



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

Volume XLIV - No. 05

May 2013



President's Message by John Caldyne

ell, hello, Members,

April is a rolling month for me—getting jewelry-ready designs for clients and preparing lectures.

Back at the clubhouse, I've looked at some things there, such as the ladies' restroom. One of the toilet stalls needs to be fixed, and I will be talking with someone on that. The air conditioner is working great now, and the machine shop looks good. Dr. Neal did a great job on the machines in keeping them repaired, and Gary Anderson has, as always, watched over the machines and also helped keep them running.



There is one thing that I want to mention to all the teachers at HGMS, and that is that you are doing a great job. Please don't think I'm not aware of that just because I'm not saying anything. But do please, please have your students clean up behind themselves once they finish their classes. I'm finding too much trash left behind. When I taught pearl classes, I made sure my students cleaned up after class. No one left until the area was clean and in order.

Trailers: Clyde and I thought we had solved the trailer problem—but it turned out that we hadn't. We talked to the insurance company, and they said that it is not a good idea

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General Meeting Dates by Clyde McMeans

ay 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.

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Every article published in the BBG is edited for grammar and content. No flaming is E-mail the Editor and Webmaster at allowed. pgeorge4@comcast.net

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, ¹/₄ page; \$150 for 6 months, ¹/₄ 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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to keep the trailers in someone's backyard or lot because of insurance requirements. So we must take the trailers to a secure storage.

That is what I keep telling people—you can't get something for nothing any more. Maybe that was satisfactory back in the '70s or '80s, but not in this day and age—with or without insurance. Dr. Neal and Clyde were the only two members willing to keep the trailers for HGMS. Clyde and I went to the insurance company on the 16th of April to see and understand what is covered by our insurance. We now have the trailers insured too.

HCAD (Harris County Appraisal District): We pretty much have everything going well with HCAD. We now need a registered agent, and I'm working on that. Michele Marsel is following up with Terry Proctor on the Corporate status of reinstatement.

Well, my "Thoughts at the desk" are done now. Be ready for next month's surprises in the newsletter. **So Rock 'N Roll, You Rockhounds!** John Caldyne

Memo from the Editor

by Phyllis George

ecently I realized that because my cell phone number is listed in the HGMS Roster, people have preferred calling that number instead of my home number. I've resisted giving it out for a number of years, but only because I rarely use or check that phone for messages. I don't carry it on me, and I usually am not where I can hear it ring.

SO, please, if you wish to contact me, call my home number. If I don't answer, please leave a message. I always check my home phone for messages but only rarely check my cell phone. Twice in the past week I discovered that a club member had called me on my cell phone and left a message—which I didn't discover until several days had passed. \circledast

So if you wish to leave me a message, please leave it on my home phone.

Refreshments Scheduled for the General Meetings in 2013



e 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

The Miner and Jade by John Anderson Member of the Houston Gem & Mineral Society

or years I have been fascinated by the different types of jade found around the world. The two types of jade are nephrite, which is a amphibole, and jadeite, which is a pyroxene. Both are metamorphic types of rock which will help you identify them further. It was not until the 1900s that scientists discovered that nephrite jade and jadeite had different chemical compositions.

The chemistry of nephrite with its formula of $Ca_2(Mg,Fe)_5Si_8O_{22}(OH)_2^{[1]}$ places it between actinolite and tremolite. Actinolite has a formula



 $Ca_2(Mg,Fe)_5Si_8O_{22}(OH)_2$. Nephrite may be classed as a calcium-iron magnesium silicate. It has outstanding physical properties with extreme toughness. Actinolite is a silky fibrous mineral that is one form of asbestos with a specific gravity of 2.96–3.1 and a Mohs scale of hardness of 6–6.5. Jadeite is a crystalline with a composition formula of NaAlSi₂O₆ or Na(Al,Fe³+)Si₂O₆, and it has a gravity of 2.96–3.1 and a Mohs scale of hardness of 6.5–7.

Jadeite derives its strength from its compact crystal structure where nephrite derives its strength because of its fibrous composition. Jade comes in all colors from white, black, pink, and green with many variations of these colors. The most desirable jadeite is what is called emerald green or imperial jade. The name comes from the mineral emerald which is a beautiful clear green color, and the purer the color plays an important role in its value.

Some people have the notion that jade is not tough. I was given a good example of its toughness years ago in the Rocky Mountain Jade Shop in Lander, Wyoming. In the shop was a very thin slab of a beautiful apple green jade that had a small hole with a cord attaching it to the ceiling. I asked, "What is the jade hanging from the ceiling for?" With that question, he picked up a metal mallet and struck the thin slice of jade, producing a nice musical tone. I asked the owner if he was worried about breaking that beautiful piece of nephrite jade. He then untied the slice and tossed it on the concrete floor. The slice just kind of bounced slightly, but it did not crack or break. I asked him how many times he had performed that stunt, and he said hundreds of times, but sooner or later—maybe once a year—a fracture starts to form and the stone finally breaks. This is why it was used by early man long before the use of metal to make cutting tools and knives.

At the Rocky Mountain Jade Shop in their front yard was a beautiful apple-green nephrite jade boulder that weighed in the thousands of pounds. That quality in the 1950s era was selling at \$35 per pound, and today its value is over \$350 a pound. I have always been fascinated with jadeite, so I will now tell you a story that took place in Hong Kong, China. I was always under the impression that I could buy rough jadeite pieces anywhere in China because the Asian people love jadeite so. Finding jade to buy in the rough was a lot more difficult than I thought it would be, but if you keep looking, you will find it for sale.

I started asking different jade dealers where I could find some rough, uncut jadeite but had little or no luck until I found a gentleman who was more than helpful. He gave me his card, which was for a store called T.V. Lee Jade Importers. He told me to give them my card, and they will be more than happy to assist me in purchasing jadeite in the rough.

