The BACKBENDER'S GAZETTE

The Newsletter of the
Houston Gem & Mineral Society
Houston, TX

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The Miner

by John Anderson
Member of the Houston Gem and Mineral Society

The Miner's first trip to Rainbow Ridge Opal Mine at Virgin Valley, Nevada

This is another story from the Miner that takes place with me going to the Virgin Valley Rainbow Ridge Mine. I will tell you two different stories about going there, and the stories were about 10 years apart so here is the first one.

The first time I went there was with a good friend who was a great prospector for gold—Tom Saffas. We had been looking at areas that contained gold, so we thought why not combine a trip looking for gold and also fire opal. We had heard tales of gold being found in the area of Virgin Valley, Nevada. Some of the most beautiful fire opal is deposited as petrified wood as a limbcast.

After a long drive from the Los Angeles area, we finally arrived in Denio, Nevada which is on the border of Nevada and Oregon. Dinio is a very small town and the

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General Meeting Dates

by Clyde McMeans

May 28, 2013: Auction!! The program of this General Meeting will be an auction presented by the Lapidary Section. They will be selling the items in and on the main room display case. Enter your silent bid with your last name and first initial next to the item number on the bidding sheet. The highest silent bid for an item will become the minimum bid at the live auction.

June 25, 2013: **Auction!!** The Archeology Section will sell items donated by their members as well as items from larger collections.

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Purpose of HGMS

The objectives of this Society are to promote the advancement of the knowledge and practice of the arts and sciences associated with the collecting of rocks, minerals, fossils, artifacts, and their identification and classification; the general lapidary art; the collecting and identification of gemstones; the designing and execution of jewelry or metalcraft; and to provide the opportunity to obtain, exchange, and exhibit specimens and rough or finished materials.

Membership dues are $40 for an adult membership, $60 for a couple, $75 for a family (including all children aged 5-18), $25 for a youth membership (ages 5-18), and $500 for an adult life membership. Advertising rates: $70 for 2 months, ¼ page; $150 for 6 months, ¼ page.

MEMBER: American Federation of Mineralogical Societies & South Central Federation of Mineral Societies.

All meetings are held at the Clubhouse which is located at 10805 Brooklet near the intersection of Highway 59 (Southwest Freeway) and Sam Houston Parkway (Beltway 8). See the calendar inside the back page for when the different Sections meet. The General Meeting is the fourth Tuesday of each month at 7:30. The HGMS Web site address is **http://www.hgms.org**.

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closest town of any size is Winnemucca, Nevada which is about 120 miles from Dinio.

When we arrived in Dinio, we started asking the local resident miners about where gold was found in this area, and that took up most of the day. We finally found a local who was willing to talk and who had a gold claim that he was very proud of. He was looking for investors in the claim. He told me to fill my gold pan with ore and wash it in the creek next to us. I had panned gold many times, but this time I was not having any luck finding any type of gold that I could recognize. The old miner finally asked me if l had spotted any gold in my pan. I answered "no," because I was looking for some sort of small nuggets. Finally the miner took my pan and showed me the gold that was there. The gold was a flour type that had deposited itself as a dust on·the sides of my pan.

After much discussion between myself and Tom Saffas and a few others, we came to the conclusion that this type of mining is very costly due to the quantity of ore necessary to get a fair return on .an investment. We found out that it would be about the same story in most of this area. Our conclusion was that we would instead concentrate on the fire opal in the Virgin Valley area. .

We were getting very hungry for we had not eaten for over eight hours, so we tried to find someplace that had any type of food in Dinio—possibly a grocery store or a cafe. There were none, but we did hear that there was a very large Basque family who lived at the edge of town and who allowed people to eat with their family for a modest fee. The family had a sheep ranch, so they had extra people eating with them at every meal. The meal was great, and it was served family style with heaping full bowls of food.

After our meal, we drove to the Rainbow Ridge Mine where we had made arrangements to meet the caretaker, Mark Foster. Mark was not at the mining area, so we went to a type of campground that was constructed many years ago by the CCC. The campground had a pipe through which warm water continually flowed out onto the ground. It offered a great shower to someone that has been driving all day long or who had been digging in the ground for opals. As Mark Foster did not show up for two days, we had not a clue about where we should dig, so we dug in a variety of places—without much luck. When one hears of a mine, you usually think of a hole on a hill with most likely some timbers to support the mine shaft. We never dug in any type of a mine shaft but in a mine dump that had been mined years ago.

After five days of backbreaking work, our food supply started to run out. I had brought enough food for myself, but Tom did not because he said he wanted to try to lose some weight. We were really running out of food, so I talked to a Forest Ranger whom we would often see. We were in a Wilderness Area, so I guess that is why he was in the area. I asked the Ranger if he could shoot us a jack rabbit for some food, and he said sure. He took us out the next evening in an area just as the sun was beginning to set that was next to some big mountain sheer cliffs. There were golden eagles flying all around us with the thermal hot air from the day. It was a sight to behold to see the eagles rise

and fall in their flight, sometimes coming close to where we were standing on the edge of the mountain cliff.

The Ranger had an old hex barrel .22 rifle with no type of sights for they probably had broken off many years before. The jack rabbits were everywhere in our truck's headlights when we got there. The Ranger handed the .22 rifle to me, but I had trouble with no success because there were no sights on the barrel. I gave the .22 back, and immediately he shot a rabbit. The Ranger said very quietly that I shot that rabbit right through the heart. I did not say anything out loud, but I thought you got to be kidding. The Ranger did not have a knife, but he completely dressed the rabbit for cooking. He skinned the rabbit, and looked first at its liver for tularemia to make sure it was fit for eating and then at the heart with a small hole from the .22 gun. The next day we tried frying the rabbit for our dinner. We found it was so tough that the only way we could eat it was by cutting the rabbit into fingertip-sized pieces and chewing the rabbit morsel until we were tired of chewing it, and then try to swallow it. That was how we survived the rabbit venture.

The next day we asked the Ranger if he could get us some rabbit bunnies, and the Ranger did just that. Tom Saffas, being a professional chef, made the rabbit bunnies cooked with a whole bottle of wine taste like any great restaurant meal of rabbit under glass. I know the rabbit was great, but I also know our appreciation for that meal was magnified because we were almost starving.

