The BACKBENDER'S GAZETTE

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

Volume XLI - No. 2 February 2010

President's Message

Rockhounds of the World, Unite!
by Terry Proctor

The HGMS Board of Directors has purchased 100 more of the ROCKHOUND stickers. These cost $2 at the HGMS Show in November, but you can get one for only $1 if you purchase it at an HGMS Meeting.

Put your Rockhound Sticker on the outside upper portion of the passenger side rear window, then:

1. When you are in a caravan with HGMS, you can tell if you are still in line to the site;

2. Let the world know there are a lot of us rockhounds around; and

3. Point the rear of your vehicle at the front door of Walmart or another store, so when you come out, the big yellow circle will pop right out and let you know where you are parked.

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Upcoming Programs for the General Meetings

January 26—Wayne Barnett will provide a program on Faceting.

February 23—Samuel E. "Sam" Stubbs, an attorney and partner with the Pillsbury Winthrop Shaw Pittman, LLP international law firm will present a program entitled "Amazing prep work which elevates trilobites to art." Sam reputedly has the best trilobite collection in Houston. The work he has done and his acquisitions of trilobites, many of which have been photographed by Neal Immega, are nothing short of amazing. Surely these are ancient, natural works of art in the fine details of these extinct, pre-historic creatures from the Cambrian forward until their extinction. Come prepared to be fascinated with the many species of trilobites.

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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**.

President's Message *continued from page 1*

Note: If you like the big yellow Rockhound sticker, you can purchase some smaller ones for letters, notebooks, or whatever else you want to use them for. HGMS will sell you 10 small stickers for only $1. At the January 5, 2010 HGMS Board of Directors Meeting, several things were presented and approved to ensure that 2010 will be a year in which your Club and Clubhouse will be improved.

Exterior Clubhouse Lighting: Virtually everyone who attends any of the meetings at the Clubhouse knows that exterior lighting is a problem. At the request of some on the Board, HGMS member James Burrell, a licensed electrician in the City of Houston, made an analysis of our outside lighting, and he has presented a proposal that corrects several problems HGMS has with outside lighting. The lighting in our parking lot and in front of our Clubhouse is very poor. This lack of lighting resulted in one member taking a fall as he was leaving the Christmas/Holiday Season Party. When we tell folks to come visit the Club and that the letters "HGMS" are on the side of our building, it is a joke—the HGMS letters cannot be seen at night, and the parking lot is so dark it is scary at times. Something needs to be done.

Mr. Burrell has presented an analysis and a bid to HGMS in two parts. One is to install permanent fixtures that contain long-lasting lighting. This will both light up our area and provide bulbs with very long life, eliminating the need to frequently replace bulbs that we have experienced in the past. This will be both on the side of the building facing the parking lot (where most folks come into the Clubhouse) and in front where the lighting is virtually nonexistent. The bid for all of these new lights and their installation is $1,490.

Lighting the HGMS letters on our clubhouse presents more of a challenge. It will require extensions being put out from the building to shine lights back onto the HGMS letters on the side of the building. This requires going through the side of the building and the attic of the building, constructing these supported lighting extensions, and installing sealed long-life bulbs in these lights. The bid for this portion of the work is $2,950.00. The total for the entire lighting of the building and the additional lighting of the HGMS sign letters is $4,440.00. This may seem a considerable amount, but this is a very good price for everything that will be done, and it will be done by a licensed Houston electrician which is required by law. The Board will propose to the adult members attending the January 26 General Meeting that the club accept that bid and proceed with having the work done.

When we consider the safety of our HGMS members and their guests, protection from dark parking areas, preventing another fall by someone in our club due to poor or no lighting, plus allowing visitors and guests unfamiliar with our location to see who and where we are by having the HGMS visible from the street, this is a wise investment. Per our Bylaws, while the Board has approved this expenditure, the project and bid must be submitted to the general adult membership at a General Membership meeting, and this will be done at the January 26, 2010 meeting. To those of you who knew that Tom Wright fell out of his wheelchair while leaving the building during the Christmas/Holi-

day Party meeting, you are advised that he wasn't seriously injured. He is doing well and was basically bruised up a bit. We offer our continued wishes for his speedy recovery from both the fall and his health problems, and wish to let Tom and the membership know that we know the lighting is a problem and that this study was authorized before Tom fell. The Board unanimously requests the support of the membership in approving this lighting project. The members will then discuss the issue and vote on whether they wish to authorize the work or wish to modify the amount of work done.

Bylaw Limit on Discretionary Funds: For several decades the HGMS Bylaws have provided that the Board could approve expenditures of $1,000.00 or less without gaining permission from the general membership at a General Meeting. Twenty years ago, $1,000 would pretty well cover anything except major projects. Today, an expense of $1,000 or more would not be uncommon for a repair on a commercial building, say for air conditioning, roof repairs, or other maintenance items. Therefore, the Board has approved and requests that the membership increase this Board approval authority from the present $1,000 to $2,500, removing the need to delay necessary work in order to have a membership vote on amounts of $2,500 or less.

Occasionly there are emergencies where the expenditure of a good bit more than $1,000.00 is required. To wait a month or more for approval can result in damage to the Clubhouse or something even more serious. Right now we have a roof leak problem that the Board is checking into, as we have ceiling evidence of leaking that must be taken care of very soon. Therefore, it seems prudent to enable your Board to address expenditures with a maximum dollar amount more in line with what the sum allowable in years past was able to cover. At the February 23, 2010 General Meeting, the membership will be asked to vote to change the maximum allowable expenditure that can be made without a general club membership vote from $1,000 to $2,500.

The Show Committee Needs YOU: Although it is early in the year, the new Show Chair and Asst. Show Chair are already hard at work getting their budget together and recruiting members and leaders for various subcommittees. If you are willing to work on this Year's Show Committee, contact Show Chair, Rick Rexroad, at (713) 647-6533 or **rrexroad@brwncald.com** or Asst. Show Chair, Chris Peek, at (281) 685-7610 or **peek_bellaire@hotmail.com.** The Show Committee meets each month on the Second Tuesday evening at 7:30 p.m. at the HGMS Clubhouse. Everyone is more than welcome. NOTICE TO NEW MEMBERS: By working on the Show Committee you will have a ton of fun, meet lots of wonderful people, and you'll learn more about HGMS than with almost anything else you can do at HGMS.

Meet-Up: Theresa Peek, Chris' wife, set up HGMS membership in "Meet-up" in 2009. The HGMS Board has approved staying in the program in 2010. You can sign up for "Meet-up" by going to **http://www.meetup.com/Houston-Gem-Mineral-and-Fossil-Group.** We have 29 members in the HGMS group at this time, but every member of HGMS can join Meet-up by going to the HGMS "Meet-up" site just shown. We will be listing General Meetings on this site in hopes of getting more people interested in attending them and the great monthly meetings of our several Sections.

Upcoming Programs for General Meeting *continued from page 1*

March 23—Former HGMS President Norman Lenz will provide a fascinating program on "Gemstone Inclusions." Inclusions in gemstones are fascinating and can add to the value of the gem as well as detract from it. This should prove to be an interesting program. Susan Lenz plans to come with Norman, so this will be a welcome home for her. Susan has been recovering slowly from a brain tumor that occurred many months ago, and HGMS will certainly look forward to her attendance again at this General Membership Meeting.

The Soul Becomes Whole

by Edward Clay

The hand becomes skilled
with time and practice.
The mind becomes sharp
with thought and creativity.
The eyes become discerning
with the inner voice of training.
The spirit becomes full
with sharing the gifts given.

The soul becomes whole.

Tranquility

by Edward Clay

Each day dawns full of promise.
Will it be bright or stormy?
Will it challenge, intrigue?
Will it have a measure of love?
To greet the day with anticipation
accepting what comes
with tranquility.
Is the answer.
So I believe
thus I strive.

Old Geezer Remembrances of Korean War

Chapter Four
by John Emerson
Member of the Houston Gem & Mineral Society

Although I have three "battle stars" on my Korean Medal, I only heard battle noise occasionally, faintly in the distance. Because we were in a war zone, we received combat pay. I didn't think I deserved it, but I took it anyway and sent it home to Bobbie. While at the Pusan base, I received most of my spending money from the other Lieutenants by playing poker at night. Dad was a great teacher of the essentials of Texas manhood. The combat pay stopped at the end of hostilities on July 21, 1953.