He directed me to a street that I believe was called Gaffe. Looking at the building number, I was surprised to find the area looked more like a manufacturing area of household items than a jewelry store selling jadeite. I found the address—it had a big metal door with the street number but no name. A button said, "Push for service." I pushed the buzzer button, and almost immediately, a metal slide about eight inches square opened up with a man asking what I wanted. This looked like a scene from a movie during probation. The man was the security guard—quite common in that part of the world. (Some of the nice restaurants that I went to even had a guard at their entrance holding a double-barreled shotgun for their security.)

I handed the guard the business card I had been given, and the next thing I heard was the sound of dead bolts being pulled open—in fact, quite a few were being opened. The guard opened the heavy door and invited me to enter. I watched as he closed the heavy metal door and slid four heavy dead bolts into place. (In my travels I have had the pleasure of seeing much great wealth in jade and other fine carvings of precious and non-precious stones, but this was an adventure that was without question one-of-akind.)

A very large fourteen-foot table was in the center of the main room with piles of alexandrite—faceted stones being evaluated by about four men for their quality such as size, color, clarity, and for the quality of the faceting.

When I say piles, I mean **piles**, for there was over 10 pounds of cut alexandrite lying on the evaluation table. I know that natural alexandrite is sold by the caret and is extremely expensive. Later I found out the cost to do business with a minimum sale—so the stories were real, and I will tell you about that later in my story.

Behind the table with the stones were metal jewelry lockers that covered the entire wall. It appeared that the lockers were for the alexandrite stones when the men finished evaluating them.

A side room had every conceivable form of carvings using precious and non-precious stones. Remember, this was in the 1950s when I asked for what amount of money would they consider doing business with me. They answered anywhere from \$100,000 to more than a \$1,000,000. Then I knew that the stones were natural alexandrite and

real. At that point, I was well aware that I was out of my league, but it was a treat just to look at those treasures that they had in different rooms. Remember, that was in 1950s money.

One thing I enjoyed so much in the Hong Kong area was the quality and quantity of natural gem stones available. The merchants that I finally purchased jadeite from had very high prices because they said it was a good candidate for emerald or imperial jade. I realized then that I could purchase Burma jadeite, but it would be cheaper to buy it in California from dealers that I knew. I have made purchases of jade in my life that were in excess of a ton, but buying jade in the orient—if you are not an oriental—you will not find the best prices or the quality that you are looking for.

In the early days, I was told in the back areas that jade was only sold in a certain very structured manner. The sale took place in a large tent with the buyers sitting in a circle. A man in the center had the pieces of jade he was selling under a large cloth like a big blanket. The buyer never actually sees the jadeite until the sale is complete. The jadeite seller hands the jadeite to the buyer under the blanket. Neither the seller nor the buyer would see the jadeite until after the sale was final. The buyer, when he received the jadeite under the blanket, would feel the texture of the jadeite piece which may be any size from fist-size to many pounds. The buyer paid special attention to the polished window that was about one inch square. The buyers had much knowledge in determining the quality of the jade piece by feeling only. It was also said that they, the buyer in many cases, could actually determine the color of the piece of jadeite by feel only. I was told this tale by more than a few old jade salespersons. You may believe what you want, but this is what I was told.

The color of nephrite usually does not come close to the color of imperial or emerald with its vibrant green color. But I once was fortune enough to see a piece of nephrite that did—after I made friends with the man who invested *\$7,000* in the making of a jade Tiffany lamp—the lamp was made of gold with a shade of cut and polished nephrite jade. I had sold him some big slabs of jade, and he was going to make another one. After we became friends, he showed me an eight-pound piece of nephrite that had a big polished window of the most beautiful imperial- or emerald-colored piece of jade to behold. He told me that he and some of his jade friends purchased this nephrite for a considerable amount of money. I have seen pieces of jadeite of that quality valued at well over *\$30,000*, but this being nephrite raised the bar tremendously because of its uniqueness to certain collectors.

I have another story about jade, but that is another story from The Miner.

The Miner 24915 (Jiltspur Way Spring, TX 77~89 281-351-5780

General Meeting Minutes

March 26, 2013 by Phyllis George in the absence of Michele Marsel, HGMS Secretary

he meeting was called to order at 7:35 p.m.

Visitors and New Members: Glen Parks, Keith McLeroy and daughter Kalista, and Galen Randall joined the group for the evening.

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

Show & Tell: Several members displayed items they had made.

- Steve Blyskal had some polished "therapy stones" from the Little Gallery and Rock Shop on Hwy 71 in Smithville. Maryanne said they looked like paperweights to her, and they could be used for that, but they are intended to be heated and applied to the body in treatments. Nevertheless, they were well-polished and attractive stones at a good price. Sigrid found a Tibetan "singing bowl" that she couldn't live without. Steve also had a flat of mineral specimens he bought on Internet auctions at erocks.com and Ebay. Specimens were from many countries—Australia, Peru, Morocco, Switzerland, England, and Pakistan and were a variety of common mineral species. There was even one specimen with prehnite on it, though most people didn't see it at first!
- Mary Ann Mitscherling displayed a copper and gemstone bracelet made during the March Day Light meeting.
- Karen Burns displayed a flat copper bracelet made during the February Day Light meeting.
- James Wark displayed a clipboard he had made from a computer mother board—an example of recycling materials.

Drawing: David Hawkins conducted the door prize drawing since Beverly Mace was not present. He asked Kalista McLeroy to draw the number. She drew David's number, so David went into the office and selected his own prize—a Dremel motor tool which was among the prospective prizes.

