

Clear Lake Gem & Mineral Society Meeting Minutes, September 17, 2012

Vice 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. Al Pennington made the motion to approve. It was seconded by Carole Henning and passed unanimously.

Visitors Holly and Sarah were introduced and welcomed.

Committee Reports

Historian – Nothing to report.

Library – We need a new chairperson.

Community Service – Chairperson Nancy Duggar was absent.

Education – Chairperson Ed Tindell made a presentation on field trip tools and supplies. He described the various tools and their use.

Field Trips

Chairperson Ed Tindell announced the available field trips in Alpine, TX. He also discussed the Midlothian field trip in October. He mentioned the Badu Hill field trip with the Texas Rockers. Anna Brownfield announced the field trip to George Wolf's home "Museum" this Saturday from 1:00 p.m. to 3:00 p.m.

Program

University of Texas Bureau of Economic Geology Research Centers

Presented by Beverly Blakeney DeJanett – Got Rocks?

There are three core research centers with public access to irreplaceable geological material. The types of data that are stored are cores and well cuttings. The samples include core descriptions and photographs of rock and mineral specimens found during oil drilling, including fossil specimens. The drill cores can be used in the future for public safety. All rocks have a story to tell. The center runs a lot of workshops for college professors who look at the cores. The layout room is used for interpretations. The three warehouses contain almost one million boxes of rocks from around the world. There are cores from every state except New Hampshire and from 27 countries. Two of the warehouses are full with the third one still having room for more specimens. You can search the database on line for oil well information in addition to the United State Geological Survey. Besides rocks, they have pictures of rocks, magnified thin slices. The Houston Geophysical Society has a museum on site. They have an outreach program to raise public awareness and training sessions and workshops. They sponsor the Houston Geoscience Day and they do a lot of work with teachers K-12. Their biggest challenges are space to store the cores and funding for maintenance of the large warehouses. There was a questions and answers period. The oldest core sample is from the 1930's. Core samples are from all depths, 20,000 feet to 4 miles.

Public Relations

Anna Brownfield announced the Wire Wrap Workshop to be held on Saturday, October 13. She announced the field trip to George Wolf's home. She represented the club at the SCFMS Annual Meeting in Jasper, TX, and attended the Pine Country Gem & Mineral Annual Show. Club member Chuck Shuler was there. She attended the petrified wood field trip sponsored by the Pine Country Gem & Mineral Society. Bernice and Charlie Timme have a booth at the Mistletoe Market on Saturday, October 6, in Pearland.

Old Business

The show workday is to be discussed next month.

Door prizes were awarded and the meeting was adjourned.

Respectfully submitted,
Anna Brownfield, Secretary

Stabilizing Turquoise and Opal

by Martin VanBibber

One of our newer members recently approached me at a local gem show. He saw some turquoise at a dealer booth and needed some information before he made what to him, was a major purchase. He told me that he'd noticed the word "stabilized" on the material label and wanted to know more about the techniques used for the process and if there was any way that stabilized turquoise could be easily



recognized. The term stabilized is most often used when referring to the process of hardening turquoise and like materials which are too crumbly or soft to cut and polish. The process is done in an autoclave where resins are injected under heat and pressure.

A similar process is used with the dust of these types of materials to press it into a cuttable block. The best test is to touch the material with a hot pin. You can smell the plastic on a treated piece.

More interesting to the small lapidary is the process that I will call fracture filler. This is actually an integral part of the lapidary process when working with emerald or certain opals. First I will mention the commercial product called "Opticon" which is a two step filler which seems to be like an epoxy and water-glass mix. You will find epoxies very useful as fillers of small pits or cracks, and most effective to use as a backing to stabilize a fragile piece through the sawing and grinding process. Best for this is that gray plumbers epoxy applied across the back of the slab.

