



Liana has a PhD Geology, University of South Florida, 2014. Dissertation topic: Phreatic Overgrowths on Speleothems in Mallorca, Spain (more info: <http://scholarcommons.usf.edu/etd/5187/>). She is a Lifetime Member: National Speleological Society (caves.org).

She will discuss how caves form and what forms within them and why is it important to protect these natural treasures.

JUNE BIRTHSTONES

June birthdays claim two birthstones; pearls and Alexandrite. Pearls have been wildly popular in jewelry for centuries because of their natural beauty. Alexandrite gemstones are extremely rare and desirable since they change color based on the lighting.

ALEXANDRITE



If you love magic, especially the magic of science, you'll love Alexandrite, the color-change gem. Outside in daylight, it is a cool bluish mossy green. Inside in lamplight, it is a red gem with a warm raspberry tone. You can watch it flick back and forth by switching from fluorescent to incandescent light. The value of the gemstone increases as the color change becomes more distinct.

It is truly spellbinding to see the spectacular changing colors in this wonderful gemstone; you just might feel some of the mysterious magic and lore ascribed to it. It's said to strengthen intuition, aid in creativity and inspire the imagination.

Originally discovered in Russia's Ural Mountains in the 1830s, it's now found in Sri Lanka, East Africa, and Brazil, but this gem is exceptionally rare and valuable.

PEARLS



In all of human history, mankind has admired, even worshipped, pearls. Persian mythology called them “the tears of the gods.” Ancient Chinese legend claims the moon holds the power to create pearls, instilling them with its celestial glow and mystery.

Pearls are unique because they are the only gemstone formed within a living creature. Since natural pearls are rare and difficult to recover from the ocean's depths, man

invented the technique of culturing salt and freshwater pearls from mollusks carefully seeded with irritants similar to those produced by nature.

Cultured pearls come in many beautiful colors, from pale cream and white to rose, lilac, green, gold, gray, and black. There are four main types of cultured pearls: Akoya, South Sea, Tahitian, and Freshwater each having unique qualities that separates them for the other.

Today pearls are both classic and contemporary; a strand of white pearls can be timeless but a bracelet of chocolate pearls is more modern. One thing to keep in mind with pearls, no matter the color or size, they can be worn every day or they can complement the most formal attire.

<http://www.wixonjewelers.com/education/gemstones/gemstone-guide>

[AUCTION – JUNE MONTHLY MEETING](#)

The June meeting will include a members only auction for the equipment that was purchased from the estate of a past club president.

Proxy or phone bids will be allowed. If you are not able to attend in person, make sure you have given another club member your bid info or can be on the phone with them during the bid.

This equipment is industrial grade. If you are a beginner and get this equipment, it is a good idea to have someone come show you how to use it. Better safe than sorry.

The equipment will be broken into 3 lots,

- Big 8” double wheel grinder,
- Single Arbor double sanding drums on a table
- Covington Arbor (extremely versatile) currently has polishing wheels with table. \$100.