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

Program: Steve Blyskal gave a PowerPoint presentation on the Royal Tyrrell Museum of Paleontology in Drumheller, Alberta, Canada. The Museum opened in 1985, and it is the largest museum focused solely on paleontology. The first year over 500,000 visitors toured the Museum. The Museum is 85 miles away from Calgary (a drive of

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

about an hour and a half) and is located on N. Dinosaur Trail in Midland Provincial Park. The Park was created from land donated by the owner of the Newcastle Coal Mine after it closed.

The museum is named after Joseph Burr Tyrrell who found a skull of a predatory dinosaur while prospecting for coal for the Canada Geological Survey. This discovery set off a rush by major museums to find dinosaurs in the Red Deer River valley. Models of a few of the many species of Ceratopsians that lived in the Cretaceous of Alberta are on display in front of the museum welcoming tourists. Inside the museum are lifesize models of predatory dinosaurs.

Horseshoe Canyon is just outside of Drumheller. Many fossilized dinosaur remains have been found in the badlands formed by the glacial scouring of the Red Deer River valley. The area has the greatest concentration of Cretaceous ceratopsian fossil species of which Triceratops is best known. Drumheller is the largest town in the valley because of the coal mines. It is not a fossil site itself.

The museum sponsors ongoing fossil digs and has an active fossil preparation lab to prepare the items found for display in the museum.

Steve also showed slides he took in the Burgess Shale Exhibit. There are many active dioramas and mounted skeletons, and Steve photographed many such displays. It made for a fascinating meeting!

Adjourn: John Mitscherling moved and Clyde McMeans seconded that the meeting be concluded. The motion passed unanimously and the meeting was adjourned at 8:49 p.m.

Board of Director's Meeting Minutes April 2, 2013 by Michele Marsel

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

he meeting was called to order at 7:35 p.m. with a quorum of 8 members present.

Previous Month Board Minutes: Terry Proctor moved and Charlie Fredregill seconded that the March 2013 Board Minutes be approved as published in the April 2013 BBG with the substitution of the following amended paragraph: "Education Committee: No committee report. Mary Ann Mitscherling noted that Karen Burns collected a signup list at the Clear Lake show of 40 new people interested in Clear Lake classes. She suggested HGMS solicit a similar list for our classes at next year's Clear Lake

Show. Mary Ann also noted that some visitors to the HGMS table took application to join HGMS." The motion passed unanimously.

Treasurer's Report: No report.

Office, Committee, and Section Reports

Archaeology Section: Rearrangement of field trips was discussed at the April 4, 2013 meeting. The Section auction is planned to be held during the June 28, 2013 General Meeting. This will be a short format auction, and another program will also be presented at the General Meeting.

Beading Section: There was a good turnout at the last meeting. Jillyn Hailes' employer made a \$2000 donation to the Beading Section, and they have chosen to contribute half to the HGMS Building Fund.

Day Light Section: No report.

Education Committee: No report. Charlie Fredregill noted that he plans to teach a casting class in April and a wire wrapping class in May.

Faceting Section: No report.

Lapidary Section: The Section voted to donate \$3,000 from its Treasury to the HGMS building fund and hopes that other Sections will make similar donations. A large professional grinder/sander was donated to the Section. It is valued at \$1,000, and Lapidary Section is donating it to the shop and will pay \$500 to the donor from Lapidary's Treasury. The Lapidary Section auction will be the program for the May 28, 2013 General Meeting. There will also be a fixed-price "Garage Sale" of lapidary rough and other items on Saturday, April 13, 2013 in the HGMS parking lot.

Mineral Section: Will Heyman gave a talk on gold mining. The topic at the next meeting will be the Siemen Mineral Museum in Michigan.

Outreach Committee: Terry Proctor reported he received two letters from Ms. Smith thanking us for programs presented and mineral kits for the 5th Grade teachers at Harvard Elementary. Terry will continue to work on this Committee.

Paleo Section: The Brownwood trip was very successful. Participants found lots of nice coral specimens as well as nice fern leaf impressions at the spillway. Triceratops was the program topic at the last Section meeting.

Show Committee: No report.

Youth Section: No report.

BBG Editor and Webmaster: Phyllis has received links from kids to add to our Web site's Useful Links page and also to the Kids' Page. More suggested links are welcomed.

Old Business

- Bylaws Update: Incorporation of approved changes into the existing bylaws for final review by the Board is still in progress. Both the final Bylaws and updates to our Restated Articles of Amendment need to be completed and approved by both the Board and General Membership. Then, the Restated Articles need to be filed with the Texas Secretary of State. Board Secretary, Michele Marsel expressed her concern over the length of time the Bylaws updates are taking and offered to assist Terry Proctor.
- Show Trailer storage: Clyde McMeans reported that he had investigated more storage options including long-term placement of one trailer each on his property and the other on Neal Immega's property. This would save HGMS \$1400 per year in storage fees, and the trailers would be in safe neighborhoods. Terry Proctor moved and Pete Stassi seconded that one trailer (smaller) be moved to Clyde McMeans' property and the second (larger) trailer be moved to Neal Immega's property as soon as possible. The motion passed unanimously. The Board also agreed that insurance for the trailers/contents based on previously agreed values be added to the existing HGMS insurance policy as soon as possible, preferably prior to the move. John Caldyne or Clyde McMeans will contact Rodney Linehan to assist in getting the insurance coverage.
- Club Publicity Chair: The Board began discussion on roles/responsibilities for this position which will be continued via e-mail.
- Trophy Board: Terry Brawner joined the meeting as a guest and reported his recollection of Board discussions and votes in 2010 to move the Trophy Board to a different location. He reported that there was Board approval in September 2010 to change locations, however, it was not published in the Board Minutes because other Board members said it was not necessary to vote if they were only moving the Trophy Board to a new location. Consensus at this meeting is that membership wants a new location or alternative option for the Trophy Board. Discussion will continue on this topic.
- > Parking Next Door: No update.
- Safety Equipment: No update. Charlie Fredregill suggested that shop foremen should be trained in use of the *automated external defibrillator (AED)*.
- Exterior Lighting: James Burrell will replace the light fixture on the front (street) side of the building. When he inspected it, he found the entire fixture had been removed.
- Flag Display: The information plaque that describes the flag donated to the club by Mark Villanueva has been located and will be hung with the flag.
- HGMS Insurance: President John Caldyne received a quote from State Farm which came in far higher than the current policy premium. John will continue to investigate alternate insurance.

