



A monthly publication of the Clear Lake Gem & Mineral Society

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May 2021

NUMBER 5



NEXT MEETING: **TUESDAY, May 18, 2021**
TIME: **6:30 p.m.**
LOCATION: Creator Space
 120 Park Ave..
 League City, Tx 77573
<https://tinyurl.com/m6h8cxrp>

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Upcoming shows	8	Our May meeting will be at a new location (see address above) https://tinyurl.com/m6h8cxrp We will start with the tour of the Creator Space facility to see their new proposed working area then we will proceed with our general meeting. Please try to attend the meeting. http://www.clgms.org/

MINUTES OF THE April CLGMS GENERAL MEETING

Clear Lake Gem and Mineral Society General Meeting at League City Library 4/20/2021.

19 Members attended and six officers attended too.

2021 Dues will be waived for this year, because of COVID-19. Membership is free for people who sign up during the show.

Cindy - Spoke about collaborating with other vendors to have "Show and Tell" at their location also to sell their items during the meeting.

Charlie - Has a few schools that are interested in the grant for their libraries so during next Board Meeting we vote on the schools to get the money and the check's will be given out at their schools.

Guest Speaker:

John from Creator Space in League City spoke to our group. They have been in League City for eight years and is the second largest maker space in the Houston area. It has plenty of space and is getting ready to make room for a kiln and a larger forge. The membership fees are \$40 per month or \$60 per family this covers a short safety class, your card to get into the building and general supplies. He brought some items that they have made there, they were: Iron staff, wood model of an ant, and three spheres. They are trying to get more interest in Robotics and Science's for more kids to come to the place. Our next meeting will start at their place for a small "Field Trip" from 6:30pm on 5/18/2021. Their address is:

Creator Space
120 Park Ave.
League City, TX 77573
Phone: 713-396-0440

MINUTES OF THE May CLGMS BOARD MEETING

Clear Lake Gem and Mineral Society Board Meeting at Panera Bread 5/3/2021.

We voted on the four schools that will receive the grant money:

Seabrook Intermediate School
Ross Elementary School
K E Little School
League City Intermediate

Next year we will require that schools need to participate with the group in order to receive the grant money.

Cindy- will give the big check to the schools and a photo will be taken and added to our Facebook page.

Mike-Has three people for the scholarship.

We then spoke about the equipment we have and if it's serviceable and ready to be used for demonstrations. It might cost more to fix the machines or maybe buy new ones. We need to get more members certified on how to use them. Charlie and Jim will see if they are able to fix the machines or if new one would be a better way. We have enough in our budget to get them fixed if the parts do not cost too much.

We will have our 2021 Annual Show on August 7-8, 2021.

REMINDER:

MAY General meeting will be in-person at the **Creator Space** in League City (see address above). We will have a short Tour of the facility and will continue with our general meeting there also.

Upcoming events - We are looking forward to the following programs.

Tour of Creator Space to see if the location is a good place for our general meeting and workshop.

Field Trips Announcement

Currently we do not have any field trips on the schedule. If you have suggestion for places and dates please contact:

annabel.brownfield@gmail.com or call/text: 281-486-1866.

What makes a Black pearl Black?

(Livescience)

A natural black pearl is more expensive and mysterious than its classic off-white cousins. And for good reason: Although manufacturers can dye pearls black, it takes extremely rare conditions to form pearls that have that dark, eerily iridescent glow.

Black pearls that are not cultured that is, ones that are not grown under tightly controlled conditions by pearl farmers begin forming much like any other pearl. When an irritant, such as a grain of sand, gets stuck inside the oyster's body, the animal tries to ease its discomfort by coating the speck in calcium carbonate, which hardens to form a pearl. The pearl is made up of the same luminous, iridescent substance that the oyster lines the inside of its shell with.

Black pearls are formed when that piece of sand gets stuck in the body of a very specific type of oyster, the Tahitian black-lipped *Pinctada margaritifera*. The interior shell, called the nacre, of most oysters is usually a glossy white or silver but the Tahitian black-lipped oyster features a thick band of black. If the pearl forms near that band, it will suck up that coloring.

Tahitian black-lipped pearls can be darker if they develop closer to the lips, and can also be a silvery gray color if they get wedged in a lighter portion of the oyster. If an oyster that typically produces white pearls has an unusual black coloring in its nacre, it too can create a blackish pearl. This, however, is rare; it occurs in only one in 10,000 pearls.

The price of a black pearl depends on its size, shape, luster, color and surface quality, which is graded on a scale from A to D. A perfectly round, AAA quality, 10 mm-sized Tahitian black pearl goes for \$140, according to pearlparadise.com, while a round, AAA, 10 mm white freshwater pearl costs about \$15, according to youpearl.com.

