

Clear Lake Gem & Mineral Society Meeting Minutes,
November 21, 2011

President Bob Brock called the meeting to order and opened it with the Pledge of Allegiance. Treasurer Loyce Pennington made the Treasurer's Report.

The slated of Officers was presented and approved by acclamation
2012 Officers

President – Ben Duggar

Vice President – Bob Brock

Secretary – Annabel Brownfield

Treasurer – Loyce Pennington

Program Director – Trina Willoughby

Board of Directors – Ed Tindell – David Tjiok - Trina Willoughby Jim Wines

Newsletter Editor – Al Pennington

After an evocation we started the program

Program

Christmas Dinner and it was a good one

Florescent samples needed for scout booth: Donation of florescent samples are requested for use at the scout booth during the February show. If you have any samples to donate, please bring them to the next club meeting and Trina will collect them. Donated samples can be returned or added to the scout booth items to be used year after year. Please note that samples will be handled and possibly dropped.

There was no further business and the meeting was adjourned.

Respectfully submitted,
Anna Brownfield, Secretary

What Is Dichroic Glass ?

Most of us have seen the fabulous jewelry objects made with dichroic glass, and some of us have worked with it. Like many of the synthetic materials we've used in lapidary and jewelry, dichroic (Dye-Cro-Ick) glass was developed for another use other than jewelry. The word dichroic comes from two Greek roots - di - for two and chroma for color. Thus, dichroic literally means two colored. First developed by NASA in the 1950's for use in satellite mirrors and optical filters, the glass is made by vaporizing coatings onto glass in a vacuum chamber. That



golden sheen you see on the face masks of our astronauts as they do their space walks is really a dichroic coating meant to protect against the glare of natural and obviously unfiltered sunlight. The various ultra-thin coatings are metallic oxides. Gold, silver, titanium, chromium, aluminum, zirconium, magnesium, and silicon are the metals used. As the oxides are exposed to high temperatures and a high voltage electron beam, they are vaporized and deposited onto the surface of the glass. Each metal oxide produces different colors on the glass. Often several different oxides are deposited on the glass to produce varying effects. These thin layers have a total thickness of three to five millionths of an inch!

The dichroic coating itself has no color. The colors are created by light striking the coatings on the glass. Each piece has three colors associated with it - a reflected color, a transmitted color and a third reflective color that can be viewed at a 45 degree angle. This is what causes the glass to change color when you turn the piece. The

resulting plates of glass can then be fused with other glass in a kiln. Certain wavelengths of light will either pass through or be reflected, causing an array of color to be visible. Colors vary, even with using glass from the same larger piece because of variations in the firing process and thus, each piece of fused dichroic glass becomes unique.

Although dichro is an expensive material due to the high cost of manufacture (a 4" x 4" clear piece can cost about \$14 while some patterned or textured sheets of the same size can run as much as \$65 each), the resulting jewelry can be very striking. Dichro is available from many sources.

References:

Becky Edmundson, instructor at Wildacres Wikipedia <en.wikipedia.org/wiki/Dichroic_glass> Artisan Dichroic <www.artisandichroic.com>

Trezora Glass <www.trezo

by Steve Weinberger In - Hound's Howl - April 2008 From The RockCollector 12/11

Staurolites



Staurolite is a metamorphic mineral that is famous for its twinned crystals that form the shape of a cross. It is composed of iron aluminum silicate and its color ranges from yellowish brown to reddish brown to black. It can be transparent or opaque. It forms with garnet, tourmaline and kyanite in mica schists and gneisses and other aluminum-rich metamorphic rocks. They can be found in Virginia, North Carolina, Georgia and New Mexico. Deposits are also located in Russia, France and Brazil. It is the official state mineral of Georgia. The cross most commonly forms at a 60 degree angle (St Andrew's Crosses) but the 90 degree angle (Greek Crosses) is most sought after. They sometimes form with both types of crystals creating a specimen that looks like a 6 rayed star. Staurolite gets its name from *stauros*, the Greek word for cross but is also known as Fairy Stone and Fairy Cross. It has long been prized as

a good luck charm and is thought to aid in healing and provide protection from evil spirits. A popular Christian legend states that tears shed by the angels at the time of Christ's crucifixion crystallized and fell to the earth as Staurolites. Other legends claim they were formed by the tears of fairies, shed in sorrow over the death of Christ.

