

# Pleasant Oaks Gem & Mineral Club of Dallas, TX

## Chips and Chatter

1<sup>st</sup> Place, 2013 SCFMS Mini-Bulletin  
2<sup>nd</sup> Place, 2013 AFMS Mini-Bulletin

October 2013  
Vol. 47, Issue 10

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### 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, in particular 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.

### Monthly Meeting

Our next meeting will be October 3<sup>rd</sup>, 2013 at the Garland Women’s Activities Building. The meeting presentation will be a discussion of activities appropriate for very young children (ages 2 – 5) leading to possible club participation with the Perot Museum Early Childhood classes.

### Club Officers for 2013

President: Del Grady  
1st VP: Mark Carter, (972) 680-9223  
Secretary: Lee Elms  
Treasurer: Don Shurtz, (972) 509-2821  
Editor: Don Shurtz  
E-mail: don.shurtz@gmail.com

**VISIT OUR WEB SITE TO VIEW THE CHIPS AND CHATTER IN COLOR**

**Chips and Chatter Deadline:**  
**The 3rd Thursday of each month**

Check our website, [www.pogmc.org](http://www.pogmc.org)  
for prior month issues of the  
**Chips and Chatter**

## Minutes of the September 5<sup>th</sup> 2013 Meeting



The meeting was called to order at 7:40pm by President Del Grady.

The Pledge to the flag was led by Don Shurtz.

The Sunshine Report: Patti Mitchell had knee replacement surgery and is having a good recuperation. Hopefully it will end all the pain she has been in. Our President Del is healing up from his spine surgery really well, too. It's good to see him moving around as good as he is.

We discussed last months' minutes in the Chips and Chatter, motioned, seconded, and voted unanimously to accept the minutes as written.

Don gave us the Treasurers' report and again we motioned, seconded, and voted unanimously to accept the report as given by the Treasurer.

Old Business:

We wanted to thank Don Shurtz for attending the Federation Show. He was very surprised our club newsletter and articles won 6 awards including 1<sup>st</sup> place for mini-bulletins, and our web site placed 2<sup>nd</sup> (no club size categories for web sites).

Don gave us his travel expense report and we approved it.

The Nominating Committee provided a status report

New Business:

We congratulated Don for winning the "Gold Spark Plug Award" at the Federation Show. That is quite an accomplishment.

Field Trips:

Arlington Club Show Sept. 14th and 15th.

Rock and Equipment sale at Keith Harmon's on Sept. 21st. He now lives down in Rusk. It's about a 4 hour drive down there.

Dennison Club Show Sept. 21st and 22nd.

Dallas Club Show Sept. 28th and 29th.

Visitors: We have two visitors who also became new club members tonight. They are Jim and Gayle Spann. They will be on the "Prospectors" show coming up pretty soon.

Don introduced the program tonight and it was the continuation of the DVD we started watching last month about the three teenagers digging for tourmaline crystals. In this episode we watched, the teens were assigned to film themselves digging in the mine, film the crystals they dug, and they could interview some of the expert miners that were there helping them. What the miners look for is the pegmatite. In the center of the pegmatite is the "core zone". There are layers of feldspar, layers of quartz, and then the tourmaline crystals. There is pink kunzite in small pockets before you hit the pink tourmaline. Lithium is what gives the kunzite and the tourmaline its pink color. Some of the huge quartz crystals these kids dug out were 3 to 4 inches across and over 6 inches long and weighing about 8 lbs. We can only dream of holding a crystal that big. The teens really enjoyed their experience in the mine and they each got to choose one of those big crystals to take home with them. Some of the crystals had phantoms in them. We should be that lucky to experience something like that!

We had our raffle table after the DVD presentation.

The meeting was adjourned at 8:55pm.