We finally decided it was time to head back to the Los Angeles area and home, when we were offered a great opportunity that was worth the whole trip to the Virgin Valley. A collector that we met in the area showed us two samples, one being a small pine cone that was about two inches long that had a burst of fire opal throughout the cone. The other sample was a piece of dinosaur bone with fire radiating from the bone structure.

After we had traveled for a few hours on the way back home, we were still on a dirt road when we saw a flock of wild turkeys, and I was still hungry from lack of food. I told Tom that I was going to try and get us a turkey. The only weapons we had was prospecting picks, so that was the weapon of the day. The turkeys were not afraid of our car, so we got within 70 feet when I eased out on the opposite side of the car and started to crawl towards the turkeys. I hugged the ground like a commando, moving closer and closer to my goal—the turkeys. The wind was blowing slightly towards the car when I felt that I was actually going to get a turkey. I was really crawling very slowly and being very quiet. When I was less than nine feet away, I put the pick in my right hand and parted almost the last bit of brush with my left hand. As I started to rise to throw my pick at the turkeys, not two feet away was a coyote doing the same thing from a slightly different direction. I don't know who was the most scared. I let out a yell and threw the pick at the coyote. He or she let out a yelp—not from being hit, but from fright. The creeping and crawling for the last 20 minutes made my lack of food and my appetite really kick in, so the two pieces of plain bread that I was saving tasted like it had just come from some great bakery.

The Miner's second trip to Rainbow Ridge Opal Mine at Virgin Valley Nevada

When I decided to accept a mining position in Idaho, I was then living in the Los Angeles area. Since I had to drive roughly in the same direction to get to my mining position, I decided to first make a stop at the Rainbow Ridge Opal Mine in the Virgin Valley. As I said in my first trip, Dinio, Nevada was the closest small town near the opal mine.

Upon arriving at the Rainbow Ridge opal diggings, things had changed drastically since my last trip some 10 years before. The mine is open for a fee to dig in the old mine dump area. So I started digging in a small hole in the mine dump without finding anything worthwhile except a few chips of fire opal.

A man and his wife in their 60s were having good luck in the hole next to mine, finding some nice small pieces. After about four hours of digging, they decided to call it quits for the day. They had dug in their hole the day before and had done well. They both decided that it was time to end this venture and to head for home that was over a thousand miles away. Both of them said for me to take their hole to dig in because mine was not producing anything. I said, "No, I am going to stick with it for a while longer." The couple had stopped digging and climbed out of their hole and rested before heading to their car and home. After a half hour, they again said, "Why don't you take our hole?" I finally agreed because I was getting nowhere with my hole.

After I dug for at least 30 minutes, I saw the shape of an opal limb cast that kept getting longer and longer. I did not dare to uncover the opal limb cast because the couple would be devastated at my find.

After it seemed like hours, the couple finally left. I then completely exposed the limb cast. The fire opal limb cast was over one inch in diameter and about 20 inches long. I had dug for about six hours that day without not much luck, but I ventured into another hole where I dug for 30 minutes when the story of The Miner changed from nothing to a:great reward. You can never tell what you may find while prospecting because it's like gambling and pulling the handle on a slot machine.

I kept some of the fire opal limb cast for my own collection and sold the rest years ago for a good sum.

The Miner
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1-12-2013

Fun with Minerals at Papoose Flat

by Frank Dickson
Member of the Houston Gem & Mineral Society

I am a geologist-chemist interested in the migration of mass and energy in earth and how ore deposits and granites form. I am also a faculty member of Geology Departments (University of California, Riverside, Stanford, and at University of Nevada, Reno, Emeritus Research Professor).

Examinations of granite bodies convinced me that they are passively emplaced. They made room for themselves—cut other rocks. How can this happen? I was able to work this out when colleague Clem Nelson, UCLA, included me in a study of a most unusual granite he mapped, the Papoose Flat pluton, (PFP), Inyo Mountains. (Fig. 1) Minerals document conditions of origin, ranges of temperatures (T), pressures (P), closeness to equilibrium, oscillations. Whole crystals weathered out and broken from an outcrop were studied in selected orientations collected at ½ km intervals in thin sections and polished stained surfaces. Orthoclase crystals grow in diverse environments and vary greatly in size, shape, habit, and texture.

In contrast, orthoclase of Papoose Flat types are closely similar, having formed under the same narrow range of conditions at the finish of an entry under stress. Annealed under stress, they are tough and separate whole. Striking by hammers to break along face (010) (as do K-feldspars), instead powders them. Crystals of normal K-feldspar have right angles, exact 90 degrees between faces (001) and (010). PFP crystals are distorted and crooked to the eye. They depart 2 to 5 degrees from 90 degrees—indeed, they are crooked.

Granites normally litter surfaces with irregular cleavage fragments. K-feldspars in granite crystallize over millions of years. They show recrystallization events in zoned minerals, noteworthy zircons from half a dozen renewed fluxes along reaction cell paths. Megacrystals of Papoose Flat type grew over comparatively short times—thousands of years—at the close of entry of extreme metamorphic, maximum grade augen gneisses.

The same range of conditions forms orthoclase crystals in PFP-type plutons, similar in color, size, crystal forms, habits, textures, zoned hour-glass inclusions, concentric layers oscillating in Ba to K ratio, and triclinic external shapes, crookedness. Papoose Flat pluton's buoyancy at the close of entry stresses pluton and container rocks under narrow ranges of temperature (T), pressure (P), composition (X) and short times.

Plutons with these features (Table 1) I call Papoose Flat Pluton types. They have misshapen (crooked) crystals with the same properties and textures. Crystals transect earlier minerals and show recrystallized inclusions of host rocks and foliated marginal facies.

Reaction cells deduced from studies at Papoose Flat preferentially dissolve soluble matter as they ascend, cycling liquefaction energy. They shift in composition toward fugitive rich and lower density. Late-stage buoyancy stresses confining rocks. Theory

and experiments show that stress destabilizes solids at fluid interfaces and affects shapes. Solids dissolve in intergranular fluids. Under compressed conditions and short times, crystals of quartz and orthoclase grew. Excess energies of stress cycled in dissolving and precipitating.

