



The **BACKBENDER'S GAZETTE**

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

Volume XLIII - No. 2

February 2012



President's Message *by Charlie Fredregill*

For the past several Saturdays, we have had new people showing up at our club house. Some people come just to ask questions or get advice, but most newcomers become members. Of course, new prospective members are always welcome. But it's also good to have people come see us for just a casual, one time visit. I urge all members to make all visitors welcome.



We had our first Board of Director's meeting of the year on January 3. We do have several very important items to consider during the next few months. One of the most important is our classes. We need both teachers and students. Sarah Metsa is our new Education Director. If you want to take a particular class, let Sarah know. If you have a skill you want to teach, let Sarah know.

Bill Moore, our new 1st Vice president, has some very good programs lined up for our General Meetings held on the 4th Tuesday of each month. I am sure that over the course of 2012 we will have something of interest for everyone.

Now for some nuts and bolts: Every few years we have new building keys made. It's time to do it again. There are obvious people who need keys. Among them are Board members, shop elves, teachers, library helpers, etc. We (the BOD) are not going to be stingy, and we have no desire to be control freaks. If you need a key for any reason, let

Continued on page 4

Upcoming Programs

January 24, 2012: Neal Immega will discuss the differences between Meteorites and Meteor Wongs.

February 28, 2012: Inda Immega--The Van Pelt Carvings

Contents

President's Message	1
Upcoming Programs	1
Purpose of HGMS	3
BenchTips	4
Old Geezer - Various Memories of the Bechtels	5
The Annual Rock Show	6
HGMS Lapidary Section--2012 Cabochon Cutters' Competition	7
The Rules of the Hobby	8
Board of Director's Meeting Minutes	10
To All Us Texans This Is Old News. The Rest of Y'all Jest Better Lissen Up.....	12
Liz Taylor's Jewels	14
Artificial Weathering	15
Ammonites—Finding and Finishing	16
A Word to the Wise When Digging Quartz in Arkansas (or anywhere else)	19
Beach Glass—People Are Very Serious About Collecting It!	20
Lapidary Corner Hints and Tips	20
The Beauty of Feldspars	21
The Disposal of Rock and Mineral Collections (by Art Smith)	22
A Short Essay on Gold (by Art Smith)	24
Show Time 2012	26
Calendars	27

Permission to use material originating in this newsletter is given freely providing that credit is given to the author and the source. Articles without a byline are considered to have been written by the editor.

Every article published in the BBG is edited for grammar and content. No flaming is allowed.

*Editor: Phyllis B. George
22407 Park Point Drive
Katy, TX 77450-5852
Phone: (281) 395-3087*

*Copy is due for the March 2012 issue by
Wednesday, February 8, 2012.*

*E-mail the Editor and Webmaster at
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, 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

me know so we can order enough keys to give one to everyone who has a legitimate reason to have a key.

And now one for the dark side: Unfortunately we have one or more people who are, shall we say, "light fingered." We have always had a problem with shop tools. Some are misplaced, but others just vanish. That's bad for the club in general. But even worse is when items are taken that belong to individual members. I urge all members to be aware of the situation and to watch their stuff. The BOD is working on a solution, but it is a difficult situation.

BenchTips

by Brad Smith

Identifying Unmarked Solders

There are plenty of ways to mark your sheet or wire solders, but suppose you forgot to mark them and have a couple that you can't identify. The answer is to compare the melting temperature of the unknowns with that of a known solder. What I do is take a thick scrap of copper or nickel and arrange several solders on it. Ideally, I would have a sample of easy, medium, and hard known solders surrounding the unknown solder. Then I heat the plate from the bottom and watch the order in which the solders melt.

Inexpensive Electric Wax Pen

You can make your own wax pen from a small soldering iron plugged into a light dimmer switch for heat control. Both components are easily found at Radio Shack, a big hardware store, or at Harbor Freight. Set the dimmer control just hot enough to melt the wax without producing any smoke.

Look for a soldering iron of around 25–30 watts. File the tip to the shape you prefer, or even better, get a soldering iron with replaceable tips. Then you can make several tip shapes for different tasks. Set the dimmer control just hot enough to melt the wax without producing any smoke.

For an example of the dimmer and soldering iron, see www.harborfreight.com items #43060 and #47887.

More BenchTips by Brad Smith are at
groups.yahoo.com/group/BenchTips/

or

[facebook.com/BenchTips](https://www.facebook.com/BenchTips)

Old Geezer - Various Memories of the Bechtels

by John Emerson

Member of the Houston Gem & Mineral Society

When we lived in Algeria, 1965–1967, Mr. Steve Bechtel, Sr. (who took over after the death of Warren Bechtel who founded the company in about 1903) was President of Bechtel from 1933 to 1960 (when Steve, Jr. took over), visited our job. During his visit, he visited the “English Speaking School of Algiers” located in the Methodist church. Rob, about 8 years old, said to him “I bet you don’t know who I am.” Mr Bechtel said “You are Robert Emerson and your Dad is Project Engineer.” I think Steve Sr. knew every employee and their families!

To prove this, Steve Sr. visited our project (I was Project Manager) in Tehran, Iran, in about 1971. Bobbie, Rob, Lee, and I were his guests for lunch at the Hilton Hotel in Tehran. Again, Rob said, “Do you remember me?” Steve said “Why, yes, you and I met in Algeria about 4 or 5 years ago.” He was a remarkable man.

Yet another time while we were living in Argentina, I returned to the San Francisco office for a business visit. I don’t remember exactly why, but Sr. gave me a lift in his personal auto. As he drove, he talked about the projects where he visited me and my family. While inside the car, I did not know what kind it was, but noted that the engine was so smooth and quiet, it was virtually silent. When I got out I found that it was a new, modern model Bentley built by Rolls Royce. The 2011 Bentley “Continental” is now priced at \$192,500.00 plus tax and license! Rank hath its privileges!

When we lived in Argentina and were near the end of our project there, Peron, along with his wife, Evita, came back into power. Again, we evacuated. We moved into the Hilton Hotel in Buenos Aires at first so the boys could finish the remaining few weeks of the American school. There were so many American families and their school children staying in the hotel, that the school sent a bus to the hotel to pick them up every day. After school was out, Bobbie and the boys flew back to San Francisco with our belongings shipped to them. It was not a total emergency—just a precaution. I stayed in the hotel to finish the project. When our belongings arrived in San Francisco, they were held in customs for what customs thought was “pot” or other drugs found in the shipment. What they had found was some “Mate” (pronounced Ma-tay) which is Argentine drinking tea. No big deal, except to customs. The Bechtel office helped clear the problem.

When we left San Francisco to go to Argentina, it was the end of the school year for the boys, BUT it was the beginning of the school year in Buenos Aires since their winters and summers were exactly opposite from the US. When Bobbie and the boys went back to San Francisco, it was the end of the school year in Argentina, BUT it was the beginning of school in San Francisco! They missed two summer breaks. They still haven’t forgiven me.