Respectfully submitted,

Lee Elms, Secretary

## Birthstone for October – Opal

Lee Elms, Pleasant Oaks Gem and Mineral Club of Dallas

Opal is considered the birthstone for people born in October or under the sign of Scorpio and Libra. Opal is a hydrated amorphous form of silica; its water content may range from 3% to 21% by weight, but is usually between 6% to 10%. Because of its amorphous character it is classed as a mineraloid, unlike the other crystalline forms of silica which are classed as minerals. It is deposited at a relatively low temperature and may occur in the fissures of almost any kind of rock, being most commonly found with limonite, sandstone, rhyolite, marl and basalt. Opal is the national gemstone of Australia, which produces 97% of the world's supply.<sup>(1)</sup> This includes the production of the state of South Australia, which amounts to around 80% of the world's supply.<sup>(2)</sup>



The internal structure of precious opal makes it diffract light, depending on conditions in which it formed it can take on many colors. Precious opal ranges from clear through white, grey, red, orange, yellow, green, blue, magenta, rose, pink, slate, olive, brown, and black. Of these hues, the reds against the black are the rarest, whereas white and greens are the most common. It varies in optical density from opaque to semi-transparent. For gemstone use, its natural color is often enhanced by placing thin layers of opal on a darker underlying stone, like basalt. This is called an opal doublet. Common opal is called "potch" by miners, does not show the display of color exhibited in precious opal<sup>(3)</sup>.

Precious opal has a Mohs scale hardness of 5.5 to 6.<sup>(4)</sup>, a Specific Gravity of 2.15(+.08,-.90)<sup>(4)</sup>, a Density of 2.09 and a Refractive Index of 1.450(+.020,-.080)<sup>(4)</sup>. Mexican Opal Refractive Index may read as low as 1.37, but typically reads 1.42-1.43<sup>(4)</sup>.

Opals can express every color in the visible spectrum. The value of opal is dependent on Fire Color, Pattern, Brightness, Directionality, Base Color, and size<sup>(5)</sup>. The Brightness of the fire in opal ranges on a scale of 1 to 5 (5 being the brightest)<sup>(6)</sup>.

Fire Opals (Mexican Opals) are transparent opals with warm body colors of yellow, orange, orange-yellow, or red. They do not show any play of color, although occasionally a stone will exhibit bright green flashes.



Peruvian Opal (also called blue opal) is a semi-opaque blue-green stone found in Peru which is often cut to include the matrix in the more opaque stones. Blue opal also comes from Oregon in the Owhyee region as well as from Nevada around Virgin Valley.

### References (edit source)

- (1) Government of South Australia> Insignia and Emblems> Opal-South Australia's Gemstone accessed 11 July 2012
- (2) Government of South Australia> Insignia and Emblems> Opal-South Australia's Gemstone accessed 11 July 2012
- (3) Government of South Australia> Insignia and Emblems> Opal-South Australia's Gemstone accessed 11 July 2012
- (4) Gemological Institute of America, GIA Gem Reference Guide 1995, ISBN 0-87311-019-6
- (5) Downing, Paul B, Ph.D. "Opal Identification and Value" 1992, pp. 113
- (6) Downing, Paul B, Ph.D. "Opal Identification and Value" 1992, pp. 55-61.

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Fire Opal, picture by Didier Descouens, used under the terms of the GNU Free Documentation License, Version 1.2

### Visit an Area Club

**Arlington Gem & Mineral Club**, 1408 Gibbins, Arlington, TX, 1st Tuesday of each month at 7:30 pm  
Dallas Bead Society, The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX meets 1<sup>st</sup> Saturday of each month at 10:00 am  
**Dallas Gem & Mineral Society** meets the 3<sup>rd</sup> Tuesday of each month at 7 pm, UT Dallas Research & Operation Center, room 2.209  
Dallas Paleontological Society, 2<sup>nd</sup> Wed. of each month at 7:30 pm, Brookhaven Geotechnology Institute, 3939 Valley View Lane, 75244  
**Ft. Worth Gem & Mineral Club**, meets the 4<sup>th</sup> Tuesday of each month at 7:30 pm, 3545 Bryan Ave, Ft Worth, TX  
**Lockheed-Martin Stone Steppers** meets the 2<sup>nd</sup> Tuesday at 7:30 pm, 3400 Bryant-Irving Road, Fort Worth  
Oak Cliff Gem & Min Soc., 4<sup>th</sup> Tuesday of each month at 7 pm, South Hampton Community Hospital, 2929 S. Hampton Rd, Dallas, TX  
**Pleasant Oaks Gem & Mineral Club** meets the 1<sup>st</sup> Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland,  
**Clubs in BOLD FONT are members of the South Central Federation of Mineral Societies**

