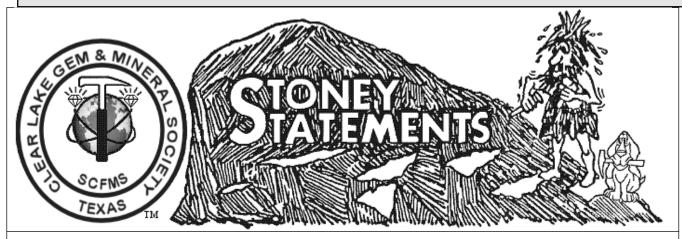
April 2023 NUMBER 4 VOLUME 49





NEXT MEETING: Tuesday, April 18, 2023

TIME:

7:00 p.m. Helen Hall Library LOCATION: 100 W Walker St.

League City, Tx 77573

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Board/General Meeting Minutes Upcoming events	2	We will have a regular General Meeting – Reports and 5 minutes show and tell. We will have a good presentation by Sara CrystalFaerie Pomey, one of our new members and a vendor at our last show. Please			
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Natural Diamond Colors	3-7	2023 Membership dues.			
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MINUTES OF THE March CLGMS GENERAL MEETING

Show Report:

We grossed \$35,108 (tentative) total from table and vendors sales.

"V" Lounge was a big hit for both vendors and volunteers.

Placing a sign on the entrance doors: "Do you have a ticket?" – This to prevent confusion that the ticket windows are outside instead of inside.

Letting the parents know what the raffle tickets (Children's activities) are for would be helpful in the main ticket area.

Have the hours for Sunday are 11-4pm? – The Sunday's show hours will not be changed. We will keep it as is 10-5.

See if we can get more handicap spots available – This will be handled by PCC.

10 signed up for membership at our table.

MINUTES OF THE April CLGMS BOARD MEETING.

No report - there were no April, 2023 BOD meeting (even month).

Our next show will be February 24-25, 2024.

<u>Upcoming events - We are looking forward to the following programs</u>.

April 2023 - Sara CrystalFaerie Pomey, owner of Oak Haven Crystals, will be the featured speaker. The topic will be "Inspired by Nature, Elements of Color and Design"

Sara CrystalFaerie Pomey began collecting rocks as soon as she could pick them up. Inspired at an early age by her Great-Great Grandmother who was also a jeweler. Fueled by the passion to create and immense subject matter of minerals.

After 15 years running one of the oldest crystal shops in the country, she relocated to South Eastern Texas, September 2021. Oak Haven Crystals became a dream realized when it opened its doors in Dickinson, August 16, 2022.

She is grateful for the opportunity to share her joy for lifelong learning and experience with the community. The presentation will focus on elements of design in jewelry making with wire and hand tools, stone selection, with examples, and a demonstration.

Oak Haven Crystals 3709 Fatta Dr. Dickinson, TX 77539

Please check out our Facebook page: Clear Lake Gem and Mineral Society.

Field Trips Announcement

Hi Y'all! Please check my complete rockhunting schedule for the Spring of 2023. I've included all the hunts I know about in the Big Bend, including those led by Aaron Thomas and Jean Larremore, through May 1. Both Aaron and Jean are leading hunts in May, but I stopped my calendar at the end of my hunts in order to get it out sooner...

Aaron, Jean and I work independently of each other. Each of us will be booking our own trips. Contact information for all of us is here:

Teri Smith's rockhunts: email me at <u>agatehunter@sbcglobal.net</u> or <u>teri@terismithrockhunts.com</u>. If no one has signed up for a rockhunt 48 hours before it's to start, I will cancel the hunt and make other plans. Hunt cancellation notices will be put up on my website, www.terismithrockhunts.com, and sent out to my email list. But if even just one person signs up, the rockhunt will happen. My rockhunts also require you to join the Rollin' Rock Club once a year. The cost (\$10 per person or \$16 per couple) covers you for the entire year. This provides insurance that protects the landowner in case we damage something.

Aaron Thomas' rockhunts: email him at <u>texastakeahike@gmail.com</u>, or visit the website www.takeahiketexas.com

Jean Larremore's rockhunts: email her at **jeanlarremore@yahoo.com**, or through Facebook messenger. Please make your reservation with her at least 2 or 3 days before the rockhunt.

For all hunts, you'll need to bring along lots of drinking water (1/2 liter per hour on hot days) and lunch. You'll need to wear desert-savvy clothes, including boots, long pants, a long-sleeved shirt, work gloves, and a hat. Having bags or a bucket to put your rocks in is a very good idea. And sunscreen is essential.