Tahitian Pearl

(Wikipedia – please see Wikipedia for all references)

The Tahitian pearl (or black pearl) is an organic gem formed from the black lip oyster (*Pinctada margaritifera*).[1] These pearls derive their name from the fact that they are primarily cultivated around the islands of French Polynesia, around Tahiti.[2]

Description

Tahitian pearls come in a range of colors from white to black.[2] They can contain various undertones and overtones of green, pink, blue, silver and yellow. The most valuable of these are of the darker variety, as the naturally dark tones of the Tahitian pearls is a unique quality among pearls. A true black Tahitian pearl is extremely rare, and largely considered one of the most beautiful kinds of pearls in the world. Most Tahitian pearls that are identified as “black” are actually charcoal grey, silver, or dark green.[3] An advantage of the Tahitian pearl is that the oyster inside of which they grow is quite large, sometimes weighing as much as ten pounds. This means that a Tahitian pearl can more easily grow to a larger-than-average size.[3]

The cultured Tahitian pearl comes in various shapes, sizes, and colors; shapes include round, semi-round, button, circle, oval, teardrop, semi-baroque and baroque.[4] Because of their darker hues, Tahitian pearls are commonly known as "black pearls".[5] However, Tahitian pearls have the ability to contain various undertones and overtones of green, pink, blue, silver and yellow. All (or any combination) of these colors may be seen in a cultured Tahitian pearl. Due to the variety of shapes and colors of the Tahitian pearl, it has been known to fit in any jewelry setting.[6] The versatility and mixture of color give it its value.

Culturing

The culturing process of a Tahitian pearl involves a grafter, who inserts a bead made from a mollusk shell into the gonad, or reproductive organ, of the mature *Pinctada margaritifera* mollusk. It takes two years for an oyster to mature enough to begin producing pearls. Inserted with the bead is a piece of mantle tissue from a donor mollusk, which influences the color of the pearl being produced and provides epithelial cells to ensure that the oyster produces nacre around the nucleus. The materials used in the process are organic, to decrease the probability of the oyster rejecting the nucleus.[1] The shell is sanded and rounded to form the bead, so the pearls produced have a rounder shape. The whole process takes place quickly, because oysters cannot survive very long out of water.[7]

Taken from the 12/2015 "The Hounds Tale", Arlington TX Rock club newsletter.

Pyrite

By Hobart King, on Geology.com



**Cubic crystals of pyrite on a marlstone from Navajun, Rioja, Spain.
Image by Carles Millan and used under a Creative Commons License.**

However, pyrite is often associated with gold. The two minerals often form together, and in some deposits pyrite contains enough included gold to warrant mining.

Hand-specimens of pyrite are usually easy to identify. The mineral always has a brass-yellow color, a metallic luster and a high specific gravity. It is harder than other yellow metallic minerals and its streak is black, usually with a tinge of green. It often occurs in well-formed crystals in the shape of cubes, octahedrons or pyritohedrons, which often have striated faces.

Pyrite is a brass-yellow mineral with a bright metallic luster. It has a chemical composition of iron disulfide (FeS_2) and is the most common sulfide mineral. It forms at high and low temperatures and occurs, usually in small quantities, in igneous, metamorphic and sedimentary rocks worldwide.

The name "pyrite" is after the Greek "pyr" meaning "fire." This name was given because pyrite can be used to create the sparks needed for starting a fire if it is struck against metal or another hard material. Pieces of pyrite have also been used as a spark-producing material in flintlock firearms.

Pyrite has a nickname that has become famous - "Fool's Gold." The mineral's gold color, metallic luster and high specific gravity often cause it to be mistaken for gold by inexperienced prospectors.



Pyrite from China, Hunan Province,
Hengyang Prefecture, Leiyang Co.,
Shangbao Pyrite mine, China.
Photo from mindat.org

The only common mineral that has properties similar to pyrite is marcasite, a dimorph of pyrite with the same chemical composition but an orthorhombic crystal structure. Marcasite does not have the same

brassy yellow color of pyrite. Instead it is a pale brass color, sometimes with a slight tint of green. Marcasite is more brittle than pyrite.

Pyrite and gold can easily be distinguished. Gold is very soft and will bend or dent with pin pressure. Pyrite is brittle and thin pieces will break with pin pressure. Gold leaves a yellow streak, while pyrite's streak is greenish black.



Pyrite, Huanzala, Peru.
Photo on midat.org

Pyrite is composed of iron and sulfur; however, the mineral does not serve as an important source of either of these elements. Iron is typically obtained from oxide ores such as hematite and magnetite. These ores occur in much larger accumulations, the iron is easier to extract and the metal is not contaminated with sulfur, which reduces its strength.

Pyrite used to be an important ore for the production of sulfur and sulfuric acid. Today most sulfur is obtained as a byproduct of natural gas and crude oil processing. Some sulfur continues to be produced from pyrite as a byproduct of gold production.

The most important use of pyrite is as an ore of

gold. Gold and pyrite form under similar conditions and occur together in the same rocks. In some deposits small amounts of gold occur as inclusions and substitutions within pyrite.