John Emerson in uniform during the Korean War

After becoming familiar with the Company's operations, I was transferred to our base near Kunsan on the Yellow Sea. As I mentioned before, it was known as "Kunsan by the sea, the Riviera of Korea."

The Yellow Sea has a tide of 30 feet—not 3, not 10, but 30 feet! At low tide at our base, the sea was a mud flat for at least a mile out to water. Our unloading pier reached about 100 yards out from shore to a hole dug out to accommodate the tanker ships bringing fuel. They came in at high tide, sank into the hole while unloading as the tide went out, and waited for the next high tide in order to leave. Being trapped that way could be dangerous if the North Korean air force could get to the ships, but our mission was to supply the Air Force at the K9 air field a few miles away. They provided excellent air cover.

One complaint we all had was there was no fresh milk or eggs. All we had was powdered milk and eggs reconstituted with water. When a tanker came in, I would trade whiskey (from the officer's club at the air base) for fresh milk and eggs to share with the troops. The cook made what was an almost fatal mistake when he served scrambled eggs and used the fresh ones.

We had very good quarters at our compound. There were about 12 enlisted men (varied, depending upon rotation) who had a good barracks with showers and flush toilets! My quarters consisted of a nice evacuated (confiscated?) local home with a bed room, living room cum office, shower. and a flush toilet! Of course, the toilets flushed out to

Late-Breaking Club News

Are you getting e-mails about HGMS activities? If not, contact n_immega@swbell.net and let him know that you want to be on the list.

the sea—this made a mess at low tide. See Chapter Three for the reason I keep mentioning flush toilets. I had a local maid that cleaned house and did my laundry. The first time she came to work after I arrived, she told me in her limited English, " I no skivvy girl, I cherry girl". With that settled, we had no trouble since I was no "skivvy boy" either! Note: "skivvy" was local slang for prostitute.

Our storage facilities consisted of three 10,000 barrel tanks. One for motor fuel, one for aviation gas and one for jet fuel. We had pumping facilities to move the fuel to the Air Base several miles away via a 6" pipeline. We would pump one of the fuels to fill the tank at the air base, insert a pig (a plug to separate the fuels), start pumping the next type of fuel, and notify the base to switch receiving tanks when the pig reached them. One day someone at the base accidentally closed the wrong valve, and the pressure ruptured the line. We rushed to repair the break and discovered that someone had made a "hot tap" on the buried line and was stealing the fuel. The pressure blew out the tap and flooded the unoccupied house next to the line. The thieves had a drum fill plant in the house. Fortunately there was no fire going in the house—which we bulldozed.

We always knew when one of the jets shot down a North Korean/ Chinese Mig. The victorious pilot would buzz us with a barrel roll over our compound before landing at K9 air field.

One day a call from the air base ordered me to report to the K9 base hospital. No reason why, just report. After I reported, they took my uniform, gave it to my driver and told him to go back to our compound. I wound up in a hospital gown and in bed. Still no reason why, just "Lie there, Lieutenant!" I was put on a gurney, taken to a DC-3 hospital plane and flown to Osaka, Japan. The nurses on the plane were very busy taking care of the wounded men, so I asked if I could help. One of them said "Lie down and shut up, or I will give you a shot." We were stacked two deep in bunks on each side of the plane.

When we got to Osaka, I was again put on a gurney, put in an ambulance and taken to the big hospital. I was put on a bed and told not to move. Almost immediately I was taken to X-ray. Then it dawned on me—someone in the US had finally read in my medical history that I had "fractured my 2nd and 3rd cervical vertebras with annular displacement"! After they saw that I had healed successfully, they put me back in bed and ignored me. I drew an advance on my pay, went to the Hospital PX, and bought underwear, a uniform, and brass (rank insignia). I kept asking them to let me go back to my men in Korea, but got no answer and was told to go back to bed.

They finally let me go out on the town, but to come back before dark. I wrote several letters to Bobbie about the adventure while still in the hospital. The first was returned to me because I used my Korean return address, not wanting to frighten her with a hospital return address. They insisted that I use the hospital address. Of course her mother saw the letter before she did and made matters worse with reassurances that I was probably not seriously hurt or I would not be able to write. Oh well, mother-in-law trying to help.

I finally got disgusted and went AWOL from the hospital, got a bus to the Naval Base at Sasebo, Japan, and hitch hiked a troop ship to Pusan. No questions asked of why that crazy Lieutenant **wanted** to go to Korea. From there I hitched a flight from K2 to K9 and back "home." I never heard if I was charged with the AWOL from the hospital. I just disappeared from Japan and showed up in Korea. I often wondered if I had stayed in the hospital, could I have waited out the rest of the war?

In early 1953 I was called back to Pusan from Kunsan to take over as Company Commander of the 423rd, since by that time I was the senior Lieutenant in the organization.

One of our problems was the old WWII equipment we had. That was partially solved when a very slow single-engine plane (like a Piper Cub) flew over our compound one night and dropped a hand grenade in our motor pool. No one hurt, but we claimed extensive "battle damage" to our equipment and received some new replacements. Any solution available.....One of the new pieces of equipment was my new 1952 jeep. The old one was a used 1944 model.

Another problem I faced as CO was the shortage of troops. Our TO&E (Table of Organization and Equipment) called for 211 enlisted men, but we never had more than 110. I went into Pusan to see the Battalion CO to ask for more replacements. I went in, saluted and asked for more replacements. The Colonel returned my salute and said "That is **your** problem, Lieutenant. Dismissed." End of discussion.

On May1,1953, a North Korean Communist holiday, I was in the officer's latrine when a sniper firing at the building put a 50-caliber bullet just over my head. I had been constipated, but that cured it!

One evening a truck coming from Pohang did not arrive at our compound in Pusan on schedule, and we did not hear from them. This called for a small panic since many of the enemy had infiltrated the South and would ambush vehicles after dark. I took three of our troops, armed to the teeth, in my jeep and went to look for them. We found the truck parked in front of the local police station in a small village about halfway to Pohang. They stopped when it got dark to avoid ambush. There was no telephone, so they could not call to tell us where they were. We escorted them back to Pusan. One grisly notation. In front of the police station were five stakes with a human head on each. They were in different stages of decay indicating they were not put up at the same time.

Along the same topic, I was driving in Pusan when a train ran over a young child. I stopped to see if anything could be done and found that the people at the scene were laughing at the way the body twitched!

Yet another grisly sight was the bridge in Soeul where there were bodies hanging over the side by the neck until they rotted and fell in the river.

On a different and amusing topic was a Colonel wearing Corps of Engineer Brass who came visiting from his base in Japan. The reason for his visit was that he would draw "combat pay" if he spent some time in the "war zone." He visited our compound and

wanted to see some of our equipment. I escorted him to the motor pool where one of our Sergeants was working on the starting motor on a bulldozer. (A small motor started by pulling a rope like an outboard motor and used to start the dozer engine.) The Colonel asked the Sergeant to start the dozer "not the little motor, the big one." The Sergeant just stood there with his mouth open—this was a Colonel in the Corps of Engineers? I tried to cover for him by suggesting that we look at some of our other equipment while the Sergeant got ready to start the dozer.

When hostilities ended July 27, 1953, I requested a discharge and to be sent home. I had completed my contract, and I wanted out. But since there were only three Pipeline Companies in the Army at that time and my MOS (Military Occupational Specialty) was listed as Engineer Pipeline Company Commander, I had trouble convincing the Army that I wanted out. They again offered me a regular commission, transfer to Japan, and bring my wife over if I stayed in. Even though they finally let me out, they held me in the inactive reserve as a First Lieutenant for at least eight years. After that I lost track. I think I must have gotten to be "over age and weight in grade."

While I was in Korea, Bobbie lived with her parents and taught school in Alice. The following are her memories of this time.

Bobby Emerson's diary excerpts:

1952. Real politics. Student placement.

I had no inkling of what it was "to teach" that first year, and nothing prepared me to teach all subjects to 6th grade students (Noonan Elementary, Alice, Texas) except some academic background. I learned two lessons in small town politics that year.