Textures of K-feldspars are especially revealing. PFP-types have two generations of minerals, quartz and orthoclase in an earlier unstressed pluton of medium-grained granitic and porphyroblasts of augen gneiss. Sudden uplift of Inyo Rang oversteepened, marginal rocks slid downhill, thinned by ductile flow. Orthoclase is metastable and transforms to microcline with tectonic activity, shearing, and hydrothermal attack.

Microcline common in granites is nearly absent in PFP-types. Stress by theory and experiment destabilizes solids surfaces at interfaces of fluid. Pluton and host rocks fluctuated similarly in concentrations of components of dissolving matrix minerals.

Orthoclase has favorable kinetics of growth compared to microcline and sanidine. Crooked crystals under mild stress differ 3˚–5˚ from 90˚ in interfacial angles (001) to (010). Under stronger stress, crystals are partially rounded, and in one place on west, they were wholly rounded augens, with streaks of well-ordered microcline.

Fig. 1. Papoose Flat from southwest margin viewed east, Waucoba Mountain in distance, inselbergs of granite in flat. Lower right, gneissic border zone of foliated granite with attenuated aplite dikes and quartz veins, transforms to weakly foliated granite in 100 m toward granite.

Fig. 3. Orthoclase crystal, ~1.5 cm long, from pluton cut through center parallel to (010), left portion unstained, right stained red for Ba. Characteristic textures. Layers oscillatory zoned with regard to Ba and K. Hour glasses from preferential concentrations of minerals included in face sectors. Rough outer shapes with adhering small crystals in face sectors below

Get last-minute news about club events by sending a note to Neal Immega at n_immega@swbell.net.

Fig. 5. Orthoclase single crystals from one locality, pluton, 1 to 2.5 cm long, rough surfaces with minerals clinging, crooked, angle faces (001) to (010) average 94.

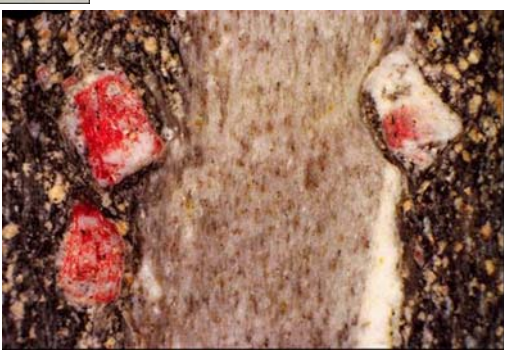


Fig. 8. West side, gneissic border rocks, attenuated aplite dike with orthoclase crystals, ~1.5 cm long. Internal layers parallel outer shapes, crystals grew during stress passively. Lower right, orthoclase transformed to white Ba-free microcline where stress was stronger.

Table 1
Dickson Localities Papoose Flat-Type Crystals
Center Cut Parallel to (010) Stained For Barium

Arizona	Comments
Little Dragoons Mtns	Mission, Texas Canyon, S. IS 10, at Summit Pass
California	
Big Bear	Lake Arrowhead
Cathedral Peak	Yosemite Classic Locality
Coxcomb Mountains	33 mi E 29 Palms
Dale Lake Quadrangle	3 mi NE of Clarks Pass 20 Palms Hwy
Granite Mountains	10-20 mi S Baker
Indian Cove	N. Side San Bernardino Mtns
Iron Mountain	SE Tip Coxcomb Mtns at Power Lines
Monterey Peninsula	In Monterey and Peninsula to west
Papoose Flat	Inyo Mtns, 20 mi SSE Big Pine
Sheephole Mountains	At Pass, just S Bristol Dry Lake
Tuolumne Meadows	Lyell Fork, Tuolumne River
Twentynine Palms	Monster Crystals in State Park
Yucca Valley	Well Developed In Town, along Hwy N Out
Nevada	
Belmont	6 mi s Belmont, S. end Toquima Range
Gillis Range	Copper Hill E of Nolan, Mineral County
Goodsprings Quad.	Drugman's Loc., UNR Teaching Coll
Lone Valley	Large, Carlsbad Twin, by Denis Norton
Round Mountain	S End Toquima Range
Toquima Range	
New Mexico	
Jarilla	Oro Grande, N Hwy 84
Italy	
Elba Island	Loose, near granitic rocks

Fig. 13. Site 1. Slabbed, polished Campito quartzite, with orthoclase (white) and quartz crystals (gray, crackled), 5 m from pluton.

Red and Green

by Edward Clay
Member of the Houston Gem & Mineral Society

I am lapidary artisan.
It is my work.
My livelihood.
Some of my passion.
Looking at an agate
but not a common type,
Red, solid and clean
like some kind
of heart's blood.
But not opaque
as you can see into
the Carnelian depths,
A little.
It polishes bright, pure
catches the eye.

Another material
like strange emerald,
but again solid and clean,
holding the feel of
fresh cut grass
in its pure color.
Also sharing
the ability for the observer
to see into its Chrysoprase depths.
Such materials can cost some,
Not like the famous types
the well-known sort.
But in their best grades
they are desired,
worthy
of the best skilled craftsperson's
talents.

Red and Green.
For all they could contrast each other,
They actually go together
well

Hope

by Noelle Skubal
Member of the Houston Gem & Mineral Society
Age 13

The hum of the crowd in my ears,
Drifting in controlled chaos
Toward a petite glass box.
Within the glass there lies
A deep blue gem with snowy eyes.
Gazing at the stone I see
A lady not much taller than me,
Perhaps wishing for a jewel
Where all the light seems to pool.
Two children side-by-side
Gape at it with wonder-filled eyes.
I turn my gaze to the dazzling star of the show,
Attended like a queen by sixteen
Ladies-in-waiting.
Were kings and queens of olde
Adorned by this treasure of blue?
Did empires die for the majesty
Of this diamond of sapphire hue?
There are none who can say, anymore,
None but Hope, sitting forever
Abound with mystery in her beautiful allure.

HGS and HGMS Team Up at the 2013 Scout Fair

by Jennifer Burton (submitted by Al Rob)

For the second year in a row, the HGS and HGMS presented a geology booth at the Sam Houston Area Council Annual Scout Fair at Reliant Arena April 13. HGS Educational Outreach Committee members Jim and Janie Schuelke and Jennifer Burton teamed up with HGMS member Al Robb to teach the Cub Scout geology belt loop and pin requirements to over 100 scouts and their families. Over 40 examples of rocks, minerals, and fossils were displayed for the kids to handle. The team discussed rock families and the rock cycle as well as fielded questions on energy and paleontology.

