

A monthly publication of the Clear Lake Gem & Mineral Society

August 2020 NUMBER 8 VOLUME 46



Aug 17, 2020 7:30 p.m. VIRTUAL meeting. **NEXT MEETING:** TIME:

LOCATION:

INSIDE THIS ISSUE					
August Meeting	1	AUGUST MONTHLY MEETING Greetings to all,			
Board/General Meeting Minutes Upcoming events	2	We will not have our in person August general meeting. However, we WILL HAVE a VIRTUAL meeting for our 2020 August general meeting. Please join this virtual meeting. This virtual meeting will on MONDAY - 8/17 at 7:30 pm.			
Fossilized Corals	2-6	Here is the link to our VIRTUAL meeting -just click on this link: https://meet.google.com/xzo-ojgn-vjm			
Upcoming Programs	7	http://www.clgms.org/			
Upcoming Shows	7				

MINUTES OF THE July CLGMS GENERAL MEETING

No minutes are available – We did not have a general meeting.

MINUTES OF THE August CLGMS BOARD MEETING

The HGMS 2020 Annual show has been canceled due the current COVID-19 situation.

Once again we were discussing the upcoming 2021 CLGMS show whether the show will go on or not due to the current situation. We will wait and see for the next couple months if the situation will improve and then we will discuss again in the near future.

Since we will not have the in person August general meeting, we will have an alternative to use a VIRTUAL meeting on MONDAY - 8/17 at 7:30 pm.

We will use Google Meet, here is the link (just click on this link):

https://meet.google.com/xzo-ojgn-vjm

Please join and also we will send you all an email as a reminder later.

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

In planning.

Indonesian Fossil Coral.

From: Indonesianfossilcoral.com

INTRODUCTION

It is important that people understand "fossil coral" is a natural stone formed from ancient corals. It should not be mistaken for protected and endangered coral reef from the modern oceans of today. Of the varieties of fossilized corals found throughout the geologic record, exquisitely detailed specimens from the mountains of Indonesia are most unique and beautiful. Corals have been growing in the oceans around the world for almost 500 million years. The corals thrived in warm shallow marine waters and over time were buried in sediments as the land surface was juggled by crustal plate movements or the

oceans rose and fell. Temperature and pressure from compaction during burial resulted in those deposits, in time, becoming rock and part of the present day geological record. For many years, ancient coral deposits have been mined for their high quality calcium, potassium, magnesium and sodium content which is used in health supplements. Fossil coral has also been used in fertilizers. Fossil coral has even been used in filters to remove impurities such as chlorine and formaldehyde from water.

INDONESIAN FOSSIL CORAL

New ocean crust is created by upwelling basaltic magma along the mid-ocean ridges. Ocean plates move away from mid-ocean spreading centers and subduct under the continental plates. Subducting ocean plate material re-melts as it reaches depths under high temperature and pressure and becomes molten magma which seeps back up to the surface and erupts thru volcanic vents. This occurrence is most evident along the Pacific Rim, what is commonly known as the ring of fire, an area depicted by high incidence of volcanic activity.



Indonesia is located on convergent plate boundaries. Subduction of the northeast moving Indian Ocean plate under the western islands of the Indonesian archipelago has resulted in a long history of volcanic activity.

Extensive eruptions of volcanic debris have repeatedly buried forests and nearby reefs

offshore as well. During burial, the decay of the volcanic ash releases mobile silica and other elements which saturate formation waters and in some situations reacts with the carbonate of the buried coralline reefs or other organic matter such as wood from buried forests. The volcanic islands of Indonesia are host to numerous deposits of fossil coral. The Barisan Mountain Range, along the western boundary of the Island of Sumatra, hosts a rare and ornate suite of fossils. Miocene age (approx 20 million year old) coralline reefs and near shore forests were preserved by burial in volcanic sediments rich in minerals including iron, manganese and silica. Thru a combination of processes the full pattern and character of the original coral life forms have been preserved in great detail.

PROCESSES

"Permineralization" is the process of filling pore space in and around the remnant hard coral skeleton with minerals deposited from solutions trapped or migrating thru the sedimentary pile as it is compressed into rock.

"Replacement" is the process whereby the original coral skeleton is replaced molecule by molecule with a mineral or minerals from a solution. This dual process preservation can occur with different accessory mineral concentrations and result in maintaining the contrast between the original soft tissues and the skeletal remains of the corals as different minerals impart different colors to the stone. In Indonesia, entire coral heads are often completely preserved and appear just as they did 20 million years ago although their density is much changed by replacement and infill with silica, iron, manganese and other minerals. There are fern corals, brain corals, hex corals, honeycomb corals and many more.

Petoskey Stones and Indonesian Fossil Coral

From: Wirejewelry.com (modified).

What is Fossil Coral Agate?

Let's take a few steps back in time. In the Devonian period about 350 million years ago, Michigan wasn't even in the same zip code (so to speak): the land that is now Michigan was near the equator, and a warm, shallow sea covered Michigan's Lower Peninsula and fostered the growth of coral colonies. Time and changing environment caused the corallite skeletons of the corals to be replaced by silica or calcite, becoming agatized fossils or calcified rocks. As glaciers slid across the old ocean floor, about 2 million years ago, the fossilized corals were displaced and many re-settled in the northern half of Michigan's Lower Peninsula, where you can find the coral rocks on beaches and ditches.

