



**Minutes of the Clear Lake Gem and Mineral**  
**June 20, 2011**

President Bob Brock called the meeting to order and opened the meeting with the Pledge of Allegiance. Treasurer Loyce Pennington presented the Treasurer's Report. Chuck Shuler made the motion to approve the Treasurer's Report. It was seconded by Trina Willoughby and unanimously approved. There were no changes to the May meeting minutes.

Visitors Seth Moore, Adriana Tovar, and Jeanne Sadler were welcomed.

**Field Trips**

Chairperson Ed Tindell announced a field trip to Llano County in mid to late July.

**Committee Reports**

Historian – Nothing to report.

Librarian – Chairperson was absent.

Community Service – Chairperson was absent.

Education – Chairperson Ed Tindell made a short presentation encouraging members to ask friends who are going on vacation to pick up rocks for them. He has rocks from Mount Everest, Borneo, Iraq and Afghanistan.

Publicity – Chairperson Anna Williams reported she spoke with Jim Wines and he will be returning from vacation and attending the meeting in July to plan the October 5<sup>th</sup> Workshop.

Membership – Nothing to report.

**Scholarship Presentations**

Sharon Choens, geology teacher at San Jacinto Jr. College presented \$1,000 scholarships to Seth Moore and Andriana Tovar.

**Program**

Jeanne Sadler, Caribeading, Island inspired jewelry

Jeanne gave us a demonstration of wire wrapping an ammonite fossil to be used as a pendant. She discussed her adventures in cave exploring throughout the Caribbean. She had various necklaces and earrings that she had wire wrapped including a mammoth fossil tooth.

Door prizes were awarded and the meeting was adjourned.

Respectfully submitted:

Anna Williams, Secretary

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## **DO YOU KNOW WHAT MINERAL YOU ARE WEARING?**

Sharon Robertson,

Has anyone recently walked up to you and complimented you on your fine talc or hematite or mica?

Well, some of us wear these minerals every day without really knowing it. Some of these minerals you will recognize, but others may be new to you.

The very first mineral we come into contact with in life is probably talc. Talcum powder is a major use for talc, but it is also used in eyeshadow, liquid makeup, rouge, blush, and pressed powder.

A group of minerals we commonly use is the iron oxides. The earliest use of iron oxides as pigments is believed to be a picture of a bison on the walls of a cave near Altamira, Spain, drawn during the Magdalenian period (16,000 BC). Today we use iron oxides for more sophisticated drawings. Magnetite (black iron oxide), hematite (red iron oxide),



limonite (yellow iron oxide), and goethite (brown iron oxide) are used to make liquid makeup. Iron oxides are also used to add color to lipstick, mascara, and pressed powder.

Zinc oxide (zincite) is used in creams to protect sensitive skin from the sun's burning rays. The white noses that you see at beaches are covered with zincite.

Another important group of minerals is mica. We use sericite (granular mica) in eyeshadow and pressed powder for structure, shine, and their ability to slip along planes. Without this ability to slip, eyeshadow would be very difficult to apply. We also use muscovite mica in eyeshadow. If the mica is coated with rutile or anatase, the resulting product is pearl. The thickness of the titanium dioxide coating determines the color of the pearl. Thus a rainbow of pearl shades is available for use in lipstick, eyeshadow, hair gel, body lotion, rouge, and blush.



Rutile and anatase are the principal ores of titanium dioxide, although ilmenite (iron titanite) was also mined for titanium dioxide. Rutile and anatase are used to whiten products such as lipstick, eyeshadow, hand and body lotion, and makeup.

Calcite is used as a binder in eyeshadow and pressed makeup, to hold the mica, pearl, and pigment together. Dolomite serves as a binder in eyeshadow. Calcite is also used in chewing gum base, antibiotics, antacids, and dentifrice.

Microcrystalline and amorphous quartz find a use in scouring soap and toothpaste. Quartz coats tablets and pills to ease swallowing. Quartz in ointments accelerates the release of active substances to the skin. Quartz in suppositories adds improved rheological behavior and temperature stability. Quartz improves the suspension properties of lotion. Quartz is also used in toothpaste to give a smooth, glossy appearance.

Kaolinite (clay) provides a thickener in creams and lotions, as do the smectites (swelling clays). These unique minerals absorb water or oils to thicken the product, much the way flour or corn starch thickens gravy. Clays absorb oil from the skin and are useful in lotion and makeup for this reason. Attapulgite is a thixotropic clay which forms gels and pastes useful for toothpaste and shaving gel.