Several years later, when we lived in London, the play “Evita” with its theme song, “Don’t Cry for Me, Argentina” opened on stage. Of course we had to go see it. It was really thrilling to hear the leading lady sing that song. One story in the newspapers was about the show producer who was interviewing ladies for the part of Evita. When the

lady (I don't remember her name) being interviewed sang the theme song, he stopped the auditions and gave her the part on the spot! She started singing in a very weak, almost inaudible way. When she reached the chorus, she came on loud, clear, and strong! Memorable in the extreme! For a few moments the audience was quiet, then they gave her a standing ovation.

The Annual Rock Show

by Margaret Good

from The Stone Chipper 2/04

via The Roadrunner 1/2012

Every year the gem and mineral club
Holds a show for all to see,
With displays neatly in their cases
Showing individual ingenuity.

There we saw the Texas palmwood,
A large hunk polished on one end.
The owners proudly light it up
To show just how the colors blend.

Fossils distinctively displayed
In cases lined with white,
Dug from the dirt and rocks of yore,
Shine now beneath electric light.

A special display of items of food,
So many you could not name,
All looked so real, so very good,
But all were natural, just the same.

Minerals shown from around the world
In colors of various hues
Took your breath away when you saw
Purples, greens, pinks, turquoise, blues.

Jewelry galore, all sizes and forms,
Were there for eyes to gaze on,
Or purchase, if that's what you prefer;
Lovely and practical to be worn.

Agate, opals, and petrified wood
made into works of art.
Many of them were there for sale,
But with some, owners wouldn't part.

There was so much more for one to see
But naming them one by one,
Is just an impossibility;
Still everyone had lots of fun.

HGMS Lapidary Section 2012 Cabochon Cutters' Competition

by Ed Clay

The Houston Gem and Mineral Society is offering a Cabochon Cutters' Competition. It will be a judged competition based on R.O.L.E. judging guidelines. (On the Web site, scroll down the home page to the Lapidary information and click on the "Lapidary" button. Information about the R.O.L.E. program is available there.)

First Prize is \$200; Second Prize is \$100.

The entries are due no later than September 15, 2012. The materials to be cut are Chrysoprase, Imperial Jasper (red or green), and Labradorite or Spectrolite.

The cuts will consist of:

- A pair cut to conform to the H.G.M.S. Lapidary Section's Template #4 using the asymmetrical teardrop shape marked 15 mm in dimension. (The two should be cut to be mirror images of each other.)
- A single stone to match the 20 mm cushioned (pillowed) triangle on Template #4
- A single stone cut to match the 30 mm Marquise cut on Template #1

The complete entry will consist of 4 stones cut in 3 shapes as listed above.

The Templates can be ordered from the H.G.M.S. Web site <http://www.hgms.org/>. Scroll down the home page to the Lapidary information and click on the Lapidary Templates button. Send your contest entries plus a \$15 entry fee and \$6 for return postage to:

Phyllis George, 22407 Park Point Dr., Katy, TX. 77450

Checks should be made out to **H.G.M.S Lapidary Section**. The entries and awards will be shown at the H.G.M.S. show of 2012 and displayed through the show starting November 9 through 11. They will be returned within three weeks after the show.

The Following Point Formula Will Be Used for Evaluating All Submitted Stones.

Choice of Material: Quality of stone, proper orientation of pattern: 15 points
Sanding and Grinding: No flat spots, scratches, sufficient sanding, etc ... 25 points
Polish: High luster, water glass finish 30 points
Symmetry: Dome, outline, curvature 15 points
 Back Bevel even and approximately 45 degree 5 points
 Bezel edge (if present, it must be even) 5 points
Size: Accuracy of template size 5 points

A back bevel is required on all submitted stones. A bezel edge is allowed and not required, but it must be even and consistently cut if present. The stones must fit the template used without being too large or too loose when finished polished. Judging will be done with the aid of a 10x Jewelers Loupe.

Any questions? Contact Edward Clay at edlapidary@Gmail.com



Laura Lopez is the winner of the Grand Prize necklace awarded by the 2011 HGMS Show. The necklace was presented to her by Steve Blyskal, 2011 HGMS President. Laura is wearing the necklace.

The Rules of the Hobby

by Tony Nikischer

tony@excaliburmineral.com

Forwarded to the BBG by Steve Blyskal

Rules? We don't need no stinkin' rules!" Paraphrasing an old Humphrey Bogart movie usually brings a few laughs, but it becomes increasingly clear that there is, indeed, a place for "rules" in the hobby. Rather than be autocratic about it, however, let's categorize these "rules" under the guise of "education" so that they are more acceptable to a wider range of collectors. While many mineral shows may be in general decline, and the number of systematic collectors even more so, it's likely that there are a greater number of mineral collectors today than ever before.

Not surprisingly, many of the newest collectors are not traditional field collectors, nor do they wait with baited breath for the next local mineral show. Instead, they are the offspring of the Internet, the most significant development in the collecting world in recent memory. Whether it is via online auction sites, a plethora of dealer Web sites, or some other electronic manifestation of the mineral kingdom, the influx of new collectors has become accustomed to the quick and rather painless (excluding money) acquisition of specimens.

The speed and ease of gratification is frequently at the cost of what "old time collectors" used to call knowledge, or appreciation, of some of the more arcane delights that

come along with collecting just about anything. Knowledge is still power, but instant gratification, regardless of the amount of money spent, does not necessarily include astute buying or intelligent curating of the acquisitions themselves. Hence, I think education is a key component in the long-term appreciation (in both fun and value) of any collection.

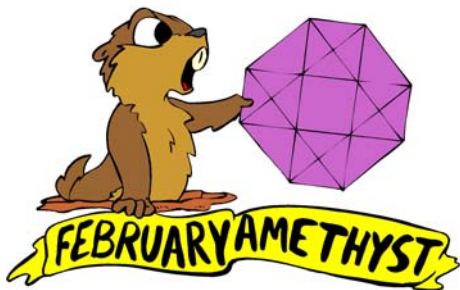
There have been numerous articles in the popular mineral press and elsewhere about the many different facets of collecting. One can collect micromounts, copper minerals, cabinet specimens, green and blue minerals, Franklin minerals, gem minerals, specimens that cost more than \$1000, ones that cost \$10 or less, systematic minerals, or specimens from one's favorite country, state, or region. Like stamp collecting, the permutations are endless, and it seems there are no hard rules for "what to collect" or "how to collect it." But I disagree, as there should be at least one cardinal rule:

Rule Number One: Always, always, always have a label associated with your specimens. There are huge numbers of variations that can be applied to this rule in terms of how the label is formatted, what it contains, how it is presented, or even whether it is stored electronically or manually, or both. The most important aspect of that label: locality information! One can always determine what a mineral is (there are numerous simple tests or more complex analytical methods to determine identity), but there are few tools that can unequivocally nail down a locality!

