

Pleasant Oaks Gem & Mineral Club of Dallas, TX

Chips and Chatter



March 2013
Vol. 47, Issue 3

Feature Articles

Birthstones for March: Aquamarine and Bloodstone...3
 Brookhaven Geotechnology Earth Science Fair4
 Dallas Regional Science and Engineering Fair3
 Iron Pyrite5

Monthly Columns

The Editor's Corner2
 Minutes of the February Meeting.....2
 The Vice President Speaks.....2

Notices

METROPLEX Clubs3
 Show Calendar4
 TXI Field Trip.....4

Federation News

In Memoriam - Charlotte Harmon2

Copyright Information

January 2013 issue of the Chips and Chatter 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.

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

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

Next meeting will be Thursday, March 7th, 2013 at the Garland Women's Activity Building, 713 Austin, Garland, TX. The program will be a DVD "Cash and Treasures TV Visits Topaz Mountain." Topaz Mountain in Utah is famous for amber colored topaz crystals. Other minerals which are also found include red beryl, garnet, amethyst, and hematite.

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

Reminder: 2013 dues are now due

Check our website, www.pogmc.org for prior month issues of the Chips and Chatter



The Vice President Speaks

Mark Carter, Pleasant Oaks Gem and Mineral Club

Come watch the DVD “Cash and Treasures TV Visits Topaz Mountain.” Topaz Mountain in Utah is famous for amber colored crystals of topaz. Unfortunately, the crystals turn clear after exposure to sunlight. In addition to Topaz, other minerals found include red beryl, garnet, amethyst, and hematite.

February 7th 2013 Minutes

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

The Pledge to the flag was led by Mike Kuhn.

Our sunshine report is that everyone is in good health this month.

We voted to accept the January minutes as written in the Chips and Chatter.

We voted to accept the Treasurers' report as given by Ling Shurtz.

Old Business:

2013 dues are past due, so if you have forgotten to pay for this year, please do so.

This years' Regional Science Fair at Fair Park is February 23rd. The Earth and Science Fair at Brookhaven College is also on February 23rd and 24th.

Field trips: Check the newsletter for the list of all local shows.

Visitors: Greg Haake, who is a geophysicist, has joined our club. Welcome Greg, we are glad to have you.

Our program for tonight is a short DVD on Crocoite that Mark Carter came across and shared it with us. Crocoite is one of the most delicate minerals in the world. It was first discovered in Russia in 1766. Later on, it was discovered in Western Tasmania. The Dundas region of Western Tasmania soon became the premier location in the world for these incredibly fragile specimens. Of the numerous mines in the Dundas region, one stands out above them all- the Adelaide Mine. These specimens look like brilliant orange cactus, or orange spiny sea urchins. In the DVD of the Adelaide Mine we could see just how narrow and tight fitting the passageways in the mine were, and how they just gently hand chip away at the rock to uncover a cleft or fissure where these specimens occur.

After the raffle the meeting was adjourned at 8:35pm.

Lee Elms, Secretary



Editor's Corner

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

No soapbox to speak from this month, just a friendly Texas “y’all come out to the meetings”.

In Memoriam – Charlotte Harmon

Charlotte Harmon, wife of Keith Harmon, passed away February 26th. Many of us know Keith and Charlotte from local Gem and Mineral Shows, the Rollin’ Rock Club, and the SCMFS. The funeral will be held at the Rock Hill Baptist Church between Chandler and Brownsboro Texas on Tuesday, March 5th at 3:00 PM. In lieu of flowers, the family requests donations to the AFMS Scholarship Fund (c/o Virginia Adian, 109 Katie Ct, Boerne, TX 78006 or the Hospice of East Texas Foundation, 4111 University Blvd, Tyler, TX 75701.

February's Birthstones: Aquamarine and Bloodstone

Mark Carter, Pleasant Oaks Gem and Mineral Club

The birthstones for March, as published by the American Gem Society, are Aquamarine and Bloodstone.

Aquamarine, as the name implies, is a clear blue stone. Aquamarine is the blue variety of beryl (beryllium aluminum silicate). Other varieties of beryl include emerald (green), heliodor (yellow or golden), Morganite (pink), and red beryl (red or scarlet). The pale blue color of Aquamarine is caused by trace amounts of iron in the crystal lattice. Most aquamarine is mined in Brazil. Other locations for aquamarine mines include Columbia and several locations in Africa. Some aquamarine is found in the United States in Colorado (Mt. Antero) and Wyoming (Big Horn Mountains). The largest gem quality aquamarine crystal was found in Brazil in 1910 and weighed in at 110 kg (242 lbs). The largest cut Aquamarine is the Dom Pedro Aquamarine. It is cut as an obelisk that is 14 inches tall and 4 inches wide.