The scientific name for this fossilized rock is hexagonaria percarinata. In Michigan, this gray rock is known as a Petoskey stone, named for the city of Petoskey, Michigan, where many of the stones were found. Petoskey was named for the Ottawa Indian chief Petosegay or Pet-O-Sega, which means "Rays of the Rising Sun." While Chief Pet-O-

Sega was named before the stone was associated with him, some see its significance, as if the fossilized coral polyps are suns and the fossilized tentacles are their rays. In 1965, Michigan declared its state stone the Petoskey Stone, becoming the first state to set a fossil as its state stone or rock. Ella Jane Petoskey, the only living grandchild of Chief Pet-O-Sega, was present as the governor signed the State Stone bill.

Polished Petoskey Stone.



Petoskey stones are softer than typical agates because they are fossils, a delicate 3-3.5 on Mohs Scale, but when you find them on the beach, you will discover that they are very smooth. This is because they have been naturally tumbled by rushing water, sand, and other stones. Petoskeys can be hand-polished with sandpaper and corduroy (explore p. 4 of this PDF download for a step-by-step instruction, by the Michigan Department of Environmental Quality, Geological Survey Division)

Where else can you find fossil agate coral? In the US, Florida's state stone, Agatized Coral, which it chose in 1979, is a form of silicified coral more similar to petrified wood. This is the only gemstone naturally found in Florida, and can be located near Tampa Bay.

Indonesian Fossil Coral

Besides Michigan and Florida, Indonesia is possibly the most famous place to discover fossilized coral. Specific locations of Indonesian coral agate are the mountainous regions of the islands of Sumatra and Java. According to Joel Ivey, a rockhound who has spent decades traversing Indonesia, Thailand, Alaska, and other locations "The development of these coral reefs are related to a single massive rise in sea level back in the Miocene [23-5 million years ago] and a sudden drop during a era of volcanic activity preserved them."

While Petoskey stones are typically shades of gray, Indonesian fossil coral agate tends to be pale to vivid yellow in color, but can naturally include a range of colors, such as white, pink, and orange. Agate Fossil coral can sometimes be heated to bring greater contrast and brighter colors to the stones. As you can see on Mr. Ivey's website), many of these fossil agate coral stones are heated in traditional brick kilns.





Upcoming Programs:

We are looking for a program for the August virtual meeting. Contact Mike Flannigan at mikeflan@att.net if you can help.

Notice to the local show listed below: Due to the current situation – the annual shows listed below might not occur.

Please call or check their respective websites whether the shows are still on.

SCFMS and MEMBER CLUB GEM SHOWS									
July 11-12, TRMS Gem Mineral and Jewelry Show, Tulsa Fairgrounds, 4145 E 21st St, Tulsa, OK 74114 www.tulsarockandminer alsociety.org/	July 17-19, Conroe, TX Lone Star Convention Center, 9055 AirportRd www.rmgmpromotions.c om	Aug 8-9, Baton Rouge Gem & Mineral Society Show, Lamar-Dixon Expo Center, 9039 S Saint Landry Ave, Gonzales, LA 70737 www.brgemandmineral.	Sept 11-20, Denver Coliseum Mineral, Fossil & Gem Show, Denver Coliseum, 4600 Humboldt St, Denver, CO 80216 www.coliseumshow.com						
Oct 9-11, Greater Detroit Gem, Mineral & Fossil Show, Macomb Community College Expo, (313) 255-7774 www.michmin.org/show	Oct 9-11, Big Sur Jade Festival Los Padres National Forest, 69325 Highway 1, Big Sur, CA 93920 https:// bigsurjadefestival.com/	Oct 24-25, Akron Mineral Society Show, Emidio & Sons Banquet Center, 48 E Bath Rd, Cuyahoga Falls, OH 44223, www.gemboree.org/	Oct 31-01, O K Mineral and Gem Society Show , State Fair Park, 608 Kiamichi Place, Oklahoma City, 73107, http://omgs-minerals.org/						
STONEY STATEMENTS									
Clear Lake Gem and Mineral So PO BOX 891533 Houston, Texas 77289	ociety, Inc								
Meeting 3rd Monday of the 7:30 P.M. Clear Lake Park Building 5001 NASA Parkway, See									

Page 8	August 2	D20 STONE		Y STATEMENTS			
		Member of					
Next Annual Show February 20-21, 2021 Pasadena Convention	Center		AFMS	G T T T T T T T T T T T T T T T T T T T			
CLGMS is on the Web: http://www.clgms.org		S.C.R.I.B.E.	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.							
2020 OFFICERS:	President Vice President Secretary (Interim) Treasurer Program Director Board of Directors: Newsletter Editor	John Caldyne Cynthia McGowai Trina Willoughby Morgan Davies VACANT Sandra Christianse Jerry Newberry Jim Edwards Donna Nelson David Tjiok	713-815-02 281-224-24	62 75 44			
Annual Show 2018							

Membership Dues Jan. to Dec. 2020: 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