Bobbie Emerson in the early 1950s

1. The secret ballot was not practiced in Alice, Texas, school board elections. I spoke to no one about choices I marked on the ballot; however, I did not vote for the candidates that as a teacher I was expected by some to do. How do I know this? Shortly after the election, a long-time teacher, a lovely lady, at my school approached me in the teachers' lounge and asked for an explanation for my vote choices.

2. With more than 30 students in my class, it did not take me long to notice I seemed to have more than my share of students with discipline problems and students who were slow to indifferent learners. A denied request to have a certain student placed with the other 6th grade teacher told the story. She did not want him—or certain others—in her room so I, the new girl on the block, got all her rejections.

3. The school's entry in a town parade was another annoyance—I was TOLD to be on the school's float, standing in what was a representation of a classroom. I pleaded NOT TO DO THIS, but was placed in a position where I must—nobody else wanted to do it! I felt like a fool.

1953. School patriotism. Dog management.

The Second Year I refused a contract because I felt John would be returning from Korea. Much to my concern, the school Superintendent called me in for explanations of my refusal. He won the day with the promise I could have whatever time I needed when John returned. What I didn't know until next pay period was my salary was never docked for my absence! The school year at Schallert Elementary (6th grade,42–44 students) was pleasant enough. One small incident: I chased and hustled a rather large Boxer dog out of the classroom. I was and remain afraid of LARGE dogs.

Wonderful Things—Cross Collection

by Neal Immega

Bob Cross was a teacher all his life, and since he loved rocks (particularly fossils), he taught them to everyone he encountered. Bob started off teaching school where fossils, minerals, and gemstones became a way to hold the attention of his students. He joined the Clear Lake Gem and Mineral Society and volunteered lots of places including the Houston Museum of Natural Science and the local gem and mineral society shows. He was noted for showing up with crates of touch specimens, including some things like eurypterids that I, myself, would never let be touched by the kids.

Like all people, he got old, blind, and feeble, but still he would show up at the museum with his own touchcart of little things like birthstones. He had to have help getting to and from his station, and he would draft his daughter Ruth into helping, but he came!

All good things come to an end, and when Bob died, Ruth asked for help in clearing the house. She really needed help because there was so much stuff. Ruth asked that the material be put to a good use, so I hauled off seven van loads of boxes. It was like Christmas to open those boxes after hauling them home. Wonderful things would be jumbled together with anything at hand, aragonite trees along with heavy sulfide ores.

Aragonite
Santa Eulalia District,
Serdán, Chihuahua, Mexico

I split off parts of the collection into display pieces for San Jacinto College, a few rare and remarkable fossils for the Houston Museum of Natural Science, desirable pieces to sell at auction at HGMS, common and durable pieces for the HMNS touchcarts, and small pieces for assembly into school kits. The largest part of the col-

lection, much of it showing considerable wear and tear over the years, will be sold off at Info Booth auctions during our annual shows.

The first auction of the good material is underway right now in the HGMS meeting room display case—a photographic catalog is posted on www.hgms.org. (Click on the green Current Info button.) This auction ends January 26 when the General Meeting is called to order at 7:30. A second auction will take place in February, ending when the February 23 General Meeting is called to order at 7:30.

Some of Bob's arthropods anchor the historical display in HMNS's new Cockrell Butterfly Center hall. His birthstone box is heading back to a HMNS touchcart. Be there to "adopt" one of Bob's rocks for your next show-and-tell.

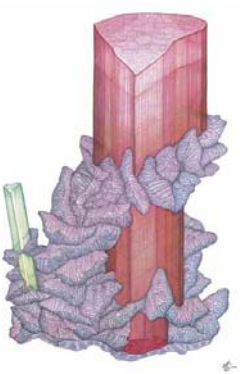
Clubhouse Exterior Electrical Upgrade

by Terry Proctor

Under the present HGMS Bylaws, when the Board approves any expenditure over $1,000, they must present it to a vote of the membership at a General Membership Meeting.

As many HGMS members know, our exterior lighting on the clubhouse and the parking lot has been very poor for some time. At the Christmas/Holiday Season Party, a member fell in front of the clubhouse as there was no lighting there. Members complain about the parking lot being very dark and dangerous. When HGMS members invite others to visit them at the clubhouse, they direct them to the clubhouse and tell them to look for the HGMS letters on the side of the building. These letters cannot be seen after the sun goes down.

Therefore, the Board asked HGMS member James Burrell of Texas State Electric, Inc., who is licensed in the City of Houston, to give us bids on putting in new secure, long-lasting lighting on both the parking lot side and the front of the clubhouse. The lighting just described would cost $1,490. Extension arms to hold long-life sealed lighting that shines on our HGMS letters on the building (requiring going through the side of the building to install these extensions and wiring—a much more labor-intensive procedure) would add another $2,950. The total of both bids is $4,400.



The Board has reviewed the plans and bids and believes this is a very reasonable bid for all the work to be done. This work is needed on our clubhouse, and it gets rid of the danger of our building being unlit—or under lighted—and allows our HGMS sign to be seen. The Board recommends a "Yes" vote to approve this lighting improvement at the January 26 General Membership meeting.

Expenditure Authorization Update Requested

by Terry Proctor

For many years the expenditure limit which the Board could approve without submitting it to a vote of the membership, no matter what the emergency, has been $1,000. If any expenditure exceeds $1,000, then the membership must vote on it. This limit has existed for well over 20 years.

Emergencies come along where the Board must to act immediately to prevent loss to the Clubhouse or on other urgent HGMS matters, and the amount frequently exceeds this $1000 limit set decades ago when prices were much lower. The Board is asking that at the February 23, 2010 General Membership meeting this limit be raised to what is probably the same amount in buying power--subject to inflation since that limit was set--to a new limit of $2,500.

At present the clubhouse ceilings are being stained by leaking. A full bucket of water was discovered in the attic underneath one leak (someone obviously saw the leak and did what they could to keep the water temporarily from going elsewhere). There are signs of the roof leaking in the main meeting room, the alcove area, and at least one classroom. Occasionally other urgent matters come up that probably would be covered by a $2,500 limit, but $1,000 would be far too little to address the problem promptly.

The Board always considers needs with a good deal of study and discussion before approving any expenditure. Also, the Board is always mindful of what the membership would consider prudent and necessary and what would be unacceptable.

Therefore, the Board requests a Bylaw change that would raise the expenditure limit for the Board from $1,000 to $2,500 without first seeking a vote of the membership.

Mineral Section

by Steve Blyskal, Chairperson & Dean Lagerwall, Assistant Chairperson

The Mineral Section meets on the 1st and 3rd Wednesdays of each month at 7:30 in the HGMS Clubhouse. All are welcome.

Upcoming Meeting Topics

February 3: DVD of attendees' choice. Due to the participation of many Mineral Section members in Tucson, those not able to attend will chose a DVD from the Library to view. The tentative choice is to continue with the second part of the 2009 "What's Hot in Tucson."

February 17: Tucson Show & Tell. For those lucky enough to attend the most famous mineral gathering in the world, bring in your recent acquisitions from the many Tucson Shows and give us your impressions of "Tucson 2010" and regale us with your experiences. For those who could not make it, come and see what you are missing. Refreshments will be provided.

March 3: Clear Lake Show & Tell. Bring in your recent acquisitions from the Clear Lake Show (February 27–28). Let us drool over your acquisitions. Specimens that did not make it back from Tucson for the previous meeting will also be discussed. Refreshments will be provided.

If you have any topics or ideas you wish to have presented or would be willing to present at our Mineral Section meetings, please contact Dean at dean_lagerwall@yahoo.com or (979) 480-9373.

The Termite's Role As Exploration Driller

by: Marilyn Scales
from The Calgary Lapidary Journal 11/2009

Termites, those destructive creatures feared by North American homeowners, play an important role in mineral exploration. By disturbing the local ground and piling the excavated material into mounds, these ambitious insects can create stacks of fine-grained material as tall as nine metres. The mounds provide a ready source of material suitable for geochemical analysis.