Bloodstone is a green form of chalcedony that has red colored inclusions of iron oxide (hematite) or jasper. Because the red spots resemble blood, the stone take the name bloodstone. As a member of the chalcedony family, the basic chemical composition is silicon oxide. The green color is often caused minerals of the chlorite or amphibole families. Bloodstone is generally cut as a cabochon but can be cut as a non-translucent faceted stone. Bloodstone is found in India, Madagascar, Brazil, China, Australia, Germany, and the Unites States. In the United States it is found in California, Pennsylvania, Rhode Island, and occasionally at the Woodard Ranch in East Texas.



Ref:

American Gem Society, <http://www.americangemsociety.org/birthstones>
The Mineral and Gemstone Kingdom, http://www.minerals.net/gemstone/bloodstone_gemstone.aspx
mindat.org, <http://www.mindat.org/min-7616.html>
Wikipedia, <http://en.wikipedia.org/wiki/>

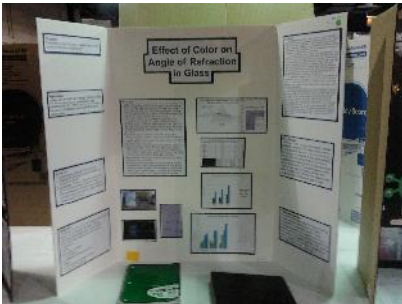
Pictures:

Aquamarine: Wikimedia, http://commons.wikimedia.org/wiki/File:Aigue-marine_Pakistan_180308.jpg. Picture released to public domain.

Bloodstone: Wikimedia, http://commons.wikimedia.org/wiki/File:Bloodstone_gems_stone.jpg. Permission granted under the terms of the GNU Free Documentation License.

Dallas Regional Science and Engineering Fair

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas



On Saturday, 23 February, our club again participated in the Special Award Category for the Pleasant Oaks Gem and Mineral Club Special Award at the Dallas Regional Science and Engineering Fair. The winner will be awarded a \$100 gift certificate to Natures Gallery. The Special Award and Honorable Mention winners are also offered a 1 year membership in the club. This year we awarded Honorable Mentions to Parker Spradley from the Frisco ISD and to James Kinard of the Plano ISD. The Special Award winner was Christopher Progler from the Plano ISD. Christopher's project tested the effect of color on the Angle of Refraction in Glass. Christopher's project has a direct link to the lapidary science as faceted stones depend on refraction and reflection to yield a brilliant gem stone with plenty of sparkle. The science behind refraction and reflection is the backbone of good faceted stone designs.

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 1st Saturday of each month at 10:00 am
Dallas Gem & Mineral Society, meets the 3rd Tuesday of each month at 7 pm, UT Dallas Research & Operation Center, room 2.209
Dallas Paleontological Society, 2nd Wed. of each month at 7:30 pm, Brookhaven Geotechnology Institute, 3939 Valley View Lane, 75244
Ft. Worth Gem & Mineral Club, meets the 4th Tuesday of each month at 7:30 pm, 3545 Bryan Ave, Ft Worth, TX
Lockheed-Martin Stone Steppers, meets the 2nd Tuesday at 7:30 pm, 3400 Bryant-Irving Road, Fort Worth
Oak Cliff Gem & Min Soc., 4th Tuesday of each month at 7 pm, South Hampton Community Hospital, 2929 S. Hampton Rd, Dallas, TX
Pleasant Oaks Gem & Mineral Club meets the 1st Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland,

Show Calendar - 2013 Show Dates for March and April

MAR 2-3, Big Spring, TX Big Spring Prospectors Club Howard Co. Fair Barn

MAR 2-3, Robstown, TX Gulf Coast G&MS Regional Fairgrounds, jsimpson1@stx.rr.com, www.gcgms.org

MAR 7-10, Deming, NM, Deming G&MS, SWMN Fairgrounds, thedgms@gmail.com, dgms.bravehost.com

MAR 8-9, Ada, OK, Ada GM&F Club, Pontotoc Cnty. Agri-Plex, okieed42@windstream.net, www.freewebs.com/agmfc/index.com

