



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

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

**Volume XLV - No. 4**

**April 2014**



## **President's Message**

*by Ray Kizer*

I have been thinking about spring a lot lately because I'm starting to get cabin fever, you know. I realize that winter really doesn't have a big effect here in Houston. It gets cold, wet, and windy for a few days early in the year, but generally it's really no big deal.

Not so in the rest of the country. Blasts of arctic air flow south to blanket the continent with frigid, almost impossible living conditions; cold, rain, ice, and snow. It's snow that I think about most. I lived in the cold for many years and had to put up with snow. Oh, it is pretty just after it falls on fields and trees. It can be fun to visit if you like to ski or snowmobile. But it has one big drawback. It covers mountains and stream beds. It hides potential rock-hounding sites until way into mid-year. My favorite old mines in Colorado and Michigan are buried until almost May. It's just not fair. I want to get out there and start poking around.

Ah, but spring is different in Texas. You can make a winter trip down to George West or Laredo to search the ancient deposits of Rio Grande for agates and mineralized (petri-



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*Continued on page 4*

## **General Meeting Dates**

*by Paul Brandes*

**March 25, 2014:** A Preview of the Bulgari Exhibit of 130 years of Master pieces of Jewelry Design: Neal Immega will present on the Bulgari Exhibit that is coming to the Houston Museum of Natural Science. Since its founding in Rome in 1884, Bulgari has become synonymous with innovation and luxury in jewelry design. The jeweler is famous for mixing semiprecious stones with diamonds, mounting ancient coins in gold jewelry, and creating easy-to-wear pieces made with unusual color combinations. Get ready for an evening of pretty photos, fancy jewelry, and lively discussion.

**April 22, 2014:** To be announced.

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

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*Copy is due for the May 2014 issue by  
Wednesday, April 9, 2014.*

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## Purpose of HGMS

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

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

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

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

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*Continued from page 1*

fied) wood. If you are up for a longer trip, you can go to the high deserts of the Big Bend region and visit the abandoned mercury mining areas of Terlingua, one of my favorite stops. If you want to stay closer to home, you can visit the shores of the Gulf of Mexico or the point bars of the Brazos and Jacinto rivers to hunt for artifacts and mineralized wood.

Texas is a great place to rock hound in the winter, but I really hope the snow melts soon. I can't wait to go collecting in the rest of the country. See you out there.

### **Calling All Instructors!**

*by Carrie Hart*

*Education Coordinator*

**H**ello, Everyone! I'm Carrie Hart, the new Education Coordinator helping Charlie Fredregill with class schedules. I am new to HGMS, so please forgive me if I don't know your names yet.

I'm sure there are HGMS members who would LOVE to share their knowledge and skills with other members, but no one has asked them. Well, I'm asking! If you have an interest in teaching a class, please e-mail me at [classes@hgms.org](mailto:classes@hgms.org) or at [carriehart2000@yahoo.com](mailto:carriehart2000@yahoo.com).

Please include the class name, your general availability (weekdays/evenings/weekends), your expected class length, class size requirements/limitations, a cost estimate of the materials that a student would need to purchase, and your mechanical/shop/space requirements.

I look forward to working with all the members to put together a robust educational offering for HGMS!

### **Credo: Promise Yourself**

*by James B. Easom*

*Member of the Houston Gem & Mineral Society*

1. To be so strong that nothing can disturb your study of rocks
2. To look at all rocks as if there is something in them
3. To talk rocks, health, and happiness to everyone you meet
4. To look at the sunny side of life and make your rock hunts come true

