



A monthly publication of the Clear Lake Gem & Mineral Society

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NEXT MEETING: November 20, 2017
TIME: 7:30 p.m.
LOCATION: Clear Lake Park Building
 5001 Nasa Parkway
 Seabrook, Texas

INSIDE THIS ISSUE

November Meeting Monthly Meeting Minutes	1- 2	<p><u>NOVEMBER MONTHLY MEETING</u></p> <p>Safety when polishing chains with small parts</p> <p>The Clear Lake Gem & Mineral Society will hold their monthly meeting on Monday, November 20, at 7:30 p.m. at the Clear Lake Park Building located at 5001 Nasa Parkway, Seabrook. The program will be presented by John Caldyne. It will be a short video showing how to professionally polish chains with small parts and will focus on safety. The program will conclude with question and answer. Visitors are always welcomed. http://www.clgms.org/</p>
Board Meeting Minutes Flex Shaft	3- 4	
Pyrite Upcoming Workshop	4- 6	
Smoky Quartz	6 7	
Upcoming Shows	8	

MINUTES OF THE OCTOBER 16, 2017, MONTHLY MEETING



The meeting started at 7:30. Five tables were set up with five different demonstrators. A fun time was had by all at our “School of Rock”! A big thank you to Charlie Timme, Sara Chellette, John Caldyne, Eddie Dove, and Pam Dudley for their demonstrations. I think everyone learned at least one new thing. Let us know if you would like to have another “School of Rock” next year, and suggestions for different demos.

After a short break, the business part of the meeting was conducted. Trina has taken on Facebook postings and advertisements. Trina used Facebook to advertise our “School of Rock”. She requested a backup for this job and Raul volunteered. She said someone asked if we could set up our geode cracker so we are thinking about making that an activity at our Christmas meeting.

Next, an update on our upcoming show from Vince. Security was discussed for the moon rock display. It was also noted we still need an astronaut speaker. Things are moving along nicely for an awesome show. Vince is doing a great job! We will start sending around the volunteer sign up sheet at our November meeting. We need everyone’s help.

Volunteers are still needed to man our table at the Houston Gem and Mineral Show. The dates are Friday Nov. 10, Saturday Nov. 11, and Sunday Nov. 12. Manning the table for a few hours also gets you into the show free!

The photography workshop is on Saturday Nov. 11th at 10am in our usual meeting place. It will be on macro photography. SLR cameras and sure shot cameras will work. Don’t forget your electronic flash, white foam board, stand and clamps so you can photograph specimens you bring or ones that are provided. You are going to learn how to take extreme close ups of your stones under magnification.

Meeting adjourned at 9:10pm.

Respectfully submitted by Pam Dudley, Secretary

MINUTES OF THE NOVEMBER 6, 2017, BOARD MEETING

The meeting was held in the parking lot due to voting machines being set up for an election tomorrow.

Vince has not heard back from NASA on our request for a moon rock display and astronaut speaker. The space suit displays he requested have been approved.

Vince checked with "Texas Monthly Magazine" about putting our rock show flyer in their magazine. They would target our area of about 30,000 people at a cost of \$580. It was decided this would be a great way for us to advertise.

The Houston Gem and Mineral Show is this weekend the 10th through the 12th. Raul needs to call and confirm we have a table. Charlie and Bernice will start the day on Friday and Sara will relieve them. Sandy and Kim will take Saturday morning and Vince will relieve them after he finishes with the photography workshop. David will work Sunday and he will talk to Louise about helping. Saturday is also the South Central Federation Meeting. Hopefully someone will be able to attend.

Sandy reported that 7 vendors are paid in full. We will be having the Dinosaurs Rock program again.

Trina is taking care of Facebook adds for November advertising our show. Vince will check on bandit signs.

Jerry and Jim will check on the gem mine props to see what repairs need to be done.

School of Rock was a success and Charlie's dichroic glass class was fun and informative.

November's program is John Caldyne's talk on polishing jewelry. Vince is already thinking about next year's programs. Please help him out with suggestions. He's doing an awesome job!