Merrex Gold of Halifax has taken advantage of the termites' ready-made sample material to study a 10-km strike length at the Siribaya mega-structure in West Mali, Africa. The company says that geochemical testing of the mound material has identified new anomalous gold zones that were unidentified during earlier surface sampling. The mound samples also confirmed previous surface geochemical survey results and earlier drilling results.

The Siribaya project is highly prospective, according to Merrex. The company struck a deal with **IamGold** in October 2008 whereby IamGold can earn a 50% interest in the property by providing $10.5 million over four years of exploration expenses. Merrex will be the operator for two years or until IamGold's investment reaches $5.5 million. A joint management committee has been created.

"Merrex is new to using termite mounds," president and CEO Greg Isenor told *CMJ*, "but other companies have been testing them for a long time."

Some of the mound assays have been "spectacular," but he was reluctant to mention grades until the targets have been drilled and a new resource estimate compiled.

How handy to have a drilling crew of termites. Unlike a mechanical rig, they don't malfunction or need maintenance downtime. Unlike human crews, they don't stop working at mealtimes or for rest. And, if our readers will pardon the pun, they work "dirt" cheap.

I'm sure some researcher somewhere is working on nanobots that might do the same thing as a termite colony. But why reinvent the wheel?

Explorationists are far smarter to take advantage of the hardworking termite.

HGMS Entries for SCFMS 2010 Bulletin Editors' Contest

by Phyllis George
HGMS Newsletter Editor

It's that time of year again when rockhound newsletter editors throughout the U.S. scour through their previous year's newsletter issues to select articles and newsletters to submit to their regional 2010 Bulletin Editors' Contest. The following were mailed off to Don Shurtz, the SCFMS Bulletin Aids Chair, as the HGMS entries for the 2010 contest. As happened last year, we will learn the results of the national contest (the AFMS) before learning the results of the regional contest (the SCFMS). The national results will be announced June 20 in La Habra, CA during their June 18-20 AFMS/CFMS/NOCGMS show, and the regional results will be revealed in December 11 in DeRidder, LA during their December 11-12 SCFMS/DGMFC show.

Name	Category	Title	Month
Phyllis George	Large Bulletin	The Backbender's Gazette	January & May, 2009
Art Smith	Advanced Adult Article	An Early November 2008 Trip to Arkansas	January
Neal Immega	Advanced Adult Article	Hard Time, Deep Time, Real Time	March
Terrell Wm. "Terry" Proctor, J.D.	Advanced Adult Article	Continents Moving Around—You Have To Be Kidding	August
D.R. "Matt" Dillon	Adult Article	Welcome to Tecolote	January
Lexy Bieniek	Adult Article	Educating Our State Board of Education	January
Martha McRae	Adult Article	Earth Science Week's High Island Field Trip	April
Owen Martin	Adult Article	Taking Maximum Advantage of a Business Trip	May
Phyllis George	Adult Article	My Impressions of the AFMS Show in Billings, Montana—A Great Show	September
Sigrid Stewart	Adult Article	Rockhound Honeymoon	November
Alice F. McNulty	Adult Article	My First Rock Hounding Trip	November
Terry Proctor	Adult Poetry	The Excitement of a Dig	September
Mary Ann Mitscherling	Adult Poetry	Just One More Rock	November
Terrell William "Terry" Proctor	Features	President's Message—May 2009	May
John Emerson	Features	An Old Geezer Reminisces	October
Neal Immega	Features	Please Don't Blow Up Our Clubhouse—Treat Gas Bottles with Respect	December
Noelle Skubal (9 years old)	Junior Articles	Lifting Up History with David Freeman	March

January HGMS Board Meeting

January 5, 2010
by Pier Laird
HGMS 2010 Secretary

X	President	Terry Proctor		Beading Rep.	Diane Sisson
X	1st Vice President	James Wark		Faceting Rep.	Sunday Bennett
X	2nd Vice President	Beverly Mace	X	Lapidary Rep.	Phyllis George
X	Treasurer	Rodney Linehan		Mineral Rep.	Sigrid Stewart
X	Secretary	Pier Laird	X	Paleontology Rep.	Terry Brawner
	Past President	N/A	X	Day Light Rep.	Nancy Fischer

Call to Order: Terry Proctor called the Board Meeting to order at 7:30 p.m. He stated that a couple of visitors had been invited to the Board Meeting to present matters, and they would be presenting out of order so that they could then be allowed to leave, after which the Board would continue on its regular Agenda. This included the serious lighting problem at the clubhouse, the Silent Auction at the next General Membership meeting, (which had been resolved), and Theresa Peek, who needed to present her matter and leave promptly also. These matters are set out below.

Treasurer's Report: Rodney Linehan e-mailed Board Members financial documents for the month prior to this Meeting. He reported that financially HGMS had a good year in 2009. The Christmas Party was a success, and the proceeds from the party auction were $1,818.00—more than previously reported, and several hundred dollars more than last year. The Board again approved splitting the auction funds evenly between the Building Fund and the General Operating Fund.

Show Committee: Rick Rexroad reported that he spent considerable time working on the Show budget, but he must have additional figures from the 2009 Show and for 2010 before he can present a 2010 Show Budget for the Board's consideration. He should be able to do so by the February Board Meeting. In the meantime, the Board authorized $1000 (the maximum currently allowed in the HGMS Bylaws without General Meeting membership approval) for Show Committee expenses in the interim prior to the Board approval of the 2010 Show Budget. Asst. Show Chairman Chris Peek also appeared, but since Theresa Peek had to leave immediately after her presentation for business purposes, she and Chris both left following her presentation.

Old Business

- Again there was some discussion at this Board meeting about getting into a new electrical utility contract for a lower rate. Phyllis mentioned that she uses StarTex, and her rate is considerably lower than we are now paying. Since Terry Brawner some years back secured a lower-rate electrical service contract for HGMS, he agreed to research the various electrical utility companies for the best rate for electricity and will report back at the February Board meeting.

- There has been a great deal of concern about the lack of proper lighting in both the parking lot, the front of the building and on the sign. Therefore, this matter was brought up at the December 2009 Board, and Terry reported that he asked James Burrell of Texas State Electric, Inc, a Houston electrician and member of HGMS, to do some analysis on our lighting and provide an estimate and details on what is needed. The fact that an HGMS member fell while leaving the Christmas/Holiday Season Party was mentioned as more evidence that this is a critical matter needing immediate Board action. James appeared at the Board Meeting and provided an estimate for illuminating the exterior of the clubhouse on the parking lot side and on the front for a bid of $1,490.00. He developed a separate bid of $2,950 to provide illumination for the large "HGMS" letters located at the top of the wall facing the parking lot since doing that work will involve much more labor than merely illuminating the exterior. The Board voted unanimously to accept both bids for a total of $4440. Since the total is over $1000, the proposal will be presented to the vote of adult members present at the January General Meeting for their approval.

- Neal Immega will be handling the Silent Auction. About 7:00 p.m. he will announce that the auction is nearing its end, and then the auction will cease at 7:30 p.m. just as the General Membership meeting (January 26, 2010) starts. The Board is to put on record who made donations so that the donor can be given credit in the BBG and a record will then exist identifying where the donor wanted the proceeds from the donated goods to go.

- It was noted that the temperature will be freezing for several days, so while Neal was at the Board Meeting, he was asked if he would turn the water off during that period. He said he would do so and would turn it back on after the freezing weather and also would advise those who may need water in the interim to turn it on and then when they leave to turn it back off to prevent a burst water pipe at the HGMS clubhouse.

- There has been one applicant for the Art & Elizabeth Smith Scholarship for this year. Phyllis has been asked to ensure that there is a scholarship application form on the HGMS Web site. A notice will be sent out to the membership by Neal Immega encouraging applicants to apply so that the Board can make a decision shortly on this year's Scholarship winner.

- The January General Meeting program will be presented by Wayne Barnett on Faceting.

- James Wark will be checking into auctions for a fire-proof file cabinet as already approved by the Board to safely store records and valuable documents the Club. Terry Brawner moved, seconded by Beverly Mace, that James be permitted to spend up to $500 on a used fire-resistant four-drawer filing cabinet at one of the auctions he attends for the HGMS Office. The motion carried unanimously.

