



A monthly publication of the Clear Lake Gem & Mineral Society

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NEXT MEETING: April 16, 2018
TIME: 7:30 p.m.
LOCATION: Clear Lake Park Building
 5001 Nasa Parkway
 Seabrook, Texas

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PRESIDENT'S MESSAGE



Pay Dues

Membership dues are due at the beginning of each year and the delinquent (April 31, 2018) has passed.

Membership Dues Jan. to Dec. 2018: 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

Thank you
Vincent Barrows
Clear Lake Gem and Mineral Society President

MINUTES OF THE MARCH 19, 2018 MONTHLY MEETING

The majority of the March meeting was dedicated to a wonderful program on Amber.
Business items

- Stoney Statement was approved. One member noted that they are still not receiving the email for this.
- Show report was given
- The budget for 2018 was approved
- We received a card from the dealer Bitterroot thanking us. They had a death in the family and could not attend this year. We refunded their tables.
- We will be holding the Gem Mine at the Montessori school.
- Our field trip to the museum in Dallas is leaving from the park building next Saturday.

MINUTES OF THE APRIL 2, 2018, BOARD MEETING

No board meeting minutes submitted this month.

Geology of the San Jacinto Monument

By Kristi Higgenbotham (©RA)

Recorded from her talk by CLGMS Secretary –great job Andrea!



The history of the San Jacinto Battleground goes back to the first white men who settled the land consisting of renegades such as the pirate, Jean Lafitte. In 1818, George Graham appraised the area for the United States Government; the official reports up to this time stating that the land was worthless and no self-respecting nation would covet Galveston Bay. He did note that Buffalo Bayou was one of the few east-west streams and recognized future commercial potential for this river.

In 1836, Texas declared independence from Mexico and David Burnet (Texas' first president) moved his government to Harrisburg along Buffalo Bayou. Sam Houston defeated Santa Anna on April 21, 1836 at the future site of the San

Jacinto Monument.

The Buffalo Bayou Ship Channel company was formed in 1869 to develop the waterway between the mouths of Buffalo Bayou and the San Jacinto River with the removal of snags and shoals to create the channel depth to allow for ship passage. Many features that caused changes at the site in the late 1800's were:

- (1) Subsidence -- the major and biggest change caused by the growth of Houston and its demand for ground water. Houston is underlain by two major aquifers -- the Chicot and Evangeline. As water (complete with alligators) was withdrawn from these aquifers, the clays compacted and the land subsided.
- (2) Dredging and Spoils -- The channels were deepened by dredging in order to support larger ships. The waste material (spoils) was dumped into the wetlands surrounding the present site of the Monument.
- (3) Tides and Sea Level Changes -- Surges associated with storms and hurricanes can result in water levels as high as 15 feet. Surprisingly this deposited sediment would build up the land rather than erode it away. Natural sea level changes occur due to global warming. This may cause sea level to rise as much as 6 inches by the year 2100.
- (4) Erosion -- The Houston Ship Channel is the third largest U.S. Port. Waves created by passing ships would cause minor erosion along the coastline.

Changes that are occurring include

- (a) Widening of the Stream Channels. The width of Buffalo Bayou increased 860 feet and San Jacinto Rivers' width increased by 920 feet between the years 1930 and 1998.
- (b) Channelization of Carpenters Bayou and the narrowing of Old River took place between 1930 and 1964. Carpenters Bayou became a narrow industrial waterway. In 1930, an island divided Old River (a tributary stream from San Jacinto River) into two channels. By 1971, spoil had filled the eastern channel of Old River.
- (c) Spoil filling in Peggy Lake -- once described as "the most scenic attraction in the area for both Indians and modern man" was filled with dredge spoil by 1971.
- (d) Loss of Goat Island -- Once a peninsula, waters from the San Jacinto River separated, forming an island by 1955; the island disappeared by 1971 -- due to subsidence.
- (e) Loss of Land on the North Side of the Battleground. The land north of Highway 134 shows how subsidence affected the area on the north side of the Battleground. By 1987 most of the land was gone.
- (f) Flooding of the Interior Marshlands. In 1930, much of the land to the east for the future site of the Monument was marsh. Spoil deposited in these marshes destroyed many habitats. Subsidence caused water to inundate the area and by 1987 water averaged 4 feet deep in the marshes. Current projects are adding new spoil with the purpose of restoring the wetlands to their former state.
- (g) Flooding of "Almonte Bayou" -- in 1930 "Almonte Bayou" was little more than a gully flowing from the higher elevation of 25 feet towards Santa Anna Bayou. Lined with numerous trees, in 1955, two roads crossed this bayou. In 1964, the area was inundated due to subsidence, but two roads still crossed this area. By 1971, only one road crossed the bayou.