The most commonly used epoxy is 330 water clear epoxy mixed at a ratio of 2 parts resin to 1 part hardener mixed with acetone. (Best done out of doors or in a very well ventilated area. Wear a good respirator too!) Using a hard plastic jar with a tightly sealing cap, mix both tubes of the epoxy into the Acetone being sure that everything is well mixed together. Insert the stones you want to stabilize and seal the vessel tightly so the acetone does not evaporate and fumes do not escape. Allow the stones to steep for 7-10 days. Gently swirl the brew around about every other day to keep it from separating. After 7 - 10 days, remove the stones and let them sit for a minimum of one week prior to cutting so the mixture can cure. You can keep the epoxy mixture for reuse if you seal the container very well and keep it in a cool place away from any heat source or open flame (like a hot water heater or gas furnace). Remember that acetone is very, very combustible. After curing you can cut, sand and polish the stabilized pieces. Zam works well. How do you tell if turquoise, opal or other stones have been stabilized? If you find a turquoise nugget, determining whether it's been stabilized or not is easy. Just kiss the stone! A raw turquoise nugget will tug at your lip when you kiss it. This property is diminished if the stone has been stabilized! Most cutters don't polish the backside of the stone, freak 'em out, give the stone a kiss on the back side. If you feel an appreciable tug, the stone has probably not been stabilized. If you feel a light pull it means that the stone more than likely has been stabilized. Polished areas don't give the same effect, so if the stone is also polished on the back side, your guess is better than mine.

Turquoise dust fused together with an epoxy stabilizing compound From Chipper's Chatter, 7/12

FOSSIL NEWS

By Keri Dearborn

Paleontologists in southwestern Saskatchewan, taking a break from unearthing a T-rex skeleton, noticed a "Whitish gray mass" sticking out of the ash hillside. What they found was a piece of coprolite 7 inches long, 5 inches high, and 6 inches wide. Throughout the mass were fragments of bone. The crushed pieces of bone were jagged and pointed, proving that they passed through the stomach of some meat-eating creature rather rapidly. The only known carnivorous dinosaur in the area 67 to 65 million years ago, large enough to create such a large dung specimen, was T-rex. The contents of the coprolite provide evidence that T-rex's teeth were strong enough to crunch bone and help to give us an idea of how it's digestive system worked. And I bet you thought poop was worthless.

Via Del Air Bulletin 12/98, Chips 'N Splinters 3/99, and Rocky Review 4/99.

A October HAPPY BIRTHDAY

Michael Vanderbles 5
 Ruth Hansen 6
 Steve McCaleb 7
 Loyce Pennington 24

(Opal (hope)). Sudden changes in temperature can cause this fragile stone to shatter, which may have led to the superstition that it can bring the wearer bad luck unless it is one's birthstone

October Anniversary includes:

"Employ thy time well, if thou meanest to get leisure." Benjamin Franklin

GOODIE GETTERS...For October



Main Goodies provided by club.

Lapidary Corner (Special request from a new member)

SHOP HINTS:

When polished, black petrified wood has no resemblance to wood at all. It looks like a plain black polished stone. You can highlight some of the beautiful grain structure by bleaching it. Soak the cut and sanded pieces in household bleach for 2 to 4 weeks, replenishing the solution when needed. When the desired grain contrast has been obtained, remove the pieces and polish. Some extremely interesting pieces can be obtained by this method.

☛ When cutting jade, the more milky the water is the better the grade of jade. If the water isn't milky, then you don't have true jade - you have something else.

When working with a soft stone such as onyx or marble, soak it in water for a couple of days before cutting. This will keep the oil from soaking in to discolor the stone and will result in a higher polish.☛ Dark household vinegar will dissolve epoxy glue by soaking overnight.

☛
 Cleaning crystals: One way to clean quartz and amethyst crystals that does not involve dangerous acids is to cover them with fresh vinegar to remove the carbonates such as lime, barite and calcite. Allow them to stand overnight (or longer as needed) in the vinegar. Wash well, and then place the crystals in washing type ammonia for 8 to 12 hours. Remove, rinse and wipe dry.

Ball Burs

I use ball burs quite a bit for carving and for cleaning up bits of solder that need to be removed. Ball burs seem to be more controllable than other cutting burs. They're less apt to grab and walk over your piece leaving nasty scars. And I've found that size matters. The large 8-10 millimeter size is a useful size for carving off bulk material while the small half-millimeter or less size can be used at high speed for signing your name on the back of the piece.

Sterling silver can be given a frosted look by roasting the silver in an oven for 20 minutes at 300° F. This changes the surface copper in the sterling silver to copper oxide, which may then be dissolved in sulfuric acid, leaving a pure matter silver. ☛ Don't put ivory in the dark where it tends to turn yellow. If it has started to yellow, you can retard this by taking ½ a lemon, rubbing it in some salt and then rubbing it over the ivory. After the ivory is dry, take a soft cloth that has been dampened with lukewarm water and rub the ivory to give it a bright new finish.