Why should you care? There are really two significant reasons: 1) complete locality information is the most scientifically important part of a specimen's provenance, and 2) many collectors, dealers, and researchers deem an unlabelled specimen to have little or no value. Hence, if you ever expect to sell off part or all of your collection or anticipate that it may someday be useful for research, those unlabelled samples will thwart your efforts to do so. An added benefit to a well-documented collection: you will learn more about minerals, localities, their rarity, quality, pricing, and aesthetics as you go through the labeling, cataloging, and researching process, regardless of how minimal or intensive it may be.

And so we come back to that all-important educational aspect. For new (and some old) collectors to become knowledgeable, every label is a teaching moment, an opportunity, a chance to open another door or horizon leading to greater appreciation of both the enjoyment of the hobby as well as the financial value it brings to the collection.

Anecdotes of collectors who passed away without ever getting around to sticking a label on everything ("I know where it is from" syndrome) abound. Instead of potentially having your specimens head for the trash, follow Rule Number One and take the time to label and study your samples. The next generation of collectors will certainly appreciate it!



Board of Director's Meeting Minutes

January 3, 2012

by Sarah Metsa

HGMS Secretary

X	President – Charlie Fredregill	X	Beading Rep – Jillynn Hailes
X	1 st Vice President – Bill Moore	X	Faceting Rep – Gary Tober
X	2 nd Vice President – Beverly Mace	X	Lapidary Rep – Phyllis George
X	Treasurer – Rodney Linehan		Mineral Rep – Sigrid Stewart
X	Secretary – Sarah Metsa	X	Paleontology Rep – Mike Dawkins
X	Past President – Steve Blyskal	X	Day Light Rep – Nancy Fischer
		X	Archeology Rep – Terry Proctor

The meeting was called to order at 7:04 p.m. with a quorum of seven members present.

Previous Month Board of Directors Meeting Minutes: The minutes of the December 6, 2011 Board of Directors meeting were published in the January 2012 BBG. Terry Proctor moved and Jillynn Hailes seconded that they be accepted as published. The motion passed unanimously.

Treasurer's Report: Treasurer Rodney Linehan was present. He provided an update on each bank account, and he reported that HGMS is in good financial condition. The authorized signers need to be updated on our checking account since we have a new president. Terry Proctor moved and Phyllis George seconded that Steve Blyskal be removed and Charlie Fredregill be added as an authorized signer. The motion passed unanimously.

Officer, Committee, and Section Reports

Daylight Section: Daylight Section had their Christmas party in November, and there was a very good turnout. For their January meeting, Nancy Fischer will give a travelogue presentation about her trip to Turkey.

Faceting Section: Faceting had their Christmas party in December and played the Sneaky Santa game. It was a really good evening that everyone enjoyed.

Mineral Section: Sigrid Stewart was not in attendance, but Steve Blyskal advised that they will be showing a DVD about what's hot in Tucson for their first January meeting. They are already planning on getting some chores done related to prepping for the 2012 show.

Paleo Section: They will be wrapping up last year's business in their next meeting. The program is not yet determined.

Archaeology Section: Their next meeting is Thursday, January 5. Terry Proctor sent e-mails to Section members that gave them five program choices and links to vote on

which program they want. The January meeting will be about Native Americans from this area of Texas. Usually the meetings have around 10–12 people, and there is very good discussion.

Education Committee: The new Education Chair, Sarah Metsa, is working on class schedules and locating instructors. The goal this year is to have a class schedule set and announced, and then have students sign up on a first-come, first-served basis. New classes are also being considered, such as a Rockhounding 101 class or a Basic Shop class, dichroic glass design, and others. Sarah intends to have a class schedule out by the end of January.

Outreach Committee: Terry Proctor did an Outreach Program at Harvard Elementary on December 16, 2011. He has done the program there in the past, and it was so successful they invited him back and added more students! He had about 100 students in attendance, and the program was very well received. Neal Immega and Terry continue doing outreach throughout the year.

Show Committee: At the show recap meeting held in December, it was determined that the 2011 show-committee heads will stay in place for 2012. We will not have a head show chair this year; rather, each show-committee head will make their contribution and help with other items as needed. Also, each show-committee head will look for an “apprentice” this year in order to pass on knowledge about the show. The new Member Welcome Committee will hopefully be able to help find the “apprentices.” One of the first items of business for the show committee is to lock in the dates and contract with the Humble Civic Center, get a budget in place, and design and print show cards to be available for distribution in Tucson.

BBG Editor Report: Our BBG Editor, Phyllis George, shared a letter she received from Diane Dare, a judge for the AFMS contest. The *handwritten* letter referred to the BBG as “one of the best bulletins in the country.” That speaks volumes about the great articles and news items turned in by our members and the wonderful job our editor does in putting it all together. Well done!

Program for January: Neal Immega’s January presentation, Meteorites and Meteor-wrongs, has been rescheduled and moved to the February General Meeting. Inda Immega will provide a program on the Van Pelt Carvings for the January General Meeting. Other potential programs are being discussed with the new program coordinator, Bill Moore. *Editor's Note: There's been a change: Neal Immega's Meteor program will be presented in January, and Inda Immega's Van Pelt Carvings program will be presented in February.*

Old Business

Building Fund: There is a need for an established building fund. Such a fund would be in place to cover major repairs and maintenance and eventually to allow the club to purchase a larger clubhouse. A larger clubhouse would allow for more classes, greater shop space, a larger meeting room, larger library, etc. One of the items discussed was

that 50% of the proceeds of any non-specified purpose auctions should go toward the building fund. Additional ideas were fundraisers and grant requests. More discussion on this topic will be needed at the next Board meeting.

New Business

Collection for Auction – Steve Blyskal is in custody of a collection from Janis Rauch, and it will be auctioned off in the early part of this year. Janis inherited her grandparents' collection. Janis is moving out of the country and so needs to sell the collection.

Building Security – Part of our building security is in controlling the distribution of keys used to access the building and the keys to the various lockers and cabinets. Terry Proctor moved to rekey the outside doors and to maintain a careful list of all key holders. Jillynn Hailes seconded. It was not a unanimous vote, but the majority carried. Charlie Fredregill will check with Matt Dillon about rekeying and maybe replacing the whole lock on the main door. There was also discussion about installing a security system, but no motions were made and the topic will be addressed at another meeting.

New Member Welcome Committee – The new “Member Welcome Committee” will have their first meeting on January 28 at 1:30 p.m. at the clubhouse. Some of the goals of the committee are to find “apprentices” for the show-committee heads and to find people interested in establishing a publicity committee for the club in general plus a fundraising and grant-writing committee. Other goals will be discussed in the first meeting.

Annual Club Scholarship – Terry Proctor moved and Jillynn Hailes seconded that we have a \$2,500 scholarship for 2012. The motion passed unanimously. The application guidelines will be the same as in past years (as posted on the HGMS.org website) although this year's applications are due by May 15, 2012.