Barite helps in x-ray diagnoses. Bauxite polishes teeth and imparts softness and smoothness in lotions and creams. It is also used as a carrier for perfume in sachet powder and creams. Chromite is a green pigment used in eyeshadow and mascara.



Lapis lazuli has been used as a blue pigment since fifteenth century paintings; however, it has been found in sixth and seventh century wall paintings in the cave temples of Bamiyan, Afghanistan. Today it gives blue color to mascara, eyeshadow, nail polish, lipstick, and liquid makeup.

To sum this all up, each day some of us come into contact with a wide variety of minerals without realizing it. For you skeptics reading this, what about your stick deodorant? It probably contains talc. Or your roll-on deodorant? It probably contains veegum, swelling clay. Or your toothpaste? It may contain zircon (zirconium silicate). Almost all of us use minerals daily. Perhaps we should read labels and see just how many minerals we use each day. Be careful, the chemical names of the minerals are listed on the packages in some cases, such as with the iron oxides. Have fun wearing them and remember next time you put on makeup, or go out with someone wearing makeup, a lot of minerals went into that perfect finish! Go ahead, kiss a mineral!

*From Garnet Gazette 10/85, via Lithosphere 01/97, via The Rock Collector 10/98.*

*Star-O-Lite via BGMSNewsLetter1209*

**An July HAPPY BIRTHDAY**

|              |    |
|--------------|----|
| Jerrett Horn | 7  |
| William Cox  | 11 |
| Gwen Craig   | 24 |
| Verlin Fox   | 27 |

**RUBY:** said to accord wearers - wisdom, happiness and health, and to bring particularly good luck to gamblers and lovers.

**July Anniversary includes:**

None Identified

"Too bad that all the people who know how to run the country are busy driving taxicabs and cutting hair." George Burns

**GOODIE GETTERS...For July**

Main Goodies provided by club.

**Lapidary Corner** (Special request from a new member)**HINT & TIPS FROM ALL OVER**

**TO CLEAN OBSIDIAN NEEDLES,** wash them in Castile soap. Use a toothbrush to get the clay off. Never put obsidian in detergent as it will leave a white film, which is very hard to remove on the stone. To remove iron stains, soak in oxalic acid, wash well afterwards.

*From Jaspers Jargon 2/88, via Rock Rattler 10/89*

**DON'T GET LOST!** In an open space where the ground is level, drive a stake into the ground. Mark the tip of the shadow that the stake casts with a small rock. Wait at least ten minutes then place another rock at the tip of the shadow. The line joining the two rocks will always run east/west no matter what time of day or year!

*From Prospector 8/84*

**MAKE A FIRE EXTINGUISHER.** Take an empty coffee can, fill it with 3 parts dry sand to one part baking soda. Mix well. Store in strategic places around the house, shop, garage and vehicles. In case of a small fire, sprinkle at the base of the fire to smother it.

*From Pegmatite via Rock Chip Reporter 4/96*

**STERLING SILVER** can be given a frosted look by roasting the silver in an oven for 20 minutes at 300 degrees F. This changes the surface copper in the sterling silver to copper oxide, which may then be dissolved in sulfuric acid, leaving a pure matte silver.

**TO ERASE A SCRIBE MARK** use the eraser on a common lead pencil. First, wet the eraser and dip it in 100 grit, erase and remark. The grit from the grinding wheel that is on the bottom of the pan works well.

**CANDLE YOUR MONTANA AGATES** just as you would eggs. Punch a small hole in the bottom of a two pound coffee can. Turn it upside down and place a light inside. It is surprising how the light coming through the hole will show the dendrites. Saves cutting time.

*All taken from Cowtown Cutter 7/97*

**TO CLEAN FERN FOSSILS,** do not use wax, shellac, varnish, lacquer or spray plastic because they cannot be readily removed and they destroy fine surface detail. Museums use yellow dextrin to bring out contrast and help preserve the specimen. Mix a little bit of the dextrin with water to the color of tea and paint it on the fern itself, not the matrix and it will stand out.

**DENTS IN HOLLOW BRACELETS** can be removed by soldering a piece of wire into the dent and pulling outwards. When satisfied that the solder and wire are holding well, pull out with pliers or place in vise. Do not overdo the pulling. When finished pulling, cut off the wire and file carefully. Use graving tool if motif is to be refurbished.