New Business

- Diane Sisson inquired if the building Air Conditioning repairs were complete and if the water-stained ceiling tiles could be replaced. Neal Immega had indicated that we have some replacement tiles. Once the repair work is confirmed, Neal will make arrangements to replace ceiling tiles as needed.
- Clyde McMeans asked why HGMS does not carry D&O Insurance (Directors and Officers Liability Insurance) which would protect the club in the event of a lawsuit alleging wrongful action by a Club officer or director acting on behalf of HGMS. He pointed out that every other non-profit he has been involved with carries this insurance. Clyde and John Caldyne will investigate the cost of this insurance and provide an estimate for discussion at the May Board Meeting.
- Terry Proctor addressed several items in an April 1, 2013 e-mail sent to all Board Members which were further discussed at this meeting.
 - Terry Proctor has served as Registered Agent for HGMS with the State of Texas for many years. He asked that he be replaced in this capacity, and President John Caldyne will speak with other club members who are attorneys to find someone else who is willing to receive legal notifications on HGMS' behalf.
 - Terry Proctor reported that the Texas Secretary of State has involuntarily terminated HGMS' non-profit corporate status due to our failure to file a required 2012 report. Terry stated he has already requested the necessary paperwork to be filed with a Request for Reinstatement and has the paperwork ready to file. The Board requested that Terry handle this matter as quickly as possible. Board Secretary, Michele Marsel, will follow up with Terry and assist as needed.
 - Terry Proctor reported that HCAD notified him we are past due in providing them an updated copy of HGMS' Restated Articles of Amendment. This is required to maintain our property tax exemption status. HCAD only requires that the document be signed/notarized and it did not need to be a certified copy filed with the Texas Secretary of State. The current Articles need to be reworked as they are very out of date. For expediency, Terry Proctor moved and Phyllis George seconded that we make simple clean ups and use that document just for HCAD and take a separate action item to complete long term updates to the Articles for approval by both the Board and General Membership. The motion passed unanimously.

Adjourn: Terry Proctor moved to adjourn the meeting, and Mike Dawkins seconded. The motion passed unanimously and the meeting was adjourned at 9:15 pm.

AFMS President's Message

The Way I See It by Don Monroe from AFMS Newsletter 4/2013

The "Deal" -- a True Story

bout 20 years ago, give or take a few, I received a telephone call from Ed Elam who is remembered by many of you as a master of the art of channel or as called by some, channel inlay. Ed noted that we had lost two of our old-time instructors and that he wanted to ensure that the future of channel was preserved and the art form would continue to be taught.

Ed offered me a deal that involved coming to his home in Brent, Alabama. He promised that if I would spend time working with him that he would teach me all that I needed to know about doing channel. He further stated that he would help me assemble the tools needed to do channel work and would furnish me with some of his slabbed material to get started.



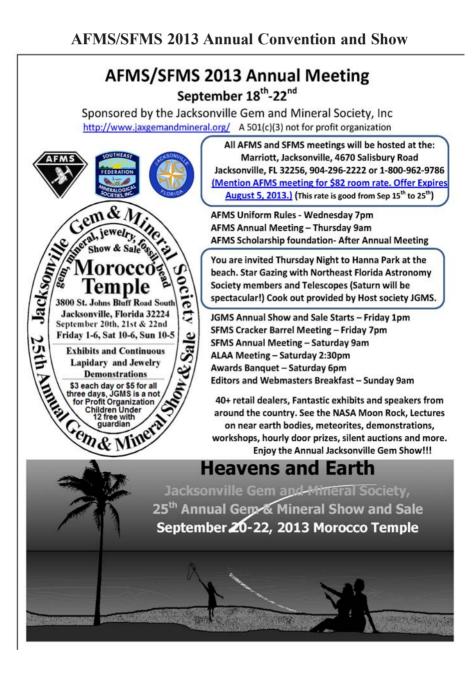
Well, I took him up on his offer, and this was followed with the opportunity to teach with Ed at John C. Campbell. We did this together for several years. During this period I also taught channel at William Holland and recruited my wife Ann who had developed a significant ability to do channel work.

I continued to teach with Ed until his wife's physical condition forced him to give it up. After Ed retired from teaching, I continue to this date at William Holland, and we teach a few private students.

There is a message in this story—all of us who teach need to sponsor someone to take up our job when we must give it up. Ann and I have concentrated on a few dedicated students, and hopefully they will take up the challenge when we are no longer able to teach.

The Eastern Federation has a competition program entitled "Each One Teach One" which recognizes Eastern club members who teach others. Clubs and individuals submit information about their members who teach skills to others as Ed did to me with no monetary remuneration for their time or effort. A committee reads all the nominations and makes a determination as to the winner. It's a great way to ensure that the skills we've all learned continue for the next generation and to recognize those who make sure that it happens.

Our own AFMS Club Rockhound of the Year program can be used as a way of saying "thank you" to the members who teach others. Each club may submit the name and information about one member (or husband and wife team) each calendar year. I'd like to see more clubs brag about these important members each month. Just send your submission to your regional federation "ACROY" chair, and you'll see them honored in the pages of the AFMS Newsletter.