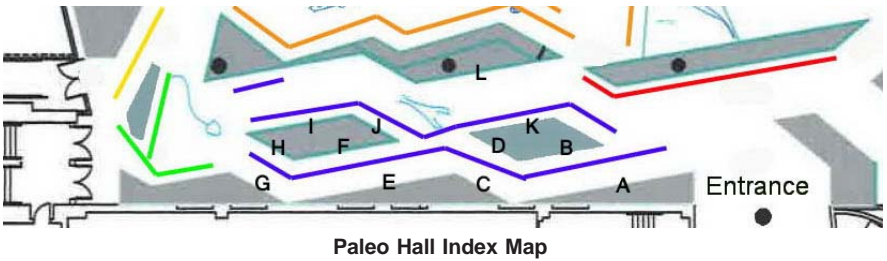
# Measuring Continental Drift with Trilobites

by Neal Immega, Master Docent

Member of the Houston Gem & Mineral Society

Geophysicists are always telling us that our supposedly rock-solid continents really wander around on the surface of the earth, being driven by magmatic circulation (whatever that is). When you visit the Energy Hall, you can see an interactive display showing wandering continents, but paleontologists are notoriously hard to convince.

I have hard evidence for continental drift though, in the paleo hall. Let's visit some of the trilobites on Wall "I."



The case shows two trilobites, *Dicranurus monstrosa* and *D. hamatus elegantus*. One of them is from Oklahoma and the other from Morocco. They are the same genera but different species (though you could not prove it by me). What marvelous horns! *Dicranurus* means "twin head-tail" and refers to the two spikes on the head and on the tail.

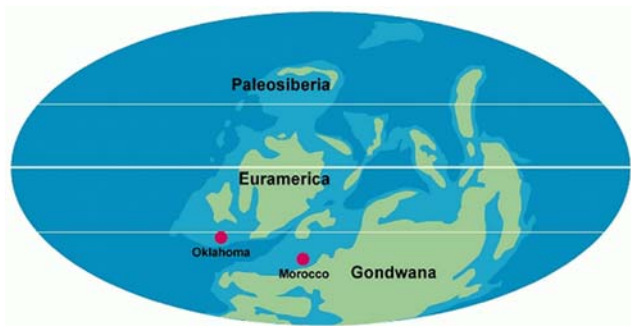


A *Dicranurus* from Morocco



A *Dicranurus* from Oklahoma

In the Devonian, the same sea covered Morocco and Oklahoma. Really! Go to the Energy Hall and look at the interactive exhibit showing the positions of the continents through time, and you will find that Morocco and Oklahoma were not all that far apart back then.



**Devonian Continent  
Positions**

<http://www.trilobites.info/trilopaleogeo.htm>

As you see, we have two specimens—one from Oklahoma and one from Morocco—both are from the middle of nowhere. Trilobite digger Bob Carroll works the Devonian limestone exposed by a power line cut through the scrub oak in Oklahoma near the minute town of Clarita. Bob has moved so much rock in 20 years that you can see his quarries from the air by bringing up maps.google.com on the Internet and by putting in these coordinates: N34.48139 W96.47855. Switch over to Earth, and you will see the quarry.

Some of the Morocco trilobite quarries are on Mt. Issimour, and they are even more extensive because they are worked by hundreds of Berber tribesmen.



**Part of the 20-mile long dig (really) on Mt.  
Issimour, Morocco.**

The same trilobite in both places. Wow—proof of continental drift that you can see in one display case without believing in geophysics. We could write a whole dissertation on this, but that would be a pretty long label! 😊



## Win Your Very Own Door Prize at the General Meeting

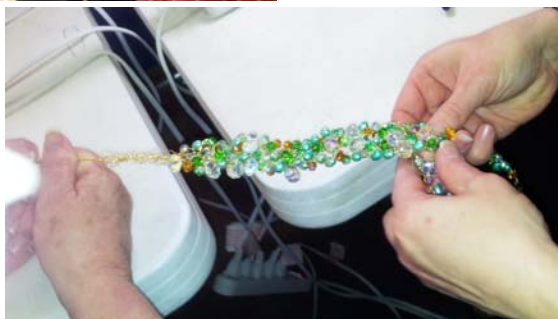
*by Mary Ann Mitscherling*

**S**o, you didn't win the door prize drawing at the last General Meeting? And you just don't know what to do with that duplicate mineral specimen, the odd lapidary art creation, the extra giant fish tooth you found, and that fourth sample silver bracelet you were testing for sizing. And you don't know what to do with that item that just doesn't fit into your collection, but you believe someone else might want to own? You're in luck! The club needs more revenue, and you need more excitement.