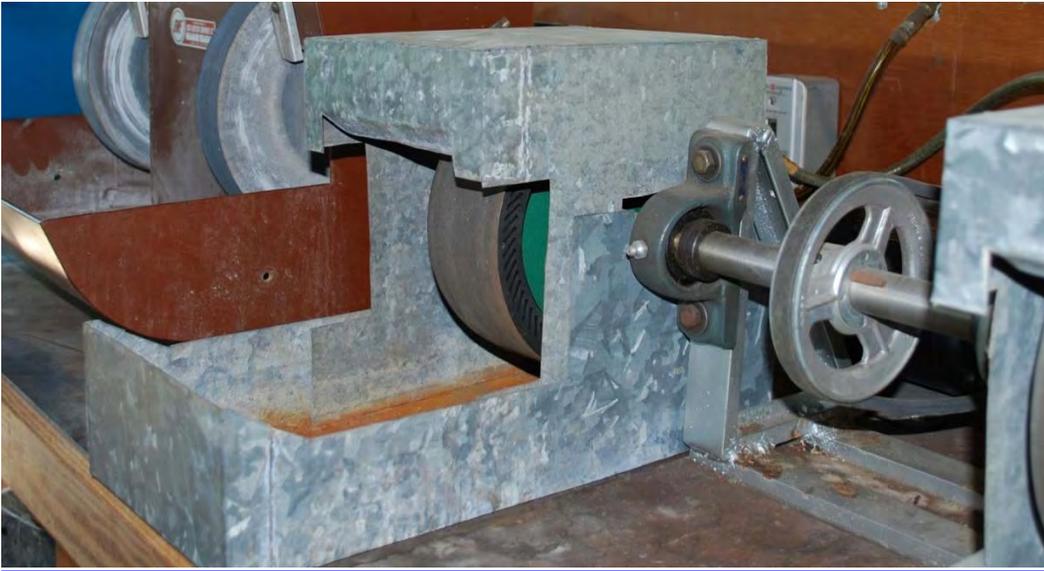
Pictures of the equipment can be seen below and will be brought to the auction. To see the equipment prior to the auction or ask questions visit or contact Gary M-Th at the Treasure Shop 910 Hall Ave in Seabrook.. He may be available other days, but you would need to call to find out. Gary's number is [409-789-7625](tel:409-789-7625).

Winners of the auction will need to pick up their equipment from the Treasure Chest before the end of the month.

Payment of cash or check is preferred at the June meeting, but if winner is bidding via proxy arrangements for payment can be made.



Covington Polisher



Emerson Grinder



Great Western Grinder

http://www.mflan.com/clgms2/covington_polisher.htm

http://www.mflan.com/clgms2/emerson_grinder.htm

http://www.mflan.com/clgms2/great_western_grinder.htm

Also, member Gary Curtiss is selling several of his gem cutting and polishing machines and the big 24" saw. He is also offering uncut lapidary rock that are outside the shop at \$20.00 for a bucket, first come first served. Gary owns The Treasure Chest in Seabrook.

MINUTES OF THE MAY 16, 2016, MONTHLY MEETING



The May meeting was called to order at 7:30.

- We started off with a presentation by Professor John Mohr.
- New folks showed up that heard about us at the Treasure Chest. We got 5 new members today!
- The proposed 2016 budget was presented and approved.
- Jim moved to approve the minutes from last meeting. They were approved.
- We agreed to go to a locksmith to get two new locks and a number of keys for the locker.
- The machines that were recently purchased will be auctioned as a set next month. Please see the newsletter for links to pictures. If anyone would like to see them in person contact Gary at the Treasure Chest. The auction for these will be open to members only.
- The deadline for the scholarships has now passed. We received two applications. Upon their review we plan on giving 2 \$1000 scholarships.
- There was no treasurer report.
- Gary's store the Treasure Chest will be losing its location because the owners are filing for divorce and must sell the property. He has 3-4 months before the property will need to be vacated and put on the market. He is looking to sell many rocks and piles of rocks. He may be selling a 24" saw and other tools.
- Charlie and Bernice will be taking a two week trip to the Denver show in September. They would love to have others caravan with them. Talk to them if you are interested.
- Eddie gave a report of the San Jacinto event where he represented our club. Since we paid the \$50 for the sign, we can now attend future years for free. The weather was perfect. He would like labels for the rocks for next year.
- Sara came back with a report for a new computer. The \$600 we allocated for a computer will buy a good computer that should last a while. Another \$700 would buy a good projector. Our current projector uses an old video connection that is unlikely to be on new laptops. A new member said that she may have another option for a projector.

Respectfully submitted:

Trina Willoughby, Secretary

MINUTES OF THE JUNE 6, 2016, BOARD MEETING



The June board meeting was called to order on June 7th at the Clear Lake Park building. A small congregation of 7 members were present.