The Cherokee have their own legend which tells of the little people who brought to them a tale of greatness and sadness. The little people spoke of a special boy-child who had grown into a man of wisdom and taught his people the ways of the Creator and the straight white path of peace. He brought strong medicine (*nuwati*) to his people but had many enemies who would not hear his message of peace. On this day they would torture and kill the wise man. Because of their sorrow, the Cherokee began to cry. When their weeping had ended they looked down and saw that their tears had been changed into small stone crosses. (legend preserved by the Chiltoskey family of Cherokee North Carolina) The Cherokee also tell of an annual ceremony centered around staurolites that was held at the Spring Solstice full moon. At sunset staurolite crosses would be put into the fire and heated until they were glowing hot, then carried to a special mound with green sticks. There they glowed for hours and were reheated as necessary to keep them hot until sunrise. The ceremony assured the people of safe passage, rain during the growing season and an abundance of food in the fall.

Sources: •Smithsonian via *Strata Gem* June 2011, via *Stone Chipper* 12/11

A January HAPPY BIRTHDAY

Marvin Holbrook	4
Roy Garms	14
Keith Overton	14
Ed Tindell	17
Al Pennington	31

The January stone is Garnet (constancy). Garnet is derived from the Latin granatum, meaning "seedlike," because the gem resembles the pomegranate.

January Anniversary includes:

Joyce Parker	9
Helen & Ron Kosler	14
William Cox	27



Now is not too early about thinking about paying you 2012 dues.

GOODIE GETTERS...For January



Main Goodies provided by club.

Lapidary Corner (Special request from a new member)

Dopping Problems by Earl English

Carl Mauritz asked: <<I tried to dop up some cutting material for Cabbing and had some of it come apart or should I say separated before I even put it to the grinder. Is it because I didn't get the stones hot enough or not enough wax on the dop sticks, or did I get the wax too hot.>>

More than likely the wax was not hot enough. I usually will heat the wax while rotating the dop stick, and not apply it to the warmed stone until it is ready to drip. Caution here, dripping wax will raise a blister on flesh, so keep the fingers away from it. After the wax & stone have cooled a bit, while the wax is still pliable, make the leveling adjustments with moistened fingers, and then set aside for a few minutes to allow complete cooling. Heat sensitive stones may be "painted" with a mixture of shellac & denatured alcohol prior to dopping

I have a bunch of cut used dopsticks in a small tub, for reuse. When I use one, I first cut/break/hammer the cold hard wax from the dopstick, and put that wax in the dop pot, and wait till it comes up to temperature. Then I rewax one of the cleaned sticks - so I know the wax is up to the right temperature. Be sure to get the stone warm - place it on the edge of the dop pot. Then follow Earl's advice (above); note that he said to wait till it had COMPLETELY COOLED! Hale Sweeny *Lapidary Digest 11/99*

Dopping Problems By Denney L. Wilson

I have tried all the traditional and most non-traditional ways of dopping a stone to the dop stick. The traditional wax method works, sometimes, but can and often does damage heat sensitive stones beyond repair. Most of the other ways are worse, especially the use of instant glue - the solvents do not work reliably or quickly. What I now do is very simple. I use 527-brand cement.

Put enough of the cement on the surface of the dop that is to mate with the stone to cover it with a thin layer - usually, 1 or 2 drops is enough. Next, carefully place the stone on the dop (or the dop on the stone, since the cement is very thick) and orient as desired. Let this dry for at least 12 hours (24 is better). I have never had a stone come off during cutting using this procedure and it leaves the entire back of the stone not on the dop exposed for inspection.