## I Have A Passion For...

Don Shurtz, Pleasant Oaks Gem and Mineral Club

I have a passion for agates. Agates are a microcrystalline form of silica and have the chemical formula of  $\text{SiO}_2$ . Although agates are often found in or associated with igneous and metamorphic rocks, agates are properly classified as a sedimentary rock. Agates may form in the gas cavities of lava (igneous) or in cracks igneous or metamorphic rocks. The silica is dissolved in hot water and enters the gas bubble or crack where it is deposited. As the agate forms, trace minerals may add color to the dissolved mixture resulting in banding, often with clear quartz separating the different bands. Another theory has it that the silica remains molten in the gas cavity or crack, and as it cools, at a certain point the silica gel almost instantaneously forms a solid with different layers forming over a very short period of time. In any case, the agate forms a banded or transparent solid.

Oops – my passion also includes non-transparent forms of silica. So I guess that would be Jasper. Jaspers are a microcrystalline form of silica and have the chemical formula of  $\text{SiO}_2$  (does that sound familiar). Jasper is also associated with igneous rocks, generally volcanic, but again, like agate, is considered a sedimentary rock. Jasper forms in the veins and cracks of the volcanic rocks, but does not seem to form in the gas bubbles. Jasper can be all of one color, or can be a mix of colors and often a mix of textures. Some jasper is found in areas that a subject of seismic activity which causes the jasper to break apart and then reform. This can lead to islands of the original jasper surrounded by a different color, or multiple colored islands surrounded by still a different color, depending upon the number of times the jasper is broken apart and reformed. Some jaspers exhibit patterning or swirling type patterns. This jasper probably formed in a vein and was never subjected to seismic activity. The patterning and swirling were associated with silica with different densities and cooling (due to generally high concentrations of impurities) and different flows of the silica gel which ultimately formed the jasper. Jasper is generally opaque, but in very thin slivers can appear translucent. The same thin sliver of agate would be transparent.

Oops again - my passion also includes opaque forms of silica that formed in gas bubbles or other voids. This would be Flint. Flints are a microcrystalline form of silica and have the chemical formula of  $\text{SiO}_2$  (now this is getting redundant). If you were British, you would say that flint only forms in the voids of limestone. Flint is (again) a sedimentary rock. It is opaque (it may be translucent in very thin slices) and is generally white or gray but often has other colors mixed in with the base color, and sometimes is entirely lacking a white or grey color. The coloring is caused by impurities in the crystal structure, and as with some jaspers, forms patterns or swirls due to the different density and cooling rates of the various mixtures of silica and its impurities.

Oops yet again – my passion also includes opaque forms of silica that formed in veins and voids in other than limestone. This would be Chert. Cherts are a microcrystalline form of silica and have the chemical formula of  $\text{SiO}_2$  (now this is getting seriously redundant). Some people refer to this as flint, but if you believe the British, it is chert. Chert is (yet again) a sedimentary rock formed in voids and veins, generally in greensand, limestone, chalk, and dolostone. Chert is generally gray or brown, but there are a wide range of shades of the base color that appear in the rock. As with flint and jasper, chert can exhibit patterning and swirling, again due to differing densities and cooling rates as the stone forms. Some would say that chert has a slightly coarser grain than flint, but that is subject to question. What is commonly accepted is that flint is a form of chert that forms in certain chalk and marly limestone formations. Just be careful that you don't tell this to the people from Flint Ridge, they might just toss some of their flint (from flint ridges that form near there) at you.

So how am I supposed to solve the quandary – what is my passion? Perhaps it would be best to say that my passion is for the microcrystalline forms of quartz and leave it at that. By the way – did I mention Obsidian? It is also  $\text{SiO}_2$  (more redundancy), but is an igneous (instead of sedimentary) rock and has no crystal structure. However, it needs be added to my passion list.