☛ To protect your tools from rusting, spray them with PAM® or WD-40®, then wipe with a dry cloth.

☛ To polish a stone in its setting so it can obtain its original luster, use a piece of suede or chamois skin or soft leather. Dip the stone in water and rub with polishing powder. Several rubbings may be necessary to restore a stone such as jade. Organdy material will sometimes put a polish on turquoise. ☛ Don't use laundry detergents to clean oil from rocks that have been sawed. Use regular dishwashing soap (not those containing bleach or "oxy") instead. Laundry detergents contain bleaches that may affect colors on some materials. Regular dishwashing detergents do not have bleach and are balanced to break down oils, fats and greases.

Cabs Always Fall off the Dop.

Well a couple of possible reasons, first, if you are using old dop wax, or wax that has

been heated many times, you may have to recharge it to get its tackiness back. Do

this by melting some real beeswax in with the dop wax.

Second, if you left the dopped cabs in the shop overnight, and the temperature

dropped, that is just like putting them in the freezer to detach them. You will have to

redo the cab, or bring the dopped cabs inside so they stay warm.

Field Trips (2012) by Ed Tindell

Hi All –

I have heard back from the quarry – no children or pets are allowed.

The trip will be on 10/27/12 from 8AM-2PM. We will get to collect for six full hours!

We will meet at the Whataburger in town (not on the highway to town but in the town of Midlothian itself) at 7AM.

Just take the business exit off of Hwy 287 as you head NW from Ennis off of I-45 and it will be on your left next to a MacDonalds.

I'll send the exact address later.

Please print and fill out the attached release form.

You must wear closed toed shoes (no flip flops or sandals), water and a hat. No hard hats required!

So far we have 18 signed up – **the trip is full!**

Since no one else signed up after the trip was posted in the club newsletter and my talk at the September club meeting I have given the remaining seats to The Texas Rockers.

If you want to go then go to www.meetup.com, join The Texas Rockers group, and RSVP for the trip.



Thanks,
Ed Tindell 2012 CLGMS Field Trip Coordinator
a.k.a. "The Official Cat Herder"

Fall rock hunts & the Woodward Ranch

FYI – I will be setting up at least one fell field trip to East Needle Peak. I'll keep you informed.

I've been getting requests for information about Fall Big Bend Rockhunts, so I thought I'd send out an update, even though the news isn't very good. Right now it looks like neither the Walker Ranch

nor the ranch south of Marfa will be open this fall. There hasn't been enough rain south of Marfa to make the rancher comfortable with us being out there, and the owner of the Walker Ranch will be unavailable until January at the earliest.

Although that's bad news, it still leaves us with two lovely places to rockhunt: The Ritchie Ranch, and East Needle Peak. The Ritchie Ranch is still \$5 per person per day admission, and the fee per pound will probably be \$1. East Needle Peak will be \$40 per person per day. There's been lots of rain in Alpine and Terlingua, so there ought to be lots of freshly uncovered agate that's easy to find!

I am also looking into a couple of other places, but they're not all that likely to come through yet, so I don't want to mention them.

As for the Woodward Ranch, it's still open to rockhunting on Thursday, Friday, and Saturday. And, it's on the market if you have a few million dollars hanging around that you'd like to invest. It's about 2200 acres at \$2500/acre, including all the improvements. That's about \$5.5 million. If you buy it, I'll be glad to run the rockhunts for you! Here's the link to the listing: <http://www.jwcarpenter.com/R122.htm>. I can recommend the realtor as being honest and conscientious, in case you're interested.

I'll let y'all know when I have some more information about Fall rockhunts.

AROUND AND AROUND WE GO

By Jill Rowlands

For several years I have been listening to experts wax and wane about lapidary. Yet from the wisdom I have gained, I also see an issue of which that is contrary. If, in fact, there is no such thing as a round object in nature, then could the Flat Earth Society gain momentum for the future? Am I just plain hallucinating when I see loose plump grapes, served at Lapidary-sponsored dinners roll off of the paper plates? As a youth was I not forced to eat 77,700 horrible round green peas that are much better dried and served as substitutes in slingshots for BBs?