Some pyrites can contain 0.25% gold by weight or more. Although this is a tiny fraction of the ore, the value of gold is so high that the pyrite might be a worthwhile mining target. If pyrite contains 0.25% gold and the gold price is \$1500 per troy ounce, then one ton of pyrite will contain about 73 troy ounces of gold worth over \$109,000. That is not a guaranteed money-maker. It depends upon how efficiently the gold can be recovered and the cost of the recovery process.



Pyrite from Bulgaria, Smolyan Oblast, Rhodope Mountains, Madan ore field, Krushev dol mine, Krushev dol deposit. Photo on mindat.org.

Pyrite is occasionally used as a gemstone. It is fashioned into beads, cut into cabochons, faceted, and carved into shapes. This type of jewelry was popular in the United States and Europe in the mid- to late-1800s. Most of the jewelry stones were called "marcasite," but they are actually pyrite.

(Marcasite would be a poor choice for jewelry because it quickly oxidizes, and the oxidation products cause damage to anything that they contact. Pyrite is not an excellent jewelry stone because it easily tarnishes.)



Pyrite Sun from Sparta, Illinois.
Photo on SpiritRockShop.com.

The conditions of pyrite formation in the sedimentary environment include a supply of iron, a supply of sulfur and an oxygen-poor environment. This often occurs in association with decaying organic materials. Organic decay consumes oxygen and releases sulfur. For this reason pyrite commonly and preferentially occurs in dark-colored organic-rich sediments such as coal and black shale. The pyrite often replaces organic materials such as plant debris and shells to create interesting fossils composed of pyrite.





DID YOU KNOW.....

The Egyptian jewelry-maker made use of an amazing variety of stones, minerals, metals, man-made materials and animal products. Most were obtained locally in the hills and deserts within Egypt's boundaries and from creatures which inhabited the Nile Valley and surrounding areas, but some, most notably lapis lazuli and silver, always had to be imported from beyond Egypt's farthest frontiers. Examples from the Materials used by Egyptian jewelry makers:

- **Alabaster**
- **Amethyst** (a translucent quartz (silicon dioxide)),
- **Beryl** is a transparent or translucent yellowish-green aluminum- beryllium-silicate with a glassy sheen;
- **Breccia** is a sedimentary rock in which angular white fragments are set irregularly into a red-colored matrix.
- **Feldspar** or Amazon Stone is an opaque, green or blue-green potassium-aluminum-silicate,
- **Garnet** is a translucent red iron- or magnesium-aluminum-silicate with a violet or brown tint.
- **Lapis Lazuli** is an opaque dark-blue
- **Quartz** Quartz is a hard, opaque white variety of silicon dioxide.
- **Turquoise** is an opaque, pale sky-blue or blue-green copper-containing basic aluminum phosphate which the Egyptians obtained alongside copper ore at Wadi Maghara and Serabit el-Khadim in Sinai.

- **Gold** production of jewelry of every description: amulets, pendants, diadems, pectorals, bangles, earrings, finger-rings, anklets, torques, elements of collars, girdles and bracelets were all manufactured from the precious metal. Indeed, certain chapters of the Book of the Dead demanded that prescribed amulets and funerary jewelry be made of gold.
- **Silver** was at first called by the Egyptians nub hedj (nbw hd), later just hedj, which means literally 'white gold',
- **Copper** was the first metal known to the Egyptians and as early as the Badarian Period it was being made into beads. Bangles and finger-rings

SCFMS and MEMBER CLUB GEM SHOWS			
May: Waco (Waco, TX) 05/01-02/21. *Tyler Gem & Mineral (replace East TX this year) 05/22-23/21 Ft. Worth (Ft Worth, TX) 05/29-30/21	June: Arlington (Arlington, TX) 06/19-20/21??	July: None.	Aug: Baton Rouge (Baton Rouge, LA) 08/14-15/21 Ark-La-Tex (Bossier City, LA) 08/21-22/21 Pine Country (Jasper, TX)
Sept: Lubbock (Lubbock, TX) 10/9-10/21	Oct: Tri-City (Temple, TX) 10/02-23/21 G&MS of LA (New Orleans, LA) 10/9-10/21 Austin (Austin, TX) 10/22-24/21 Cowtown-CERA (Ft Worth, TX)	Nov Golden Spread (Amarillo, TX) Paleontological Society(Austin, TX) 11/06-07/21 Midland (Midland, TX) Houston (Houston, TX) 11/12-14/21 Dallas (Dallas, TX) 11/20-21/21	Dec: DeRidder (Leeville, LA)
STONEY STATEMENTS Clear Lake Gem and Mineral Society, Inc PO BOX 891533 Houston, Texas 77289			
Meeting 3rd Monday of the Month 7:00 P.M. Clear Lake Park Building 5001 NASA Parkway, Seabrook, Texas			

				
		Member of		
Next Annual Show August 7-8, 2021 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.				
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Membership Dues Jan. to Dec. 2021: 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				