December is our Christmas dinner. Rudy's Bar-b-que was suggested for the main part of the meal with members being asked to bring salads and desserts.

Meeting adjourned at 8:12 pm.

Respectfully submitted by Pam Dudley, Secretary

THE METALSMITH'S CORNER – THE FLEXSHAFT

The Cowtown Cutter, Fort Worth Gem and Mineral Club

Do you have a flexshaft and don't know what to do with it? Or maybe want to buy one for your bench?

Check out Facet.com. Andy Cooperman wrote a 7 part series on flexshafts: fundamentals, their uses, how to take care of one, accessories and stone setting uses.

NO FOOLING, IT'S IRON PYRITE

Cheryl Ogletree, Pleasant Oaks Gem and Mineral Club of Dallas



Eureka! I've found my gold mine. It's not that bright yellow mineral that humans have been searching for through the ages. It is that "other gold"; the gold that prospectors threw aside when they were fooled by its brassy sheen and thought they had found real gold. They labeled this mineral fool's gold and worthless. That mineral is iron pyrite.

Iron pyrite (FeS_2) is a compound of iron and sulfur. Pyrite crystals can form cubes and octahedrons. Sometimes a combination of both crystals can occur. In crystallization, cubes can form twinning, a union of two or more crystals. The faces of the crystal are

smooth, crossed by fine, sometimes parallel straight lines. There is not good cleavage.

Pyrite occurs in a variety of environments. It can be found in igneous rock, in metamorphic formations and in sediments. In sedimentary rock, pyrite replaces fossils, seeming by the reaction of the sulfur in the dead animal or plant to the iron in the rock surrounding them. In black shale, nodules are formed under stagnant, anaerobic conditions. In slate, well-shaped crystal cubes can be found. It is, also, a common mineral in hydrothermal sulfide veins.

Pyrite used to be an important ore for the production of sulfur. Today, sulfur is obtained as a by-product through the processing of crude oil and natural gas. The most important use of pyrite is as an ore for gold production.

With pyrite so abundant, worldwide, it's a shame that finding a more economical and beneficial use for pyrite hasn't reached fruition. Maybe, in the near future, through research, we will find a solution to help mankind, through the use of iron pyrite. Researchers at Berkeley National Laboratory have invented a method of producing pyrite nano-crystals from a solution heated under pressure for use in solar cells. There are advantages for using iron pyrite: (1) there is an abundant nontoxic material supply, (2) it has good absorption qualities, and (3) it has a lower cost than silicon.



Pyrite and marcasite are often confused because they are similar in characteristics. Marcasite is a polymorph of pyrite. That means that marcasite has the same chemistry as pyrite (FeS_2) but is a different structure and crystal shape. The marcasite / pyrite pair is notable next to the diamond / graphite pair. To make it more confusing between pyrite and marcasite, marcasite – the mineral name – is also used as a jewelry trade name. So, when one sees marcasite stones all polished,

faceted and inlaid in silver, one is still looking at pyrite. And speaking of jewelry and gems, they often use pyritized fossils in jewelry settings. Pyrite can be cut as domes or faceted cabochons and beads. Did you know pyrite is the “veins” in lapis lazuli, a vivid blue stone?

Last week I was watching a program about a small Scottish island that had a slate quarry. The cottages were made of stones from that quarry. The villages prided their selves in living in sparkling cottages. You ask, “What makes them sparkle?” You're right; it was the pyrite in the slate that sparkled. I guess that I wouldn't mind living in a “gem” of a house, but I'm happy to live in my house with my favorite fool's gold specimens that I've collected and that I will attempt to collect again in the future.