The HGMS supplied wonderful touch specimens including mammoth bones, whale vertebrae, and petrified wood which were extremely popular with the kids. The HGS and HGMS donated BEG (Bureau of Economic Geology) rock kits and fossil shark teeth to each scout earning their belt loop.

Photo: Al Robb (HGMS – Paleo Section) and Janie Schuelke (HGS) explaining geology and paleontology to scouts and their families.

Refreshments Scheduled for the General Meetings in 2013

We have a donation jar—the "Sabre Tooth Kitty"—where members may make a contribution to help defray the cost of refreshments. So please remember to feed the "Kitty" while helping yourself to some sweet or savory snacks.

Name	Refreshment Months
Phyllis George	May - June 2013
Michele Marsel	July - August 2013
John Caldyne	September - October 2013
Clyde McMeans	November 2013

Back to McFaddin Beach

April 20, 2013.
by Terry Proctor
2012 Archeology Section Vice-Chairman & Board Rep.

Five or more loads of HGMS Archeology Section and Proctor Museum members made another trip to McFaddin Beach. It was nice and cool, but the wind was blowing stronger than usual. There were not a lot of bones located on this trip unlike in several prior trips. It also seemed that the surf was closer to the Bird Sanctuary fence on this trip. Either the tide was higher than on prior trips, or the beach is continuing to subside and erode. Four-wheel vehicles are still the preferred vehicle of choice. As the trip leader, I had to pull out one member who got stuck and a stranger who was stuck in a different location.

As the lead vehicle coming in, I hit a large puddle of muddy water, and it coated the whole front and passenger side of my Yukon.

New member Linda Allison collected a lot of nice shells and beach glass (see photo of her collection on this trip). One thing, Linda, you are supposed to come to the next Archeology Meeting and brag about your findings. We missed you and your treasures at the May 2, 2013 meeting.

I found more beach glass than I recall on any other trip. I now have a large pickle jar full. Archeology Section members have been advised that you can use beach glass in the base of a clear glass lamp, or in a large brandy sniffer for your bathroom, or as a dining table decoration. Some folks use beach glass to make jewelry. I understand on the East Coast of the U.S. there are some beachcombers who sell beach glass for fairly good money to folks who want to use it for these purposes. At McFaddin Beach the farther you go from the entrance, fewer people have beachcombed the area and the pickings are better. Most is amber, clear-sanded by the surf to opaque and green. Rarer finds are blue, red, and sometimes lavender (caused by manganese added in prior years in place of lead, and the sun turns the glass a lovely lavender color).

There were lots of neat birds to photograph (see the Brown Pelicans and Skimmers taking flight in photo). If you are missing the Archeology meetings and field trips, you are missing out on some of the greatest fun presently at HGMS. We meet the first Thursday of each month, at 7:30 p.m. at the HGMS Clubhouse.

Mineral Section Programs

by Paul Brandes

June 5, 2013--Swap Night: Back by popular demand, we will have a Swap Night where excess material from our collections can be bought/sold/swapped. This will be an informal event and will be held inside. All Sections are invited to participate and swap. Setup begins at 7:00 p.m., and the formal business meeting will be kept to a minimum to allow ample time for specimen exchange and socializing. This is also our last regularly scheduled meeting before the summer workshops. Refreshments will be provided.

July 17, 2013 (Workshop) Topic to be announced

August 21, 2013 (Workshop)--I**ntroduction to Metal Detector Use:** Metal detecting has become a very popular pastime for many people, both young and old. Members of the Mineral Section will give a brief overview of how a hobbyist metal detector works, how they are used to find buried treasure, and their benefits to the mineral collector. Members that own a metal detector and want to learn more about its use are encouraged to bring it to this meeting. Also, members that have specimens that were found using a metal detector are encouraged to bring them to the meeting as well and share their stories. Refreshments will be provided.

Bench Tips

by Brad Smith

More Bench Tips by Brad Smith are at www.facebook.com/BenchTips/ or see the book "Bench Tips for Jewelry Making" on Amazon.com

Easier Prong Setting

When setting stones in a prong mount, the tool is less likely to slip off the prong if you grind a groove into its face or rough up the face a bit with sandpaper. Some folks prefer a prong pusher for doing this, and others like a set of pliers.

The easiest way to cut a slot on the pusher is with a file, and the easiest way to create a slot on one jaw of your pliers is to use a cutoff wheel and then do a rough polish with a knife-edge silicone wheel.

Fancy Rivet Heads

For a nice looking rivet head, use brass escutcheon pins. You'll have perfectly rounded heads that are all the same size and shape. The pins are a little hard to find, so try the best hardware stores first. Be sure to get solid brass pins, not brass-plated steel. If unsure, test them with a magnet.

The pins are readily available online. Lee Valley Tools has them in 14–18 gauge and lengths from 1/4 inch to 1 inch. Go to http://www.LeeValley.com and do an item search on "brass escutcheon pin."

For best results, select a drill that gives you a hole with a close fit to the rivet. Trim the rivet to leave a little less than one diameter sticking out the back side. Place the head on a scrap of hard plastic on the anvil so as to not flatten the head. I prefer a ball peen hammer (with a small 3/8 inch ball) for setting the rivet.

General Meeting Minutes

April 23, 2013
by Michele Marsel
HGMS Secretary

Neal Immega conducted a short auction of mineral specimens and jewelry items from 7:00 p.m. to 7:50 p.m. The meeting was called to order at 7:55 p.m.

Visitors and New Members: New Member Judy Bennet introduced herself and said she joined the Club to learn how to cut cabochons.

Prior Month General Meeting Minutes: Karen Burns moved and Joan Riley seconded that the March 2013 General Meeting minutes be approved as published in the April 2013 BBG. The motion passed unanimously.

Drawing: Michele Marsel conducted the door prize drawing since Beverly Mace was not present. President John Caldyne drew a random number, and Mary Ann Mitscherling won the partially polished ammonite.

Business: There was no business to present during the meeting.