On March 25 we will have the first after-break silent auction. Ten donor items will be selected and placed on the front table at 7:00 p.m. along with bid sheets. Anyone can enter a silent bid. After the meeting break, the highest bidders will be announced and thanked. The winners can pay for and pick up their wins after the program.

Step up and be a donor to the monthly "After-Break Silent Auction." All proceeds will go into the General Fund for expenses (50%) and the Building Fund (50%). Bring in your donations by 7:00 p.m. before the next General Meeting, and register them with the Shop Supervisor. We'll get them out on the table, and everyone will have the chance to go home a winner.

### Beading Section Fun -- February 15, 2014



**Get last-minute news about club events by sending a note to Jim Kendall at [kendal\\_ja@yahoo.com](mailto:kendal_ja@yahoo.com)**

## Day Light Section

*by Karen Burns*

**S**eventeen members and two visitors from the Clear Lake Club—at my invitation—met in March to learn how to make handmade clasps. For the April meeting, we will be making the locking clasp as there was not time to accomplish this part of the program during the March meeting with so many people in attendance. Everyone seemed pleased with what they had made.

## Mineral Section Upcoming Programs

*by Paul Brandes*

**A**pril 2, 2014, **The Cristalli Mineral Exhibit:** David Gardiner will be the speaker for this evening's presentation. The Cristalli mineral collection is a world-class collection of beautiful mineral specimens from all parts of the planet. The collection was on temporary exhibition in the Natural Science Museum of the University of Florence, Italy, which is also the oldest science museum in Europe. The specimens in this collection rival any others you will find in fine museums or private collections anywhere else in the world. Most specimens are large to extra-large cabinet-size, with some miniatures. Included in a separate room is a display of fabulous mineral specimens from Italy. Come and dream a little while you feast your eyes on the wondrous minerals of the world in this breathtaking collection. Refreshments will be provided.

**April 16, 2014, Section Auction:** The Mineral Section will be hosting its annual auction to help raise money for the Section. Once again, we invite all HGMS members to bring specimens to the auction. This is how it works: all of the proceeds (100%) of at least one (1) specimen of your choice must be donated to the Section. Five (5) additional specimens are allowed for each donor with a portion of those specimens (10%) going to the Section and the rest going to the donor (i.e.: if a specimen sells for \$50, \$5 goes to the Section, the remaining \$45 to the donor). This is a great way for all HGMS members to thin out their duplicate specimens and to benefit both yourself and the Mineral Section. You can put a minimum reserve bid on the more expensive pieces if you desire. Since this event will draw from all Sections, expect a variety of items to be auctioned as this promises to be a very interesting and entertaining evening. Setup will begin at 6:30 p.m. with viewing from 7:00 to 7:30. After a short business meeting, bidding will begin and last until the final item is sold.

**May 7, 2014, Houston Fine Mineral Show Wrap-up:** Bring in your recent acquisitions from the Houston Fine Mineral Show (April 25–27). Let other Section members gaze at your shiny new specimens while telling us how you came to buy it and from what dealer. Also, please share your experience of the show, good or bad, with the rest of the Section. What did they do correctly or poorly in your mind? What did they do that could benefit our show in November, etc.? Refreshments will be provided.