After the final cutting and polishing, put the end of the dop with the stone in a small container (I use the lid of the bottle!) of fingernail polish remover (acetone) for about 30 minutes. Remove the stone from the liquid and it will easily pop of the dop. If necessary, a slight twisting motion can be used. *Lapidary Digest 11/99* I hope this helps some of the other people in this hobby/profession. It has helped me cut even "uncuttable" stones (fractured or crazed) without damage or problem.

Tumbling Hints

Since vibratory tumblers do not "tumble" it is important to realize that you cannot get the same effect from a vibratory tumbler that is traditionally associated with conventional rotary tumblers. You cannot get good shaping with a vibratory tumbler. If you start with an angular piece, you will end up with a polished, but still very angular piece. *June 2001 Lapidary Digest*

Field Trips (2012) by Ed Tindell

Hi All –

Any takers? I plan to open this trip up to other clubs next week so you need to sign up NOW. Only 23 slots left!

I have set up a field trip to the TXI quarry for Saturday, March 24, 2012, 10 AM-12 Noon. We may get to stay longer.

Rain Date: Saturday, March 31, 2012

I am playing phone tag with the other quarries trying to add one for the afternoon, etc.

I may add additional trips just to go to the other quarries. I'll keep you posted.

MSHA rules apply: hard hat, safety glasses, closed toed shoes, long pants. It will probably be cold which is better than being hot!

What to bring: hammer, bucket, packing material for delicate specimens, drink

What to look for: fossils, pyrite, calcite, etc.

The trip is limited to 25 people but if we go over a few I don't think they will notice.

Plan to double up in cars as they do count cars!

Meeting Place: Whataburger in town located at 1320 E Highway 287, Midlothian, TX 76065, 972-775-2323. See attached map.

Meeting Time: 9AM

If you want to go let me know as soon as possible.

I will offer all unused spots to members of the Texas Rockers.



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

Hi All –

Due to the overwhelming response for the 3/24 trip I requested that the rain date of 3/31 be turned into a second trip and that a third trip for 4/7 be added.

I just heard back from TXI and field trips for 3/24, 3/31 and 4/7 from 10AM-12PM are now approved!

I must attend each trip as field trip coordinator and so I can take 24 additional people per trip.

- No children, no pets, no cameras.
- Bring personal protective equipment (PPE): hard hat, closed toed shoes (preferably steel toed), safety glasses, gloves, long pants.
- Bring 5 gallon bucket, geology pick, crack hammer/chisel, packing materials, bags, food/water, sun block.

We will meet at the Whataburger in town as previously announced at 9AM. See attached map.

You will need to sign a waiver.

I am working to get us into the other quarries as well and will keep you posted.

Sunday sites are possible.

If you want to go let me know which day(s).

I will allow people to go on multiple trips provided there is room.

Let's fill these trips up!

Trivia Vugs

by RJ Harris, CPRMC

A meteor has only destroyed one satellite, which was the European Space Agency's Olympus in 1993.

American dentists use some 13 tons of gold each year for crowns, bridges, inlays and dentures.

A dog was killed by a meteor in Nakhla, Egypt, in 1911. The unlucky canine is the only creature known to have been killed by a meteor.

On November 17, 1959, synthetic diamonds were created for the very first time.

The first blast furnace in the USA was built in 1622 in Falling Creek, Virginia. It was destroyed by hostile natives the following year.

Sources: Useless Information, Launch Radio
From The RockCollector 12/11 Rock Buster 12/11- 1/12.

UTAH'S RED HORN CORAL

The Uintah Mountains coral lived during the Mississippian and Pennsylvanian geologic ages. In ancient seas, they grew on reefs and rocks on the ocean floor as separate, distinct solitary corals. Some floated; some were attached to anything solid. The myriad corals in the colony began to be buried in limy silts and oozes which came from the eroding land masses nearby. Some sources estimate that the tiny particles accumulated at the rate of ¼ inch in 400 years. As the corals experienced a natural death, they were slowly entombed along with crinoids, pelecypods, and brachiopods. Excess silica on the ocean floor and different cracks and openings deposited as gelatinous silica which would later harden into chert.