Program: Inda Immega, Houston Museum of Natural Science Master Docent, presented a slideshow on the Museum's Fabergé exhibit. The exhibit presents over 350 pieces from the McFerrin Collection and will be on display until at least December 31, 2013.

Inda explained the gifting hierarchy of pieces commissioned by royalty and showed examples from gifts for family members to tokens for guests at royal events. She talked about historical events at the time these pieces were produced as well as characteristics of the work produced by the House of Fabergé.

The exhibit is compact and presents stunning examples of Fabergé work. Tickets are required, and there is no charge for HMNS members.

Adjourn: Karen Burns moved and Nancy Fischer seconded that the meeting be concluded. The motion passed unanimously, and the meeting was adjourned at 8:50 p.m.

Board of Director's Meeting Minutes

May 7, 2013
by Michele Marsel
HGMS Secretary

✓	President – John Caldyne	✓	Beading Rep – Jillyn Hailes
	1st Vice President – Clyde McMeans	✓	Faceting Rep – Gary Tober
✓	2nd Vice President – Beverly Mace	✓	Lapidary Rep – Phyllis George
✓	Treasurer – Rodney Linehan	✓	Mineral Rep – Pete Stassi
✓	Secretary – Michele Marsel	✓	Paleontology Rep – Mike Dawkins
✓	Past President – Charlie Fredregill		Day Light Rep – Mary Ann Mitscherling
		✓	Archeology Rep – Terry Proctor

The meeting was called to order at 7:33 p.m. with a quorum of eight members present.

Previous Month Board Minutes: Michele Marsel moved and Jillyn Haile seconded that the April 2013 Board Minutes be approved as published in the May 2013 BBG. The motion passed unanimously.

Treasurer's Report: The April financials were sent via e-mail prior to the meeting. Rodney Linehan reported that he had paid the additional insurance premium to cover the Show trailers and contents.

Office, Committee, and Section Reports

Archaeology Section: Lots of nice beach glass was found on the recent field trip to McFadden Beach. The Section's auction will be held at the June General Meeting and will feature items donated by Archaeology Section members as well as items from larger collections.

Beading Section: No report.

Day Light Section: No report.

Education Committee: Sarah Metsa has asked to be replaced as Education Chair. She feels the position needs more time than she is able to give and suggests that a semi or fully retired member be considered. President John Caldyne will contact Sarah to confirm her decision prior to appointing a replacement.

Faceting Section: Pat Cockrell demonstrated use of GemCad software and made 30-day trial copies available to Faceting Section members.

Lapidary Section: There is still lot of donated material left after the Section's April 13 Garage Sale. The Section plans to obtain an offsite storage unit to hold all the donated materials. The Lapidary Section will provide the main program at the May 28 General Meeting by auctioning off items that are in, on, and near the display case at the back of the meeting room.

Mineral Section: Members had a show & tell of purchases from the Houston Fine

Mineral Show at the May 1 meeting. They discussed how that show ran, dealers who participated, and noted that it now seems to be focusing on very high quality (and expensive) specimens.

Outreach Committee: No current activities.

Paleo Section: Neal Immega presented a program on coal balls at the meeting. Neal showed how to cut and prepare the balls and how to make acetate prints that show the plant forms preserved inside. This was a new experience for all.

Show Committee: No report.

Youth Section: The group is making fantastic stones in the shop. Some are doing wire wrapping.

BBG Editor and Webmaster: May 8 is the official deadline for the June BBG, and Phyllis George requested all items no later than Saturday, May 11, 2013. When asked if she had thought about someone who could replace her as Editor whenever that time comes, she commented that the software (PageMaker) she uses to produce the printed BBG is very outdated, and Adobe quit supporting it years ago. She is looking at Adobe's InDesign software as a replacement. She already owns InDesign CS 3.0 and CS 5.5—she just needs to find the time (and the motivation) to learn how to use it.

Old Business

Show Trailer storage: The plan to move the trailers to Clyde McMeans' and Neal Immega's properties was abandoned because the trailers were too large to fit on either property, plus our insurance company had informed us that they would not cover trailers stored at a personal residence. Michele Marsel moved and Gary Tober seconded that we move the trailers to AAA storage in Humble and pre-pay one year of storage fees ($1,400) which will give us 14 months of storage. The motion passed unanimously, and it was noted that we now have a full year to look at other options that might be less expensive.

HGMS Insurance: Clyde McMeans has not received quotes on Directors and Officers insurance or flood insurance. Flood coverage is expected to be in the $2000 range based on Clubhouse value. Per HCAD, the Clubhouse is in a 100 year flood plain. Michele Marsel checked the address on the Internet, and it is located in high-risk flood zone AE. Everyone agreed that we need to carry flood insurance. Charlie Fredregill moved and Jillynn Hailes seconded to authorize the purchase of flood insurance through our current insurance carrier as long as the cost is within reasonable bounds. The motion was approved unanimously. Rodney Linehan will contact our insurer and request a quote.

HCAD Renewed Approval of Property Tax Exemption: The required document was delivered to and accepted by HCAD.

Reinstatement of HGMS Corporate Status with Texas Secretary of State (SOS): Terry Proctor reported that he sent the required documentation to the Texas SOS and to the Texas Comptroller. We now are in compliance with both State entities as well as with the Harris County Appraisal District. Terry provided copies of the documentation

from the State to all Board members via e-mail with additional copies distributed at the Board Meeting.

Bylaws Update: No update.

HGMS Registered Agent: President John Caldyne is working on finding a replacement as requested by Terry Proctor.

Confirmation of A/C Repair—Ceiling Tile Replacement: Charlie Fredregill will seek to confirm that all repairs are complete and the leaking has stopped. Neal Immega will be asked to replace the ceiling tiles.

Exterior Lighting: The missing light on the front of the building has been replaced. However, we have a new need to move the HGMS light fixture on the back side of building as that parking area will be fenced and no longer accessible to HGMS members for extended parking. James Burell will be notified and asked to move the lighting fixture.

Safety: President John Caldyne reminded Board Members to keep an eye out and be sure members using the shop are wearing eye and ear protection. Gary Tober noted that the Board had voted to put the ear plugs just outside the shop entrance doors with a sign about usage; however they are actually inside the room, and as a result that club rule may not be strictly followed. The Board agreed they need to be moved to just outside the room doors. Beverly Mace reported that safety is being strictly enforced for the Youth section.