- The constitution has been updated and emailed to the board for review. This will be discussed at the July board meeting.
- Jim and Jerry are working on the new stands for our show signs.
- For the equipment auction. This will be a member's only auction. Proxy or phone bids will be allowed. The equipment will be broken into 3 lots,
 - Big 8" double wheel grinder,
 - Single Arbor double sanding drums on a table
 - Covington arbor (extremely versatile) currently has polishing wheels with table. \$100.
- Prior to the auction, the machines can be seen at Thur. – Mon. The Treasure Shop 910 Hall Ave, Seabrook 77586. For additional times call Gary at 409-789-7625
- Machines will need to be picked up by the end of June.
- The scholarships applications have been reviewed and approved. Sara will give Kim the go to contact them and see if they can show up for the June meeting.
- If anyone has tickets from the show that they took to type up, please turn them in.
- We authorized researching prices for a florescent box.
- Presentations are set up for meetings through July. We need presentations for August through November. Mike can present to one meeting, but he isn't sure when he will be available. John could also give a talk on petrified wood and formation.
- The convention center is ready for the next two contracts. We decided that filling this out and returning should be done by the show coordinator (Sara).
- David was nominated to be bring snacks for the next meeting as our snack coordinator will not be in town. Mike will relay this to David.

Respectfully submitted
Trina Willoughby, Secretary

LESEDI LA RONA

from Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Lesedi_La_Rona
 via Backbenders Gazette, June, 2016



Lesedi La Rona, formerly known as **Karowe AK6**, is the second-largest gem-quality diamond ever found, after the Cullinan. It is the third-largest diamond ever found after the Cullinan and the larger, non-gem black Sergio. It was found in the Karowe mine in Botswana on 16 November 2015. It weighs 1,111 carats (222.2 g; 7.84 oz) and is “nearly the size of a tennis ball.”

Description: The Lesedi La Rona is a colourless/white, type IIa diamond. It weighs 1,111 carats (222.2 g; 7.84 oz) and measures 65

mm × 56 mm × 40 mm (2.6 in × 2.2 in × 1.6 in). In size, it is second only to the Cullinan, discovered in 1905 in South Africa, which weighed 3,106.75 carats (621.350 g). The Lesedi La Rona was mined using Large Diamond Recovery (“LDR”) XRT machines, and is the largest diamond recovered using machines for automated diamond sorting.

Lesedi La Rona



The Lesedi La Rona in 2015

Weight	1,111 carats (222.2 g; 7.84 oz)
Dimensions	65 mm × 56 mm × 40 mm (2.6 in × 2.2 in × 1.6 in)
Colour	Colourless/white, <u>type IIa</u>
Cut	Raw
Country of origin	Botswana
Mine of origin	Karowe Mine
Discovered	16 November 2015
Owner	<u>Lucara Diamond</u>

It was found on 16 November 2015, and the find was announced on 18 November. A day later, two more diamonds weighing 813 and 374 carats (162.6 and 74.8 g) were also found in the mine. Since the AK6 pipe was opened 18 months earlier, it has yielded over 1,000,000 carats (200 kg) of diamonds.

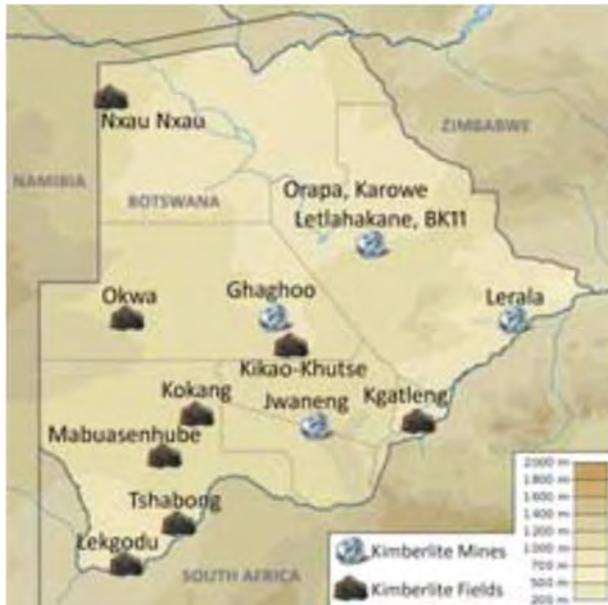
The stone proved too big for the company’s own scanners, so it will probably be sent to Antwerp, Belgium, for assessment.