**May 21, 2014** To be determined



## *Tiktaalik* - A Fish Trying To Get Out of the Water

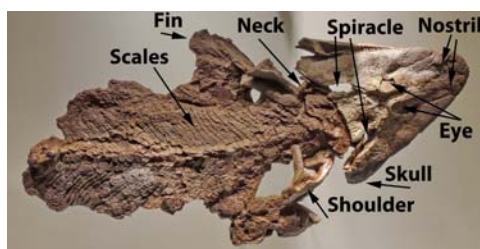
by Neal Immega

Member of the Houston Gem & Mineral Society

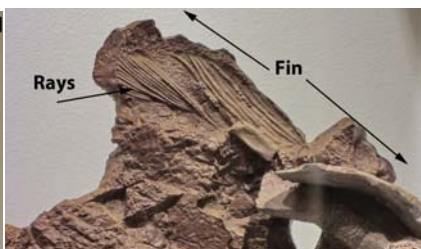
There is a fossil hidden in the Devonian section of the Houston Museum of Natural Science Paleo Hall that is responsible for nearly everything that is right and WRONG with you. That's right, it is not your fault that you are the way you are, and I am going make *Tiktaalik* the scapegoat. To find this fossil, go left from the entrance to the Paleo Hall to the Devonian section with the really big armored fish over your head. Straight ahead is a modern lobe-finned fish called a Coelacanth and behind that pillar is where Dr. Bakker hid this very strange fish. By the way, "Titaalik" is Inuit for "big, shallow-water fish."

Life in the Devonian was mostly confined to the ocean. The little plants and bugs that colonized the land in the previous period, the Silurian (408-438 mybp\*), had evolved into tall plants (100 feet +) and bigger bugs by the Devonian (360-408 mybp). This food source did not go unnoticed.

Look at the replica of *Tiktaalik* (or this picture) and you will see that this does not look much like a fish. Let's itemize the features.



*Tiktaalik* showing some tetrapod features



*Tiktaalik* showing a fishy fin

1. **Neck** - What is a fish doing with a neck? The experts speculate that a neck would made it EASIER for the fish to snap bugs out of the air. This is the FIRST neck in existence. The shoulder bone connects to the skull in more modern fish. The neck seems to "use up" the space that is normally devoted to gills. This bears on the next two points.

2. **Spiracles**. On modern rays, sharks, and ray finned fish, the first gill slit is positioned just behind the eye on the top of the head and is called a spiracle. Like all the other gill slits, it allows the fish to respire oxygenated water. This is particularly useful for bottom-hugging fish like rays which rest on their other gill slits. Some modern fish, particularly those that live in shallow, warm water get their oxygen directly by gulping air into their swim bladders. Thus, existence of a spiracle does not indicate that a lung is present.

3. **Ribs**. On the underside where you cannot see them in our display, *Tiktaalik* has a full

\*mybp stands for Million Years Before Present

set of robust ribs which are used to expand the rib cage to suck air into LUNGS! I do not have permission to use the picture of the underside of the specimen, but I provide the Web site address on page 6. I have asked that a mirror be put in the case to show the ribs.

4. **Skull** - Flat, with the eyes on top like an alligator, indicating that its food comes from above.

5. **Scales** - It has bony scales like a gar. This is a fish feature.

6. **Arms** - on other specimens, you could see that the arm bones show a remarkable similarity to the arm bones of EVERY younger vertebrate more advanced than a fish. Consider your arm—a single bone (humerus) connects to the shoulder blade with a ball and socket joint. On its other end, the humerus connects to two bones (radius, ulna) of the forearm, then to a bunch of bones in the hand, and then to five bones of the fingers. As you wander the hall, you will see the same arrangement for amphibians, reptiles, and mammals. Dinosaurs do not follow the five-finger design because they lost fingers as they evolved through time, starting from the little finger. (Remember, *Allosaurus* has three fingers, and T. rex has two and a stub.)

7. **Fin** - You cannot see it on this specimen, but the arm/fins have large muscle attachments so that the fish could just do a pushup, bring its head out of water to feed on bugs, and still be able to breathe with its new LUNGS. The rays you see in the fin make up the paddle and are a fish feature, while the muscle attachments are a tetrapod feature. I cannot find a picture that shows the attachments.

8. **Enamel teeth** - Better specimens would reveal that all the lobe-finned fish family from the fishy-looking *Eusthenopteron* (mounted above *Tiktaalik* in the case), the salamander-looking *Tiktaalik*, and the very fishy modern *Coelacanth* all have enamel on their teeth, as do all the mammals and even the mammal-like reptiles (synapsids) like *Dimetrodon*. Sharks/rays evolved from a different ancestor and do not have enamel on their teeth.