New Business

Terry Proctor reported that he did get the name of our next door tenant from Dunn SW Management Company so he can discuss with him our possible evening use of his parking area. Terry, who is on the Dunn SW Board, reported that there have been two recent car thefts and complaints of prostitutes in the area, so members need to lock their cars while at HGMS functions and meetings. Dunn SW is a member of the International Management District. This organization is painting over graffiti in this part of the County, free of charge. HGMS does not need to be a member to receive the benefits of the IMD. More information about the IMD is available at http://www.imdhouston.org/

Beverly Mace reported that the U.S. Post Office has introduced a new requirement for straps on bulk mail flats, so supplies have been purchased. On January 5, 2013, the U.S. Postal Service put many new standards in place for "Folded Self-Mailers"—which apply to our newsletter. Beverly has spent a lot of time familiarizing herself with the new rules.

Some members have requested fresh paint for the walls in the Clubhouse meeting and kitchen areas. At the next meeting, the Board will consider how to go about getting this done.

Adjourn: Terry Proctor moved to adjourn the meeting, and Gary Tober seconded. The motion passed unanimously, and the meeting was adjourned at 8:35 p.m.

AFMS/SFMS 2013 Annual Convention and Show

AFMS/SFMS 2013 Annual Meeting

September 18th-22nd

Sponsored by the Jacksonville Gem and Mineral Society, Inc

http://www.jaxgemandmineral.org/ A 501(c)(3) not for profit organization

All AFMS and SFMS meetings will be hosted at the:
Marriott, Jacksonville, 4670 Salisbury Road
Jacksonville, FL 32256, 904-296-2222 or 1-800-962-9786
(Mention AFMS meeting for $82 room rate. Offer Expires August 5, 2013.) (This rate is good from Sep 15th to 25th)

Jacksonville Gem & Mineral Society
gem, mineral, jewelry, fossil, bead Show & Sale
Morocco Temple
3800 St. Johns Bluff Road South
Jacksonville, Florida 32224
September 20th, 21st & 22nd
Friday 1-6, Sat 10-6, Sun 10-5
Exhibits and Continuous Lapidary and Jewelry Demonstrations
$3 each day or $5 for all three days, JGMS is a not for Profit Organization
Children Under 12 free with guardian
25th Annual Gem & Mineral Show & Sale

AFMS Uniform Rules - Wednesday 7pm
AFMS Annual Meeting – Thursday 9am
AFMS Scholarship foundation- After Annual Meeting

You are invited Thursday Night to Hanna Park at the beach. Star Gazing with Northeast Florida Astronomy Society members and Telescopes (Saturn will be spectacular!) Cook out provided by Host society JGMS.

JGMS Annual Show and Sale Starts – Friday 1pm
SFMS Cracker Barrel Meeting – Friday 7pm
SFMS Annual Meeting – Saturday 9am
ALAA Meeting – Saturday 2:30pm
Awards Banquet – Saturday 6pm
Editors and Webmasters Breakfast – Sunday 9am

40+ retail dealers, Fantastic exhibits and speakers from around the country. See the NASA Moon Rock, Lectures on near earth bodies, meteorites, demonstrations, workshops, hourly door prizes, silent auctions and more.
Enjoy the Annual Jacksonville Gem Show!!!

The 38th Annual ArkLaTex Gem & Mineral Society Show

is proud to host

The 2013 South Central Federation Mineral Societies Convention

Bossier Civic Center
Bossier City, LA

August 17, 2013 10 am – 6 pm
August 18, 2013 10 am – 5 pm

Custom & Unique Jewelry Hourly Door Prizes
Lots of Demonstrations Flintknappers on site
Grand Prize Drawings

Amethyst Agate Amber Emerald Geodes Ivory
Jade Jasper Opal Pearls Ruby Fossils

Exhibits by Society members

Admission: $4.00 Daily
Children 6 and under free, Students with ID $1.00

Website: www.larockclub.com
For more information contact:
Antony Thomas at (318) 518-0907

AFMS President's Message

The Way I See It!
by Don Monroe
from AFMS Newsletter 5/2013

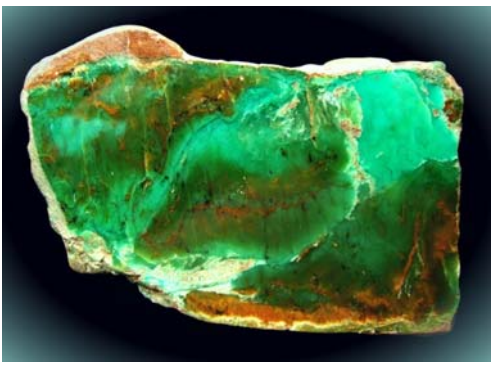
When I accepted the job as president of the American Federation, I really did not know exactly what it would be like. Well, it has been all that I expected and much more. All of what has happened has been good, and I have really been surprised by the letters, e-mails, and messages that our members have shared with me. Keep them coming! It is really the only way I can know what you are thinking.

Some messages dealt with an issue that is really "close to home." What will happen to our slabs, our equipment, our tools, our books, and our specimens when we are no

longer doing the hobby we love? As many of you do, we have "so-called mature children," but our offspring really do not have much interest in our hobby. We often encounter situations where our friends and associates are no longer able to continue those activities that have meant so much to them, and the disposition of those "things" that have been so important to them is left for others to take care of, and in many cases, to dispose of.

I have several times been contacted for suggestions or assistance by relatives of those who have left behind their valuable "stuff." I often do not have a good answer. As a matter of fact, my wife and I really do not know what will be the final disposition of our "treasures."

I would like to suggest to each one of you that you please prepare a will or document detailing your desires in this matter. Please don't dump this problem on your children or surviving relatives. It is not that they will not want to help, but in many cases, they will not know what to do.



Chrysoprase

Gem Profile by Rose Marion

from Rockhound Ramblings 5/2013

Chrysoprase is the apple-green form of chalcedony, instantly recognizable by its color which is caused by nickel. Chrysoprase can be opaque, semitransparent, and even slightly translucent. Chrysoprase is found in North America (including Arizona and California), Europe (including Poland, Germany, and Russia), and Australia, and has a Mohs hardness of 6-7. Demand for chrysoprase has fluctuated over time: Poland's mines were popular until they played out around the 14th century. Chrysoprase was popular again in England in the 1800s until supply dried up again. A new supply of high-quality chrysoprase was discovered in Queensland, Australia in 1965.

