



A monthly publication of the Clear Lake Gem & Mineral Society

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NUMBER 04



NEXT MEETING: April 19, 2010
TIME: 7:30 PM
LOCATION: CLEAR LAKE PARK BUILDING
 5001 NASA ROAD ONE
 SEABROOK, TEXAS

The PROGRAM FOR April...

The program will be given by Malcolm Sadler: Malcolm is currently serving as an Adjunct Geology Instructor at San Jacinto Community College (Central). Before this position, he worked as a seasonal Park Ranger at Carlsbad Caverns. After his first season ended in November 2008, he went on a 6-month journey of national parks and monuments. To date, he reports having seen every national park but 10 and been to every state but 8. His presentation highlights many of the wonderful places our country has to offer (Grand Canyon, Sequoia, and Death Valley being just some examples). He will also bring with me some rocks and minerals that he has collected in my lifetime.

SHOW and TELL

Share a report of our latest field trip or your own special dig. Bring in your prize specimens and educate us. Bring us your rockhounding finds and let us see how you did.

INSIDE THIS ISSUE		Stoney Statements Spotlight	Editorial
March Minutes	2	 <p>Stoney Statements spotlights Pat Gregurek of Houston Texas who walked away with the 2010 Grand Prize.</p>	<p>At the show, we are often asked to identify "rocks". As anyone that has been in the hobby knows, that can be a daunting task unless one has some basic information. Nancy Dugger several meetings back has asked that each of us come to a meeting with ten "rocks" from our various Field trips and personal rock hunting outings. Then we tell what we know about the samples such as location of the find, postulated identification, geological history layer (if known), any actual tests you may have run on them such as Sp gr, hardness, streak, etc. The idea is to get us thinking about identification.</p>
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"Ancient Rome declined because it had a Senate; now what's going to happen to us with both a Senate and a House?"- *Will Rogers*

Minutes of the Clear Lake Gem and Mineral

March 15, 2010

President Bob Brock called the meeting to order and opened it with the Pledge of Allegiance. Treasurer Loyce Pennington presented the Treasurer's Report. Vice President Ed Tindell made the motion to approve the report and Lester Gary seconded the motion. The report was unanimously approved. There were no changes to the February Meeting Minutes as published in the Stoney Statements. Lesley Gary made the motion to approve and it was seconded by Lester Gary. Eight visitors were introduced and welcomed.

Committee Reports

Historian – Chairperson David Tjiok reported that he has been given membership lists and Stoney Statements from 1967 to present. Recent newspaper articles were discussed.

Library – Chairperson Lester Gary made a presentation on the purchase of new books for the library.

Community Service – President Bob Brock noted that Nancy Duggar has done an excellent job in this area.

Education – Need a chairperson for this committee.

Publicity – Plans are being made to publish an ad in the Houston Chronicle and local newspapers in April or May.

Membership – Chairperson Mike Flannigan indicated a report would be made next month.

Show Committee – Chairperson Al Pennington reported that a new dealer chairman will be needed to replace Mike Burns. There was a good turn out to assist Ed Tindell in the set up and take down. A 45-50% positive response was received from the dealers. Attendance was back to a normal level of an average over a ten year period.

Admissions are still a problem area. The Rock Table will be back next year.

New Business

Al Pennington made the motion to acquire name tags for the most regularly attending members. Loyce Pennington seconded the motion. Vests and the pattern were discussed. Loyce Pennington will research. A break was taken before the program and refreshments were served.

Field Trips – Field Trip Leader Ed Tindell reported that there is a three or four day dig and rock swap at Graves Mountain, GA. There is also a trilobite jam in Delta, UT. He is working on day trips such as Midlothian.

Old Business

The storage boxes were discussed. Ed Tindell will order.

The club passed a resolution that any field trip made with Teri Smith will be an official CLGMS Field Trip and those attending will be covered by CLGMS insurance. The motion to approve was made by Anna Williams and seconded by Trina Willoughby.

Program – A Visitors Look at the Houston Museum of Natural Science

Presented by Lesley Gary

Lesley reported that amethyst geodes taller than a person adorn the lobby. Geodes can be purchased and cracked open. The museum store has bigger and better displays of many minerals and fossils. Some are for sale. She gave us a brief history of the museum which was first housed in libraries and later moved to the zoo. The vault was donated by Lester and Sue Smith. The vault was open the day Lesley visited the museum and she reported the specimens to be beautifully displayed. The Gem Vault has many cut gems and jewelry, some royalty items. Lesley shared a variety of photos from the museum.