I hope to see y'all out here this spring! Regards, Teri

P.S. I have lots of rocks for sale, too. I've lowered the prices on many types of agate and specimens. And of course I can mail the rocks to you very easily!

If you have a good location for our club field trip – please contact: annabel.brownfield@gmail.com or call/text: 281-486-1866.

Natural Diamond Colors

Geologyworks.com

Diamond is a metastable allotrope of carbon, where the carbon atoms are arranged in a variation of the face-centered cubic crystal structure called a diamond lattice. Diamond is less stable than graphite, but the conversion rate from diamond to graphite is negligible at standard conditions. Diamond is renowned as a material with superlative physical qualities, most of which originate from the strong covalent bonding between its atoms. In particular, diamond has the highest hardness and thermal conductivity of any bulk material. Those properties determine the major industrial application of diamond in cutting and polishing tools and the scientific applications in diamond knives and diamond anvil cells.

Most natural diamonds are formed at high temperature and pressure at depths of 140 to 190 kilometers (87 to 118 mi) in the Earth's mantle. Carbon-containing minerals provide the carbon source, and the growth occurs over periods from 1 billion to 3.3 billion years (25% to 75% of the age of the Earth). Diamonds are brought close to the Earth's surface through deep volcanic eruptions by a magma, which cools into igneous rocks known as kimberlites and lamproites. Diamonds can also be produced synthetically in a HPHT method which approximately simulates the conditions in the Earth's mantle. An alternative, and completely different growth technique is chemical vapor deposition (CVD). Several non-diamond materials, which include cubic zirconia and silicon carbide and are often called diamond simulants, resemble diamond in appearance and many properties. Special gemological techniques have been developed to distinguish natural diamonds, synthetic diamonds, and diamond simulants.

A chemically pure and structurally perfect diamond is perfectly transparent with no hue, or color. However, in reality almost no gem-sized natural diamonds are absolutely perfect. The color of a diamond may be affected by chemical impurities and/or structural defects in the crystal lattice. Depending on the hue and intensity of a diamond's coloration, a diamond's color can either detract from or enhance its value. For example, most white diamonds are discounted in price when more yellow hue is detectable, while intense pink or blue diamonds (such as the Hope Diamond) can be dramatically more valuable. Of all colored diamonds, red diamonds are the rarest. The Aurora Pyramid of Hope displays a spectacular array of naturally colored diamonds, including red diamonds.

Diamond Colors

Diamonds occur in a variety of colors; steel gray, white, blue, yellow, orange, red, green, pink to purple, brown, and black. Colored diamonds contain interstitial impurities or structural defects that cause the coloration, whilst pure diamonds are perfectly transparent and colorless.

Brown Diamonds

Brown diamonds are the most common color variety of natural diamonds. The brown color makes them less attractive as gemstones because of the reduced glimmer, and most are used for industrial purposes. However, improved marketing programs, especially in Australia and the United States, have resulted in brown diamonds becoming valued as gemstones in recent years and even referred to as chocolate diamonds.

A significant portion of the output of Australian diamond mines is brown stones. A large amount of scientific research has gone into understanding the origin of the brown color. Several causes have been identified, including irradiation treatment, nickel impurities and lattice defects associated with plastic deformation; the latter is considered as the predominant cause, especially in pure diamonds. A high-pressure high-temperature treatment has been developed that heals lattice defects and converts brown diamonds into yellow or even colorless stones.

Orange Diamonds

The vast majority of all diamonds contain some nitrogen. In orange diamonds the nitrogen atoms have grouped themselves in a very specific way. This happens during and right after the diamond is formed. These nitrogen arrangements absorb light in the blue and yellow region of the spectrum producing an orange color. Orange Diamonds may contain a brown, yellow or pinkish modifying color.

The majority of orange diamonds come from Africa. The interest in this color surged in 1997 with the auction of the Pumpkin Diamond, so named by the buyer Ronald Winston as it was purchased the day before Halloween. The 5.54 carat vivid orange diamond, was at the time the largest vivid orange diamond ever found.

Yellow Diamonds

Yellow diamonds the nitrogen atoms have grouped themselves in very specific ways. This happens during and right after the diamond is formed. These nitrogen arrangements absorb light in the blue region of the spectrum producing a yellow color. Yellow diamonds can contain an orange, green or brown modifying color. The most notably large and intense yellow diamonds have been discovered primarily in South Africa. The Allnatt, a 101ct cushion shape fancy vivid yellow diamond is perhaps the most significant yellow diamond in history,

named after its original owner Major Allnatt in the 1950s. One of the largest polished diamonds in the world is the Incomparable, a 407ct internally flawless brownish yellow diamond.







