- 2 Wear and utilize any and all protective gear suitable for the task.
3. Stay hydrated and consider bringing additional water with you to offer to those less encumbered with thoughts of keeping hydrated.
4. Keep with you or know the whereabouts of a medi-kit, first-aid kit. Learn how to use the contents of the kit.
5. Let folks know where and when you will be both on the road and situated at a specific location. (Cell phone batteries are notorious for quitting at the most inopportune times.)
6. Keep your personal meds with you.
7. Know the guidelines, safety rules of the mine / quarry / building / equipment one is working with / on / in and by.
8. Keep the "Golden Rule" in mind, and, no, I'm not talking about the rule that says "He who has the gold makes the rules."
9. Mind the needs of the critters you bring with you, and the critters you meet along the way.
10. Set a good example in all you do. (I have a good story about motor neurons to relate in a later Safety Matters article)
11. Every minute has the potential to be one in which one can learn something and teach something - or a little bit of both. Take advantage of those opportunities.
12. Take more rest breaks than you might think you need for the task at hand - our body will thank you.
13. Mind the conditions in which you find yourself - too hot, too cold, too wet, too humid, too deep, too close to an edge or slope, too slippery, too hazardous, toooooo . . . anything.
14. Mind that your actions reflect on your club.
15. Note that your attitude makes a huge difference in what you do and how safe you are.
16. Keep your wits about you at all times, you will need them if not now, then later. Personally I have use up so many wits that I am down to a half of one, but that is another story for another time.
17. Have maps handy. Those GPS batteries are also ones that have a habit of failing when most needed.
18. Our hobby is not a race - take the appropriate amount of time to be safe.
19. Keep a personal protective kit with you in case one gets lost and need to spend more time that planned out in the wilds and woolies.
20. Keep in mind the AFMS Code of Ethics - it is as much a safety guide as it is ethics.
21. Learn to fly the plane if the pilot is incapacitated - a metaphor of all experiences in life.
22. Clean up after oneself.

As one might imagine this list is in no particular order and every situation demands its own specific requirements. As a general list of guidelines I'm sure another thousand or so could be added without too much thought.

This list is just a good starting point. Be safe, think safety, becauseyour safety matters.

A TREE OR NOT A TREE
By Mary Owens-ETGMS



When's a tree not a tree?
You may say, "That can't be."
I say, that I did see
A tree is not a tree.
It did look like a tree.
A tree it used to be.
Now, it's a rock, you see,
Called a petrified tree.



In August we lost two Rockhounds from the DFW Area.

On August 6th, 2016 we lost Bill Henderson. Bill was a long time member of the Dallas Gem and Mineral Society. Bill was kind enough to give a presentation at one of our meetings on Gem Photography. Bill also gave demonstrations at the Earth Science Fairs at Brookhaven College on Macro Mineral Photography. His pictures shot through microscope lenses provided detail of minerals and rocks that one did not even know existed. Our prayers and kind thoughts go out to Bill's family.

Then one day later, on August 7th, 2016 we lost Michael Hartz. Michael lived in Weatherford and was a member of both the Fort Worth Gem and Mineral Society and the Arlington Gem and Mineral Club. Michael was a gem and mineral dealer and was a dealer at several of our shows at Ellison-Miles Geotechnical Center (Brookhaven College). It was not uncommon to find him as a dealer at shows throughout the state of Texas. Our prayers and kind thoughts also go out to Michael's family.

1069 Words - Double Star Ruby

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

If a picture is 1000 words, then this short piece and picture are worth 1069 words. The ruby pictured below has a double star likely caused by twinned rutile crystal inclusion as describe in the Sapphire article on page 1. This stone is currently on display at the Perot Museum of Nature and Science.



Visit an Area Club

- [Arlington Gem & Mineral Club](#), 1408 Gibbins, Arlington, TX, 1st Tuesday of each month at 7:30 pm
- [Cowtown G, M, & Glass Club](#), meets the 2nd Tuesday at 7:00 pm, Corp. Emp. Rec. Association (CERA) 3300 Bryant Irvin Rd. Fort Worth
- [Dallas Bead Society](#), meets 1st Saturday of each month at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX
- [Dallas Gem & Mineral Society](#) meets the 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop)
- [Dallas Paleontological Society](#), 2nd Wed. of each month at 7:30 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244
- [Fort Worth Gem & Mineral Club](#), 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth
- [Oak Cliff Gem & Min Soc.](#), 4th Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas,
- [Pleasant Oaks Gem & Mineral Club](#), meets the 1st Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland,



President's Message

Ling Shurtz, POGMC President

I would like to thank Sue Wilson of Garrett Metal Detectors for her demonstration and talk about the operation of metal detectors at our August Meeting. For our September meeting we will break out the All-In-One and do a training session on cabochon cutting. In October we have IGEM – set up will be on Wednesday, 12 October with the show on 14 – 16 October. At our October meeting will have the report out from the nominating committee and the election of new officers for 2017.