- It was noted that Mary Ann Mitscherling completed the badges for the Shop Supervisors, and it is greatly appreciated. In other discussion, Neal Immega will at-

tempt to take photos of the Shop Supervisors so that their respective photos can be put on the Poster to be posted on the Shop Doors announcing to HGMS members who the Shop Supervisors are.

- Terry Proctor announced that 100 more Rockhound Stickers have been received as ordered and paid for previously by Board action. He will mention this again in the BBG so that more HGMS members can get these on their vehicles.

- Terry Proctor also announced that Hector Barkley, CPA has agreed to audit the HGMS books, and he and Treasurer Rodney Linehan will be in contact to complete this measure.

New Business

- Rodney Linehan will notify our insurance company that we have been having roof leaks since Hurricane Ike. The Board is therefore contacting our insurance carrier to determine if our insurance covers this roof leakage. If it does, then the adjuster will be asked to determine the amount of damage and cost of repair and perhaps designate a company to do the repair work. If not, then James Wark will look for three roofing companies to all come at one time to inspect the roof and prepare bids to repair the roof. Also, we will see whether there is a warranty on the roof since it is only about five years old.

- A discussion ensued that presently the Board only has authority to approve expenditures of up to $1,000 without needing to put the matter on the agenda at a General Membership meeting for a membership vote on such expenditure. In emergencies, this is too slow to prevent further damage or problems. It was pointed out that the present $1,000 limit probably went back well over 20 years. Therefore, Phyllis George moved and Beverly Mace seconded that a request be presented to the membership at the February, 2010 General Membership meeting asking for a Bylaw change that gives the HGMS Board the power to authorize expenditures up to $2,500.

- Theresa Peek, who helped start "Meet Up" this year, asked the Board to continue participation in "Meet Up" for 2010. HGMS "Meet Up" now is a 29-member group that helps provide information on coming events. Terry Brawner moved and Nancy Fisher seconded that HGMS keep its membership in the group for 2010. The motion passed unanimously.

- Terry Proctor will notify Congressman John Culberson that he is an Honorary Lifetime Member of HGMS.

Other New Business: Terry Brawner brought up a suggestion from Rick Rexroad—that HGMS develop an ongoing permanent committee that generates year-round publicity for HGMS. The Board approved the concept.

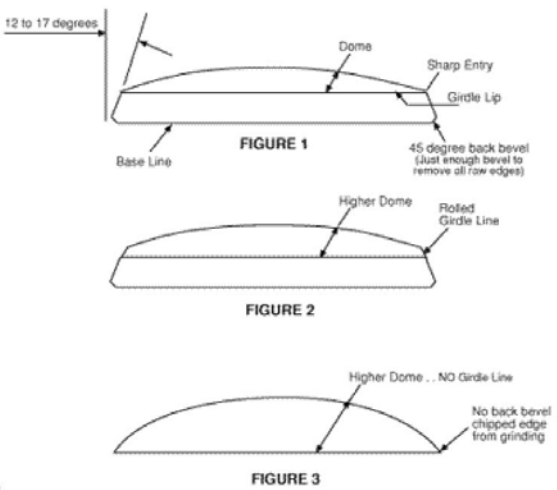
Adjourn: The meeting adjourned on a motion by Phyllis George, seconded by Beverly Mace, and a unanimous vote at 9:20 p.m.

Helpful Hints for Cabochon Making

by Jon Sams with update by Don Esch
from Willamette Agate & Mineral Society Web site on Rock Specs page:
http://www.wamsi.org/pages/rocksp.html

During the annual and quarterly cabochon contests held by the Willamette Agate and Mineral Society, there is one predominate error that seems to bother one and all. This, of course, leads to secondary errors that in the final sum total would give a Federation judge fits. Another important factor is that most of the members do not have the time, following a full work day, to grind and grind on a cabochon with a full dome. Hence, there are a number of members who would like to enter contests but hesitate to do so. This, I am sure, is caused by the above-mentioned factor. The method that will be explained herein is not only acceptable by Federation judges if you decide to go the contest route, but will cut your working time by two-thirds once you have mastered this technique, and it is not really that hard to learn.

The Making of a Cabochon



1. Figure 1 is a prime example of a semi-flat dome. If you were to superimpose Figure 1 on Figure 3, you can readily see how much grinding is eliminated. Since most of the cabbers work in harder stone (Mohs 5~ to 7~), this is really a time saver. Also, a flat or semi-flat dome will hold the reflective beauty of the material much better than a high dome. (Opal is an exception to the above statement)

2. Figure 2 depicts a cabochon with a rolled girdle line. This is strictly a no-no. Judges just shake their heads when they see such a fault. Some of this roll is cause by grinding, and some by the polish action. Let's get into some of the simple things that make a poor cabochon into one of outstanding beauty.

Most of us know before we start to make a cabochon that we want to mount it into a finding.

Rule number 1: The prongs of a finding should never extend above the girdle line. So, the obvious thing to do is to measure the height of the prongs and set the girdle line accordingly. Most prongs are 3 to 3½ mm in height. Since there are 25.4 mm to the inch, one can figure the height with ease. A mounted stone with prongs bent over on

top of the dome draws your attention to the prongs and not to the beauty of the stone. Therefore, the distance from the base line to the girdle should never be less than the height of the finding's prongs. The ideal dome is one that measures vertically the distance from the base line to the girdle. Information such as this and much more is never published but is held in the heads of judges. This is one of the things that sometimes makes the exhibitor bleed and bleed. One must ask question after question to finally compile all of the facts that will give you a score of 95 or above.

Rule number 2 (these are my rule numbers): The bezel or slanting edge of the stone, after it has been ground to template size, should be angled in from 12 to 17 degrees. This is to allow the prongs of your finding to grasp the stone firmly. The bottom edge of the bezel should always be back beveled at 45 degrees to eliminate all rough and raw edges caused by grinding. This bevel should always be polished. The dome entry to the bezel (known as the girdle line) should always be sharp and well defined (Fig. 1) and not as shown in Figure 2. Always strive to maintain a straight line of uniform depth to your girdle.

In setting up to grind a flat dome, start with grinding around the edge above where the girdle will be, and in a sort of "peel an apple routine." If you are making a 40 x 30 or any other size, always change the angle of your dop stick in relation to your stone; i.e., when grinding opposite the long axis (40 mm), your dop stick should have a shallow angle and then as you come around opposite the narrow axis (30 mm) increase your angle. This will ensure the correct curvature for the dome. Shape your stone with a silicon wheel to about ~ mm from your marked girdle line. Change then to paper of your choice. Each and every one of us has a different thought on this part of cabochon making. By using paper, which cuts a lot slower, you will eliminate scallop on your girdle line. If using diamond grind wheels, be sure to switch to the next finer wheel before getting to these lines. Use a metal-edged ruler and run the edge over the face of the dome while holding at eye level. If you can see only one point of contact as you move across the dome face, your curvature is correct. This method will show flat spots in a hurry. Using a worn-out 600 paper will remove most of your grinding scratches. The next will sound a little odd, but it works for me. After I have used the 600, I put on a WELL worn 400 and grind at 90 degrees from the direction that I used on the 600. Always change direction of grind by 90 degrees when you change grits.

Rule number 3. Polish: Oh what a nasty word (sometimes). Use your own method of polishing, but add this: on the first few minutes of polishing, rotate your stone in the opposite direction that your buff is turning, and in most cases, use considerable pressure—NOW—reduce pressure and rotate your stone in the same direction as the buff is turning. The results are sometimes astounding. The preceding also works well with diamond. Be sure that you polish the bezel first, and then when you are on the dome, **do not** roll over onto the bezel. If you do, this will cut your sharp girdle line, and I would like to stress again—always try for a sharp, well defined girdle. I sincerely hope that this short extemporaneous paper will cut your cabbing time and increase your enjoyment of this wonderful hobby.

Rebuttal to Terry Proctor's "Continents Moving Around" in the August 2009 issue of BBG. This is not original, but I have lost the reference. John Emerson

The Society for the Prevention of Plate Tectonics

A.k.a. SoPrePlaTec, and pronounced "soapy platex," is dedicated to the prevention of plate movements on planets. We attempt to use technology or any other useful means to prevent continental drift and the associated disastrous earthquakes and volcanoes.