**So, here is what is going on:**

**Lungs:** The existence of lungs is a critical point because it allowed the fish to evolve to air-breathing amphibians and those to evolve to reptiles. There is good reason to start breathing air—the oxygen content of air is about 100 times (by volume) that of cold water and even more so of hot water. This means there was a new environmental niche to occupy. So how does a fish grow a lung? They had to use what they already had, which was an esophagus/gut and a capillary-lined protrusion. This sac could be then used as a lung by the fish gulping air into it. WE'RE BREATHING AIR! Evolution can make the arrangement more efficient, in time, with the incorporation of a diverter valve to keep the air and food paths separate. Air breathers like humans will choke if food goes “down the wrong pipe.” Similarly, nasal drainage from a cold drains into your lungs since the air/food diverter valve is almost always in the “open” position to allow you to breathe.

It is not obvious whether lungs or swim bladders came first because they do not fossilize. They differ only in how efficiently they operate. There is some tenuous evidence that the armored fish above your head was using a swim bladder at the same time Tiktaalik was evolving a lung.

**Swim bladders:** A swim bladder CAN act as a lung if it has capillaries on the inside, but it is not the high-performance organ with alveoli that air breathers have. Many adult fish lose the swim bladder's connection to the gut and pump air into it osmotically for buoyancy control. Evolution runs both ways, the modern Coelacanth has turned its lungs back into a swim bladder that is filled with buoyancy-controlling oil.

**Pelvis:** Our replica is of the front portion of Tiktaalik. New material shows that this fish has a pelvis more like a tetrapod (4 feet) than a fish. Reference below.

**Consequences.** Evolution has to work with what is there, even if that produces difficulties later. Having our air and food intakes as branches off the same pipe—the esophagus—causes us to sometimes choke, and we may die. Any bio-engineer would redesign this with two intakes. Imagine—being able to eat and breath at the same time. Also, we could have had more than five fingers: some of the earliest lobe-finned fish were found with seven or eight (maybe 11) finger-precursors, but only the five-finger precursor line survived. It is all Tiktaalik's fault.

## References

Youtube video showing spiracles used for water breathing for a stingray

<http://www.youtube.com/watch?v=JLkHSs1-IzM>

*Tiktaalik roseae* - excellent discussion

<http://tiktaalik.uchicago.edu/meetTik2.html>

Front and Back Sides of *Tiktaalik* from the Nature Article

<http://scienceblogs.com/pharyngula/2006/04/05/tiktaalik-makes-another-gap/>

Excellent book on fish and *Tiktaalik*.

“Your inner fish” by Neil Shubin

<http://tinyurl.com/kp5cg9l>

Additional specimens reveal a tetrapod-like pelvis, with figures.

<http://www.pnas.org/content/111/3/893>

## Wisdom

“Always dream and shoot higher than you know you can do. Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself.” Robert Faulkner

## General Meeting Minutes

February 25, 2014

by Nancy English, HGMS Secretary

**T**he meeting was called to order at 7:30 p.m.

**Visitors and New Members:** President Ray Kizer announced that so far this year, over 40 new members have joined the club. The meeting was attended by 24 club members. We also welcomed two visitors: Ted Donaho and Brad Sutter plus one of our new members—Joe Niernberger.

**Door prize drawing:** Larry Mornhinveg won a large piece of turquoise rough and a 10x loupe.

**Minutes:** Karen Burns moved to approve the February 4, 2014 General meeting minutes, and Joan Riley seconded the motion. The membership voted, and the motion was approved.

**Announcements:** None

### Section Reports

**Archeology Section:** The Archeology Section's upcoming meeting is to be held March 6, 2014 at 7:30 p.m.

**Beading Section:** The next meeting is March 15, 2014 at 1:30 p.m. Fifteen people came to the February meeting where Kay Maddox taught the techniques for making crocheted and braided bead necklaces.

**Day Light Section:** March 10, 2014 at 1:00 p.m. Karen Burns will be teaching hand-made clasp making, and Neal Immega will teach how to solder a locking clasp.