Brown Diamond

Orange Diamond

Yellow Diamond

Green Diamonds

Green diamonds acquire their color after their trip to the earths surface when they rest in the ground near naturally occurring radiation. This radiation pushes into the diamond causing absorption in the red and yellow regions of the spectrum producing a green color. Green Diamonds can contain a yellowish, bluish or grayish modifying color

Green diamonds are found predominately in regions of Africa and South America. The Dresden Green is the most famous green diamond. Weighing approximately 41 carats, it is often referred to as the cousin of the Hope Diamond for its historical importance. predominately in regions of Africa and South America. The Dresden diamond. Weighing approximately 41 carats, it is often referred to as the cousin of the Hope Diamond.

Blue Diamonds

The bonding of boron to carbon causes absorption in the red, yellow and green parts of the spectrum producing a blue color. Blue Diamonds may contain a gray, violet or greenish modifying color.

The Cullinan mine and Golconda region are the most notable areas where blue diamonds have come from. The most famous blue diamond in history is the 45 carat Hope Diamond. In 2008 The Wittelsbach Diamond, a 35.56 carat cushion-shaped fancy deep blue, was purchased at auction for \$24 million. Experts compare this stones color and characteristics to the famed Hope Diamond.

Pink Diamonds

Diamonds become pink when heat and pressure deep within the earth cause the crystal lattice to distort. These distortions cause Pink Diamonds to absorb green light and hence impart a pink color. This can often be seen as in parallel bands within the diamond. Pink Diamonds may be modified by an orange, brown or purplish color. Pink diamonds can be graded faint, very light, light, fancy light, fancy intense, fancy deep and fancy vivid. And like other hues, the stronger the color, the higher the price tag.

Pink diamonds often feature secondary hues – an additional modifying color. The most common modifying colors are orange, brown and purple.

Natural pink diamonds can be found in Brazil, Russia, Siberia, South Africa, Tanzania and Canada. However, the majority of these breathtaking stones hail from the Argyle Mine in Australia, which is owned by Rio Tinto. The firm's headquarters is also in Perth, Western Australia.

Here, the finest quality pink diamonds from the Argyle mine are cut and polished before they are sold via an exclusive tender. For proportions and to understand the rarity of pink diamonds, out of every 1 million carats of rough diamonds that the mine produces, just 1 carat is suitable to sell.







Green Diamond

Blue Diamond

Pink Diamond

Red Diamonds

Red diamonds are extremely rare. Basically they are very strongly and deeply colored pink diamonds, with the same cause of color, crystal distortion. This combination is so rare that most jeweler and diamond dealers have never even seen a natural red diamond. They do not get large with the 5.11 carat Moussiaf Red shield being the largest known red.

Purple Diamonds

Purple diamonds are very rare. It is believed that they have a similar cause of color as pink diamonds; crystal distortion. They are most often found in Siberia and are generally small in size. There are no historical or famous purple diamonds. This may be due to their inhospitable location. Purple diamonds larger than 5 carats are extremely rare, and their color rarely reaches the intense and vivid color grades.

Violet Diamonds

Violet diamonds are very rare. The vast majority come from the Argyle mine, the same mine that most strongly colored pink diamonds are found. Their color is related to Hydrogen, but the exact mechanism is as yet unknown. They are often very small and diamonds greater than 1 carat are extremely rare. Their color usually has a gray component, diamonds of a pure violet color represent less than 10% of all violets. The number of intense and vivid violet diamonds mined each year could be counted on one hand.







Purple Diamond



Violet Diamond

Olive diamonds are often confused with green diamonds, but they populate a different and discrete area of color space. Their color is a combination of yellow and green sometimes also a bit of brown or gray. They often come with three colors to describe them such as brownish greenish Yellow, and while this does accurately describe the color olive is a simpler, more concise term. They can range is size from small to large (some are 10+ carats). Occasionally they exhibit a color change when heated or left in the dark, these are known as chameleon diamonds.

Black Diamonds

Natural color black diamonds are rare. Their color is due to dark inclusions within the diamond, usually made up of graphite. It is rare that they are large, but the most famous black diamond, the Black Orloff, is 67.50 carats. Usually they are opaque and much of their beauty is the bright, adamantine luster that reflects light off the surface. Often used as melee in fashion jewelry in combination with colorless diamonds black diamonds are becoming very popular.