Our fearless and dedicated troops will travel anywhere to accomplish the goal of a stable planet where any movement of the earth is strictly caused by your own excesses.

We also have begun getting reports from some of our affiliate Societies. Here are two that have been recently declassified:

"Mike B," sometime in 2000

Years ago, as a petroleum geologist responsible for drilling a record number of dry holes in the search for oil and gas, I was inducted into an elite society. The "Society for the Prevention of Continental Drift" awarded me a medal for drilling a large number of holes deep into the earth and filling them with concrete; thus, we hoped, helping to pin down the continent of North America and keep it from drifting too far from England.

I like to feel I have been at least partly responsible for the small number of earthquakes experienced in the mid-continent area, and for the security we have all felt knowing that that part of the world is more tightly nailed down. It was a pleasure to see that we have a sister organization, although I'm not sure from your Web site exactly what extremes you have gone to in keeping California from becoming a suburb of Anchorage. If you need any help, please let me know. I have continued my journey from my original home in Western Canada, filling boreholes to deeper depths with better technology and concrete across Wyoming and now Texas. Soon I am to be relocated to West Africa where I'm told there are far too many places where plates are still allowed to wander at will.

Also, I must ask you to keep any knowledge of SPCD confidential. The world at large believes that oil companies are searching for gasoline for their Suburbans and Kawasakis, and for CO_2 to keep the atmosphere warm. We use that as a cover, to prevent the widespread panic that would ensue if it were commonly known that their very foundations were not foundations at all, merely thin pieces of onionskin adrift on pools of molten lava.

And a portion of another declassified document from "Mike B."

I regret to inform you however, my last effort at helping to prevent the slide of most of south Texas into the Gulf of Mexico was a dismal failure. We drilled to 12,000 feet, spent over $1 million, and were unable to fill the hole with cement due to a conflict with my engineering partner.

Because we discovered a natural gas reservoir, and he thinks (erroneously as you know, but he's not "one of us") that we are here to find that stuff and put it into people's

homes for heat and cooking, he forced me to agree to just put a string of steel pipe down there and produce the well. Steel pipe is only a temporary solution, and will bend as the plates try to move. In fact, we even weaken it further by blasting holes in it to produce the gas! The hole is still open, so if we're not careful, Goliad county, south of San Antonio, could move another few inches toward the Gulf without me being able to do a thing about it.

There is still hope. I'm going to drill another well a half mile away and go even deeper. Those "shooting ducks in a barrel" wells are always successful at finding no gas, so I'm confident I'll be able to report another PPP (Plate Pinning Point) before the end of the year.

The Gulf Coast, as you may be aware, is a tremendous challenge for us SPCD members. It is a very active faulting area with continued motion of sliding, slumping, and rotating blocks, all trying to dump most of Texas and Louisiana into the Cayman Trench. Now many people would not consider that to be a particularly disturbing problem, but as you also know, these geological processes take a long time. The residents of these two states would have ample warning time to move to higher ground, and we have received indications from Colorado, Oklahoma, and even Arkansas that they would not be welcome there. I'll keep you posted of further developments.

Mars Is Alive!

by Cynthia Graber
from Flint Flashes 2/2009, via Michigan Mineralogical Society Conglomerate, 3/2009 and The Rockpile 4/2009

A study in the journal *Science* finds that methane is being released at specific places on Mars—which means that Mars has geologic activity, biological activity, or both. Cynthia Graber reports:

There's definitely methane on Mars—and there are seasonal variations of how much is being released into the thin Martian atmosphere, which means that Mars is still active geologically. Or that deep underground, something is or was alive. Or both. NASA and university scientists reported the finding in the January 16 issue of the journal *Science*.

Researchers studying the Martian atmosphere discovered and measured methane levels over the last few years by using telescopes with infrared spectrometers. These instruments identify chemical compounds by analyzing their unique light absorption properties. They found that Mars methane is being released as concentrated plumes at specific latitudes. Such plumes could come from various kinds of geological events. Underground bacterial communities could also be producing the methane. Or now-extinct living systems could have produced the methane long ago, with it only now being released through pores or fissures created by seasonal temperature variations.

On earth, 90 percent of the methane in the atmosphere comes from the biochemical activity of life. The rest is produced by geochemical processes. The specific isotope makeup of Mars' methane could reveal whether its origins are biochemical or geological.

AFMS President's Message

by Emerson Tucker
AFMS President
from AFMS Newsletter 2/2010

I hope that everyone had an enjoyable holiday and that this New Year in a new decade will be an enjoyable one for all of us Rockhounds. Here in Lubbock we had the unusual experience of a White Christmas. The three or more inches of snow created a feeding challenge for our 73,000 winter geese visitors that annually migrate to the playa lakes so they don't have to put up with the snow and can find lots of grain fields to supply their nourishment. This year the geese should have flown further south to avoid the snow.

As I continue to learn more about the federation, I find it interesting to learn that there are over two hundred members who volunteer their time to carry on the many programs that are the important assignments of all the various committees.

Elsewhere in the AFMS Newsletter you can find the listing of the chairs of these committees. That list is the "tip of the iceberg" as in many committees there is a representative from each of the federations providing support for the programs. Then on the regional federation level and the many clubs within those federations, there are many more volunteers working to make their club and the federations a success. How many total volunteers are out there? I don't know, but I imagine the success of the clubs, regional and national federation is due to the hard work of several thousand volunteers. To me, there is a great group of wonderful people volunteering their time, and that in turn makes my job so enjoyable. Have a successful New Year. Emerson

AFMS Inter-Regional Field Trips

by Richard Pankey
AFMS Inter-Regional Field Trip Coordinator
from AFMS Newsletter 2/2010

When I was appointed as the ad hoc Inter-Regional Field Trips Coordinator at the 2007 AFMS meeting in Roswell, I was pleased and excited. I love field trips—going on them and leading them. I was involved with the Tri-Federation field trip to Texas Springs in May of 2003, so I pretty much had an idea of what was expected and how to get started.

It was my objective to have articles in each issue of the AFMS Newsletter promoting Inter-Regional field trips and events, how-to articles, and announcements about at least one scheduled Inter-Regional field trip. To make this all work I was counting on local field trip chairmen/leaders for ideas and help, for bulletin editors to help get the word out, and

participation from rockhounds. We have had two Inter-Regional trips in the west, and I have had articles in many AFMS Newsletters and pretty good participation from editors, webmasters, and field trip chairs getting the word out.

The biggest hurdle that I experienced was getting representatives from other Federations to be on the committee. It was hard to get referrals and people interested in serving on the committee. The notable exception was **Dick Parks** from the NFMS who was involved with our first two Inter-Regional Rockhound Rendezvous. It turned out to be easier to conduct the Rendezvous myself than try to get others involved. But that is not where this committee needs help and participation. What we need are representatives from each Federation, to identify potential Rendezvous sites, help promote them, and to coordinate with the trip host. Since I am not leading a Rendezvous this year, I am going to focus on establishing an active, productive (hopefully) committee.

In the near future I will be contacting the Presidents of each Federation for their recommendation for their representative to the committee. *Editor's Note: Neal Immega, Matt Dillon, Terry Proctor, and others—is this something that you would be interested in volunteering for as the SCFMS representative?* And to all members, current field trip leaders, if you would be interested in serving on the committee, please let your Federation President know that you are interested. I hope that by the combined AFMS/ CFMS convention in California next June I will have a full and functioning committee.

At the end of many of my articles I always ask "Where will our next Rendezvous be, and who will host it?" Well **Doug True** from the NFMS gave us the answer!! Doug announced in the last issue of the AFMS Newsletter that he will lead our next IRRR to the Blue Forest collecting area for Memorial Day Weekend 2010. Watch for details, map, and flyer in AFMS and Federation newsletters and Web sites. The Blue Forest area has been on my "want to collect at" list for many years. Betty and I will be there. Who else is going to join us? In addition to the Blue Forest site, Doug is looking into several other collecting areas for some side trips.

Where will our next Rendezvous be, and who will host it?