Door prizes were awarded and the meeting was adjourned.

Respectfully submitted

Annabel Williams

Secretary



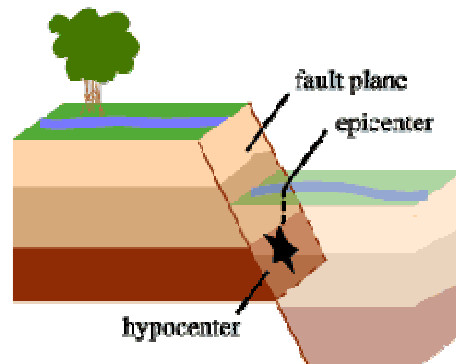
Today's Planet



by Al Pennington

The Earth continues to be active in the wake of the great Chilean Earthquake last February so its time to learn a bit. We shall start with terminology. Aftershocks: Large earthquakes hardly ever occur alone. When one earthquake happens, we usually see another at a nearby location. To talk about this phenomenon, seismologists coined three terms: "foreshock", "mainshock", and "aftershock". In any cluster of earthquakes, the one with the largest magnitude is called the mainshock; anything before it is called a foreshock and anything after it is called an aftershock.

The fault that moves in the mainshock experiences a great redistribution of the stress on it during the mainshock and it is that disrupted surface that produces most of the aftershocks. Sometimes the change in stress in the mainshock is great enough to trigger aftershocks on nearby faults. However, the stress change dies off quickly with distance from the fault so we rarely see aftershocks more than a few kilometers from the main fault. As a rule of thumb, we say that aftershocks are other earthquakes triggered at a distance from the mainshock fault no greater than the length of that fault.



The length of the fault scales with the magnitude of the mainshock and so do the aftershocks. The aftershock zone of a magnitude 5 mainshock will be under 5 miles across, that of a magnitude 6.5 will be about 20 miles across, while that of magnitude 8 mainshock might be over 200 miles long. Bigger earthquakes have more and larger aftershocks. As the magnitude of the mainshock increases, the magnitude of the largest aftershock, on average, increases as well.

The question is often asked? How many aftershocks will there be?? On average, for each magnitude 5 aftershock in a sequence, we will see 10 magnitude 4 aftershocks, 100 magnitude 3 aftershocks, 1000 magnitude 2 aftershocks, etc. The relative number of small to large aftershocks does not appear to change with time. In general, an earthquake large enough to cause damage will produce several felt aftershocks within the first hour. The rate of aftershocks dies off quickly with time so even the second day will have many less aftershocks than the first.

We call an earthquake an aftershock as long as the rate at which earthquakes are occurring in that region is greater than the rate we saw before the mainshock. How long that will be depends on the size of the mainshock (bigger earthquakes have a higher rate of aftershocks so it stays above background longer) and how active the region was before the mainshock (if it was quiet, aftershocks stay noticeable longer.)



Significant Earthquake and News Headlines

- Magnitude 7.2 BAJA CALIFORNIA, MEXICO April 04, 2010
- Magnitude 4.4 GREATER LOS ANGELES AREA, CALIFORNIA March 16, 2010
- Magnitude 6.7 OFFSHORE BIO-BIO, CHILE March 16, 2010
- Magnitude 6.5 NEAR THE EAST COAST OF HONSHU, JAPAN March 14, 2010
- Magnitude 6.9 LIBERTADOR O HIGGINS, CHILE March 11, 2010
- Magnitude 6.1 EASTERN TURKEY March 08, 2010
- Magnitude 6.8 SOUTHERN SUMATRA, INDONESIA March 05, 2010
- Magnitude 8.8 OFFSHORE MAULE, CHILE February 27, 2010

Ref: Material derived from in part: <http://earthquake.usgs.gov/>

An April HAPPY BIRTHDAY

Roy Kelly	2
Dan Harry	25

Diamond (innocence).
In an ancient ritual in
India, the wealthy
sprinkled tiny diamonds
over the heads of infants
to keep them pure and
virtuous.