### Editor's Corner: This and That

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

I almost made it to the AFMS Convention and Show. We were in Savannah, GA the week the show and convention started, and I hoped to drive down to Jacksonville, FL on the last Sunday for the Breakfast with the Editors and Webmasters followed by the show. However, it did not work out. I did, however, get some emails regarding results of the Breakfast awards. The Chips and Chatter placed 2<sup>nd</sup> in the Mini-Bulletin category, and our web site finished 6<sup>th</sup> (no categories for club size). Not bad for a small club from Dallas!

Mark and I finally had a meeting with the Early Childhood lead at the Perot Museum. The meeting included the Volunteer Coordinator and other Perot staff personnel. The Early Childhood program is primarily for 2 – 5 year old children. What appeared to be most promising was an Activity Table in the Children's Museum which could also include older children. We plan to have discussions at our October meeting about possible activities that club members could conduct at this Activity Table. If we can come up with a good list, we will take it back to the Museum for possible implementation. Any club member who wants to participate will need to fill in a Volunteer Application form and will need to pass a background check (no expense to applicant). I think this is a great way to establish an interface with the Museum leading to further projects and activities with children and adults.



## SAFETY REPORT

George E. Brown, SCFMS Safety Chair  
From the September / October 2013 SCFMS Newsletter



### SAFETY

**CAUSES:** What causes us to do the often dumb and sometimes stupid things that may result in property damage, injury and "heaven forbid" fatalities? Well, unfortunately there is no single cause because if there was than we could correct it and we would all be safe. In the real world, there are numerous causes which singularly or collectively contribute to our problem. Perhaps if we can identify some of them we can eliminate them and increase our chances of being safe.

The following is not a complete list. I'm sure you can think of additional items-and that is good. The purpose of this article is to make you think safety - Safety - SAFETY.

**KNOWLEDGE:** I think most rockhounds know how to be safe. It is your responsibility to be aware of the hazards associated with your equipment and material you handle. It's just dumb to get hurt because you didn't read the instructions.

**APATHY - ARROGANCE:** Why do you think you are immune from injury? Perhaps if you thought about the bad consequence you would change your attitude. To become blind or lose a hand because you didn't care or because you wanted to show how daring you are is absolutely stupid.

**CARELESSNESS, INATTENTION:** These are the most common causes of injury. You must be aware of what you are doing and how you are doing it. Pay attention, be aware, and use caution. Keep your head in the game. A little carelessness can result in a lifetime of permanent disability.

**AWARENESS:** Know your surroundings, avoid dangerous areas, and be alert for danger. You must admit it's just dumb to pick up a piece of metal that you just heated with a torch. These are just a few of the causes. The important thing is to constantly think about safety. Most injuries are caused by dumb acts. Before you do anything, determine if is safe. Be sure you have the proper equipment. Develop a safety attitude, keep alert, practice safety until it becomes routine. Our hobby is much more enjoyable when it doesn't hurt. Safety is your job - do it!

(Editor's Note: Since Martin has been busy, busy, I went back into my files and pulled a Safety Report, which was written for the SCFMS Newsletter March-April, 2001.)