References:

- The Rock Book by Carroll Lane Fenton and Mildred Fenton, Doubleday & Co., Inc., 1940.
- Cambridge Guide to Minerals, Rocks and Fossils, Bishop Woolley Hamilton, Cambridge University Press, 1999,
- Collecting Rocks, Gems and Minerals, Second Edition, 2012; Patti Polk, Krause Publications.
- Processing Iron Pyrite Nanocrystals for Use in Solar Cells, <https://ipo.lbl.gov/?s=pyrite>.
- Minerals.net, <http://www.minerals.net/mineral/pyrite.aspx/>
- The Gemstone Pyrite (Marcasite), http://www.minerals.net/gemstone/pyrite_gemstone.aspx
- The Mineral Pyrite, <http://www.galleries.com/Pyrite>

Geology.com, Pyrite, <http://geology.com/minerals/pyrite.shtml>

Picture by Carles

[MACRO PHOTOGRAPHY WORKSHOP](#)

The Macro Photography Workshop scheduled for November 11, has been rescheduled to Sunday, January 21, 2018.

Gary A. Chelette
gachelette@att.net

[ON THE COLOR OF SMOKY QUARTZ](#)

By Paolo Sanchez, Junior Member of the Pasadena Lapidary Society



On the Color of Smoky Quartz By Paolo Sanchez, Junior Member of the Pasadena Lapidary Society The practical mineral collector would've most likely encountered some of the mineral smoky quartz at least one time in his or her life. Whether it would be at gem shows or at rock hounding trips, this crystalline form of silicon dioxide has not really been a major interest of rockhounds. Usually, smoky quartz would just be sold as a faceting material for beginners, or as crystals serving as decor or paperweights. However, in the scientific community of mineralogy, one thing about this mineral remains of interest:

the color. As implied by the name, the color of smoky quartz is, well, smoky - ranging from a light tint of brown to a blackish hue. While many people would consider the mineral's color to be rather drab, the origin of this color is actually unique in the mineral world.

Picture from Wikipedia—by Dario Crespi

A good majority of minerals receive their color from certain elements in their intrinsic chemical composition or from the light absorption and reflection properties of the mineral's crystal lattice. These minerals are known as idiochromatic. Other forms of minerals include allocromatic minerals, where traces of accessory elements alter the absorption of different colors of light throughout the crystal lattice. Smoky quartz, however, gets its color from a rather surprising source. Smoky quartz is known to form in granitic pegmatites, associated with different minerals and gemstones including

tourmaline, cleveite, and aquamarine. What is unique about these pegmatites is that they contain a significant amount of radioactive elements, particularly the elements uranium, radium, and thorium. Because these elements decay from their radioactivity, they emit gamma rays that are then absorbed by the surrounding rock. When quartz (particularly clear quartz) is in close proximity to these elements, the gamma radiation that is absorbed causes aluminosilicate ion impurities [AlO₄] within the quartz to lose an electron, forming a neutral, aluminosilicate compound which absorbs multiple colors of light.



This coalition between chemical impurities and radioactivity eventually results in the unique, brown to blackish color that gives smoky quartz its name. Fortunately, there is no need to worry about the radioactivity that smoky quartz is exposed to, for the amount of radioactivity in the quartz is so minuscule that it doesn't cause any damage to living species nor the surrounding environment. While this rather common species of silicon dioxide is often underestimated in most of the rock collecting community, the formation of color in smoky quartz still stands as a unique and relatively rare

process in the mineral world.

Works Cited: N.p., n.d. Web. 1 Nov. 2016 -tification of Gemstones, Pearls, and Ornamental Minerals. New York: Arco Pub., 1978. From PLS Rockhound Ramblings, 4/17 via The Rollin' Rock, 9/17 via: The Rockhouser October 2017