MAR 9, Baton Rouge, LA, Rockin' at the Swamp Festival, Bluebonnet Swamp Nature Cntr, ccoco@brec.org, www.brec.org/swamp

MAR 15-17, Albuquerque, NM, Albuquerque G&MC, Albuquerque Stat Fairgrounds, paulhlava@q.com, www.agmc.info

MAR16-17, San Antonio, TX, Southwest G&MS Live Oak Civic Ctr., krbotx@gvtc.com, www.lswgemandmineral.org

APR 13, North Little Rock, AK, Annual Swap Meet, Central Arkansas G&MS, steelpony@aol.com, www.centralarrockhound.org

APR 13-14, Abilene, TX, Central Texas G&MS, Abilene Civic Center, linewalk@juno.com

APR 13-14, Siloam Springs, AK, Northwest Arkansas G&MS, delanec3@earthlink.net, www.nwarockhounds.org

APR 19-21, Alpine, TX, Chihuahua G&MS, Alpine Civic Center

APR 20-21, Lubbock, TX, Lubbock G&MS, Lubbock Civic Cntr, walt@lubbockgemandmineral.org,

www.lubbockgemandmineral.org

Ref:

Nov-Dec SCFMS Newsletter

Rock & Gem Show Calendar, <http://www.rockngem.com/showdates/>

Brookhaven Geotechnology Institute Earth Science Fair

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

The first of the “new” generation of Earth Science Fairs at the Brookhaven Geotechnology Institute has come and gone, and it can be rated at a resounding success. The participation was excellent with more boy and girl scouts than ever. The whole flavor of the Earth Science Fair was changed with the emphasis on learning with dealers being much fewer in number. When the scouts and other youngsters entered the building there were given a sheet of “stations” to be visited which resulted in a definitive set learning objectives to be accomplished. Our booth was next to the “Spintastic” booth where the visitors learned about potential and kinetic energy and inertia. And learn they did, with demonstrations and hands on of spinning tops and yoyos. The yoyos demonstrated levers in tossing the yoyo and the spinning tops demonstrating inertia. The booth seemed to be lined two and sometimes 3 deep with scouts and other kids, and the demonstration and learning sessions were back to back to back. This was just one station. On our other side was a station to learn about plants and seeds. In front of us was a station to learn about fossils. The other room had additional station for other learning objectives.

Our location next to the “Spinastic” booth resulted in us having good crowds of children and their parents to talk to. We had a few people really interesting in our club and I hope some of them will end up being new members. At our booth the kids (undefined upper age) got a free tumbled rock and a free pyrite specimen. On the first day we had participation from Wanda, Butch, and Warner all day long with me showing up later in the day after the Regional Science and Engineering Fair. On day two it was Butch and I manning the booth. Warner had intended on returning as he had left his tools and supplies, but ended up with a migraine headache (ouch). On the first day Warner demonstrated wire wrapping with Butch and Wanda talking about the club. I had both a vibrating tumbler and a rotary tumbler with a Plexiglas cover so people who were interested could see the different tumbling actions. The demonstrations of the vibrating tumbler were quite limited due to the noise it produces. On the second day Butch did a lot of demonstration of beading while I had the All-In-One set up and demonstrated cutting stones. David and Rosella were also at the show as dealers but were passing out a lot of tri-folds and talking to people about the club. On both days we talked up the club and handed out a lot of the tri-folds. As I indicated earlier, I hope our participation results in a little interest and some new members.

TXI Field Trip Coming

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

David Dobson has set up another TXI field trip and is trying to get more participation from our club. The field trip will be on 16 March and is scheduled from 8:00 to 10:00 AM. If you can make it, please contact David directly at RockTrading@aol.com. Although David indicates things start at 8:00 AM you should plan to meet outside the TXI plant in Midlothian at least 15 minutes early. This gives David a chance to collect the necessary forms so that we can start on time. Hard hats and safety glasses are required. I would also recommend steel toed boots or shoes if you have a pair.

The TXI field trips are always a lot of fun. You can generally take your pick of looking for sharks teeth and other fossils or hunting for pyrites. Bring a collecting bucket, some paper to wrap and delicate specimens in, and a rock pick and a gad if you have on.