Adjourn: Terry Proctor moved and Jillynn Hailes seconded that the meeting be adjourned. The motion passed unanimously. The meeting adjourned at 8:59 p.m.

To All Us Texans This Is Old News. The Rest of Y'all Jest Better Lissen Up.....

from Rockytier 4/2009 via The Roadrunner 1/2012

Only a True Texan ☺

☺ knows the difference between a “hissie fit” and a conniption, and that you don't HAVE them, you PITCH them.

☺ knows how many fish, collard greens, turnips, greens, peas, beans, etc. ..., it takes to make A MESS.

☺ can show you or point out to you the general direction of YONDER.

☺ knows exactly how long DIRECTLY is—as in, “Goin' to town, be-back directly.”

- ☺ All true Texans know exactly when “by and by” is. They might not use the term, but they know the concept well.
- ☺ Only true Texans know instinctively that the best gesture of solace for a neighbor who’s got trouble is a plate of hot fried chicken and a big bowl of cold potato salad. If the neighbor’s trouble is a real crisis, they also know to add a large bowl of “naner’ puddin’.”
- ☺ Only true Texans grow up knowing the real difference between RIGHT NEAR and A RIGHT FUR PIECE. They also know that JUST DOWN THE ROAD can be one mile or 20.
- ☺ Only a true Texan both knows and understands well the difference between a redneck, a good ol’ boy, and po’ white trash.
- ☺ No true Texan would ever assume that the car with the flashing turn signal is actually going to make a turn.
- ☺ A true Texan knows that “fixin’” can be used as a noun, a verb, or an adverb, mainly to be accomplished in the near future.
- ☺ Only true Texans make friends while standing in lines. We don’t do QUEUES, we do LINES, when we’re “in line,” we talk to everybody.
- ☺ Put 100 true Texans in a room and half of them will discover they’re related, even if only by marriage.
- ☺ True Texans never refer to one person as “ya’ll.”
- ☺ True Texans know grits come from corn and how to eat them.
- ☺ Every true Texan knows tomatoes with eggs, bacon, grits, and coffee are perfectly wonderful; that redeye gravy is also a breakfast food; and that fried green tomatoes are not a breakfast food.
- ☺ When you hear someone else say, “Well, I caught myself lookin’,” you know you are in the presence of a genuine Texan.
- ☺ Only a true Texan would say “sweet tea” and “sweet milk.” Sweet tea just indicates the need for sugar and lots of it. We do not like our tea unsweetened. Sweet milk means you don’t want buttermilk.
- ☺ A true Texan knows that if you are with “a couple of friends” ya’ll could be with 2 or 10. The number does not matter.
- ☺ A true Texan knows you don’t scream obscenities at some little old ladies who drive 30 MPH on the highways. You just say, “Bless her heart” and go your own way.

NOW do ya’ll understand?

GOD BLESS TEXAS!

Liz Taylor's Jewels*by Carolyn Weinberger**from Gem Cutters News 1/2012*

At the time of her death on March 23, 2011, Elizabeth Taylor possessed what was reportedly one of the world's most valuable assemblages of gems and jewelry. The vast collection, along with an assortment of gowns, handbags, scripts, and other memorabilia, was sold at auction this December for a staggering \$157 million+/-, 400 times what experts estimated they would sell for!

Notable among the items sold were the famous Taylor-Burton diamond ring—a whopping 33.19 carat clear “D” stone that was given to her by Richard Burton. The selling price was \$8.8 million.

Other notable jewelry pieces sold were La Peregrina, the fabulous pearl and ruby necklace and earring suite featured in the Smithsonian “Famous Pearl” exhibit in 2005. It sold for \$11.8 million while the Bulgari designed emerald and diamond necklace went for \$6.5 million. Original estimates of the sale price for La Peregrina had been between \$2 and \$3 million.

The bulk of the proceeds from the sale will go to the Elizabeth Taylor Aids Foundation.



Left: The Krupakar Taylor-Burton diamond

Right: La Peregrina

Below: Bulgari designed Emerald and Diamond necklace



Artificial Weathering

by Chuck Safris, Central Iowa Mineral Society

via Roanoke Valley Mineral & Gem Society Newsletter, 02/1999, The Stone Chipper, 02/1999, and Stoney Statements 12/2011.

It is always a thrill to find a cracked concretion that separates cleanly in the field with the light tap of a rock hammer to reveal a beautiful fossil. More often, however a promising looking concretion is not already cracked and resists being broken. When it finally breaks under blows of a rock hammer, there is some shattering or uneven breaking which can damage the enclosed fossil, and even then, there is a chance that the enclosed fossil is not exposed. With a little patience, there is another way to expose the fossil. Artificial weathering is a simple alternative that may lead to collection of fine undamaged fossils, if the matrix material is suitable.

Freezing and thawing causes accelerated mechanical weathering of a rock. If water can seep into pores or micro cracks in the rock, the rock will become saturated. When the water expands during the freezing cycle, pressure is exerted on the rock, leading to cracking or exfoliation. If the fossil is a carbon film, then the fossil is a natural weak spot in the concretion, and with luck, the subtle pressure of freezing will open the concretion so that the fossil is perfectly exposed and undamaged.

The process is very simple for any rock that will take up water. A container (other than glass, which might break during the freezing process) suitable for the specimen's size is selected, and the concretion is covered with water and allowed to soak for several days. Then a series of freezing and thawing cycles are achieved by using the freezer in the summer or the back porch in the winter. By achieving a freeze thaw cycle every day, the process is accelerated. It is important that loosened residue from each cycle be removed and examined because if there are any fossils revealed, the next freeze cycle could destroy them.

If you live in a northern climate, and there is no hurry, the suitable rocks could be placed in a container of water and simply left outdoors all winter where the daily temperature swings would do all the work. It has been reported that thousands of Mazon Creek, Illinois fossils have been exposed using accelerated artificial weathering this way.

In Iowa, fossil collectors are on the lookout for blade-shaped nodules of limey shale in Pennsylvanian exposures and streambeds. With any luck and some artificial weathering, a well-preserved, beautiful fern frond is likely to join your fossil collection.

Source: "Freezing and Thawing of Fossils;" J. Pojeta and Balanc, U.S. Geological Survey, Reston, Virginia, undated.

Ammonites—Finding and Finishing

by Dave Daigle, Edmonton, Alberta, Canada

rokhound@planet.eon.net

Via RMFMS Newsletter 2/01

Collecting Ammonites:

Somewhere in the Lower Middle Devonian, some group of Nautiloids gave rise to a modest group of coiled Cephalopods, the Ammonites. They really picked up their pace in the Mesozoic Period and became more plentiful and varied, and were dispersed almost worldwide. They differed somewhat from their modern day cousins, mainly by internal structure.