The conclusion indicated that the coastline is constantly changing; major cause of change around the San Jacinto Battleground was primarily due to this subsidence because of ground water withdrawal. Between 1953 and 1998, the north to northeast side of the park lost 950 feet of coastline. During this same time, the northwest side only lost 375 feet due to the construction of a seawall. Many questions and answers were supplied by the topographic maps and by Kristi herself.

<http://maps.google.com/maps?q=29.74983,+95.08074+%28Coordinates%29&iwloc=A&hl=en>

The Story of Montana Agate

It has always been a mystery how the peculiar little scenes got inside a rock as hard as agate. It is the claim of geologists that the spots were caused by infinitely minute seams or fissures in the softer parts of the rock being filled with metallic oxides when the world was young. These oxides made four different colors that form various combinations of color when blended together, or appear in single colors in each rock.

The red color is oxide of iron. The black is oxide of manganese. The green is oxide of copper. The blue is oxide of nickel. This theory has been elaborated by the help of high-powered microscopes which show the tracings of little canals so close the naked eye could not detect it; but the oxides remained, staining the rocks in wonderful designs. The fern-like and branch effects of the trees grass and shrubbery, come from the fact that the tiny canals branched out in various subdivisions forming smaller canals for a common center.

In addition to these canals, the rock became flawed through shrink-age while passing through a period of evaporation which, according to scientists, has taken more than three million years to reduce the stone to the hardness of 7 on the Mohs scale.

These canals and flaws have been perfectly healed by soft silicate formations of which the stone is a part, and the evaporation has caused the oxides to take on such forms as seen on the window after a frosty night. Technically, Montana agate is known as “dendritic” agate, and the moss spots are called “dendrites.”

It is the third hardest stone in the world, and is cut only with a diamond saw. There can never be two pieces alike even though cut from the same stone.

(From The Petrified Digest May 2001 via Rock Writings & others via Rocket City Rocks & Gems, 3/2000)

Thank you Dick Rathjen

A CLGMS founding member, Dick Rathjen, has given the club about 120 pounds of material for use in cutting cabochons. Some of it is rough rocks and some is slabs. Most of it is high quality material that his wife collected over the years.

[Earliest Web-Footed Birds](#)

By Bob Sheridan

New Jersey Paleontological Society, August 30, 2000

When birds first diversified is the subject of some controversy. Clearly, there were aquatic birds as early as the Late Cretaceous, as evidenced by web-footed tracks in the Jwangsang Basin of South Korea. An article by Lim, et al. (2000) reports on bird tracks from the Early Cretaceous shale from the Haman Formation in South Korea. Small fractions of the tracks are web-footed. They are significant because they predate the web-footed tracks mentioned above by 20 million years. The web-footed tracks are about 2 inches long and have webs only on the proximal portion of the foot (e.g., like a avocet and not like a duck which has a more complete web). At present, there are no skeletal remains that can be convincingly matched with the tracks.

There are also theropod dinosaur tracks in the same formation. Bird tracks

are distinguishable from the dinosaur tracks by three characteristics: (1) They are one-third as long. (2) The angle between the digits is large. (3) There is a long reversed hallux mark, while dinosaur tracks rarely show a hallux. (This is also significant because most modern web-footed birds have a short hallux.)

The fact there are at least two types of birds at this environment indicates a diversification of shore birds in the Early Cretaceous.

Sources: Lim, J.-D.; Zhou, Z.; Martin, L.D.; Baek, K.-S.; Yang, S.-Y. "The Oldest Known Tracks of Web-footed Birds from the Lower Cretaceous of South Korea." *Naturewissenschaften* 2000, 87, pp. 256-259. (From NJPS Paleontograph, 1/2001.)