**Education Committee:** Carrie Hart is now listed on the Web site as the Education Committee Chairman. James Burrell's jewelry fabrication class finished Sunday, February 23, with his five students photographing their final projects.

**Faceting Section:** The next meeting is scheduled for March 12, 2014 at 7:00 p.m.

**Lapidary Section:** The next meeting is scheduled for March 17, 2014 at 7:30 p.m. The subject will be **Lapidary 102:** How to create a cabochon from a slab.

**Mineral Section:** The next Section meeting is March 5, 2014 at 7:30 p.m. The meeting will consist of show and tell of the minerals brought back from Tucson.

**Outreach Committee:** No Report.

**Paleontology Section:** The next meeting is scheduled for March 18, 2014 at 7:30 p.m. The program will be on how to identify fossilized wood.

Paleontology is planning a field trip to Brownwood, March 13–16, 2014. If you are interested in going on this trip, please let Field Trip Chairman Mike Dawkins know and

get on his list. There are several geological epochs to dig in, and many interesting fossils to be found. Fifteen people have signed up so far. Contact [fieldtrips@hgms.org](mailto:fieldtrips@hgms.org). There is no fee for this field trip, and all members are invited.

**Youth Section:** The next meetings are scheduled for Saturday March 1, 2014 and March 15, 2014.

**BBG Editor and Webmaster:** Phyllis George reported that the March BBG is out. March 5 is the deadline for the April BBG. Jim Kendal is working on fillable Membership forms and on fillable field trip Assumption of Risk forms for the Web site.

### OLD BUSINESS

In the interest of time, President Kizer asked the members to follow the progress of Old Business items in the February 4 Board meeting minutes as published in the March BBG.

### NEW BUSINESS

**Club Renovations:** Ray Kizer noted that the process to repaint the entrance door with an oil-based paint is underway. The parts to repair the parking lot doorbell have been acquired and will be installed shortly.

**Show Committee:** Michele Marsel has initiated an effort to evaluate and make repairs to the show trailers and display cabinets that need slight repairs. Clyde McMeans has taken photos of the damage and removed five broken display cases that are now at the clubhouse for repair. Neal Immega and Clyde McMeans will be fixing them. The next Show Committee meeting is March 11. Michele is currently looking for people to volunteer as chairmen of several Show Committees. Please contact her if you are interested.

**Upcoming Events:** The Robstown Rock and Mineral Show will be held March 1–2. Matt Dillon and John Anderson will be there. The Clear Lake Gem & Mineral Society Annual Show will be held March 8–9. Flyers were distributed.

### In Memoriam:

**Chris Anthony Wright – 67** of Lubbock, Texas, passed away January 8, 2014, at his home in Hot Springs, Arkansas. Chris was the owner and operator of Wright's Rock Shop.

**Benny Fenn – 77** of Las Cruces, New Mexico, passed away February 24, 2014.

Both men were long-time mineral dealers known to many of our members. They both will be missed.

**The next Board meeting is Tuesday, March 4, 2014, at 7:30. The next General Meeting is March 25, 2014 at 7:30 p.m.**

**Refreshments:** Provided by Nancy English

**Program:** The program was a presentation by Dr. Sutter focusing on the present knowl-

edge of the potential geologic processes on Mars—specifically, the Gale Crater, where the Curiosity Rover landed and is currently working. Dr. Sutter shared the understanding of the Red Planet from remotely-sensed data obtained from the many orbital assets. Dr. Sutter also discussed key findings from the Mars Science Laboratory's Mars Exploration Program Mission.

**Adjourn:** Karen Burns moved to adjourn the meeting. The motion was seconded by Paul Brandes and voted on by the membership. The motion passed unanimously, and the meeting adjourned at 9:40 p.m.