Name: The diamond was first given a generic name after the mine (Karowe) and the pipe (AK6) where it was found. On 18 January 2016, Chief Executive Officer William Lamb of Lucara Diamond announced a competition, open to all Botswana citizens, to name the stone. In addition to naming the diamond, the winner would receive

P25,000 (about \$2,170).

On 9 February 2016, Lucara Diamond announced that the stone had been named Lesedi La Rona which means “Our Light” in Tswana language. The winner of the competition who named the diamond was Thembanani Moitlhobogi from Mmadikola. He stated that his reason for the name was that “the diamond is a pride, light, and hope of Batswana.” During the competition, Lucara Diamond Corporation received 11,000 emails and 1,000 SMSs with name suggestions.

Find location



It was found in the south lobe of Canadian company Lucara Diamond’s Karowe mine about 500 km (310 mi) north of Gaborone in Botswana. The mine is located in the Letlhakane region, where it shares the three diamond-producing kimberlites of Orapa, Letlhakane, and Damtshaa, with the Debswana Diamond Company Ltd. The first diamond from the mine was retrieved in 2012. Botswana, South Africa, and Namibia are the world’s three top producers of mined diamonds.

Diamond mines and kimberlite fields in Botswana

Technology: The diamond was recovered by a TOMRA large diamond recovery (LDR) machine utilizing X-ray transmission sensors. In May 2015, the operation at the Karowe Diamond Mine replaced their Dense Media Separation (DMS) technology with six TOMRA XRT sorters for sorting material in the -60+8mm size range. The X-ray transmission (XRT) sorting technology was selected following a suite of tests. Each sorter can sort up to 150 metric tons (330,000 lb) of material per hour; after that, the concentrate goes directly to hand sorting. Karowe Diamond Mine is the first mine using this automated diamond sorting solution.

Value: The exact value of the stone cannot be determined until it is decided how it will be cut and when more details about its color are known. Former diamond-mining geologist Phil Swinfen estimates, based on other similar sales, that the stone could be sold for \$40–60 million. The process of selling and cutting the diamond “will likely take years to complete.” In May 2016, Sotheby’s in London announced that the Lesedi La Rona diamond would be offered in a stand-alone auction on 29 June 2016. It was expected to sell for around \$70 million. After closer examination, the diamond was presented at the auction as weighing 1,109 carats.

See also: List of largest rough diamonds

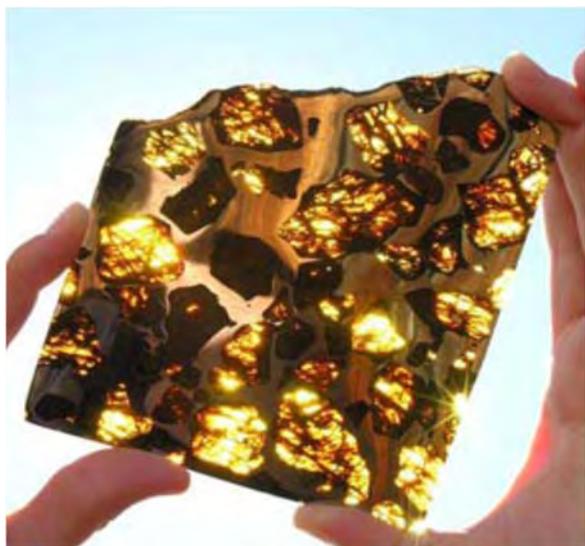
References: See article at https://en.wikipedia.org/wiki/Lesedi_La_Rona

External links: Lucara Diamond Web site

[THE BEAUTIFL FUKANG \(CAREFUL NOW!\) METEORITE](#)