In the garden, the pillbugs are more fun with preschoolers than pods of impatiens. They also get bumped, batted, and bowled incessantly from inquisitive infants. Who, when older with curious wide-eyed wonder stomp slimy domed mushrooms from down under. From the deepest, darkest caverns in the seas, elongated round tube worms come out to feed. To the highest mountain peaks of the world, round seeds and spores from plants are hurled.

On jaunts to once flooded streams as we try to avoid getting into trouble, we also collect many precious pisolites and discard the common pebble. Nature uses both to carve its own flowing, winding paths that are steep. While we carefully search for hidden beauties, we avoid falling in holes that are deep.

Round is the description of many an atomic particulate, the rings of Saturn are also described in that very same shape.

When we drive around the block we might say we are going in circles, and don't we prefer climbing a curved hill instead of jumping square hurdles? Under microscopes the secrets of nature's beauty is revealed in particles of opal. The shape that is revealed is not square, octagonal, rectangular, or oval. It is as perfectly round as the finest of pearls and other minerals are at least spherical. Nature does form shapes that are colloidal and rounds the edge of almost any crystal.

For those who use the reason to not cut materials into shapes of round, because there is nothing like that in nature which they have ever found. I ask them to get their eyes checked and look for another excuse, quit ruining the reputation of rounded stones with so much abuse.

If you don't prefer the brilliant cut of a round or a cabbed curve over a square, at least admit your own finicky choice is not due to nature's shapes and be fair.

If you don't believe in the existence of natural round objects like bones leading to the hip, the Flat Earth Society is eagerly awaiting to receive your application for membership.

Don't tell me that grinding stones, sea shells, or lady bugs are a fiction of my imagination, and stop trying to make so much silly static on such a very weak position. In nature, I emphatically assure that round is most definitely found! But please tell me where are all of the unaltered objects that are supposed to be square? *From: Backbender's Gazette, 10/98.*

OUT OF SIGHT HIDDENITE

By Marianne Luther, member of CLGMS 1998

When I expressed an interest in researching a somewhat out of the ordinary, obscure mineral, a friend suggested that I might give hiddenite a try. At first I thought he was joking, but he assured me that it is a real gemstone and definitely worth looking into. I immediately consulted a couple of books on minerals and gems, but my search was in vain. Hiddenite was not mentioned in the index of either book, and I again began to doubt the existence of the mineral. When I turned to my dictionary in desperation, I found out that it is "a transparent yellow to green spodumene valued as a gem."

The operative word was spodumene. Once I had found that out, it was much easier to locate scientific information on hiddenite, although some of the more interesting historical data came from various publications provided by a kind Clear Lake Gem & Mineral Society member.

Hiddenite, the gem, comes from Hiddenite, a city in Alexander County, North Carolina, and both are named after William Earl Hidden, a mineralogist, contributor to scientific bulletins, mineral dealer, and mining consultant from Newark, New Jersey. Mr. Hidden came to North Carolina, because Thomas Edison had sent him there to search for platinum that might possibly serve as filament for his recently invented light bulb. He was not successful in his quest for platinum, but he made the acquaintance of J. Adlai D. Stephenson (possibly an ancestor of the 1952 presidential candidate). Stephenson gave Hidden some green gemstones found in an emerald deposit in Stoney Point (later renamed Hiddenite), North Carolina. The stones had been tentatively identified as diopside, but they were very cleavable and splintery, which are characteristics of spodumene.

When Stephenson received no reply from a well-known Pittsburgh mineral collector to whom he had sent some of the material, he turned to Hidden for help in the identification of the mineral. Hidden, in turn, sent the specimens to Professor

J. Lawrence Smith, a renowned mineralogist in Louisville, Kentucky. Smith determined that the crystals were a green phase of spodumene and named them hiddenite for the man who had sent them to him, not for the discoverer. To Smith, the appearance of the green spodumene did not come as a total surprise, since he was aware of a yellowish spodumene that had been found in Brazil in 1877. Hidden reported his failure to locate platinum to Edison back in New Jersey and promptly returned to North Carolina in 1880. As manager of the mine, he proceeded to dig up the emerald area near Statesville. The Emerald and Hiddenite Mining Company continued to operate until 1888 and produced approximately \$9,500 worth of hiddenite.