## Board of Directors Meeting Minutes

March 4, 2014

*by Michele Marsel, filling in for HGMS Secretary Nancy English*

X	President - Ray Kizer		Archeology Rep - Garth Clark
X	1st Vice President - Paul Brandes	X	Beading Rep - Jillynn Hailes
X	2nd Vice President - Beverly Mace	X	DayLight Rep - Mary Ann Mitscherling
X	Treasurer - Rodney Linehan		Faceting Rep - Gary Tober
	Secretary - Nancy English	X	Lapidary Rep - Phyllis George
	Past President - John Caldyne		Mineral Rep - Sigrid Stewart
		X	Paleontology Rep - Mike Dawkins

**Call to Order:** The meeting was called to order at 7:37 p.m. with a quorum present. President Ray Kizer presided over the meeting. Education Chair Carrie Hart was present, and Tamara Richie joined the meeting as a guest.

**President's Comments:** For those of you who missed our speaker at the last General Meeting, you really missed a fine talk. Our guest speaker, Dr. Brad Sutter from the Johnson Space Center of NASA (and an A&M Grad), provided an interesting and educational presentation on the geology of the Gale Crater on Mars. The program included high-resolution orbital images of the landing site and details of the surface geology gained from physical experiments from the Mars Science Laboratory's Mars Exploration Program Mission.

**Approval of Previous Month Board Minutes:** Phyllis George moved and Jillynn Hailes seconded that the minutes of the February 2014 Board Meeting be accepted as published in the March 2014 BBG. The motion passed unanimously.

**Treasurer's Report:** Rodney Linehan e-mailed financials to all Board members in advance of the meeting. Rodney added that the new checking account at Chase Bank is established, and the signature cards have been signed by President Ray Kizer and 2<sup>nd</sup> VP Beverly Mace.

## Office, Committee, and Section Reports

**Archeology Section:** Next meeting is Thursday, March 6 at 7:30 p.m. – **Dr. Garth Clark** will speak on the Lost City of Eliki (Helike), an ancient Greek city now located near the present city of Aeghion, Greece.



**Beading Section:** Next meeting is Saturday, March 15 at 1:30 p.m. – The new project will be a Pretty Picots Necklace, made with Japanese seed beads and crystal bicones. The Section had an excellent February meeting with an outside instructor who presented a well-received program on bead crocheting. About 10 attended, and almost all who participated in the project were able to finish during the meeting.

**Day Light Section:** Next meeting is Monday, March 10 at 1:00 p.m. – Program to be announced. Neal Immega gave a patination presentation last session – all worked with copper (which was provided) and used household chemicals with heat to produce different colors.

**Education Committee:** Education Chair Carrie Hart will prepare an interest sign-up form for the HGMS booth at the Clear Lake Gem & Mineral Show on March 8–9. Carrie is exploring the feasibility of setting up a firm schedule for classes—possibly several months in advance—rather than waiting until we have enough interest to announce a class. She will contact instructors to determine dates they can teach. Carrie will also look at class fee structure to ensure that the club is receiving sufficient profit after expenses.

**Faceting Section:** Next meeting is Wednesday, March 12 at 7:00 p.m. – **Margo Bedman and Ed Katz** will compare topaz, quartz, and CZ. They will discuss visual and weight characteristics and how they can be used to identify stones. Both rough and faceted stones will be covered.

**Lapidary Section:** Next meeting is Monday, March 17 at 7:30 p.m. – Lapidary 102: How to make the best cabochon out of a piece of rough or a slab. At the April meeting, Steve Wilkerson will demonstrate spool polishing. Spool polishing is a preferred method for polishing very soft materials like opal and turquoise. It also does an excellent job for the final polish of hard stones such as agates, star sapphires, and jade.

**Mineral Section:** Next meeting is Wednesday, March 5 at 7:30 p.m. – It will be a review of this year's Tucson Gem and Mineral Show by the HGMS members who attended plus a Show & Tell about their special finds. The March 19 meeting will be a wrapup of the Clear Lake Gem & Mineral Show in Pasadena. On April 2, Dave Gardner will give a presentation on Cristalli: The Adalberto Giazotto Collection exhibition that he toured in Florence, Italy last year. It is one of the major world-class collections of large and well-crystallized mineral specimens.