Chrysoprase is named similarly to chrysocolla because they are both associated with gold: "chryso" refers to gold in Greek. While chrysocolla, "gold glue," is named because of its similarity to an early gold soldering material, chrysoprase comes from the Greek for "gold green," although it can also translate to "golden leek," which pretty much describes the shades of green found in chrysoprase. Darker varieties of chrysoprase are sometimes simply called "prase," although this is also used to describe a type

of quartz with leek-green chlorite inclusions, which you can see here. Prase even referred to a type of green jasper in the past, although it's no longer used that way in most places.

Real Chrysoprase: Chrysoprase is also called Australian Jade and spelled chrysophrase or chrysophase. Chrysoprase can be enhanced with dye, and even imitated with quartz impregnated with chrome green dyes. It is also easy to confuse some chrysoprase with jadeite, which is more rare than chrysoprase (and thus some suppliers label chrysoprase as jadeite). Some chrysoprase that is labeled as Chinese chrysoprase is actually simply serpentine. To tell if chrysoprase is real or manufactured, like many semiprecious stones, look for small inclusions and imperfections throughout the stone: if there are absolutely no inclusions, the stone is likely worth a lot, treated somehow, or an imitation.

Prase vs Plasma: Plasma is also a variety of chalcedony with green coloring, but this color comes from not nickel, but other minerals like amphibole, celadonite, and chlorite. Plasma also features yellow and white coloration.

Chrysoprase in Culture: As far as the metaphysical value of chrysoprase, it is said to encourage hope, joy, ease restlessness, and even give protection when traveling on the ocean. Hildegarde von Bingen, the 12th century abbess and mystic, prescribed chrysoprase for gout, calming anger, and reversing bewitchments. Alexander the Great, who lived in the 4th century BC, is said to have won his wars with a chrysoprase inlaid on his belt; when a snake bit the stone off his belt, he suffered military losses and never won another battle – or so the legend goes!

If you are familiar with Europe in the 1700s, or even stories such as the Hunchback of Notre Dame, you aren't surprised that public hangings were fairly frequent! Chrysoprase was said to bestow invisibility when placed in the mouth, so criminals were said to slip a piece of chrysoprase between their lips as they approached the gallows. However, I can't find any record of this plan succeeding!

(Left) Beautiful green chrysoprase briolettes dangle from gold plated brass leaf post earrings. The post is made of sterling silver, gold filled wire has been used to wrap the gem. Artist Julee's jewelry inspirations come from the ocean and tropical flowers, that she learned to love growing up in Newport Beach, California.
From SurfAndSand at etsy.com.

(Above) This attractive chrysoprase in sterling silver bypass ring was created by Grace of "Jessi And The Crew of Distinction" and is listed as item #28898049 at their shop "jetflair" at etsy.com.

Mary Jean Skiba, a contributor to WireSculpture.com, wrapped this chrysoprase cabochon in a custom design for a friend: the friend had been told that the energy of chrysoprase could help her, and she wanted a spiral in the center to symbolize the spiral goddess.

Gemdat.org

by Carolyn Weinberger
from Gem Cutters News 4/2013

If you are interested in minerals, you already know the best source of information about them on the Internet is a site called <**mindat.org**>. Continually being up dated, this site contains a vast amount of information along with numerous photographs about almost all the minerals that have been identified (approximately 4,129 as of this writing).

Now there's a companion site, sponsored by the same folks as Mindat called <**Gemdat.org**> that's dedicated to providing information about gemstones and gemology.

I encourage you to visit the site. To date, 498 data pages on gemstones have been posted and the site is growing almost daily as additional information and photographs are added.

Interested in topaz? Type in the name and you'll be transported to a page showing information about it plus all the colors that it's available in. Click on a specific photo and you'll have an instant enlargement of a faceted or cabochon cut gemstone. Or just click on the "photo" button and you'll get a full gallery of the photos that have been posted thus far.

Scroll further down on the main topaz page, and you'll find some of the more technical data about the gem including chemical formula, optical properties, localities where the gems are mined, and the various treatments that have been given to the natural stones to enhance their beauty.

Like its companion Mindat, Gemdat.org is an interesting and useful site. One caution though—don't expect to take a quick peek and log off—you'll get hooked like I did.

Sunstone Crystal From British Shipwreck May Be Vikings' Legendary Navigation Aid.

(Science Now)
via Rocky Reader 5/2013
by Lizzie Wade

In 1592, a British ship sank near the island of Alderney in the English Channel carrying an odd piece of cargo: a small, angular crystal. Though cloudy and scuffed up from four centuries at the bottom of the sea, its precise geometry and proximity to the ship's navigation equipment caught the eye of a diver exploring the wreckage.

Once it was brought back to land, a few European scientists began to suspect the mysterious object might be a calcite crystal, which they believe Vikings and other European seafarers used to navigate by before the introduction of the magnetic compass.

A previous study showed that calcite crystals reveal the patterns of polarized light around the sun and, therefore, could have been used to determine its position in the sky even on cloudy days. That led researchers to believe these crystals, which are commonly found in Iceland and other parts of Scandinavia, might have been the powerful "sunstones" referred to in Norse legends, but they had no archaeological evidence to support their hypothesis—until now.

After subjecting it to a battery of mechanical and chemical tests, the team determined that the Alderman crystal is indeed a calcite, and therefore could have been the ship's optical compass, they report online today in the *Proceedings of the Royal Society A.* Today, similar calcite crystals are used by astronomers to analyze the atmospheres of exoplanets—perhaps setting the stage for a whole new age of exploration.

BBG Editor's Note: The recent **Vikings** *TV series used that method for navigation.*

If My Body Were a Car…

from Beehive Buzzer 7/2012, Via Strata Gem 3/2013
and Rocky Mountain Federation Newsletter 4/2013

This is the time I would be thinking about trading it in for a newer model. I've got bumps and dents and scratches in my finish, and my paint job is getting a little dull. But that's not the worst of it. My headlights are out of focus, and it's especially hard to see things up close. My traction is not as graceful as it once was—I slip and slide and skid and bump into things even in the best of weather. My whitewalls are stained with varicose veins. It takes me hours to reach my maximum speed. My fuel rate burns inefficiently. But here's the worst of it—almost every time I sneeze, cough, or sputter, either my radiator leaks or my exhaust backfires!