As they died on the ocean floor, they were buried in the sea mud. In North America that mud became, for the purpose of this paper, either shale or Ironstone. Normally the mud would be pressed into flat layers of shale by the pressure of the sea and mud above it, but the hard bodies kept their shape and became concretions. Those concretions, or roundish UFO shaped nodules of shale and Ironstone, are found in the Aragonite Zones of the Badlands, in Southern Saskatchewan, Southern and Mid Alberta, and Northern Montana and are the geologic structures where Ammonites are found today. You usually find concretions in the upper sides of banks on existing rivers, such as the Bow River, or in the Badlands banks, which were rivers at one time. Surface collecting is easiest, although some rockhounds have adapted a type of long tined pitchfork for prodding down into the soft Bentonite beds in hope of striking a concretion.

Once found, the trick is to break open the concretion. If cleaned off carefully, one can usually see small fracture lines or, sometimes, a piece of the Ammonite peeking through a spot at the edge of the nodule. A sharp chisel, a hammer, and a steady hand, and most concretions will break in half where the Ammonite is laying usually exposing a concave side of the concretion with shell attached and the Ammonite itself imbedded in the other half. If you are after the Gem...or shell ... then you can break the Ammonite out of the now halved concretion. But, if you want a complete Ammonite, if indeed it is complete, than traditional methods of removing a fossil from matrix are used. (Thank goodness for Foredoms and Dremels.)

Trivia time....The Ammonites got their name from the chief God of the Triad of Thebes Amun, who was often depicted as a Ram with curved horns.

The area covered by the Bears paw Sea, which included Northern Montana, Alberta and Western Saskatchewan is where we find most of the Placentiaceras Meeki species. The Meeki is, in my humble opinion, the best gem quality shell. These concretions with, hopefully, Mekki inside them, can be anywhere from 6" to 3" in diameter! The bigger ones, and most others, are "halved" right on the spot to see what treasures they hold and to more easily get them back to your transport. Most will fit into a backpack but some we have to "sling" and carry these on our backs also. Heavy?You Bet!

But alas, sometimes you find the other kind, what we call barren shale, and your efforts

of digging them out and breaking them in half are not rewarded.

Hmmm, heavy Reminds me of a time when I was loaded down with a heavy pack full of Ammonite, walking on a game trail at the bottom of a coulee on the way back to my truck. I came around a corner, with my head down .. of course, (typical Rock hounding syndrome) and came face to face with a huge Whitetail Buck! Now, it's nice to see nature from a distance, but up close those bucks are huge!!! He startled me and I fell backwards on my pack and watched as the buck took off straight up the side of the coulee like the hounds of hell were chasing it. I recall, as I laid there looking up, that the bank was about 100 feet high and pretty well straight up! Well, after kicking my legs for a while, and laughing at my predicament of looking, for all the world, just like a turtle flipped on it's back with it's legs wiggling, and rocking my body I finally rolled on my side and managed to get back on my feet. To this day, I still don't know which one of us were scared more, the buck or me.

Do you still want to go hunting for these concretions with that beautiful Ammonite shell inside? A word of warning, you must, at least in Canada, have the appropriate Ammonite permit to collect Ammonites! The fine can be severe for collecting without one. But it doesn't stop with a license, once you have returned home with your treasures, you must then fill out a disposition form and take pictures of your finds, which are sent off to the Tyrell Museum, where the experts look things over. If you have not discovered a new species or anything of paleontological value, they send you a reply...and then the Ammonites are yours.

From Raw To Gem Ammonite

I will attempt, in my humble way, to describe to you the way in which I work Ammonite. Please bear with me, as writing is not my forte'.

Once I have gotten my Ammonites home, It's time to clean them to see shat I've got. This can involve anything from muriatic acid baths...remember AAA, always add acid...never water to acid, to a simple cleaning with a brush and water. Some Ammonite has a thin film of white, or unformed calcite on top of the gem, this is when acid is used in dilute amounts to clean it off. If it's too filmy it usually extends down through the shell and makes it rather useless for gem quality pieces. Although with acid, the colors are still there.

Next comes the decision to keep it whole. If indeed you found a whole one in one piece, you should keep it as such Or to "gem it", if it's in many fractured pieces. If it's whole, it's sanded by hand later. I've found no better way to do it, although I've experimented plenty.

Ammonites, it seems, always start their lives with dark colored, blue and green shells. Probably to aid them in hiding from their many predators. Their shell is in layers, starting from red, to the oranges and yellows and then to the greens and blues of the last layers. So, if you feel brave, you can continue to sand down through the layers to get at the rare greens and blues. But, like an opal, be careful, after the last blue color....there's nothing but shale and you will have lost your color!

But alas, I wander off....Back to it then. There is much to do before laying on the sandpaper. Firstly, if not whole, you must cut away the excess shale, this can be a tricky process also. You should try and keep about 1/2 of shale still attached to the Ammonite Gem. Remember, the Ammonite is a Nautiloid and shaped accordingly, albeit flattened out somewhat from the pressures of time. Therefore there will be gem on "both sides" of the Ammonite, and you have to decide where to cut it. Flat spots are preferred, but they are rare in a Nautiloid shaped body.

Depending upon the color of the shale you probably have to seal the Ammonite. If whole, then you seal the whole Ammonite. But for this paper, let's assume that you have Ammonite pieces. The reason for sealing the Ammonite is to darken the shale down and to seal the gem shell to the shale beneath it. Again, referring to opal, the darker the matrix, such as Black Mintabe Opal, the brighter the color or fire is seen. Same thing with Ammonite gem. The darker the shale below, the brighter the colors of the gem will seem to be.

Sometimes, Ammonites come with the shell sitting loosely on the shale cores. This is where the Optican Sealer comes in. You need to heat the Ammonite pieces up to about 150 degrees and then apply the sealer to the gem with a brush. I use sheets of 1/2 inch steel and lay them across the burner elements of a kitchen range. But if you're doing a single piece, or just a few, a slow oven will do just nicely. The warm stone will actually draw the sealer down through the gem and into the shale beneath it, thus effectively sealing the gem to the shale and making the shale darker. Take the pieces off the heat and let them sit for a few days. The sealer never quite seems to harden, but almost.

Now, the pieces have to be cut into fairly flat pieces or freeforms. Not too small yet as you have to use the lap wheels next. I guess this part just takes practice, but you can actually find some fairly flat pieces on the Ammonite ... you just have to picture flat enough places and sizes to eventually make gems from. Sometimes your pieces are small. But they are flat.

The Gem Quality of the pieces are important and could alter your decision for gem or freeform pieces. "A" grade or better have a finely fractured texture with either a multitude of colors or a single brilliant color. The grades differ to c, b, a, aa and triple a grades. Now that we have formed the AFAC, we hope that the grades can be regulated. But for now beware, some people's ideas of A grade are not always the same as someone else's. Some gems have wide fracture lines and poorer colors and are therefore of lesser quality. After you have done it for a while, you can tell this when you first crack open the concretion.