With the accumulations of thousands of feet of sediment and the drying up and resurgence of various oceans, one above the other upon the sedimentary column, the intense pressure and weight hardened the oozes into solid limestone rock. The layers were separated by clay and shale beds representing times when the surrounding seas became shallower.

The Uintah coral colony was and is not an ordinary colony. In relatively recent times, the coral beds were fractured by crustal movements and then buried by a lava flow of early Tertiary age. The pyroclastic lava flow covered over 180 miles with jumbled, steaming lava formations. Rainwater and upward circulating ground waters carried silica, calcite, manganese, iron and other

constituents into the fractured fossil grey coral layer. Trapped beneath a thin layer of green clay, which overlays the coral layer 10 or 12 feet above it, the silica bearing waters gradually soaked the fossil material. The silica was colored by manganese and was precipitated upon the walls of solution cavities, joint cracks, and, especially, into the interior of a great many of the fossil corals - probably by ion exchange between silica and calcium in a process known as selective replacement.

A few crinoids, pelecypods and brachiopods and their fossil parts have been preserved in the carnelian agate, although they are not as bright a red as the horn coral. They are decidedly rare in occurrence and are very expensive but found complete except for the full crinoid calyx and stem.

The final process of formation was the exposure by erosion of the sunlit ridge once covered by lava and sedimentary cover to reveal the rockhound "gold" treasure of the Uintahs.

From Gemrock via The Burro Express, via THE ROCK RATTLER, 03/98.

Pieplant - A Taylor Park Mining Camp by Steven Wade Veatch

Introduction

The Ute Indians frequented a high and extensive basin northeast of present-day Gunnison, Colorado. They called this area, along the Continental Divide, the "Valley of the Gods." These native people hunted and roamed this land of dense forest, rushing streams, and imposing mountains.

During the summer of 1860, a prospector by the name of Jim Taylor was rounding up stray horses when he rode into this remote and beautiful region. The area soon became known as Jim Taylor's Park, then simply as Taylor Park. With the discovery of gold, mines began to appear and settlement soon followed.

A number of creeks—Texas, Illinois, Pieplant, Trail, and Italian flow from higher elevations on the Continental Divide into the Taylor Park Basin, forming the Taylor River, The Bureau of Reclamation began construction of a dam in 1935, which took two years to complete, on the Taylor River. Both the dam and the reservoir are named after Congressman Edward Taylor, The Taylor River and its tributaries provide some of the best fishing in Colorado.

Today, Taylor River Road (County Road 742) passes by the Taylor Park Reservoir. Several miles past the reservoir there is an intersection where Pieplant Mill Road (Forest Road 742. 8F) heads north through the Gunnison National Forest and continues on to a clearing where a number of old log cabins marks the little settlement of Pieplant. The town was built in a wide meadow near Pieplant Creek—3,200 feet below the summit of Jenkins Mountain (13,432 feet). Both the town and creek were named for the clumps of broad-leafed rhubarb growing wild along the banks of the creek. Pieplant Creek, flowing southwest from Jenkins Mountain, ranges from less than one foot to seven feet across and is teeming with brown and brook trout.

A camp of prospectors and miners sprang up in 1880 along Pieplant Creek. By 1903, Pieplant had 100 residents, a post office, and a stamp mill. The mill, built by Wood’s Mining Company, handled 200 tons of ore each day from the Pieplant Mine. Four-horse teams hauled silver and lead ore in wagons down a steep road on Jenkins Mountain to the mill (Wolle, 1962). The mill also processed ore from other mines in the Taylor River area. The town began to decline after 1908, and later became a cow camp. A number of log cabins, the collapsed ruins of the Pieplant Mine, and part of the tall mill building remain today—reminders of the early mining operations that occurred here.