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SCFMS-2013

American Federation Of Mineralogical Societies AFMS Endowment Drawing For 2013 Drawing to be held during the AFMS Convention and Show September 18–22, 2013, Jacksonville, Florida.

nterest earned by AFMS Endowment Fund investments is used to support numerous programs that benefit our affiliated member clubs. In the past several years, interest money has:

- Purchased badges for the juniors program which are given at no charge to clubs with organized junior activities programs.
- Digitized the old AFMS slide programs that have been distributed at no charge to the regional federations.
- Purchased new commercially produced programs for the regional federation libraries.
- > Supported the Judges' Training Program.

Many door prizes have been collected:

Such as: Caveman Clothes Pin-estimated value: \$75 (NFMS)\

Float Copper Specimen-estimated value: \$75 (MWF)

Agate and jasper channel inlay in the style of Scottish Victorian jewelry of the 1800s—estimated value of \$350 (AFMS), and many, many more.

August 2 is the deadline to have tickets returned to Catherine Rouchon of Baton Rouge G&M, your regional federation representative.

South Central Federation Convention News

Annual Show

he ARK-LA-TEX Gem and Mineral Society, Bossier City, LA, will host the SCFMS Show in 2013, to be held on August 17-18, 2013. So, mark your calendar and plan to be there for that show. We will be having more information about the festivities as time goes on, which are being planned at this moment.

Annual Meeting:

The Federation's next annual meeting will be held on August 17, 2013.

Annual Silent Auction

The annual silent auction will be held during the SCFMS Show and Convention, August 17-18, 2013. Donations are greatly welcomed and needed. Rocks, fossils, minerals, jewelry and hobby related items are among the items needed. Bring or send these items to the show. Proceeds from the silent auction go into the South Central Federation Endowment Fund.

Bench Tips

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

Cutoff Wheels: Cutoff wheels are inexpensive and do a great job cutting or shaping steel. You can use them to sharpen tool points, cut piano wire to length, make slots, and sharpen worn drills. Other uses include modifying pliers and making your own design stamps.

My preference is the one-inch diameter size. Be sure to hold the wheel firmly so nothing moves to break the disk, and definitely wear your safety glasses. Those are little flakes of hot steel coming off the disk.



Deburring Jump Rings: When cutting jump rings from large gauge wire for chain making, you'll notice the saw leaves a small burr. An easy way to remove these is to tumble the rings with some fine-cut pyramids. Only a minute or so is needed, and in fact you don't even need a tumbler. I just put a handful of pyramids in a wide-mouth plastic jar and shake for a bit.

You can find these pyramids in the tumble finishing section of most jewelry supply catalogs.

Drill Press Vice: A drill press vice is a versatile tool to hold a work piece securely and in precise alignment. It reduces the danger of risk when working with high-power motors, use of larger drill bits, and higher heat generated in the operation. The vice can be clamped to the drill press table if needed, and is quite handy for bench use to hold things for sawing or riveting.

You can find them at stores that carry machine tool

supplies. My feeling is that the best ones are made from steel. And I like the ones with V grooves cut into the jaw plates that help hold a punch straight up or hold a rod horizontal. To find a supplier, search on "vise" or "drill press vice" at micromark.com use-enco.com smallparts.com grizzly.com sears.com

Dental Gold: You might think that a couple pieces of dental gold would be valuable, but if you only have a small amount, it can be a problem—especially if you expect to be able to melt it and roll out your own sheet.

The trace metals that dental gold contains to make it a good material in your mouth



also cause it to crack if you try to forge it or roll it out as a sheet.

Sending it to a refiner is expensive for small amounts of metal, so a reasonable alternative is to try incorporating it into your jewelry.

If you have enough material to do a casting, that's probably the best use for dental gold. If not, try melting it on a solder pad and while molten, divide it into small pieces with your solder pick. Then flow the metal again to make little gold balls for use as accents on your designs.

Great Info for Faceters—John Bailey's "Sighting the Rifle" by KRS Evans

from Facets, 2/2013, via Rocky Mountain Federation News 4/2013

few months ago, John Bailey showed me something he calls "Sighting the Rifle." You know when you cut the pavilion you've transferred, you always have to "cheat in" the stone to keep that girdle from spiraling? It is quite tedious and can take an enormous amount of time. Well, ALL faceting machines and transfer blocks, no matter who made them, have small errors such that when we complete one side of the stone and transfer, the stone is no longer zeroed to the machine. A 96 on the machine might be 95.88 on the stone after transfer, which will make the girdle spiral.

What causes this? Maybe the transfer block has a small twist to it. Even 0.01 index will make a girdle spiral. Whatever the error is, "Sighting the Rifle" solves the problem for any machine and transfer block. I asked John if I could rewrite the article for Columbia-Willamette Faceter's Guild, and with his blessing, here we are.

Materials you will need:

- Two flat dops.
- A piece of glass at least 1.5" long by ½" tall. Thickness doesn't really matter I'm using a little 1/8" thick hunk of stained glass. The longer the glass, the more accurate you will be, to a point. More than 4 or 5 inches gets tough to fit onto your machine.
- > Your choice of dop adhesive.
- > Your transfer block.
- > A sharpie laundry pen, preferably black.
- > Your master lap plus a 600 grit and a worn coarse (180 grit or so) topper.

Before you start any "sighting," you need to zero your faceting head to the lap. No matter what kind of machine you have, "zeroing" is what you do whenever you change the index gear. This article does not cover that process, so if you don't know how to do it, check your manual, or ask someone how to figure it out. It's something you need to know anyway, so you are not gaining useless knowledge.