Next comes the flat laps. I usually start with about a 400 grit ... carefully ... the gem is not that hard. Think of it as a regular shell and you'll be fine. All you want to do in this stage is to "flatten" the piece you are working on. Some of it, of course, can never be flattened, and I believe these pieces would be great for intarsia work, but since I haven't got that figured out yet, for freeform pieces. Once you have your piece fairly flat, look at the center of the piece, you'll probably and ... if you stopped soon enough .. that it's the green or blue color. If you didn't stop soon enough, then you'll find shale,...Damn! And you start over with a flatter piece. Seriously though, keep an eye on it and you'll

be fine. This is the stage where you must decide, freeform or gem quality. If you are doing gems instead of freeform, you cut out your gems before you start your 600 stage. The most popular way to cut gems ... which also gives you the least waste ... is the rock bandsaw. But, the traditional saw is fine; just plan your gems out carefully so as to waste as little of it as possible. It's expensive stuff! An oval of 10x14 can be \$80.00 or more if it's "AA" or better!

I dop my gems with a two part 5 minute epoxy on to welding rod pieces. Just warm up the metal rods with a torch slightly and stick it to the already placed epoxy on the back of the gem (the shale). I round them into calibrated shapes with a 400 or 600 grit expandable wheel with sc grit.

Finally, the gem must be capped. Some lappers use glass, some use a product such as Envirotex .. a two part sealer/glue that hardens rock solid. These methods are ok, but for rings and high abuse jewelry you still can't beat Spinel or Quartz caps. I use tempered glass or I make my own caps from quartz, for brooches and most of my freeforms.

I hope I have been able to shed some light on the long-kept secrets of Ammonite Gems. But if we are going to sell rough, people need to know how to work it properly. It is too precious and beautiful a gem for people to have to learn the hard way, as I did.

Copyright 1997–1998. This document may be copied and used in mineral and gem club newsletters without asking permission, given that the article is reprinted in total and that credit is given the author and Lapidary Digest as the source.

From The British Columbia Rockhounder, Vol. 3 # 1, and Gem & Mineral Federation of Canada, Vol. 20, # 1

A Word to the Wise When Digging Quartz in Arkansas (or anywhere else)

*from Rockhounding Arkansas via Rock Chip Reporter 8/2001,
Via Golden Spike News 11/2001, via SCRIBE DVD 2010.*

A word about clothing and other things. If you are planning on working with heavy hand tools, remember to bring along plenty of food and drink. Gatorade-type drinks are very good during the hot summers we have here. Broad-brimmed straw hats are good for everybody. Digging is dirty work. What kind of clothing to wear? Old clothes that you can use for the trip and don't mind if they ever come clean again. The red to orange clay associated with the quartz crystals will penetrate and stain all your clothes and even your skin after a while. You might look like you put on some old style cheap suntan lotion that turned orange!!

Sunscreen is a necessity as few sites have shade trees where you will want to dig. Also bug spray. If you have never encountered an Arkansas chigger, take our advice and use the bug spray to keep these itchy red bugs off. Plan on making a day of the trip and try to return to your motel or camp in time to go swimming. This really feels good at the end of a long day in the summertime. Take a first aid kit too. Quartz is like glass, it will cut you. Take a trash bag and haul your trash out with you.

Beach Glass—People Are Very Serious About Collecting It!

from The Pegmatite, January 2011, via Rocky Reader 1/2012

The North American Sea Glass Association (NASGA) holds an annual contest with multiple categories that grant high dollar prizes! First place for Shard of the year wins \$1,000. The 2010 prize was awarded for a beautiful orange and yellow piece. It almost looks like candy! (no photo available). Check out the Web site at <http://www.seaglassassociation.org/>

Greens and browns are common. Blues are harder to find. Cobalt or con-flower blues, although rare, can be exquisite. Aqua and sea foam are even more rare but are widely pursued for home décor projects. Most purples were originally clear, but the manganese in them slowly oxidized. Yellow and oranges and ultra-scarce red are the most sought-after colors.

Hobbyists, affectionately known as: shardheads, glass heads, shard patriarch, godfather of sea glass, all are very protective about their “target-rich environments.” It takes 30 years of wave action and high water pH to pit surfaces and smooth edges. Some of these target-rich environments (TREs) are on deserted shores where ships ran aground many years ago. Late summer and fall storms turn up the biggest selection of treasures.

For a nice slide show, go to parade.com/seaglass.

Lapidary Corner Hints and Tips

from Stoney Statements 12/2011 via Crystal Cluster, 11/1997

- 1** - Mother of Pearl for inlay work can be softened by soaking in white vinegar. It can then be cut easily.
- 2** - A safe way to clean marble is to put a slice of lemon in a cloth, dip in warm water, then in borax and rub. Wipe with a clean cloth.
- 3** - When tumbling rocks to polish, you can add desert sand to the first grit in the tumbler. Place plain white rice in with the stones for the last polishing. This will do a wonderful job and the rice will keep the stones from chipping

via Southwest Gem, 12/96, via Gem Time 20/96

Gemstone Dyeing - Mix a box of Rit with a couple of ounces of wood alcohol. Let your stones, polished or tumbled, soak in this solution in a small jar until the desired shade has been reached. This could take 30 minutes or overnight. If too much dye is absorbed, soak in clear wood alcohol.

After dyeing, wash in clear water, apply a good wax and polish with a soft cloth. Crazy lace, banded Brazilian agate, etc., can easily be dyed a more pleasing color. Slicing after being dyed can result in some fantastic results.

The Beauty of Feldspars

by O. Grathwolhl

*from Cab 'N Crystal via Mineral Mite via The Glacial Drifter 03/1995,
and Stoney Statements 12/2011*

In spite of the fact that feldspars and feldspathoids could be termed the “Plain Janes” of the mineral realm when compared to their more glittering associates, there are still some varieties which take a worthy place in the sphere of jewelry and decorative stones. Among these are the beautiful potash feldspar varieties such as the champagne-colored orthoclase from Madagascar which is generally cut in facets; yellowish to clear moonstone that is cut in cabochon; green amazonite (microcline) and light brown sanidine that can be cut in either facets or as cabochons. Another very popular feldspar is the sky-blue hauynite of triple brilliant cut. Peristerite (albite) exhibits an intriguing iridescence on a light tan background and is cut into cabochons (laboradorite is similar feldspar).

All of these, however, are put in the shade by lapis lazuli which is an association of minerals, spangled with iron pyrites, created under contact metasomatic conditions and which, in the course of history, has often competed with gold in value. There is evidence that lapis lazuli was already being mined 6,000 years ago in the famous deposits of Badakshan (modern day Afghanistan) and found its way to the old world via the ancient caravan route. Marco Polo, the far ranging Venetian traveler, brought news of these famous mines to Europe as early as 1271.