SCFMS and MEMBER CLUB GEM SHOWS

<p>AUGUST 12-13, 2017 GONZALES, LA BATON ROUGE G & M SOC. LAMAR DIXON EXPO CTR. TRADEMART BUILDING</p>	<p>AUGUST 19-20, 2017 BOSSIER CITY, LA ARKLATEX G & M SOC. BOSSIER CITY CIVIC CTR.</p>	<p>AUGUST 26-27, 2017 JASPER, TEXAS PINE COUNTRY GMS THE EVENT CENTER</p>	<p>OCTOBER 14-15, 2017 TEMPLE, TX TRI-CITY G & M SOC. FRANK W MAYBORN CIVIC & CONVEN. CTR.</p>
<p>OCTOBER 14-15, 2017 FORT WORTH, TEXAS COWTOWN GMGC CORPORATE EMPLOYEES RECREATION ASSOC. 3300 BRYANT IRVIN ROAD</p>	<p>OCTOBER 20-22, 2017 AUSTIN, TX AUSTIN G & M SOC. PALMER EVENTS CTR.</p>	<p>NOVEMBER 4-5, 2017 ODESSA, TX MIDLAND G & M SOC. ECTOR CO. COLISEUM</p>	<p>NOVEMBER 4-5, 2017 AMARILLO, TX GOLDEN SPREAD G & M SOC. AMARILLO CIVIC CTR.</p>
<p>NOVEMBER 4-5, 2017 ROUND ROCK, TX PALEONTOLOGICAL SOC. OF AUSTIN OLD SETTLERS HERITAGE ASSOC. 3300 PALM VALLEY BLVD.</p>	<p>NOVEMBER 10-12, 2017 MESQUITE, TX DALLAS G & M SOC. RODEO CTR. EXHIBIT HALL</p>	<p>CONVENTION 2017 SCFMS November 10-12, 2017 Humble, TX Houston G&MS Humble Civic Center 8233 Will Clayton Pkwy</p>	<p>DECEMBER 9-10, 2017 LEESVILLE, LA DERIDDER G & M SOC. WEST LA FORESTRY FAIRGROUNDS</p>
<p>JAN 21-22, 2018 FREDERICKSBURG, TX FREDERICKSBURG ROCKHOUNDS PIONEER PAVILION LADY BIRD JOHNSON PK.</p>	<p>JANUARY 26-28, 2018 TYLER, TX EAST TEXAS G & M SOC. TYLER ROSE GARDEN CTR.</p>	<p>February 24-25, 2018 Clear Lake G&MS Pasadena Convention Pasadena, TX</p>	

STONEY STATEMENTS
 Clear Lake Gem and Mineral Society, Inc
 PO BOX 891533
 Houston, Texas 77289

(Postage)

Meeting 3rd Monday of the Month
 7:30 P.M.
 Clear Lake Park Building
 5001 NASA Parkway, Seabrook, Texas



Member of:

Next Annual Show
 February 24-25, 2018
 Pasadena Convention Center

CLGMS is on the Web:
<http://www.clgms.org>



American Federation of Mineral Societies

South Central Federation of Mineral Societies

Clear Lake Gem and Mineral Society, Inc

MEMBER: American Federation of Mineralogical Societies and South Central Federation of Mineral Societies

PURPOSE: To promote education and popular interest in the various earth sciences; in particular in those hobbies dealing with the art of lapidaries and the earth sciences of minerals, fossils and their associated fields.

2017 OFFICERS:	President	Raul Montelongo	832-341-0416
	Vice President	David Tjiok	281-423-4802
	Secretary	Pam Dudley	281-814-1235
	Treasurer	Jerry Newberry	713-705-1030
	Program Director	Vince Barrows	
	Board of Directors:	Shannon Oliver	Jim Edwards
		Mary Wells	John Caldyne
	Newsletter Editor	Annabel Brownfield	

Annual Show 2018	Vince Barrows	Library.....	Vacant
Constitution & Bylaws.....	Sara Chelette	Membership.....	Victoria Faulkner
Community Benefits.....	Vacant	WWW System Admin..	Mike Flannigan
Historian.....	David Tjiok	Refreshments.....	Doug Dann
Publicity.....	Eddie Dove	Education/Field Trips.....	Annabel Brownfield

Membership Dues Jan. to Dec. 2017: Adult \$15:00, \$5.00 per additional adult at same address, Junior \$5.00, \$5.00 per member with adult at same address, Family Dues \$20.00 (4+) at same address. Send Dues to CLGMS, PO BOX 891533, Houston, TX, 77289

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