*From Al Bodman of Laphound News 11/91, via Crystal Ball, Santa Barbara*

**DARK HOUSEHOLD VINEGAR** will dissolve epoxy glue by soaking overnight.

*From Gems of the Toque 4/95, via T-Town Rockhound 7/96*

**A LITTLE GRAPHITE** mixed with chrome oxide and applied to a muslin buff makes a wonderful jade polishing agent.

When using chrome oxide for polishing jade, mix it with a solution of ½ water and ½ vinegar.

**TO BRING OUT THE COLOR OF CHRYSOCOLLA,** put the specimen in Purex Bleach full strength for as long as it takes. This really works and you get some good colors. Works with any copper also.

*From Rock Chip Reporter 5/81*

**Some questions by Gary Watkins, Glacial Drifter 4/99**

1. Why doesn't glue stick to the inside of the bottle?
2. Why is the word abbreviation so long?
3. Is it possible to be totally partial?
4. When companies ship styrofoam, what do they pack it in?
5. If a stealth bomber crashes in the forest, will it make a sound?
6. If the cops arrest a mime, do they tell him he has the right to remain silent?
7. When it rains, why don't sheep shrink?
8. Why isn't there mouse-flavored cat food?

## Field Trips (2011) by Ed Tindell



Thanks,  
Ed Tindell 2010 CLGMS Field Trip Coordinator  
a.k.a. "The Official Cat Herder"

Reminder from The Texas Rockers on [www.meetup.com](http://www.meetup.com) for the upcoming Llano River field trip.

**Meet on Saturday 7/16/11 6:00 am at "The Slab" in Kingsland, TX**

**Parking: 30.682765,-98.48284**

With the Llano River mostly dry because of the drought, my strategy for keeping cool while looking for river rocks in the hot Texas summer sun has changed. The plan now is to hunt before it gets too hot. Starting by 6am should allow at least 3 hours of hunting before it gets into the mid 80s. If this is too early for any of you, please feel free to call me when you get there if you want to join up with us & I'll let you know where we are (assuming I'm still there).

BONUS LOCATION: I'm looking for another collecting site for while I'm in town that weekend. If I don't find something else, I'll probably go to the other spot on the Llano River where I've been before. It's just a few minutes from downtown Llano. Either way, if you want to check that location sometime, I have some information posted about it on our site (<http://files.meetup.com/1379079/Llano%20River%20Collecting%20Spot%20near%20Town.docx>), including the coordinates & a map. If I end up finding another site that we can go to as a group, I'll let you know that Saturday morning when we meet.

**\*\* IMPORTANT NOTES \*\***

1. I'm sure you all know this already – but, **please read & heed** the hot weather safety precautions (<http://files.meetup.com/1379079/SAFETY%20TIPS%20FOR%20OUTSIDE%20ACTIVITIES%20DURING%20HOT%20WEATHER.docx>).

This is a joint field trip between The Texas Rockers and the CLGMS so we are welcome to come along. There is limited parking at the meeting site so the trip is limited in size. There is still room for about nine (9) more people. If you want to go let me know. To reach the meeting spot take Hwy 29 west from Burnet, TX until you get to the intersection with road 1431 (Fuzzy's Corner). Turn left (south) and drive 3-4 miles until you get to Ranch Road 3404. Turn right (west) and drive 1-2 more miles until you reach the Llano River. The parking area is on the right. The trip starts at 6AM to beat the heat. The river is mostly dry so you can dry pan for gold, look for river rocks or use a metal detector to look for old artifacts in the river bed.

What to bring: gold pan, spray bottle, shovel, trowel, hammer, bucket, plenty of water, sunblock, bug spray, hat

Two additional sites have been added:

Petrack Pegmatite Night Hunt: Saturday night 8:30 pm meet at Danny's Country Diner (16082 E State Highway 29, 30.73566,-98.450206).

Hyalite opal. Pegmatite minerals, radioactive minerals



Badu Hill Hydrothermal Pegmatite: Sunday morning 9am meet at the Southeast corner of 29 & 1431 (30.733048,-98.465486). This site will be \$10 per person & will also require a

waiver form, which will be provided. Flourite, pyrite, anatase after titanite, smoky quartz, radioactive minerals, lots of strange stuff!