[Armand Bayou Montessori School Festival](#)

Thank you to Vince Barrows, David Tjiok, and Pam Dudley for manning the CLGMS table at the Armand Bayou Montessori School Festival. Kids were given the Gem Mine experience and the club donated specimens for the auction.

<http://maps.google.com/maps?q=29.59449,+95.11269+%28Coordinates%29&iwloc=A&hl=en>

HINTS AND TIPS

Silver and rubber don't get along very well. Never put a rubber band around sterling silver or you will end up with a permanent stain.

The Cowtown Cutter 1/01 via Mid-Tenn Gem'ers - June/00

Wax -Strange Mineral Tales

A long time ago, if you wanted a candle, you went to a beekeeper. His wax and your wick made a candle. In modern times, candles are mass produced from paraffin, which is a commercially refined product of petroleum. What is not widely known is that wax can also be mined!

There are very few places where wax has been mined on a commercial basis, because of the quantities available. A location in Austria was the only place where wax was being mined in the last century, until a discovery was made at Soldier Summit, Utah.

The wax is related to petroleum and is called ozokerite. It is apparently a high-quality form of natural paraffin, developed from the residue of crude oil percolating through fissures in rocks. Compared to beeswax and man-made paraffin, its melting point is much greater (between 155 and 190 degrees). Ozokerite was sometimes found in large veins that were almost 100% pure. The majority, however, is found in a brecciated form, bound up with sandstone and shale. Once mined, it must be crushed, then dumped into tanks of boiling water, where the wax is skimmed and pored into molds. The “wax belt” of ozokerite covers an area of about 12 miles in Utah. Large tailing piles from the mining operation of the American Ozokerite Co. are strewn alongside U.S. 50 near Soldier Summit.

From Opal Express, 4/03 via Diablo Diggin’s, 4/05

SCFMS and MEMBER CLUB GEM SHOWS			
April 5 – 6, Robstown, TX, Gulf Coast Big Bend G&MS, Richard M. Borchard Fairgrounds.	Mar 8-11 Deming NM. Deming Rock & Rockhunts Gem Show and Field Trips. SWNM State Fairgrounds	Mar 10-11 San Antonio, TX Southwest G&MS, San Antonio Event Center	Mar 16-18 TEMPLE, TX Albuquerque, NM, Albuquerque G&MS, Expo NM State Fairgrounds
Mar 30 – Apr 1, Alpine, TX Chihuahuan Desert G&MC, Alpine Civic Cntr	Apr 4 – 8 Raleigh, NC, AFMS Convention/Capital Area G&M Show, Tar Heel G&MC, Kerr Scott Bldg., NC Fairgrounds	May 5-6, Lubbock, TX, SCFMS Convention/Lubbock G&MC Show, Lubbock Memorial Civic Center	Jun 30 – July, Grapevine, TX, Arlington G&MC, Grapevine Convention Center.
Nov 17-18, Mesquite, TX, Dallas G&MS, Mesquite Rodeo Center Exhibit Hall	Nov 9-11 Houston, TX Houston G&MS Humble Civic Center 8233 Will Clayton Pkwy, Humble, TX		

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

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



(Postage)

Member of:

Next Annual Show
 February 25-26, 2017
 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.

2018 OFFICERS:	President	Vince Barrows	225-916-2258
	Vice President	David Tjiok	832-423-4802
	Secretary	Trina Willoughby	713-815-0275
	Treasurer	Jerry Newberry	281-333-2113
	Program Director	Vince Barrows	
	Board of Directors:	Sandra Christiansen	John Caldyne
	Newsletter Editor	Jim Edwards	Mary Wells
		Open	

Annual Show 2018	Vince Barrows	Library.....	Vacant
Constitution & Bylaws.....	Sara Chelette	Membership.....	Mike Flannigan
Community Benefits.....	Charlie Timme	WWW System Admin.....	Mike Flannigan
Historian.....	David Tjiok	Refreshments.....	John Caldyne
Publicity.....	Vacant	Education/Field Trips.....	Annabel Brownfield
Facebook.....	Trina Willoughby		

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