Geology

Pieplant is located on the western flank of the Sawtooth Mountains below Jenkins Mountain. Grizzly Peak (13,281 feet) is to the east. Locally, Paleozoic sediments mask folded and faulted Precambrian rocks. The area experienced uplift, folding, and thrust faulting during the Laramide Orogeny. Sometime in the Miocene Epoch, crustal movement began again, resulting in a series of faults. During the Pleistocene Epoch, ice was the last major geologic agent to shape the area. Majestic alpine glaciers swept down the mountains—carving preexisting river valleys into distinctive U-shapes, or filling them with unsorted native gold in placer deposits (Parker, 1974). The gold, hosted in Quaternary alluvium, appears as wires, small flakes, and as small nuggets. Early miners in the area successfully worked Pieplant Creek gold placers below 9,850 feet in elevation (Parker, 1992). Despite careful searches, the lode source of the gold has never been discovered.

These placers also yield a number of heavy minerals besides gold and magnetite. Pan concentrates contain columbite-tantalite, the ore of tantalum. This black mineral is not magnetic and is the principle ore of tantalum (Ta), a rare metallic element discovered in 1802 by a Swedish chemist, A. A. Ekeberg. The hard, malleable blue-gray metal tantalum has a number of industrial uses. Tantalum oxide is an important ingredient in electronic capacitors.

Monazite, a slightly radioactive mineral, shows up as blackish to greenish grains in gold pans. Monazite is the primary ore of these rare earth metals: thorium, cerium, and lanthanum. These metals have a number industrial uses and are considered valuable. Monazite crystals have weathered out from their pegmatite host rocks and were transported downstream. Because of monazite’s high density (specific gravity is - 4.6 to 5.7), monazite grains, along with gold, form placer deposits. Other heavy minerals that appear in pan concentrates are zircon and garnets. The sources of the heavy minerals are granites and pegmatites found in the area.

Today, Pieplant is a quiet place where a few cabins and structures remain near the edge of an open meadow. Pieplant Creek, which flows nearby, is still a good place to search for gold, especially in ravines and outwash terraces, on slopes, and in gulches.

References: Parker, B. H., Jr., 1974 Gold Placers of Colorado (2 volumes). Colorado

School of Mines Quarterly, 99-3. 492 p. Parker, B.H. Jr., 1992 Gold Panning and Placering in Colorado.

Information Series 33. Colorado Geological Survey, Denver, Co 83p. Wolle, M. 5., 1962. Stampede to Timberline: The Ghost Towns and Mining Camps of Colorado. Sage Books, Denver, CO 544p.

From The Rockcollector Dec 2001 The Pick & Pack (Cob. Springs) via Strata Gem, 11/01.

From Cab ‘N Crystal via MINERAL MITE via THE GLACIAL DRIFTER 03/95

SCFMS and MEMBER CLUB GEM SHOWS			
Jan. 21 - 22 FREDERICKSBURG, TX Fredericksburg Rockhounds Lady Bird Johnson Municipal Park	Jan. 27 - 29 TYLER, TX East Texas G&MS Rose Garden Ctr.	Feb. 18 - 19 GEORGETOWN, TX Williamson Co. G&MS San Gabriel Park	Feb. 18 - 19 PLAINVIEW, TX Hi-Plains G&MS Oliver Liner Ctr.
Feb. 25 - 26 PASADENA, TX Clear Lake G&MS 7902 Fairmont Parkway	Mar. 03 - 04 ROBSTOWN, TX Gulf Coast G&MS Regional Fairground	Mar. 03 - 04 BIG SPRING, TX Prospectors Club Howard Co. Fair Barn	

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.
 January 23, 2012, 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>

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	281 481-1591
	Treasurer	Loyce Pennington	
	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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Deadline for February Issue is January 28, 2012