## KANSAS AND OCEANS – WHEN WAS KANSAS LAST COVERED BY AN OCEAN?

By Dr. Wesley DeCoursey

There are many places in Kansas, from the southeast corner to the northwest corner, that have thick layers of limestone. Because of the prominent occurrence of numerous fossils or minerals in these limestones, they are called dolomitic, oolitic, crinoidal, fusulinid, algal or chalky limestone. Since most limestones are formed in an ocean, we can thus conclude that Kansas was covered by ocean water and say that the last time Kansas was covered by an ocean was when the most recent limestone was deposited; namely the Cretaceous-age chalky limestone of western Kansas, about 75 million years ago.



Early settlers in Kansas commonly used native and local limestone to build houses, city buildings and churches. The Fort Hays Limestone and the Fencepost Limestone are of Cretaceous Age and are used for many buildings in western Kansas. A good example is the “Cathedral of the Plains” at Victoria. Somewhat older limestone of Permian Age is quarried in Marion, Ft. Riley and numerous parts of the Flint Hills. Needless to say, some limestones are not suitable for building stone due to the presence of cracks, vugs, chert, flint, pyrite or are simply too soft and weak like the limestone in

the chalk beds.

The last ocean to cover Kansas was the result of “down-warping” of the earth’s crust, which permitted water from the Gulf to slowly move northward into the resulting trough. At the same time, water from the Arctic area moved slowly down the trough toward Kansas. Finally the oceans joined and covered Kansas to a depth of perhaps several hundred feet. In this warm shallow sea, tiny animals called Foraminifera lived by the billions, and their tiny shells formed thick layers of chalky limestone to a thickness of 500 to 600 feet.

The gypsum and salt, which are now mined in Kansas, were deposited by an earlier ocean of the Permian Period. They underlie the Cretaceous deposits.

In this Cretaceous Sea other interesting animals lived, such as huge sharks, who tend to lose some of their teeth every time they try to eat a large fish. Since the sharks’ teeth are easily pulled loose and easily grow in again, many sharks teeth are found in the Chalk Beds of Gove County. Museums in Oakley, Colby and Fort Hays have large displays of these fossil teeth.

Another abundant animal of the Cretaceous Period was the Ammonite, and many fossils, from 1” to 5’ in size have been found. A few years ago, I saw a motel in Ardmore, OK, which had 2-3 foot ammonites embedded in the walls of each building and similar ones embedded in each section of a fence surrounding the motel’s adobe buildings.

The ammonite is one member of the group of animals called Cephalopods. It is round like the wheel of a car and each year adds another room onto its shell, as it grows larger. This is very useful because if it fills its shell with gas, it can float higher in the ocean. Since ocean currents may carry it to any place on earth, its fossil remains are found everywhere.

Three other relatives of the Ammonoid Cephalopod are Baculites, which have a straight conical shell: Squid that in one case grew to 60 feet in length in the Kansas ocean and Octopi. An octopus has no bones, so fossils are not found except for a few octopi ink sacks that have been found in the Niobrara chalk.

This latest ocean, the Cretaceous ocean that covered Kansas 75 million years ago, had shorelines that resulted in shales and sandstones such as our Graneros Shale, and Dakota sandstone, found just northwest of McPherson and Lindsborg, forming such attractive hills and valleys.

Further west, in Gove County, we can see the well-known chalk formations known as Pyramid Rocks, Castle Rock and Monument Rocks.

*From The Post Rock 12/94, via The Glacial Drifter 01/96.*

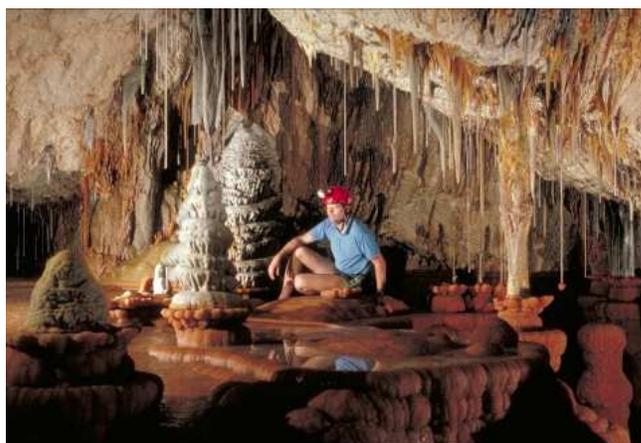
### LECHUGUILLA CAVE

By Don Shurtz

What do spelunking, NASA, the National Park Service, mineralogists, and microbiologists have in common? Lechuguilla Cave. The Dallas Morning News, Sunday, December 21, 1997 edition, had an article by Marilyn Haddrill. Lechuguilla Cave was discovered in 1914 and was thought to be no more than 400 ft. long. Lechuguilla Cave is located in a wilderness area of Carlsbad Caverns National Park. Back in 1914 it was mined for bat guano. In 1968 spelunkers found a small hole that led to a maze of caves and caverns. To date they have explored more than 92 miles of caves branching out from that 400 ft. entrance, with more cave still to be explored.