Iron Pyrite

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

A few weeks ago we purchased an orange sized Iron Pyrite specimen. The specimen had been cut to a trapezoidal shape with some smoothed surfaces but mainly flat, faceted like surfaces. All the surfaces had been polished give the stone a nice appearance. However, it was not in any shape that pyrite would be found naturally. When we think of iron pyrite specimens, we think of cubes, and many specimens are cubical. Technically, the crystalline structure of pyrite puts it in the isometric group – those minerals having 3 mutually perpendicular axes. However, it can also be massive (no discernible crystal structure), radial, and often as a pyritohedron, an irregular (meaning all faces are not necessarily equally sized) dodecahedron (meaning 12 sided). In fact, the name pyritohedron takes its name from the pyrite crystal. In last month's Chips and Chatter there were two images of pyrite from the Perot Museum, one showing cubic faces and the other a pyritohedron looking almost like triangular faces.

Iron Pyrite is found in most areas of the world. Spain is known for its beds of pyrite and many fine specimens come from there. There are also a lot of fine specimens found on the Island of Elba off the coast of Italy. In the United States, pyrite suns, a flattened radial shaped pyrite specimen, are found between the shale and clay layers of Illinois (others are found in Utah and Arizona). Pyrite is also found in many locations in the Dallas area. Nice cubic specimens were found during the construction of the DFW Airport. Our club often has field trips to the TXI Cement factory in Midlothian where many pyrite specimens are found. Some show the classic cubic look while there



others that are found in spheres and in branch-like shapes which both exhibit the radial crystal shape. Other large pieces of pyrite found in Midlothian also exhibit an almost regular six sided shape of thin discs piled on top of each other – likely an example of the pyritohedron crystalline shape. In my yard in Parker I find some pyrite if I dig down to the limestone, and also find a lot of the branch and spherical shaped specimens that have changed from pyrite to goethite (iron oxide) over the time it takes them to migrate from the limestone to the top of the

soil.

One of the common names for pyrite is “fools gold”. This is because pyrite has a golden color and is quite dense, as is gold. Although not common, pyrite is found in some of the same localities where gold is found. The pyrite and the gold will both settle to the bottom of the miner's pan. Biting down on the nugget was the early method to determine if it was gold or pyrite. The gold would deform but the pyrite would splinter – or sometimes splinter the miner's teeth. The accepted practice now is to hit the nugget with a hammer. If it is gold it will deform, if it is pyrite it will crack and splinter.

Although pyrite specimens are nice, most pyrite is used for a variety of commercial purposes. Early in the history of man, it was found that hitting a pyrite with a flint stone could produce a spark lasting long enough to start a fire – a tremendous step up from rubbing two sticks together to start a fire. The spark from flint and pyrite (and later iron) was used as an ignition source for gunpowder in early guns (flintlocks). In the early days of radio, pyrite was often used as a “detector” in the radio. Many a young hobbyist has built a crystal radio with a pyrite crystal detector. Pyrite is also a semi-conductor and its uses are still being explored – one application being looked into is pyrite as a solar converter of light to electrical current. Being composed of iron and sulfur (FeS_2), pyrite is both a source of iron and sulfur products. Most sulfuric acid is derived from the sulfur in pyrite.

As previously mentioned, pyrite is iron sulfide with the chemical composition of FeS_2 . Most pyrite is between a 6 and 6.5 on the Moh's hardness scale. The pyrite streak is black or sometimes black with a greenish hue. Pyrite is hard enough to be formed into jewelry. However, one of the major problems with using pyrite jewelry is the black streak – it will also cause a black streak on your hands, clothing, or where the jewelry is worn. It can also oxidize forming an outer surface of ferric oxide, also known as rust. In fact, some pyrites after a few years will start to rust and can completely rust away in only a few years.

Ref:

1. Desautels, Paul E, Rocks and Minerals, Grosset & Dunlap publishers, copyright © 1974, Ridge Press, Inc.
2. The Mineral and Gemstone Kingdom, <http://www.minerals.net/>
3. WikipediA, <http://en.wikipedia.org/wiki>

Pictures from Wiki Media Commons, <http://commons.wikimedia.org>, Rob Lavinsky, iRocks.com – CC-BY-SA-3.0



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



To:

Coming Up

The March 7th meeting will start at 7:30 PM. The program will feature the DVD “Cash and Treasures TV Visits Topaz Mountain.

The April 4th meeting will start at 7:30 at the Garland Women’s Activities Building (normal location)

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)

MEETING MAP