April Anniversary includes:

Dick & Mary-Ruth Rathjen	12
Verlin Fox	20

2010 DUES ARE DUE

GOODIE GETTERS...For April



Main Goodies provided by club.

Lapidary Corner (Special request from a new member)**Compatibility of Backing Materials –**

One respondent on this subject mentioned backing opals with material of a similar coefficient of expansion. ????

Enlighten us, please. I have a box of Spencer opals sitting here ready to work on and a box of thin slices for backing; obsidian, Basenite, black jade, etc. Offhand I would assume that silicon dioxide materials would be preferable. But where on earth would we find information on coefficients of expansion for gem materials?

The coefficient of expansion is simply the amount a material expands or contracts at different temperatures. When gluing two materials together it's best to pick materials with similar physical characteristics to minimize stresses on the glue bond. When I make a doublet or triplet I don't want it coming apart five or ten years from now. Just use stones with a similar hardness & specific gravity to the stone you're gluing and the coefficients of expansion should be close enough.

For hardness and specific gravity info, any good rock and mineral book should have that info. Also on the web, check out -

<http://web.wt.net/~daba/Mineral/index.htm> or the International Gem Society <http://205.254.196.60/>

You are right, silicon dioxide materials would be the best if they are in the same hardness and specific gravity range as opal. Quartz is really a bit on the extreme end of the list, but what else can you use for a good clear top for a triplet? Sometimes you can get black opal patch for next to nothing from some of the Australian opal suppliers. Of the items you listed, I would go with the basenite. That is what I have had the best luck with. Obsidian will work but it's not the best and I would stay away from the black jade. *From Lapidary Digest Jan 99*

SELECTING A CHAIN

With many years of repairing chains, we would like to pass along to you some important tips for choosing a chain.

1. Decide if you will be wearing a pendant on your chain. This alone will help determine the type of chain that will give you the best service. Many flat link Italian chains cannot support even the lightest weight pendant.
2. A chain should be smooth. If it has sharp bites when you run it through your fingers, it will be uncomfortable to wear. In time it will wear out whatever you hang on it.
3. A chain should be flexible, especially if you wear pendants. If a chain will not bend, it will kink and often break. You can tell if a chain is flexible by letting it coil in the palm of your hand.
4. A chain should have soldered links for strength. Most flat link chains and Italian style chains are soldered and then run through a rolling mill, which may break or weaken the solder joints.
5. Avoid hollow chains. Gold is an expensive metal. Consumers should be aware that to cut cost, many imported chains are made with hollow links. If you could see a cross section of one of these, it would look like gold foil. How do these chains hold up? They don't. Worst of all, they are impossible to repair. In our shop, we will not repair hollow chains. They are a nightmare.

From The Olson Company of Seattle, Washington, via The Rock Collector, 4/98, via Hound's Howl 6/98

Field Trips (2010) by Ed Tindell

Name your Field trip

Well we did not get to your needs due to the show or have enough folks at the March meeting. Thus, we will be discussing various destinations for our field trips this year at the next club meeting. I threw out several ideas and now we need to begin working toward some goals. Hope to see you at the meeting for ideas.



Thanks,
Ed Tindell

2010 CLGMS Field Trip Coordinator
a.k.a. "The Official Cat Herder"

Polishing Apache Tears

1. Fill a [Loritone](#) Barrel Tumbler with 2.75 pounds of unpolished Apache Tears to 1" from top of barrel with water to top of the Apache Tears.
2. Add course grit [2-2.5oz.] and one small baby food bottle of plastic pellets or small pieces of rubber inner tube. Tumble for three weeks, 24 hours a day.
3. Add fine grit [2.5 oz.] and one small bottle of pellets or small pieces of rubber inner tube. Tumble for two weeks, 25 hours a day.
4. Add [pre-polish](#) [2oz.] and one small bottle of pellets or small pieces of inner tube. Tumble for two weeks, 24 hours day.
5. Add polish [2oz. of tin oxide], one small bottle of pellets or small bits of rubber inner tube, and three tablespoons [sugar](#). Tumble for two weeks, 24 hours a day.
- 6- Add [two](#) tablespoons of [Spic & Span](#) soap, one bottle of pellets or small bits of [rubber inner tube](#). Tumble for one hour. **Note:** After each step, thoroughly wash Apache Tears, pellets or small bits of rubber inner tube and tumbler barrel. Add fresh water with each step. from The Rockcollector 4/01 via Golden Spike News-12/97 via Rock Rollers, 3/01