If you happen to have an Ultra-Tec, this process (3.1.2 CHANGING TO A NEW INDEX GEAR—ALIGNING TO THE KEY) is described on Page 11 of the manual located online here:

http://www.ultratec-facet.com/PDFs/V2DManual-version1-0.pdf

Okay! Have the machine zeroed? Let's get started sighting it in. The first thing you need to do is set your faceting head at 90° to the lap, at whatever index you prefer. I set my index at 96. Once it's set take your piece of glass, and laying it's long edge on the lap, glue it to the dop. Tip: if you get some CA (cyanoacrylate, superglue) on the lap, acetone melts CA. Not instantly, but in a minute or two you'll be able to scrape that CA off the lap. Now, color that long side of that glass with the pen so it can be ground flat, and grind it with your coarse lap. Check your work; keep grinding until the glass is completely flat so the glass is perfectly aligned to the machine at 90°.

Time to transfer - Once you have glued on the 2nd dop, mark the sides of the glass so you know which side is which. At this point, you could take off the first dop, but I'm going to keep my "rifle sight" so I left it on. Keeping the angle at 90° and using the same index you used to grind the glass flat, slide in the number 2 dop and lay the glass down on the master lap. Look carefully, and you will see how far out of "true" your machine is.

In picture #1, you can see my machine is $\frac{1}{2}$ a degree or so off.

Every time I transfer a stone and go to cut the crown, the cheater is that far off. No wonder the girdle spirals! Cheat your machine in until the glass looks like it is flat against the lap.

Now put on that 600, color the bottom of the glass with that sharpie, and with the machine turning slowly, just touch the glass to the lap then lift it and check it. You will see it's not perfectly flat against the lap, so





move the cheater just a little bit, recolor the glass, and try again. Here's what my first touch looked like (#2).

Keep at it—touch, check and recolor, move the cheater a tiny bit—until you have removed the sharpie mark evenly all the way across the glass.

Once you are there, your machine is now *perfectly* aligned. Look at the cheater and remember or write down the number it's on, or color it such that when you transfer to the crown, you simply turn to that number; and you know the stone is aligned.

In picture #3 on page 19, you can see I simply colored mine.

I know every time I transfer to cut a crown, I simply have to move the cheater counter-

THE BACKBENDER'S GAZETTE

clockwise to 0.4 and start cutting. No more cut and check, move the cheater; cut and check, move the cheater; cut and check, move the cheater. I just move it to 0.4 and go.

Here's a stone (below) on which I just finished the first cut; the cuts lined up perfectly without any cheater "guess and cut" annoyance (#4). Your cut-ting should go much quicker now, and un-round



designs where the girdle is cut on multiple different angles will be much easier.



Remember that the faceting machine and transfer block you used are now "locked" together; if you use a different transfer block, you will have to "sight it in" as well. And *don't forget* to un-cheat the machine when you start a new stone!



Inside the Diamond Mine: Synthetic Gems Get the Military's Attention Raytheon Company, Www.Raytheion.Com from Rocky Mountain Federation News 4/2013

iamonds may no longer be just a girl's best friend. Sixty years after Marilyn Monroe's musical ode to them, the military is showing interest in the synthetic version of these classic gems.

Sheets of laboratory-grown diamond, combined with the semiconductor gallium nitride (GaN), could someday become the core of future-generation radar, communications and electronic warfare systems. Such components could save huge amounts of electricity, space, and fuel.

"Diamonds aren't just pretty," said Ralph Korenstein, who runs Raytheon Company's diamond laboratory in Andover, Mass. "They have a practical use. You can see farther, you can get more power."



Raytheon worker holds an unpolished pane of diamond

Inside the Diamondworks, Raytheon's "diamond mine" lies deep inside the Integrated Air Defense Center, the sprawling factory 20 miles northwest of Boston that produces some of Raytheon's best-known products, including the Patriot air and missile defense system and the AN/TPY-2 radar.

The diamond lab is famous among workers at the plant, especially around Valentine's Day. "I've had several guys who are getting engaged say, 'Hey, can you grow me a diamond for my ring?" Korenstein said. Workers in the lab used to have a poster of Disney's Seven Dwarfs—fellow diamond miners—hanging on the wall with a sign that said "Diamonds 'R' Us."

To make diamond, engineers pump microwaves into metal reactors filled with hydrogen and methane, heating the gases into a glowing green ball of plasma. Soon the carbon in the methane begins to form into diamond crystals that collect on a metal plate. Engineers actually used a kitchen microwave oven to make Raytheon's first diamond reactor, Korenstein said. The production version uses an industrial microwave. "They used to sell that to cook hot dogs or whatever," Korenstein said.

Engineers can speed up the process by



A worker checks on a sheet of diamond through a window in a microwave reactor at Raytheon's diamond lab

spraying the metal plate with diamond "seeds." They've even put jewelry-grade diamonds into the reactor and doubled their size.

It takes about a month to grow a five-inch-wide disc of the highest-quality diamond. Workers polish the disc using more diamond, then use a laser to cut it into thousands of chips.

Beating the Heat

In his office, Korenstein opened a plastic box and held up a polished disc, clear as glass. It was cool to the touch—a hint of its unique thermal properties.¹Diamond conducts heat better than almost any material, even metals like copper.

When talking to schoolchildren, Korenstein sometimes demonstrates this by using a piece to cut an ice cube. The heat from his fingers heats up the diamond so that it slices through the ice like butter.

That thermal conductivity is what intrigues the military. In 2012 the Defense Advanced Projects Research Agency, or DARPA, contracted Raytheon to develop a new generation of gallium nitride devices by bonding them to pieces of diamond to improve cooling. Raytheon is already a leader in gallium nitride components, which can



Raytheon makes diamond plates in an array of sizes. Lasers are used to cut desired shapes.

emit five times the radio energy of the previous technology, gallium arsenide. The gallium nitride technology promises to revolutionize radars, jammers, and communications gear.