Lechuguilla Cave is described as having formations ranging from delicate structures that vibrate when blown on up to massive, cathedral-like formations. One formation is described as the world's largest gypsum formation.

So what does all this have to do with NASA and microbiologists? The cave is estimated to have formed about 7 million years ago. In the dark, undisturbed chambers they have discovered over 1200 types of microbes. Because of the closed ecological system, the cave's life forms are dominated by the microbes rather than the more highly evolved organisms such as fungi, plants, and animals. The microbes live on the sulfur, methane, and hot water in the cave. NASA is interested in the cave because it may be representative of similar conditions that existed on Mars in the distant past. They believe that the cave may help them understand



the underground conditions that could be encountered in future explorations of the Red Planet. The article also indicates that NASA has studied at least two other caves, in Romania and Italy, where the ground environment is wetter and much more active than that in Lechuguilla Cave.

The microbiologists are studying the microbes and testing them as antibiotics, anti-fungal, and cancer fighting agents. There are some indications that microbes, collected primarily at Lechuguilla Cave, are effective in destroying breast cancer cells in test tube tests. The microbiologists are also investigating if any of the microbes are archaea, a new type of life form first found in 1977. A possible strain of archaea, unique to Lechuguilla Cave, has tentatively been identified, but investigations continue.

*From Chips and Chatter, 01/98, via Show me Rockhounds Newsletter 03/98, via the Glacial Drifter, 04/98.*

| SCFMS and MEMBER CLUB GEM SHOWS   |   |  |   |
|---|---|--|---|
| AUGUST 14-15<br>BATON ROUGE, LA<br>Baton Rouge G&MS<br>Fraternal Order of<br>Police | AUGUST 21-22<br>BOSSIER CITY, LA<br>Ark-La-Tex G&MS<br>Bossier City Civic<br>Center | AUGUST 28-29<br>JASPER, TX<br>Pine Country G&MS<br>Events Center | Sep. 03 - 04<br>ARLINGTON, TX<br>Arlington G&MS<br>Arlington Conv. Ctr. |
|   |   |  |   |

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.  
 July 18, 2011, Clear Lake Park Building  
 5001 NASA Road One, Seabrook, Texas



Member of:

**Next Annual Show**  
 February Feb 25-26, 2012  
 Pasadena Convention Center



CLGMS is on the Web:  
<http://www.clgms.org>

|   |                     |                   |                |
|---|---------------------|-------------------|----------------|
| <b>Clear Lake Gem and Mineral Society, Inc</b>  |                     |                   |                |
| 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                                 |                     |                   |                |
| 2011 OFFICERS:  | President           | Bob Brock         | 281-338-2252   |
|   | Vice President      | Ed Tindell        | 281-930-0698   |
|   | Secretary           | Annabel Williams  |                |
|   | Treasurer           | Loyce Pennington  | 281 481-1591   |
|   | Program Director    | Trina Willoughby  |                |
|   | Board of Directors: | Trina Willoughby  | Lester Gary    |
|   |                     | Cheryl Tindell    | David Tjiok    |
|   | Newsletter Editor   | Al Pennington     | 281 481-1591   |
| Annual Show 2012.....   | Al Pennington       | Library.....      | Lester Gary    |
| Const & bylaws.....   | Dick Rathjen        | Membership.....   | Mike Flannigan |
| Community Benefits.....   | Nancy Dugger        | Publisher.....    | Mike Flannigan |
| Historian.....  | David Tjiok         | Refreshments..... | David Tjiok    |
| Membership Dues Jan. to Dec. 2011: Adult \$10:00, \$5.00 per additional adult at same address, Junior \$5.00, \$2.50 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 |                     |                   |                |
| <b>Granvil A. "Al" Pennington, Editor 2011 – 11326 Sagetrail Houston, TX 77089-4418</b>   |                     |                   |                |
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| <b>Deadline for Aug Issue is July 28, 2011</b>  |                     |                   |                |