HINT — By using small pieces of [styrofoam](#) plastic; instead of the hard, round little plastic beads, your polishing agent will do a better and quicker job. Those hundreds of polish-impregnated little Styrofoam pieces will really put a shine on everything in the tumbler and will disappear from sight by the end of the polishing cycle. from Rock Rollers, 3/01

SPECIFIC GRAVITY

Specific gravity of a solid substance is its weight in air compared with the weight of an equal volume of water. Specific gravity of a mineral is constant and does not change providing its composition does not change. There are six different types of balance used to determine specific gravity: 1) Jolly balance, 2) Kraus improved Jolly balance, 3) Berman density scale, 4) Westphal scale, 5) Chemical balance, 6) Pycnometer, also known as a specific gravity flash.

Relative density is harder to explain, so I will use an example. Say you have two doors, one wood and one of iron. Properties are all relative to the mass. This means that the iron door has a greater mass for the same bulk than the wooden door, making the density of the iron door harder to move.

Taste belongs only to those few minerals which dissolve somewhat in water. The terms are easily understood, and there are seven of those terms: 1) Saline - salty, 2) Alkaline - soda or potash, 3) Bitter - Epsom salts, 4) Acid - sour like acids, 5) Astringent - alum, 6) Pungent - ammonium chloride, 7) Cooling - potassium or sodium nitrate.



Odor also belongs to a few minerals, when they are breathed upon, rubbed, scratched, pounded, or heated. There are seven types of descriptive odors: 1) Argillaceous - clay-like - Kaolin, 2) Bituminous - like bitumen or organic matter - Asphalt, 3) Fetid - odor of rotten eggs - Bituminous limestone, 4) Astringent - like alum, 5) Pungent - ammonium chloride, 6) Cooling - like potassium or sodium nitrate, 7) Garlic odor given off by some arsenic minerals when heated - Arsenopyrite. Josie Middleton From The Stone Chipper 04/96

The Beauty of Feldspars

by O. Grathwolhl

In spite of the fact that feldspars and feldspathoids could be termed the “Plain Janes” of the mineral realm when compared to their more glittering associates, there are still some varieties which take a worthy place in the sphere of jewelry and decorative stones. Among these are the beautiful potash feldspar varieties such as the champagne-colored orthoclase from Madagascar which is generally cut in facets; yellowish to clear moonstone that is cut in cabochon; green amazonite (microcline) and light brown sanidine that can be cut in either facets or as cabochons. Another very popular feldspar is the sky-blue hauynite of triple brilliant cut. Peristerite (albite) exhibits an intriguing iridescence on a light tan background and is cut into cabochons (laboradorite is similar feldspar).



All of these, however, are put in the shade by lapis lazuli which is an association of minerals, spangled with iron pyrites, created under contact metasomatic conditions and which, in the course of history, has often competed with gold in value. There is evidence that lapis lazuli was already being mined 6,000 years ago in the famous deposits of Badakshan (modern day Afghanistan) and found its way to the old world via the ancient caravan route. Marco Polo, the far ranging Venetian traveler, brought news of these famous mines to Europe as early as 1271.

In ancient Egypt, the lapis lazuli stone (known as “chesbet”) was often framed in gold, and sacred pictures were created from crushed lapis. The death mask of Tutenkhamon is inlaid with lapis.

The Greeks and Romans cherished lapis as an exquisite gem comparing its sparkling luster to that of the star-filled night sky. It is believed that ancient writers referred to sapphire as lapis lazuli not corundum sapphire. Both Theophrastus and Pliny the Elder described the blue color as “cerulum scythian sky blue” used by artists, which was made from lapis lazuli.

During the Middle Ages, lapis lazuli was used in Byzantine art and sacred art from central Europe. It was still considered nearly as valuable as gold. From the feudal age to modern times, lapis lazuli was used for wall paneling and column decorations in many palaces. In the 17th and 18th centuries, lapis was preferred for stone work, for the decoration of fireplaces and for inlay work in combination with precious metals.

In the Czarist Russia, lapis lazuli enjoyed special favor. The beautiful ornamented lapis vases and tables in the Hermitage and the pillars of St. Isaak’s Cathedral in St. Petersburg (formerly Leningrad) are two such examples.