### Show Calendar - 2013 Show Dates for October - December

OCT 4-6, Albuquerque, NM, Albuquerque G&MC, Fairgrounds Creative Arts Cntr, [amypenn246@gmail.com](mailto:amypenn246@gmail.com), [www.agmc.info](http://www.agmc.info)  
OCT 5-6, Jacksonville, AR, Central Arkansas G&MS, community Center, [thom61847@yahoo.com](mailto:thom61847@yahoo.com), [www.centralarrockhound.org](http://www.centralarrockhound.org)  
**OCT 11-13, Dallas, TX, International Gem and Jewelry Show, [www.intergem.com](http://www.intergem.com)**  
OCT 11-13, Metairie, LA, G&MS of Louisiana, Best Western Landmark Hotel, [gemshow2013@gmail.com](mailto:gemshow2013@gmail.com)  
OCT 11-13, Mount Ida, AR, Annual Quartz, Quiltz, & Craftz Show, Montgomery Cnty Fairgrounds, [www.mtidachamber.com](http://www.mtidachamber.com)  
OCT 12-13, Temple, TX, Tri-City G&MS, Mayborn Civic Center, [ddunn2199@yahoo.com](mailto:ddunn2199@yahoo.com), [www.tricitygemmineral.org](http://www.tricitygemmineral.org)  
OCT 12-13, Fort Worth, TX, Lockheed Martin Stone Steppers, LMRA Picnic Area, [steve.l.shearin@Imco.com](mailto:steve.l.shearin@Imco.com)  
OCT 18-20, Austin, TX, Austin G&MS, Palmer Events Center, [www.austingemandmineral.org](http://www.austingemandmineral.org)  
OCT 18-20, Victoria, TX, Victoria G&MS, Community Center, <http://www.victoriagemandmineral.com/annual%20show.htm>  
OCT 19-20, Amarillo, TX, Golden Spread G&MS, Amarillo Civic Center, [finfran@midplains.coop](mailto:finfran@midplains.coop)  
NOV 2-3, Midland, TX, Midland G&MS, Midland Ctr.  
NOV 2-3, Oklahoma City, OK, Oklahoma M&GS, Oklahoma State Fair Park, [halfull101-omgs2@yahoo.com](mailto:halfull101-omgs2@yahoo.com)  
NOV 8-10, Humble, TX, Houston G&MS, Humble Civic Center, [show@hgms.org](mailto:show@hgms.org), [www.hgms.org](http://www.hgms.org)  
NOV30 – DEC 1, Round Rock, TX, Paleo Society of Austin, Old Settler Park  
DEC 6-8, El Paso, TX, El Paso M&GS, El Maida Auditorium, [gemcenter@aol.com](mailto:gemcenter@aol.com)  
DEC 14-15, DeRidder, LA, DeRidder G&MS, Beaugard Parish Fairgrounds, <http://www.lutheransonline.com/gems>

Ref:

July / August SCFMS Newsletter

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

*Chips and Chatter*

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October 2013

Pleasant Oaks Gem and Mineral Club of Dallas, TX

Visit our web site: [www.pogmc.org](http://www.pogmc.org), "Like" us on Facebook

# PLEASANT OAKS GEM and MINERAL CLUB of Dallas

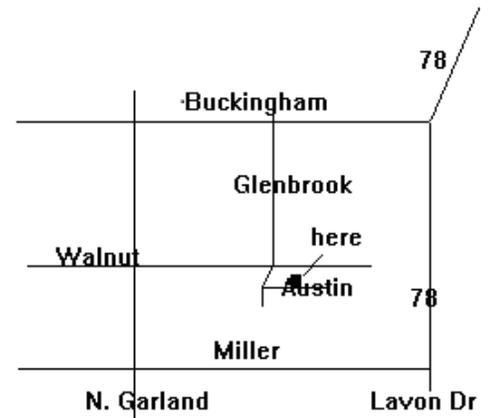


## Meetings

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: \$16.00,  
Junior: \$5.00, Family: \$27.50  
(Plus badge fee for new members)



**CHIPS AND CHATTER**  
**Pleasant Oaks Gem & Mineral Club**  
**PO Box 831934**  
**Richardson, TX 75083-1934**

To:

## Coming Up

Our next meeting will be October 3<sup>rd</sup> at the Garland Women's Activities Building, 213 Austin Rd, Garland, TX. The meeting will start at 7:30. The meeting presentation will be a discussion of activities appropriate for very young children (ages 2 – 5) leading to possible club participation with the Perot Museum Early Childhood classes.

The November 7<sup>th</sup> meeting will start at 7:30 PM at the Garland Women's Activities Building.

The December 5<sup>th</sup> meeting will be our annual Christmas Dinner and Party and will start at 7:00 PM – that is a half hour earlier than normal. More details next month!