Lapidary Corner (Special request from a new Clear Lake Gem & Mineral Society member)

Shop Hints:
Making Diamond Tools
from Lapidary Digest 9/1997, via Stoney Statements 11/2012

If you want to make a flat lap with diamond grit, start with a relatively soft metal such as copper. Sprinkle a little of the selected diamond grit over the surface as evenly as possible. The entire surface doesn't have to be covered, but the coverage should be uniform. Use a hard steel roller (an old steel ball bearing works well) to press the diamond grit into the copper. Keep a steady drip of water on the lap when it's in use. Depending on your requirements, most any soft metal (something the diamonds can embed in and that will hold them after being embedded) will work.

For flat laps you can even use plastics. Commercially, diamonds are polished on cast iron scaifes (flat laps) revolving at high speeds. These instructions are for using large size (100-600) grit and removing relatively large amounts of material. They will result in a "frosted"' appearance on the item being ground. Finer diamond grits (14,000–200,000 mesh) are used to achieve a high polish.

Diamond powders are sold by micron sizes. A micron is one thousandth of a millimeter (1/1000 mm) or 0.00254 inches. A mesh size is the number of wires per inch in a screen mesh. Thus a mesh or grit of 100 will pass through a screen with 100 wires to the inch (or 10,000 openings per square inch), but can't pass through the next smaller screen.

If, for instance, you need a diamond bit to drill a hole in a rock, get a piece of copper or brass wire or tube a little smaller than the diameter of the hole desired. For larger holes, the tubes work better. Coat the end of the wire or tube with Vaseline (diamond has a great affinity for oily/greasy items). Sprinkle a very little diamond grit on a smooth surface. Roll the greased end of the wire or tube through the grit. Only about 1/8–1/4 inch of the tip needs to be diamond-coated. Use modeling clay or putty to build a small dam around the area to be drilled, leave about 1/4 inch clearance on all sides of the drill. Start to drill the hole. After the hole is started just enough to keep the drill from wandering, put some water in the dam. It should be pointed out that for this type of drilling, a drill press works best. It is not necessary to apply much pressure, just enough to keep the drill in contact with the work.

Check your progress often; allow the bit and hole to get water. The water is used to cool the drill and works as well to flush out the swarf. You may need to add more diamond grit and water from time to time. Add the diamond grit sparingly.

Show Time 2013

May 25-26	Fort Worth, TX	Fort Worth Gem & Mineral Club Amon Carter Exhibits Bldg. Will Rogers Memorial Center; 3401 W. Lancaster fwgmc@embarqmail.com fortworthgemandmineralclub.org
June 1-2	Stafford, TX	The Bead Market Stafford Centre, 10505 Cash Rd. rebekah@thebeadmarket.net www.thebeadmarket.net
August 10-11	Baton Rouge, LA	Baton Rouge Gem & Mineral Society Baton Rouge Marriott; 5500 Hilton Ave. Diana Martin, (225) 931-7543; Cajunladi@cox.net; Brgemandmineral.org
August 17-18	Bossier City, LA	SCFMS Convention & Show Ark-La-Tex Gem & Mineral Society Bossier City Civic Center larockclub@gmail.com; larockclub.com
August 24-25	Jasper, TX	Pine Country Gem & Mineral Society Events Center
September 14-15	Arlington, TX	Arlington Gem & Mineral Club 1010 Event Center, Rollins/Randoll Mill Rd.
September 21-22	Denison, TX	Texoma Rockhounds Denison Senior Center
September 28-29	Dallas, TX	Dallas Gem & Mineral Society Restiol Expo Center, Mesquite,TX ?
October 12-13	Temple, TX	Tri-City Gem & Mineral Society Mayborn Civic Center
October 12-13	Fort Worth, TX	Lockheed Martin RA Stone Steppers LMRA Picnic Area, 3400 Bryant Irvin Rd.
November 8-10	Humble, TX	Houston Gem & Mineral Society Humble Civic Center, 8233 Will Clayton Pkwy. 5 miles east of Bush Intercontinental Airport 1 mile east of Hwy. 59 www.hgms.org; ladyt682@yahoo.com

Show Time 2014

March 8-9	Pasadena, TX	Clear Lake Gem & Mineral Society' Pasadena Convention Center

2013			June			2013
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
						1 10–5 Shop Open 10–12 Youth Section
2	3	4 7:30 Board Meeting	5 7:30 Mineral Section 10-3 Shop Open	6 7:30 Archeology Section	7	8 10–5 Shop Open
9	10 1:00 Day Light Section	11 7:30 Show Committee	12 7:30 Faceting Section 10-3 Shop Open	13	14 Flag Day	15 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
16 Father's Day	17 7:30 Lapidary Section	18 7:30 Paleo Section	19 NO MINERAL MTG. 10-3 Shop Open	20	21 First Day of Summer	22 10–5 Shop Open
23 / 30	24	25 7:30 General Meeting	26 10-3 Shop open	27	28	29

2013			July			2013
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
	1	2 7:30 Board Meeting	3 NO Mineral Section 10-3 Shop Open	4 Independence Day	5	6 10–5 Shop Open 10–12 Youth Section
7	8 1:00 Day Light Section	9 7:30 Show Committee	10 7:30 Faceting Section 10-3 Shop Open	11 7:30 Archeology Section	12	13 10–5 Shop Open
14	15 7:30 Lapidary Section	16 7:30 Paleo Section	17 NO Mineral Section 10-3 Shop Open	18	19	20 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
21	22	23 7:30 General Meeting	24 10-3 Shop open	25	26	27 10–5 Shop Open
28	29	30	31 10-3 Shop open			

The BACKBENDER'S GAZETTE

The Newsletter of the Houston Gem & Mineral Society

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2011 - 1st (Large)
2012 - 1st (Large)

AFMS

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2007 - 1st (Large)
2010 - 2nd (Large)
2012 - 3rd (Large)

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