In ancient Egypt, the lapis lazuli stone (known as “chesbet”) was often framed in gold, and sacred pictures were created from crushed lapis. The death mask of Tutenkhamon is inlaid with lapis.

The Greeks and Romans cherished lapis as an exquisite gem comparing its sparkling luster to that of the star-filled night sky. It is believed that ancient writers referred to sapphire as lapis lazuli, not corundum sapphire. Both Theophrastus and Pliny the Elder described the blue color as “cerulum scythian sky blue” used by artists, which was made from lapis lazuli.

During the Middle Ages, lapis lazuli was used in Byzantine art and sacred art from central Europe. It was still considered nearly as valuable as gold. From the feudal age to modern times, lapis lazuli was used for wall paneling and column decorations in many palaces. In the 17th and 18th centuries, lapis was preferred for stone work, for the decoration of fireplaces, and for inlay work in combination with precious metals.

In the Czarist Russia, lapis lazuli enjoyed special favor. The beautiful ornamented lapis vases and tables in the Hermitage and the pillars of St. Isaak's Cathedral in St. Petersburg (formerly Leningrad) are two such examples.

The Badakshan deposits are still being mined today under very primitive working conditions and transportation. Other deposits are found at the southwest end of Lake

Baikal in the former Soviet Union and north of Santiago, Chile (inferior quality).

Lapis lazuli is now used for settings in rings, pendants, and necklaces. The lapis lazuli from Chile is used for carving figurines and objects of applied arts.

The Disposal of Rock and Mineral Collections

(published in Mineral News, February 2007)

by Art Smith, deceased member of the Houston Gem & Mineral Society

Reprinted from the April 2007 BBG

In the past in *Mineral News*, there has been some discussion about ways to dispose of mineral collections when the time comes to do so. To this I have added rocks, lapidary materials, fossils, equipment, and supplies. What I am suggesting has not been discussed before and generally does not apply to large, expensive, purchased collections of minerals, fossils, or gemstones, but to moderately-sized collections of excellent-to-good or even below average quality that cannot easily be disposed of except as throw-ins when a larger or more expensive collection is sold. So far in the last five years it has worked extremely well at the Houston Gem & Mineral Society. The Society and the people disposing of the collections have been well pleased.

For years the Houston Gem & Mineral Society has been accepting mineral, lapidary, and gemstone collections plus equipment as donations and adding them to our display cases and our shop, then auctioning or selling the surplus. However, if the donor wants an evaluation for tax purposes, we must keep the surplus for at least two years before disposing of it and then we feel obligated to try to dispose of it for close to its appraised value. With our limited storage facilities and some rather large collections, this can be a problem. So we have devised an alternate plan which allows us to dispose of the collection fairly quickly and to determine a fair value. For that we have established silent auctions.

There is a large display case near the rear of our large meeting room. The case once contained rotating exhibits. So why not display some of the material to be auctioned? We knew we soon would be running out of space to store collections before disposal. Eventually a plan was devised where we would not have to evaluate the material. We have a silent auction from the show case, and this usually is an acceptable value. All the auction money goes to the club, and then the donor gets a receipt for a cash donation of the total dollars that the auction raised.

This was further modified in the case of high-value collections to let the donor keep up to 50% of the amount received and get a cash donation for the percent the club kept. The donor also has the right to put minimum bids on anything he is donating, and in some cases we have also added minimum bids to be sure the items were not sold below a fair value.

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

For large donations with a large amount of material, we have held Saturday morning combination sales and silent auctions. In one case, this grossed almost \$7000. We have also turned down some material if we did not think the club auction would give a fair return or the donor expected too much on what was offered to us and we doubted we could meet the expectation. So alternatives are suggested.

So far it has worked extremely well. The Society has added around \$10,000 annually to its treasury, and the donors have disposed of their materials and in some cases also received a nice monetary return. This is particularly true when the material has been in their possession for quite a few years, and even getting half of the auction money is frequently considerably more than they paid for it. This usually is higher than a dealer's offer at 20 to 30 percent of its value. We are not trying to compete with dealers as we handle mostly things that dealers do not wish to bother with, or will not pay for, or will pay very little for.

Most of the silent auctions end when the business part of our monthly General Meeting starts, and the winning bidders can then pay for and pick up their winning treasures at the intermission before the main program begins or after it ends. Needless to say, it has substantially increased our interest in and attendance at the General Meetings with many attending to put their final bids on the sheet.

To date we have helped dispose of many small-to-medium-sized collections of minerals, and several fairly good-size fossil collections. The auction of one large collection has been going on for the last few months and probably will continue for quite a few more months.

An extremely large lapidary collection has been disposed of that included slabs, gem rough, and faceted stones. Other things we have auctioned include a lot of equipment including lapidary equipment, faceting equipment, binocular microscopes, trimmers, ultrasonic cleaners, cabinets, and you name it. All have received good homes, and the donors and society have benefited. It is fairly easy to do, but your club or society has to be registered as a nonprofit organization for the donors to receive the tax benefits for a donation. One other thing to consider is that the Houston Gem & Mineral Society has a membership of over 500 not including children, and it is a pretty diverse group. There are few items we auction in which at least several people will have some interest. So there is a fair amount of competitive bidding, plus the bidding is not restricted to members only.

So if your group or Society is interested in raising additional funds or if people need to dispose of collections and would like them sold or auctioned, I suggest you give it a try. It is not without work because the silent auction needs to be organized with specimen labels and numbers, and then bid sheets must be prepared where participants can bid. I suggest assigning a minimum bid and allowing raises in even-dollar amounts only. This has worked well for us.

A Short Essay on Gold

by Art Smith

Deceased member of the Houston Gem & Mineral Society

Reprinted from the August 2008 BBG

Gold is almost indestructible, and because of its value it has been recycled through the centuries. It is estimated that 85% of all the gold found is still in use. Decorative gold objects found in Bulgaria date back to the Stone Age—about 4000 B.C.—and it is believed to be the first metal worked by prehistoric man.

Gold is extremely malleable and ductile. A one-ounce nugget can be beaten into a translucent sheet five-millionths of an inch thick and stretched out into a five-micrometer thick wire (one-tenth the diameter of a human hair) that is 50 miles long.

In the 7th century B.C., dentists in Italy used gold wire to attach fake teeth, but gold for fillings was not used until the 16th century. The Incan empire had the largest collection of gold ever amassed when the Spanish landed in Peru in 1532. The conquistadores stole most of it. *Teocuitlatl* is the Aztec word for gold, and it means “excrement of the Gods.”

In 1799 the first significant gold was found in the United States. It was a 17-pound lump found by Conrad Reed on the Reed farm in North Carolina. It was used as a doorstep until a jeweler bought it for \$3.50. If it were pure gold, it would be worth almost \$900,000 today. The first United States gold mine was opened on the Reed Farm. The discovery of gold in North Carolina probably was the main cause of the unfair removal of the Cherokee Indians to Oklahoma.