<http://www.amusingplanet.com/2013/05/the-beautiful-fukangmeteorite.html>

from *Granite State Geologist* 03/16, via *The Rockhounder* 05/2016, via *The Backbenders Gazette*, 06/2016



The Fukang meteorite, believed to be some 4.5 billion years old, which is as ancient as Earth itself, was unearthed near a town of the same name in China in 2000. It is a pallasite, a type of meteorite with translucent golden crystals of a mineral called olivine embedded in a silvery honeycomb of nickel-iron. It's a gorgeous meteorite, and possibly the most stunning extraterrestrial piece of rock man has ever seen. The Fukang meteorite was found by a hiker. The man had often stopped and had lunch on this giant rock, and he always wondered what the metal and crystals were. He finally took a

hammer and chisel and broke some pieces off, which he sent to the USA to confirm that it was a meteorite.

[BENCH TIPS BY BRAD SMITH](#)

QUICK CLOSE-UPS



Often when trying to get a close-up photo with your iPhone or Android, you end up with a fuzzy, out-of-focus image. Next time try using your loupe over the camera lens. It works quickly and easily.

LITTLE THINGS CAN BITE

Most jewelers treat motorized equipment with caution. We've all heard stories about workpieces coming loose in the drill press or about getting long hair or clothing caught in the polishing machine. It stands to reason that a machine with a motor of a half horsepower or so is going to win out over its operator. We all know that, and I'm not going to harp on it. That's not the point of this story.

I want to talk about the smaller motor powered machines we often use, the ones with little 3 inch diameter motors. For instance, these small motors are used in flex shafts and micro buffers. They're so small that many of us forget caution when using them. I'm guilty of it myself sometimes, and believe me it can get you in trouble. Here's what happened to two people I know.

One friend had a polishing bur bend in the hand piece and then whack the thumb that was holding the workpiece so badly that it seemed the bone might be broken. The swelling was substantial, and it took several weeks to regain normal use. A small underpowered motor? I don't think so.

Another friend was using one of the small buffing machines, the kind you can stop when you apply too much pressure to the wheel. Not to worry about such an underpowered beast you say. Wrong, it literally jumped up and bit the hand that feeds it !

Buffer was set on a low table to do a quick polish, so was not mounted or clamped. A buff was installed on the right spindle, no buff on the left. Friend was wearing a tight-fitting, long-sleeved sweater. While buffing on the right wheel, the left tapered spindle caught a thread on the friend's left sleeve and started grabbing more and more threads and sleeve.

Rather than pulling the arm into the machine, the light buffer quickly lifted off the table and started climbing up the underside of the friends arm. There was no way to get a hand of the on/off switch because the unit was spinning wildly and battering my friend like a club wielded by a mad man. Only when my friend could grab the gyrating power cord and yank it from the wall did the mayhem stop.

So when you're in the shop, please think safety. Don't take even those little motors for granted.

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"Bench Tips for Jewelry Making" and "Broom Casting for Creative Jewelry" are available on Amazon.

SPELEOGENESIS

From Wikipedia, the free encyclopedia



Speleogenesis is the origin and development of caves, the primary process that determines essential features of the hydrogeology of karst and guides its evolution. It often deals with the development of caves through limestone, caused by the presence of water with carbon dioxide dissolved within it, producing carbonic acid which permits the dissociation of the calcium carbonate in the limestone.

The majority of limestone caves are created by calcium carbonate dissolution by the solvent action of meteoric waters circulating through the rock.

In the presence of carbon dioxide saturated water, calcium carbonate reacts to form the soluble calcium bicarbonate.



As meteoric waters precipitate they dissolve atmospheric carbon dioxide to form a dilute carbonic acid solution, which builds up in permeable fissures, bedding planes, joints, and faults within limestone rocks. The exposed limestone then reacts to become calcium bicarbonate which dissolves in the water and is removed from the fault as the solution flows away.