Club Officers for 2016

President: Ling Shurtz
1st VP, Programs: Carolyn Grady
2nd VP, Field Trips: Open
Secretary: Lee Elms
Treasurer: Del Grady
Editor: Don Shurtz
E-mail: don.shurtz@gmail.com, l.shurtz@gmail.com

Minutes of the August 2016 Meeting

The August 4th, 2016 club meeting was called to order at 7:30pm by Ling Shurtz.

The Pledge to the flag was led by Lee Elms.

Visitors: Our guest speaker Sue Wilson from Garrett Metal Detectors.

Minutes: There weren't any minutes from last month because our club meeting was our annual 4th of July outing to Spring Creek Bar-B-Q. We sure did have a good time and Don brought a bucket of various size chunks of obsidian for us to take home. It's a good thing Lee carries band-aids in her purse as some of those pieces were very sharp and drew some blood. We did discuss the minutes of the June meeting as printed in the July Chips and Chatter. A motion to accept the minutes was made by Carolyn Grady and the motion was seconded by Bob Parker, and it passed.

Treasurer's Report: Del Grady gave the Treasurer's report. A motion to accept the Treasurer's report was made by

Carolyn Grady and the motion was seconded by Don Shurtz, and the motion passed.

Old Business: There are 3 IGEM shows a year. The one coming up in October is October 14th thru 16th.

New Business:

A nominating committee needs to be established in September. Please let the President know if you are willing to serve on the committee. Warner, Carolyn and Ling volunteered.

After the break we had our presentation of metal detectors. Sue Wilson has worked for Garrett Metal Detectors, headquartered here in Garland, for 22 years. She started in tech service and is now in Customer Service. You can ask her any question you can think of about the metal detectors and she can answer it. These detectors can tell you the depth the object is at. They also have water submersible detectors in case you are looking for sunken treasure. The A series starts at \$199.95 on up to \$399.95. They have some at the factory you can rent for a day or a weekend. There is a \$50 deposit and then \$10/day or \$15 for the weekend. They are real light weight and user friendly.

After the presentation we had our raffle.

The meeting was adjourned at 8:45pm

Respectfully submitted,

Lee Elms, Secretary

Meetings

The September 1st meeting will be the Garland Women's Activities Building, 713 Austin Rd, Garland. The program will be Hands-On instruction on cutting cabochons on an All-In-One capping machine.

The October 6th meeting will be at the Garland Women's Activities Building.

VISITORS ARE ALWAYS WELCOME

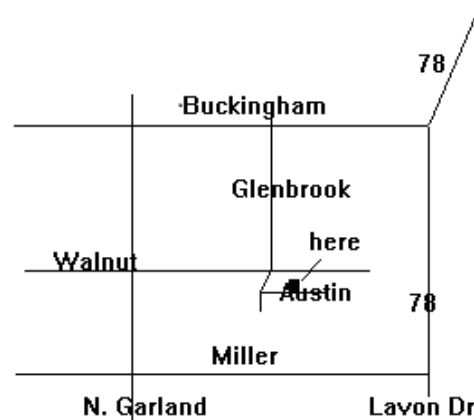
Copyright Information: This issue of the Chips and Chatter is copyright © by Don Shurtz. Unless otherwise noted, permission granted for non-commercial reproduction of articles provided they remain essentially intact and credit is given to the author and original source. Where noted, the author retains the copyright and must be contacted for permission to reproduce the article. All articles may also be used as reference provided citation is given.

PLEASANT OAKS GEM and MINERAL CLUB of Dallas



Meetings
 First Thursday of each month, 7:30 PM
 Garland Women’s Activities Building
 713 Austin St., Garland, TX
 (Northeast corner of Austin & Glenbrook)

Membership
 Single Adult: \$16.50,
 Junior: \$5.00, Family: \$27.50
 (Plus badge fee for new members)



- The September 1st meeting will be the Garland Women’s Activities Building, 713 Austin Rd, Garland. The program will be Hands-On instruction on cutting cabochons on an All-In-One cabbing machine.
- The October 6th meeting will be at the Garland Women’s Activities Building.

CHIPS AND CHATTER

Pleasant Oaks Gem & Mineral Club
 PO Box 831934
 Richardson, TX 75083-1934

To:

VISITORS ARE ALWAYS WELCOME

Feature Articles

A Tree or Not A Tree 4
 Birthstone for September..... 1-2
 1069 Words - Double Star Ruby 4

Monthly Columns

Club information 1, 5, 6
 Editor’s Corner – Step Up and Be Counted 2
 Minutes of the August Meeting..... 5
 President’s Message 5

Notices

Meeting Info 5, 6
 Show Calendar 2
 Sunshine Report 4
 Visit an Area Club..... 4

Federation Information

Safety Matters – Safety 101 2