"It enables more reliable systems with less weight and space, which translates into fuel savings and lower maintenance costs—saving money over the life of the system." said Colin Whelan technical director of Advanced Technology Programs at Raytheon Integrated Defense Systems. The technology also allows customers to fit higher performance radars into existing planes and ships, an important advantage in an era of tight government budgets.

"Pockets aren't as deep as they once were," said Joseph Biondi, vice president of Advanced Technology Programs at Raytheon Integrated Defense Systems. "This technology enables us to keep bringing high-performance solutions to our customers who need it, but within a price range that they can live with."



A technician works on one of Raytheon's high-power diamond reactors.

However, gallium nitride components also create tremendous amounts of heat that must be conducted away. So engineers bond the components to diamond or other advanced materials. "Whenever the juncture temperature is still too high, it's vital to locate a better heat-spreader material," said Linda Wagner, a senior director of Raytheon's Radio Frequency Components business. "Diamond is perfect for this as a replacement for a more conventional heat spreader." Raytheon's diamond has also found its way into other kinds of electronics, including instruments on the Mars rovers Spirit and Opportunity.

As Raytheon's diamond operation attracts more attention, Korenstein said he's gotten used to the co-workers who jokingly request earrings or a ring. "I have people try to put in orders with me," Korenstein said. "But we're not in the jewelry business."

Trilobite Trouble

by Bob Farra

from The Rostrum 3/2013, via Rocky Mountain Federation News 4/2013

ould it be? Morocco is running out of trilobites? Say it ain't so! But, yes, as hard as it may seem to believe, the great flood of trilobites coming out of Morocco is finally starting to dry up. Most MGS members know that I have been traveling to Morocco for a number of years to visit some of their many famous mineral and fossil localities. I was there again last October, and learned from the people involved with the trade in trilobites that all is no longer rosy.

Anyone who is familiar with fossils will know that Morocco has been a source of an amazing variety of trilobites for many years. There are many localities in Morocco where trilobites are found, but the greatest variety and most bizarre forms come from the Devonian formations near Alnif, in the southeastern part of the country. The diversity of trilobites found there is amazing, and includes such genera as Reedops, Dicranurus, Ceratarges, Harpes, Paralejurus, and many others. Most of these trilobites

come from a locality near Alnif known as Issoumour Mountain, or Jbel Issoumour (also spelled Jissoumour). Within Issoumour Mountain, most of the interesting trilobites are found in one layer of limestone near the top of the mountain. Collecting is very simple. Chunks of limestone are pried out and cracked open with a hammer. The digger then looks for a squiggly black line. That line represents the cross section of a trilobite. The rock usually breaks through the trilobites rather than around them as it does at some other localities



Comura sp. Devonian trilobite from Morocco

The two halves of the rock are then taken to one of many preparers' shops in Alnif, Rissani, or Erfoud. There, the two pieces are glued back together and the specimen is prepped out. The better preppers use small pneumatic hammers and microsand blasters to prep their pieces, while others use hammers and small chisels or nails.

Issoumour Mountain is not a small hill. It is a ridge that runs for many miles through the desert. There would seem to be enough rock there to supply trilobites practically forever. So why are they running out? Part of the answer has to do with how the material is mined. All of the work is done with simple hand tools. There are no extensive underground mines. As the diggers dig back into the trilobite layer, they can only go so far before there is a danger of cave-ins. At that point, they have to move to another spot. The problem is that most of the accessible spots have been dug to the point where it would be dangerous to dig any further. Diggers must now often go many miles to find an accessible spot.

Another part of the problem is economics. The fossil business in Morocco is hurting. Much of their trade has long been with Europe, and, as most people are aware, the economy in Europe is in pretty bad shape. There is less economic incentive to walk the long distances to accessible fossil digging spots. Many of the diggers have left the business and gone to work mining industrial minerals such as barite. They don't exactly get rich mining industrial minerals. Industrial barite, for example, sells for about 22 cents per pound, of which the mine owner gets a cut. But, they can apparently still make more this way than they can digging fossils.

So are there really no more Moroccan trilobites? Not quite; there are still some specimens coming out. Many of the preppers have old stocks of unprepped material that they are still working on. Many dealers also still have extensive stocks. And, some digging is still going on.

But, when I was there last October, I did not see the vast numbers of trilobites that I had seen on previous trips. (I did, however, see lots of other fossils, such as dinosaur and shark teeth.) Of course, there are still a lot of fake trilobites around, as there have long been. This will always be a problem it seems.

Thus, if you happen to own authentic Moroccan trilobites, consider yourself lucky. If you think trilobites offered for sale by reputable dealers are on the expensive side, now you know one reason why. Maybe now that they might not be so abundant as to leave us all a little jaded, we can come to appreciate Moroccan trilobites for the beautiful and bizarre creatures that they really are.

Comura sp. Devonian trilobite from Morocco

(Photograph taken by Jim Stedman of a specimen on display at the Smithsonian's National Museum of Natural History.)

"What Now?"

by Jackie Sullivan from Rock Chatter 10/2012

hat now?" This is the question I would like to bring to the attention of all rockhounds and related hobbyists. Though I've only been in this hobby a few years, I have a few insights I'd like to share.

One of the first things I noticed when taking up rock collecting was the excitement I felt upon seeing any rock. They were no longer just something to be walked on or picked up and thrown . Each one had a history of how and why it was there. My son and I were excited to learn as much as we could about the geologic processes that formed and deposited each and every rock we saw. Once we started collecting, there were so many questions. How do we go about cataloging them? Which were keepers and which were "leaverites"? How should we display or store our collections?