The California Gold Rush was in 1849, followed shortly by rushes to Australia and British Columbia, Canada. The Colorado Gold Rush was in 1859. Leadville, Colorado boomed in 1879 for silver, but when silver prices fell, significant gold was produced. The Klondike Gold Rush in the Yukon Territory of Canada was in 1899. The last U.S. gold rush was to Goldfield, Nevada in 1910. There were many minor rushes in between. The most recent rush was to the Amazon rainforest in Brazil in the 1990s.

The Homestake mine at Lead in the Black Hills of South Dakota was mined for over a hundred years before closing in 2001. Gold was mostly mined from PreCambrian metamorphic schists to depths below 8000 feet. The Witwatersrand area near Johannesburg, South Africa is a complex of gold mines that has been the world's largest producer of gold. The gold is mined from what they call “reefs.” However these are actually a coarse sedimentary conglomerate that has been metamorphosed, and the gold may have been deposited by ancient rivers. So as you can see, gold can occur in all types of rocks.

Beautiful crystallized gold is still being mined from the quartz veins in California, but it is mined for its specimen value and not its lower bullion value. Rich veins of visible gold are now rare. Specimens showing a lot of visible gold in quartz are called “high grade” or “jewelry rock” by the miners, and they tried to sneak as much of it as possible

out of the mine in their pockets, lunch buckets, mouths, hats, and any way possible. Some even had it thrown on the waste dumps to retrieve later. The National Mine in Nevada was famous for high grade stealing by the miners. In a few cases, it is estimated that more gold was stolen than produced by the mine.

Today's gold mining companies are not looking for the small rich quartz veins because generally they are not adaptable to modern mining methods. Instead they are looking for large tonnages of ore with a low but consistent amount of gold that can be worked with equipment that will remove a large tonnage of rock each day. The gold may be completely invisible and occur in micron-size pieces disseminated through the rock. Unless there are rich stringers, high grading is not a problem. The Carlin Trend in Nevada is an area of such deposits that are being mined successfully now.

The United States has the largest gold hoard in the world, but if ornamental gold in the threads of Indian saris were counted, India with 20 percent of the world's decorative gold would have the most.

An estimated 10 billion tons of gold are dissolved in the earth's oceans, but there is no economical way to get it out. However the amount of gold that the Near spacecraft measured in the asteroid, Eros in 1999 is more than has ever been mined on earth. We cannot get that gold either.

Reference:

Temescu, L.A. 2007. 20 things you didn't know about gold. *Discover* 2007(December):80



Gold Mine at Ballarat, Australia, 1800s: *A Treatise on Metalliferous Minerals and Mining*, D. C. Davies, 1881. London, Crosby Lockwood and Company

Mining Gold In Brazil in the late 1800s: *L'OR A MINAS GERAES BRÉSIL*, M. P. Ferrand 1894, Ouro Preto, Imprensa Oficial do Estado de Minas Geraes.

Show Time 2012

February 9-12	Tucson, AZ	Tucson Gem & Mineral Society Tucson Convention Center, 260 S. Church tgms@tgms.org; Web site: www.tgms.org
February 18-19	Georgetown, TX	Williamson County Gem & Mineral Society Community Center; San Gabriel Park e-mail: dragon.reynolds@hotmail.com Web site: www.wcgms.org
February 18-19	Plainview, TX	Hi-Plains Gem & Mineral Society Oliver Liner Center
February 25-26	Pasadena, TX	Clear Lake Gem & Mineral Society Pasadena Convention Center 7902 Fairmont Parkway Ben Duggar, sailduggar@verizon.net Web site: www.clgms.org
February 1-29	Quartzsite, AZ	Desert Gardens RV Park; 1064 Kuehn St., I-10 Exit 17; info@desertgardensrvpark.net www.desertgardensrvpark.net
March 3-4	Robstown, TX	Gulf Coast Gem & Mineral Society Richard Borchard Regional Fairgrounds 1213 Terry Shamsie Blvd., US 77 and Hwy. 44 Jerrold Simpson: jsimpson1@stx.rr.com www.gcgms.org
March 3-4	Big Spring, TX	Prospectors Club Howard Co. Fair Barn
March 17-18	Live Oak, TX	Southwest Gem & Mineral Society Live Oak Civic Center; 8101 Pat Booker Rd.
March 17-18	San Antonio, TX	San Antonio Gem & Mineral Society Live Oak Civic Center, 8101 Pat Booker Road Web site: www.swgemandmineral.org
April 14-15	Abilene, TX	Central Texas Gem & Mineral Society Abilene Civic Center, N. 6th and Pine Linda Hollowell, (325) 721-4477 Web site: www.txol.net/rockclub
April 20-22	Alpine, TX	Chihuahuah Desert Gem & Mineral Club Alpine Civic Center, Hwy. 90 West Mary Brogan: (432) 386-2340 marybrogan@rocketmail.com

2012		February				2012
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 7:30 Mineral Section 10-3 Shop Open	2 7:30 Archaeology Group	3	4 10-5 Shop Open 10-12 Youth Section
5	6	7 7:30 Board Meeting	8 6:30 Faceting Section 10-3 Shop Open	9	10	11 10-5 Shop Open
12	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	28 7:30 General Meeting	29 10-3 Shop Open			

2012		March				2012
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 7:30 Archaeology Group	2	3 10-5 Shop Open 10-12 Youth Section
4	5	6 7:30 Board Meeting	7 7:30 Mineral Section 10-3 Shop Open	8	9	10 10-5 Shop Open
11	12 1:00 Day Light Section	13 7:30 Show Committee	14 6:30 Faceting Section 10-3 Shop Open	15	16	17 10-5 Shop Open 10-12 Youth Section 1:30 Beading Section
18	19 7:30 Lapidary Section	20 7:30 Paleo Section	21 7:30 Mineral Section 10-3 Shop Open	22	23	24 10-5 Shop Open
25	26	27 7:30 General Meeting	28 10-3 Shop Open	29	30	31

The **BACKBENDER'S** **GAZETTE**

*The Newsletter of the
Houston Gem & Mineral Society*

10805 BROOKLET

HOUSTON, TEXAS 77099

(281) 530-0942



SCFMS

1998 - 1st (Large)
2000 - 1st (Large)
2003 - 1st (Large)
2005 - 1st (Large)
2006 - 1st (Large)
2007 - 1st (Large)
2008 - 1st (Large)
2009 - 1st (Large)
2010 - 1st (Large)



AFMS

AFMS

1998 - 2nd (Large)
2004 - 3rd (Large)
2007 - 1st (Large)
2010 - 2nd (Large)



NON-PROFIT
ORGANIZATION
U.S. POSTAGE
PAID
BELLAIRE, TX 77401
PERMIT NO. 303

ADDRESS SERVICE REQUESTED²

DATED MATERIAL - PLEASE DO NOT DELAY !