The largest stone, a 2.5 carat gem, was sold to A. C. Hamlin, who had it set in a necklace and gave it to a Hamlin wedding party member. Most emerald and hiddenite crystals found at the North Carolina site were located in the soil above the bedrock, which consisted of a highly metamorphosed gneiss, quite contorted and shot through with parallel strips of small pegmatite veins. Overall, the hiddenite deposit turned out to be much less extensive than anticipated and failed to produce enough stones to pay for the mining operation. Over the years, several additional mining efforts were attempted and abandoned, and during those attempts, only one good pocket of the mineral was found. According to reports, the find was the size of a football and contained twenty-one specimens of gem quality hiddenite, weighing a total of 492 carats. At the present time, the public is allowed to collect specimens at the Hiddenite site, but no commercial mining is in progress.

Although chemically simple (lithium aluminum silicate), spodumene comes in many hues ranging from colorless to white, yellow, lilac (referred to as kunzite in honor of George F. Kunz, a gemologist for Tiffany), and green. It is the green variety that is most controversial. The basic ingredients for spodumene (LiAlSi₂O₆) are in ample supply, but hiddenite is distinguished by its rarity. Spodumene must also contain chromium (Cr) to be true hiddenite; otherwise the crystals are simply a light green spodumene. Therefore, according to most sources, the name hiddenite should be applied only to the emerald green spodumene, not the more common pale green varieties. Different sources disagree not only regarding what should be rightfully named hiddenite but also its location. Conservative sources insist that true hiddenite comes only from the Hiddenite mine in North Carolina, while the more liberal sources claim that all green spodumene is hiddenite and that the gemstone is also mined in the Malagasy Republic, Brazil, Madagascar, Myanmar (formerly Burma), the former USSR, and Sweden.

Since hiddenite is a member of the spodumene family, it possesses its typical physical properties, such as 6.5 to 7 hardness, heaviness, and perfect cleavage parallel to the vertical prism, and transparency or translucence with vitreous luster. It is a trichroic mineral which, when viewed from different directions, appears bluish green, yellow green, and emerald green. Hiddenite has a monoclinic crystal system, a toughness of 3, a specific gravity of 3.18, no characteristic inclusions, and an uneven splintery fracture. Today hiddenite is extremely rare. The largest fine stone on record, the jewel from the "Hamlin necklace," can be viewed at the Harvard Mineralogical Museum. Other notable hiddenite exhibits are at the University of South Carolina in Columbia; the Colburn Museum in Ashville, North Carolina; the Smithsonian in Washington D.C.; the American Museum of Natural History in New York; and the British Museum in London.

ia Gem of the Rogue, 8/98, via The Conglomerate 9/98

.SCFMS and MEMBER CLUB GEM SHOWS			
Oct. 05 - 07 ARLINGTON, TX Arlington G&MS 1010 N. Collins St. Entertainment Ctr.	Oct. 06 - 07 TEMPLE, TX Tri-City G&MS Mayborn Civic Ctr.	Oct. 19 - 21 VICTORIA, TX Victoria G&MS Community Ctr. 2905 E. North St.	Oct. 19 - 21 AUSTIN, TX Austin G&MS Palmer Event Ctr.
Oct. 27 - 28 GLEN ROSE, TX Paleo. Soc. of Austin Somervell Expo Ctr. Hwy 67	Nov. 03 - 04 AMARILLO, TX Golden Spread G&MS Amarillo Civic Ctr. Exhibition Hall	Nov. 03 - 04 MIDLAND, TX Midland G&MS Midland Ctr.	Nov. 09 - 11 HUMBLE, TX Houston G&MS Humble Civic Ctr. 8233 Will Clayton Pkway

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.
 October 15, 2012, Clear Lake Park Building
 5001 NASA Road One, Seabrook, Texas



Member of:

Next Annual Show
 February Feb 23-24, 2013
 Pasadena Convention Center



CLGMS is on the Web:
<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

2012 OFFICERS:	President	Ben Duggar	
	Vice President	Bob Brock	281-338-2252
	Secretary	Annabel Brownfield	
	Treasurer	Loyce Pennington	281 481-1591
	Program Director	Trina Willoughby	
	Board of Directors:	Trina Willoughby	Jim Wines
		Ed 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 Duggar	Publisher.....	Mike Flannigan
Historian.....	David Tjiok	Refreshments.....	David Tjiok

Membership Dues Jan. to Dec. 2012: 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 2012 – 11326 Sagetrail Houston, TX 77089-4418

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