We wanted to know all about the hobbies related to collecting. There were so many possibilities. There were gem trees, marble making, and competitive displays. Of course we can't forget wire wrapping (my personal favorite thus far), cabochon making, gem cutting, and geode cracking. The list was and still is quite daunting

I remember how excited my son and I were to go on our first field trip! Being new to the hobby and only knowing a few minerals, my son decided pyrite was a must find because he knew what that was. After a few hours of fun but exhausting search, we still hadn't found the prize and decided to head back to the truck. He decided to make one last attempt and began to rummage through a long-forgotten-about pile of rock. Let me just say that although he owns several nice pieces of pyrite now, the plain-looking little nodule he self-collected in that pile is still one of his favorites.

Another observation I have made is that collecting is so much more fun (not to mention much safer) when you have someone to enjoy it with. My son and I still jokingly argue over who it was that really found the best specimen from a certain trip. Of course he will always tell you it was him! It just wouldn't be the same to find something new or exciting and not have someone there to tell "Hey, look at this really cool one!"

Unfortunately, I have also noticed something a bit disturbing about our hobby. With each passing year, the excitement has begun to dwindle for my son and me because there are so few members to keep it alive. Don't get me wrong, there is still an interest, we're just not driven like we could be. The annual gem and mineral show held every year in our area is a wonderful thing to attend and be involved with. However, I have noticed with a fair amount of sadness that many members are aging or drifting away from the hobby. As for the youth that attend the shows, while there may be an interest that day, many come to the show wearing uniforms from sports or scouting that have already taken much of their free time. I have also noticed that even though we have a great deal of talent exhibited by our demonstrators, few of them are within a reasonable distance for me to sit down with them and learn. Time and finances prohibit many of us from traveling to clinics or classes.

Field trips are becoming increasingly difficult to obtain as well. Some private landowners have been taken advantage of or had their property damaged. The government feels our "public" lands belong to them. Lawsuits and insurance companies have led to many quarries closing their gates to nonemployees for any reason.

Having fewer people in the hobby also makes it harder to find someone you can truly share the fun with. It makes for fewer members at meetings to share their finds and input on good locations. There will be more work involved for the few members when it comes to shows, school demonstrations, and promoting of the hobby. We need to find ways to develop relationships between experienced members and those interested and willing to learn about the many hobby-related skills. I think the AFMS's Future Rockhounds of America looks like a wonderful program, and a lot of work was put into it, but again, there must be someone to take the initiative and to guide the youth in their learning at the local levels.

So, the question I ask again is, "What now?" How do we encourage new members and youth to learn and stay excited? How do we develop connections between newcomers and those having talent or experience within the hobby? Should we embrace the technology available by doing webinars? Do we create more Web pages/sites specifically designed to teach while remembering a need for accuracy and keeping our youth safe? Could we develop a special fund at the regional level to offset expenses for those members with the time and talent who would be willing to come to clubs and demonstrate their skills? Maybe it would work better to have a regional level "scholarship" for those willing to study under a skilled mentor and who agree to spend a designated number of hours sharing the skill they learn with members from within their region.

We also need to find ways to reopen relationships with mines and quarry owners and operators.

As you attend your meetings the next few months or head for your regional shows and conventions, I urge you to survey the room and see how many new faces there are. Even though we love seeing those familiar faces, we need new faces to develop a love for the hobby and a desire to learn the skills of our long-time members. Be active in making your community aware of the hobby and your local clubs. Encourage your members to build relationships with landowners. Be inventive in ways to educate your members.

Be sure to write to Congress and let them know we want our lands to be open. Find a family member, a friend, or even a group of friends who love "the hunt" as much as you do so you can stay excited together. Always be willing to share the joy of our wonderful hobby and learn as much as you can from those willing to share. And if we want to keep our hobby strong, never stop asking, "What now?"

Show Time 2013

April 26-28	Houston, TX	Houston Fine Mineral Show Embassy Suites Hotel near The Galleria 2911 Sage Road http://www.finemineralshow.com/
May 25-26	Fort Worth, TX	Fort Worth Gem & Mineral Society Will Rogers Memorial Center, 3401 W. Lancaster e-mail: fwgmc@embarqmail.com Web site: www.fortworthgemandmineralclub.org
May 4	Arlington, TX	Arlington Gem & Mineral Club Annual rock and gem swap meet Arlington Clubhouse; 1408 Gibbons Rd. jlspinks@sbcglobal.net; www.agemclub.com
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 www.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; www.Brgemandmineral.org
August 17-18	Bossier City, LA	SCFMS Convention & Show Ark-La-Tex Gem & Mineral Society Bossier City Civic Center larockclub@gmail.com; www.larockclub.com
August 24-25	Jasper, TX	Pine Country Gem & Mineral Society Events Center
September 14-1	5 Arlington, TX	Arlington Gem & Mineral Club 1010 Event Center, Rollins/Randoll Mill 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

2013 May					2013	
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 7:30 Mineral Section 10-3 Shop Open	2 7:30 Archeology Section	3	4 10–5 Shop Open 10–12 Youth Section
5	6	7 7:30 Board Meeting	8 7:30 Faceting Section 10-3 Shop Open	9	10	11 10–5 Shop Open
12 Mother's Day	13 1:00 Day Light Section	14 7:30 Show Committee	15 7:30 Mineral Section 10-3 Shop Open	16	17	18 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
19	20 7:30 Lapidary Section	21 7:30 Paleo Section	22 10-3 Shop open	23	24	25 10–5 Shop Open
26	27 Memorial Day	28 7:30 General Meeting	29	30	31	
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

DATED MATERIAL - PLEASE DO NOT DELAY !



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