White Diamonds

Natural color white diamonds are not colorless, but are actually white. This can often cause confusion as the term is used loosely. A pure white diamond has a translucency or even opacity that makes the diamond white. This is often caused by sub-microscopic inclusions. They occasionally exhibit a weak play of color (similar to opals) called opalescence. These are highly prized among



Gray Diamonds

Gray diamonds are often steely in appearance and to an untrained eye may be hard to distinguish from colorless diamonds. When viewed side-by-side the difference is obvious, a gray diamond is darker than a colorless one. Pure gray diamonds are rare and are frequently described as a masculine color diamond.



SCFMS and USA GEM SHOWS					
Clear Lake Gem & Mineral Show Start Date: 03/18/2023 End Date: 03/19/2023 Hours: Sat 10:00-6:00 Sun 10:00-5:00 Venue: Pasadena Conv Center Address: 7902 Fairmont Pkwy Pasadena, TX 77507 Website: https://www.clgms.org	Truth or Consequences Rock and Gem Show Start Date: 03/25/2023 End Date: 03/26/2023 Hours: Sat 9:00-5:00 Sun 10:00-4:00 Venue: Sierra County Fair Barn Address: 1321 Hyde Ave Truth or Consequences, NM 87901 Website: http://scrags.org	Tar Heel Gem & Mineral Show Start Date: 03/31/2023 End Date: 04/02/2023 Hours: Fri 3:00-7:00 Sat 10:00-6:00 Sun 10:00-5:00 Venue: NC State Fairgrounds, Kerr Scott Building Address: 1025 Blue Ridge Rd Raleigh, NC 27607 Website: http://tarheelclub.org			
The Crystal Festival Start Date: 04/01/2023 End Date: 04/02/2023 Hours: 10am to 8pm Venue: Grace Event Center Address: 1024 US-40 Roosevelt, UT 84066 http://www.crystalfestival.org	Texas Mineral and Fossil Show Start Date: 04/21/2023 End Date: 04/23/2023 Venue: Lone Star Convention Center & Expo Address: 9055 Airport Rd Conroe, TX https://www.rmgmpromotions.com/ https://www.facebook.com/ RMGMmineralandfossilshows	Georgia Mineral Society's Gem & Minera Show Start Date: 05/12/2023 End Date: 05/14/2023 Venue: Cobb Civic Center 548 South Marietta Pkwy Marietta, GA 30060 http://www.gamineral.org			
The Franklin Gem & Mineral Show Start Date: 05/19/2023 End Date: 05/21/2023 Venue: The Robert C. Carpenter Community Building Address: 1288 Georgia Rd. Franklin, NC 28734 http://www.visitfranklinnc.com	Texas Mineral and Fossil Dallas/Plano Start Date: 05/19/2023 End Date: 05/21/2023 Venue: Plano Event Center 2000 E Spring Creek Pkwy Plano , TX 75074 https://www.rmgmpromotions.com	Tulsa Rock Gem Mineral & Jewelry Show Start Date: 07/15/2023 End Date: 07/16/2023 Hours: Sat 9:00-6:00 Sun 10:00-5:00 Exchange Center at Expo Square Address: 4145 E. 21st St. Tulsa, OK 74114 http://www.tulsarockandmineralsociety.org			

STONEY STATEMENTS

Clear Lake Gem and Mineral Society, Inc

PO BOX 891533 Houston, Texas 77289 Meeting 3rd Tuesday of the Month

7:00 P.M.

League City Library

100 W Walker St, League City, TX 77573

Member of

Next Annual Show

Feb 24-25, 2024

Pasadena Convention Center

CLGMS is on the Web:

http://www.clgms.org

FACEBOOK: CLEAR LAKE GEM AND MINERAL SOCIETY.







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.

2023 OFFICERS:	President	Cynthia McGowan	281-546-2662	
2023 OFFICERS.	Vice President	David Tjiok	832-423-4802	
	Secretary	Christina Rankin	281-723-5408	
	Treasurer	Morgan Davies	281-224-2444	
	Program Director	VACANT		
	Board of Directors:	Sandra Christiansen	John Caldyne	
		Jim Edwards	Jim Hawkins	
		Donna Nelson	Jerry Newberry	
	Newsletter Editor	David Tjiok	Mike Flannigan	
Annual Show 2023	Sandra Christiansen			
Constitution & BylawsJim Hawkins		Membership	Mike Flannigan	
Community Benefits	Charlie Timme	WWW System AdminMike Flannigan		
Historian	David Tjiok RefreshmentsJames Brittenham			
Publicity	Annabel Brownfield	Education/Field TripsAnnabel Brownfield/		
Facebook	Cynthia McGowan			

Membership Dues Jan. to Dec. 2023: Adult \$15:00, Family Dues \$20.00 (4+) at same address. Send Dues to CLGMS, PO BOX 891533, Houston, TX, 77289