The Badakshan deposits are still being mined today under very primitive working conditions and transportation. Other deposits are found at the southwest end of Lake Baikal in the former Soviet Union and north of Santiago, Chile (inferior quality).

Lapis lazuli is now used for settings in rings, pendants and necklaces. The lapis lazuli from Chile is used for carving figurines and objects of applied arts.

GEMS & MINERALINES - by Mae Williams

AMBER - GEM OF THE AGES

Amber has been a favorite material for ornamental purposes from a very early period. Homer makes no mention of any gem in his minute description of various jewels, except the amber, which decorated the gold necklaces offered by the Phoenician traders to the Queen of Syria. This helps explain why Baltic amber was found among such widely separated ancient peoples. The Phoenicians were great travelers and their expeditions were worldwide.

Amber was so highly prized by the Romans that Pliny tells that a small figure carved from amber would fetch more than a healthy slave would. Unpolished beads and crude ornaments have been recovered from the earliest Egyptian and Assyrian ruins, representing a time so remote that historians can only guess their age.



With the advent of Christianity, amber rosaries came into being. Possibly not the entire rosary, but some of the more prominent beads, and Crucifixes were often made of amber. Some believe amber from the Baltic Sea was the direct cause of early development of civilization in that area.

Apparently, amber became very popular throughout Europe and was worn by rich and poor alike, probably connected with talismanic beliefs and superstition.

Amber has been of the greatest value to scientists in many fields. By a miracle, amber has preserved animal and vegetable life of 60,000,000 years ago. Apparently, when the golden sap flowed from the trees it caught and trapped vegetation, insect life of that time and even drops of water. Amber

flowed around these specimens, cutting off air and holding them in a perfect state of preservation. As amber hardened, the plants and insects were fused into permanent display cases. Fleas, which bit dinosaurs, still retain their tiny feelers, and bees, which pollinated pre-historic flowers, still carry their fuzz.

While the true nature of amber puzzled the ancients, there is no mystery in our minds today. We know amber to be the fossil resin of an extinct species of pine known to scientists as *Pinus Succinifer*, which flourished in the region now occupied by the Baltic Sea.

In composition, amber varies slightly, but about 78% is carbon, 10.5% hydrogen and 10.5% oxygen. Hardness is only about 2 1/2. Refraction is single, since amber is amorphous.

From The Petrified Digest 7/97.

AGMS Swap Meet

Austin Gem and Mineral Society would like to invite you to this year's AGMS Swap Meet to be held on April 10, 2010 in the AGMS Clubhouse parking lot.

Set up starts at 7:00am. The booths open at 9:00am and will close around 4:00pm.

If you plan to set up a booth, please contact Kathleen Howard to reserve one or two tables. The AGMS will furnish the tables; depending upon the number of participants, you may be limited to one table.

Kathleen's email is khoward15@austin.rr.com

SCFMS and MEMBER CLUB GEM SHOWS			
APRIL 10-11 ABILENE, TX Central Texas G&MS Abilene Civic Center North 6th & Pine	APRIL 16-18 ALPINE, TX Chihuahuah G&MS Kokernot Lodge On Hwy 223 Bypass	APRIL 24-25 WACO, TX Waco G&MS TX ST. Technical College ITC Building I-35 N	MAY 1-2 LUBBOCK, TX Lubbock G&MS Lubbock Civic Center
MAY 29-30 FORT WORTH, TX Fort Worth G&MS Will Rogers Mem. Ctr	AUGUST 14-15 BATON ROUGE, LA Baton Rouge G&MS Fraternal Order of Police	AUGUST 21-22 BOSSIER CITY, LA Ark-La-Tex G&MS Bossier City Civic Center	AUGUST 28-29 JASPER, TX Pine Country G&MS Events Center

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.
 April 19, 2010, Clear Lake Park Building
 5001 NASA Road One, Seabrook, Texas



Member of:

Next Annual Show
 February 27 & 28, 2010
 Pasadena Convention Center



CLGMS is on the Web: (new location)
<http://www.clgms.org>

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			
2010 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 2011.....	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. 2010: 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			
Granvil A. "Al" Pennington, Editor 2010 – 11326 Sagetrail Houston, TX 77089-4418			
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Deadline for May Issue is April 28, 2010			