AFMS--Having Fun: Junior Activities

by Jim Brace-Thompson, Jr. Program Chair
Diamond Dan's Mini Miners Monthly
from AFMS Newsletter 2/2010

Darryl Powell is creator of **Diamond Dan Publications**, and he is the author of a wide range of fun, educational materials for young mineralogists, ranging from coloring and activity books to "Earth Digger Clubs" activities and patches, mineral note cards and place mats, and more. (See his Web site at **http://www.diamonddanpublications. net**.) His excellent activities for mineral identification and crystal shapes and models are referenced in the AFMS Future Rockhounds of America badge program manual, and I've written about his terrific

resources in some of my prior AFMS columns.

One neat resource Darryl provides is ***Mini Miners Monthly***. Now in its third year, it's the only periodical about minerals written specifically for young collectors. Throughout the year, it brings kids articles about minerals, crystals, and mineral collecting, along with fun activities like crossword puzzles, word searches, cut-and-fold crystal models, and coloring pages. It features interviews with important mineral collectors of our day and suggestions on how to build and take care of a mineral collection. It also welcomes mineral art, photography, and articles sent in by kids themselves!

In 2009, both the Midwest and California federations entered into arrangements with Darryl to subsidize electronic subscriptions of *Mini Miners Monthly* for affiliated clubs and societies with junior members. With the subscription, clubs receive permission to reproduce a reasonable amount of material from each issue (4 or 5 pages) in their newsletters, on their Web sites, and/or in club meetings with kids.

Subscriptions are e-mailed to clubs as pdf attachments at a significant discount from the regular electronic subscription price and at an even more noticeable discount from the print subscription price. The California Federation itself is paying Diamond Dan Publications directly for electronic subscriptions to its clubs with junior members, and Darryl is then taking care of all the follow up in contacting the individual clubs. In the Midwest Federation, individual clubs purchase the subscription (with a choice of either print or electronic, paying a bit more for the print) and then receive either a partial or whole reimbursement from the federation, depending on whether they've chosen print or electronic. The important thing to emphasize here is that Darryl is very flexible and easy to work with and is open to different models.

I encourage executive committees or boards of all the regional federations to explore such a deal with Darryl for getting *Mini Miners Monthly* to your clubs. (Contact Darryl c/o Diamond Dan Publications, P.O. Box 143, Manchester, NY 14504; (585) 278-3047; <diamonddan@rochester.rr.com>.

When the CFMS decided to explore this, the ultimate goal was to help clubs grow their kids' programs by providing them with good material to use in their meetings, thus encouraging our children in pursuit of the earth sciences as a hobby and potentially as a career, all while having fun!

Largest Known Diamond in the Galaxy

from the Orchid list, online forum for jewelers. 7/22/2009
via Rocky Reader 8/2009

For those who love gems and are interested in astronomy, here is an article from the BBC: Twinkling in the sky is a diamond star of 10 billion trillion trillion carats, astronomers have discovered. The cosmic diamond is a chunk of crystallized carbon, 4,000 km across, some 50 light-years from the Earth in the constellation Centaurus. It's the compressed heart of an old star that was once bright like our Sun but has since faded and shrunk.

Astronomers have decided to call the star “Lucy” after the Beatles song, Lucy in the Sky with Diamonds.

Twinkle, twinkle. “You would need a jeweler’s loupe the size of the Sun to grade this diamond,” says astronomer Travis Metcalfe, of the Harvard-Smithsonian Center for Astrophysics, who led the team of researchers that discovered it. The diamond star completely outclasses the largest diamond on Earth, the 546-carat Golden Jubilee which was cut from a stone brought out of the Premier mine in South Africa.

The huge cosmic diamond—technically known as BPM 37093—is actually a crystallized white dwarf. A white dwarf is the hot core of a star, left over after the star uses up its nuclear fuel and dies. It is made mostly of carbon. For more than four decades, astronomers have thought that the interiors of white dwarfs crystallized, but obtaining direct evidence became possible only recently. The white dwarf is not only radiant but also rings like a gigantic gong, undergoing constant pulsations. “By measuring those pulsations, we were able to study the hidden interior of the white dwarf, just like seismograph measurements of earthquakes allow geologists to study the interior of the Earth. “We figured out that the carbon interior of this white dwarf has solidified to form the galaxy’s largest diamond,” says Metcalfe.

Astronomers expect our Sun will become a white dwarf when it dies five billion years from now. Some two billion years after that, the Sun’s ember core will crystallize as well, leaving a giant diamond in the centre of the solar system. “Our Sun will become a diamond that truly is forever,” says Metcalfe.

Agates - Rich in Fiber!

by Bill Cordua, University of Wisconsin - River Falls
from Breccia 9/2009

Sometimes chalcedony, including agate, is described as a fine-grained quartz, but the real case isn’t quite this simple. There are lots of clues for this. Arrowheads and other stone tools are harder and more durable when made from chalcedony rather than coarse quartz. On the other hand, coarse quartz is better to grind up as a concrete additive than chalcedony. The chalcedony causes various chemical reactions in the concrete which can then fail, while quartz is unreactive. With the advance of modern analytical tools, the reasons for these differences can finally be investigated.

Chalcedony has a microscopically fibrous structure made of evenly spaced silica rods. More surprising is the fact that the fibers show a regularly alternating pattern of elongation—some parts are “length fast” and some parts “length slow”. This means that in part of a particular fiber, light travels faster parallel to the long axis of the fiber. In other parts of the same fiber, the light travels slower parallel to the fiber length. This further implies that the silicon and oxygen atoms for some reason regularly twist or change in orientation as each fiber grows. Mineralogists are still trying to figure out why the fibers twist and what different forms of silica are intertwined with each other.

It is these inter-grown fibers that give chalcedony its great strength and durability. The peculiar structure also gives chalcedony its unexpected chemical reactivity in concrete.

One theory for the growth of the fibers is being developed by two researchers (Yifeng Wang and Enrique Merino) at Indiana University. They envision agate as developing as fingers of silica growing progressively outward into a cavity filled with siliceous "media". They do not specify whether this "media" is a solution or a gel. The first step is the formation of a coating of silica around the cavity. The coating (this being the real world) won't be completely smooth. In some places, the coating will bulge out slightly into the "media." It is these bulges that will grow rapidly outward into the solution to form the fibers.

Impurities in the solution (such as iron or copper) will slow the growth briefly until these impurities precipitate as their own minerals on top of or between the silica fibers. Once the impurity's concentration is briefly reduced in this manner, silica growth will proceed again. Withdrawal of silica makes the solution richer in impurities, causing them to form another layer. This rhythmic precipitation is repeated many times as the agate grows. These layers of impurities show up as the color banding that characterize agates.

References:

Heaney, Peter J., D. Verlen and J. Post, 1994, "Structural disparities between chalcedony and macrocrystalline quartz," American Mineralogist, vol. 79, p. 452–460.

Wang, Yifeng and Enrique Merino, 1995, "Origin of Fibrosity and Banding in Agates from Flood Basalts," American Journal of Science, vol. 295, p. 49-77.

Gemstones of the Bible

A summary by J. Michael Howard
from Stoney Statements 1/2010

The ancients were not versed in the science of mineralogy, but they did have names for the many commonly used minerals and stones of their day. A number of these can be directly traced back to the mineral, gem, or type of stone they used. However, some are clouded, now and forever, by the veil of time. Lack of specific information about the characteristics, particularly color, is not available. Therefore, you will find much speculation in the literature. The translation of the original Hebrew and then translation by later writers from the ancient Grecian language has added to the confusion.

It is easier to understand why 12 stones are mentioned in Revelations. Twelve is an important number in the Bible. The 12 tribes of Israel, the 12 apostles, the 12 stones of the foundation of the New Temple of Jerusalem. Our best knowledge of the characteristics of these 12 stones comes by considering the 12 stones of the Breastplate of the High Priest of Israel, each representing a tribe of Israel.

One of the earliest writers to associate with the apostles the symbolism of the gems given in Revelations is by Andreas, bishop of Caesurae. He gives a brief description of the stones, which is recounted in George F. Kunz's book "The Curious Lore of Precious Stones" (1913).

The Jasper, which like the emerald is of a greenish hue, signifies St. Peter.