Phreatic passages develop in conditions of complete water-fill meaning that ceilings and walls may be eroded as readily as floors. The form is generally that of an ellipse along the host fissure, whilst more circular forms generally indicate faster solvent flow and deep pockets are often indicative of slower flow.

Vadose passages develop where the water has a free surface (i.e., in the vadose zone), and are varieties of entrenched, canyon-like channels as found with surface rivers. It is common to see a younger canyon entrenched in the floor of a phreatic passage, signifying a lowering of the water table.



Members are always encouraged to bring a report of their latest field trip or of your own special dig. Bring in your prize specimens and educate us. Show us you rockhounding finds.

SCFMS and MEMBER CLUB GEM SHOWS			
July 2-3, 2016 Arlington G&MS Grapevine Convention Center Grapevine, TX	July 30-31, 2016 Cowtown Gem & Min. Glass Society 3939 Bryant Irvin RD Fort Worth, Texas	Aug 13-14 2016 Baton Rouge, LA Baton Rouge GMS Lamar Dixon Expo Cen. Gonzales, LA	August 20-21, 2016 Bossier City, LA Ark-La-Tex G&MS Bossier City Civic Center
August 27-28, 2016 Pine Country G&MS Events Center Jasper, TX	October 8-9, 2016 Temple, TX Tri-City G&MS Mayborn Civic Center	October 21-23, 2016 Austin, TX Austin G&MS Palmer Events Center	October 29-30, 2016 Glen Rose, TX Paleo. Soc. Of Austin Somervell Expo Center Hwy 67
November 5-6, 2016 Amarillo, TX Golden Spread G&MS Amarillo Civic Center Exhibition Hall	November 6-7, 2016 Midland, TX Midland G&MS Midland Center	November 11-13, 2016 Humble, TX Houston G&MS Humble Civic Center 8233 Will Clayton Pkway	November 29-30, 2016, Paleontological Soc. Of Austin Old Settlers Park Hwy 29 E Round Rock, TX
January 14-15, 2017 Fredericksburg, TX Fredericksburg Rock hounds Lady Bird Johnson Municipal Park	January 27-29, 2017 Tyler, TX East TEXAS G&M Show Rose Garden Center	February 18-19, 2017 Georgetown, TX Williamson Co. G&MS San Gabriel Park	February 25-26, 2017 Plainview, TX Hi-Plains G&MS Ollie Liner Center
Feb 25-26, 2017 Pasadena, TX Clear Lake G&MS Pasadena Convention Center	March 04-05, 2017 Big Spring, TX Big Spring Prospectors Club Howard Co. Fair Barn	March 4-5, 2017 Robstown, TX Gulf Coast G&MS Regional Fairgrounds	March 11-12, 2017 Southwest G&MS San Antonio Event Cen. 811 Meadow Leaf Dr. San Antonio, Texas
April 08-09, 2017 Abilene, TX Central Texas G&MS Abilene Civic Center North 6th & Pine	April 15-16, 2017 Alpine, TX Chihuahua G&MS Alpine Civic Center	SCFMS November 10-12, 2017 Humble, TX Houston G&MS Humble Civic Center 8233 Will Clayton Pkwy	

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 27-28, 2016
 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.			
2015 OFFICERS:	President	Raul Montelongo	
	Vice President	David Tjiok	
	Secretary	Trina Willoughby	
	Treasurer	Mike Flannigan	
	Program Director	vacant	
	Board of Directors:	Shannon Oliver	Sara Chelette
		Bob Brock	Jim Edwards
		Sandra Christiansen	vacant
	Newsletter Editor	Annabel Brownfield	
Annual Show 2016	Sara Chelette	Library.....	Vacant
Constitution & Bylaws.....	Sara Chelette	Membership.....	Victoria Faulkner
Community Benefits.....	Vacant	WWW System Admin..	Mike Flannigan
Historian.....	David Tjiok	Refreshments.....	David Tjiok
Publicity.....	Eddie Dove	Education/Field Trips.....	Annabel Brownfield
Membership Dues Jan. to Dec. 2016: 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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