Jasper: The ancient Hebrew name was Yashpheh. A translucent stone of green hue. Jasper has been known from early times as a fine-grained variety of quartz. It occurs in many different colors and hues, but green was particularly valued. An early variety discovered in India and still mined there today is called bloodstone. It is dark to medium green with small spots of red scattered throughout. It has been said that it originated when Christ's blood fell to the ground and was scattered on the rocks under the Cross. That is a nice story, but bloodstone was used and prized in India long before Christ's birth. However, many early Christians wore it to remind them of Christ's sacrifice.

The Sapphire is likened to the Heavens (from this stone is made a color popularly called lazur) and signifies St. Paul.

Sapphire or Lapis Lazuli: The Hebrew name of Sappir. The sacred character of this stone was attested by the tradition that the Law given to Moses on the Mount was engraved on tablets of sapphire. This is not the blue sapphire we think of as the faceted gemstone, but instead the rich blue stone now relatively popular in jewelry known as lapis or lapis lazuli. It was well known and often used by the ancients as a blue paint pigment when ground to a powder. Much of what is now sold comes from Afghanistan.

The Chalcedony may well have been considered what we now call the carbuncle and represented St. Andrew.

Chalcedony or Emerald: Hebrew name of Bareketh. There is some confusion concerning this stone because chalcedony is a milk-white fine-grained variety of quartz, and the non-gem form of emerald (beryl) is typically a sea green to grayish to white hard mineral that forms six sided elongate crystals. All emeralds are relatively uncommon in occurrence, whereas chalcedony is common. Both minerals are relatively resistant to weathering and might be found in river gravels or on the surface of the ground. It is known that there were active emerald mines during this time providing this stone to Egypt.

The Emerald, which is of a green color, is nourished with oil that its transparency and beauty may not change. This stone signifies St. John the Evangelist.

Emerald or Garnet: Hebrew name of Nophek. The literal translation of the ancient Hebrew name means glowing coal. So this could not be the green stone we call emerald, but instead is thought to be a bright red variety of garnet: almandine.

The Sardonyx, which shows a certain transparency and purity of the human nail, represents James.

Sardonyx or Onyx: Hebrew name of Yahalom. The traditional interpretation is onyx. Some Greek writers considered it to mean diamond as the translation of the Hebrew word means to smite or cut. However, there is no evidence that the Hebrews knew of diamond. However, onyx was a well-known stone, which was carved into seals and used with wax. Therefore, the term to smite may mean to strike as with a seal on hot wax. Onyx is a common soft stone, composed of calcium carbonate and deposited in caves. Much banded onyx today is cut and polished as inexpensive novelty items.

The Sardius with its tawny and translucent coloring suggests fire and represents Philip.

Sardius or Carnelian: Hebrew name of Odem. Carnelian is a translucent hard fine-grained variety of orangish red quartz that has often been used for ring stones and wax seals.

The Chrysolite, gleaming with the splendor of gold, symbolizes Bartholomew.

The Beryl, imitating the colors of the sea and air, and not unlike the jacinth, suggests Thomas.

The Topaz, (modern name Peridot) which is of a ruddy color, resembling somewhat the carbuncle, denotes Matthew.

Topaz or Peridot: Hebrew name of Pitdah. The Hebrew word appears derived from a Sanscrit word meaning yellow. Some theologians think it could have been serpentine. However, the topazius of ancient writers usually signified the gem variety of olivine called peridot.

The Chrysoprase, more brightly tinged with a gold hue than gold itself, symbolizes St. Thaddaeus.

Chrysoprase or Citrine: Hebrew name of Tarshish. The original stone of the Hebrews came from Phoenician mines in what is now Spain. Black quartz crystal was heated until it turned a pale golden brown color. The Hebrew word literally means golden stone and was given to the region that produced it: Tartessus.

The Jacinth, which is of a celestial hue, signifies Simon.

Jacinth or amber: Others suggest a brown variety of sapphire. However, brown agate is known to have been commonly worn by the Hebrews during their early history, and, therefore would seem to have greater significance as one of the New Temple's foundation stones.

The Amethyst, which shows to the onlooker a fiery aspect, signifies Matthew.

Amethyst: Hebrew name of Ahlamah. The Hebrew word is directly translated as amethyst. Abundant supplies of this violet to purple variety of crystalline quartz were available from both Arabia and Syria.

Agate: Hebrew name of Shebo. A banded variety of agate, commonly used by Egyptians, had distinctive gray and white alternating bands that would have contrasted well with the other varieties of fine-grained quartz.

Onyx or Turquoise: Hebrew name of Shoham. The Catholic translation is onyx, whereas the earlier translators considered this stone beryl. However, there is little to guide us. Some theologians have suggested this stone might have been malachite, a green stone well known to the Egyptians. However, the discovery of ancient turquoise mines on the Sinai Peninsula, which were worked by the Egyptians, reveals the distinct possibility that this stone was actually pale green or pastel blue turquoise.

The carbuncle is a beautiful gem of a rich red color found in the East Indies. When held up to the sun, it loses its deep tinge and becomes the color of a burning coal. Sometimes the name is applied to the Ruby, Sapphire, Red Spinel, and Garnet. Also called Firestone.

Show Time 2010

Jan. 24-Feb. 15	Tucson, AZ	Huge international show; lots of dealers
February 20-21	Plainview, TX	Hi Plains Gem & Mineral Society Ollie Liner Center, south I-27 Mildred Matlock, (806) 293-3476 jmmatlock@suddenlink.net
February 27-28	Pasadena, TX	Clear Lake Gem & Mineral Society Pasadena Convention Center
March 6-7	Big Spring, TX	Big Spring Prospectors Club Howard County Fair Barn, Jerald Wilson (432) 263-4662 or (432) 263-3340
March 6-7	Robstown, TX	Gulf Coast Gem & Mineral Society Regional Fairground
March 20-21	Live Oak, TX (San Antonio)	Southwest Gem & Mineral Society Live Oak Civic Center, 8101 Pat Booker Rd. Robert Bowie e-mail: krbotx@gvtc.com Web site: swgemandmineral.org
April 10-11	Abilene, TX	Central Texas Gem & Mineral Society Abilene Civic Center; North 6th & Pine
April 17-18	Alpine, TX	Chihuahuah Gem & Mineral Society Highland Events Center; Hwy. 90 East
April 24-25	Waco, TX	Waco Gem & Mineral Society Texas State Technical College ITC Building; I-35 N
May 1-2	Lubbock, TX	Lubbock Gem & Mineral Society Lubbock Civic Center
May 29-30	Fort Worth, TX	Fort Worth Gem & Mineral Society Will Rogers Memorial Center
June 18-20	La Habra, CA	AFMS/CFMS/NOCGMS Convention & Show So. California University of Health Sciences 16200 E. Amber Valley Rd.; Mike Beaumont (714) 510-6037; diamond.crest@yahoo.com www.networkingwave.com/afms2010/index.html
August 21-22	Bossier City, LA	Ark-La-Tex Gem & Mineral Society Bossier City Civic Center
August 28-29	Jasper, TX	Pine Country Gem & Mineral Society Events Center
December 11-12	DeRidder, LA	SCFMS/DGMFC Convention & Show Richard Borchard Fairgrounds

2010		February				2010
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
	1	2 7:30 Board Meeting	3 7:30 Mineral Section 10-5 Shop Open	4	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 10-5 Shop Open	11	12	13 10–5 Shop Open
14 Valentine's Day	15 7:30 Lapidary Section	16 7:30 Paleo Section	17 7:30 Mineral Section 10-5 Shop Open	18	19	20 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
21 / 28	22	23 7:30 General Meeting	24 10-5 Shop Open	25	26	27 10–5 Shop Open

2010		March				2010
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
	1	2 7:30 Board Meeting	3 7:30 Mineral Section 10-5 Shop Open	4	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 10-5 Shop Open	11	12	13 10–5 Shop Open
14 Daylight Saving begins	15 7:30 Lapidary Section	16 7:30 Paleo Section	17 7:30 Mineral Section 10-5 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 10-5 Shop Open	25	26	27 10–5 Shop Open
28 Palm Sunday	29	30 First day of Passover	31			

The BACKBENDER'S GAZETTE

The Newsletter of the Houston Gem & Mineral Society

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