**Outreach Committee:** No report.

**Paleo Section:** Next meeting is Tuesday, March 18 at 7:30 p.m. – wrap up planning of Brownwood field trip (coming up March 13–16). The Section held its annual holiday party in February which featured spaghetti and meatballs, dinosaur cupcakes, and a small auction. Neal Immega shared his birthday celebration and brought some giveaway fossils. One person even bought their own auction donation!

**Publicity Committee:** After discussion about duties of this committee, Tamara Ritchie confirmed she was willing to serve as HGMS Publicity Chair. Tamara has a graphic

design background. President Ray Kizer asked for approval to appoint her to the position. Mary Ann Mitscherling moved, and Jillynn Hailes seconded to approve the appointment. The motion passed unanimously.

**Show Committee:** The March 11 meeting will be cancelled as several Show Committee members will be out of town during their children's schools Spring Break. An e-mail blast will be sent announcing the cancellation. Initial quarter-page Show flyers have been printed, and 2014 Dealer Chairs Theresa and Chris Peek will take them to the Clear Lake Gem & Mineral Show. Work is in progress to inspect and repair show cases.

**Youth Section:** Next meeting is Saturday, March 15 at 10 a.m. There was a lower-than-usual turnout at the last meeting on March 1. In Libby Guynn's absence, one of the dads assisted the attendees with cabbings in the shop.

**BBG Editor and Webmaster:** Articles are officially due Wednesday, March 5. Mary Ann Mitscherling asked about using smaller type for article bibliographies, and there was concern that the printed version would be too small to read. Paul Brandes sent a list of some broken links to Phyllis George. She is investigating for changed site names and will correct as necessary.

**General Meeting Presentations:** Next meeting is March 25 and will feature a preview by Neal Immega on the **Bulgari Exhibit of 130 years of Masterpieces of Jewelry Design** that is coming to HMNS May 2 through September 2, 2014. Paul Brandes announced that he is working to book Joe Budd (fine minerals photographer) for a summer presentation. Paul wants to diversify the types of presentations this year, so all are welcome to contact Paul with suggestions for additional program topics, and speaker contacts will be highly appreciated.

### Old Business

- **Dunn Southwest Bylaw Changes:** Director's Report – Michele Marsel reported that the Dunn Southwest Board approved their (own) bylaw changes, pending membership approval. The new bylaws remove outdated restrictions and ancient covenants. The HGMS President will also sign the approval document after a final review by Dunn Southwest is completed. The review is in progress.
- **Security System:** No report.
- **Show Case Repairs:** Clyde McMeans and Neal Immega are working on show case repairs. It appears that the entire batch of cases needs to be evaluated. Clyde has developed a process to check hinges, locks and lights, glass, etc. A list is being made documenting the work needed for each case. Ten display cases are currently in the garage stacked on their sides and subject to possible damage. Clyde will arrange with Craig Washburn to bring the case carts to HGMS the week of 3/10/2014. The empty trailer will be returned to AAA Storage after unloading the display case carts.
- **Veteran's Outreach:** Gary Tober was able to reach the Occupational Therapy

section at the Veterans Administration hospital. He spoke with a woman named Liz who indicated that she would e-mail all the sections of the occupational therapies group, indicating that patients could request the services that HGMS has to offer. Regarding transportation, Liz said that that was absolutely no problem. The hospital will provide the vets transportation back and forth. Gary says that he believes that the key to HGMS having a successful program is finding somebody familiar with the bureaucracy of the hospital, the VA, and who is motivated to make the project successful. Suggestions welcome. Al Tarr was suggested as a good candidate to assist with this outreach.

### New Business

- **Donation:** HGMS has received a donation of five tubs of Lapidary Journal magazines from the estate of Anna Miller. Anna is a gemologist and former member of HGMS. She had been associated with The University of South Florida and was accredited as a “Master Appraiser” by the GIA (or something similar) . Her son Max came by on Saturday 3/1/2014 to deliver the magazines. Charlie Fredregill and others took Max on a tour of the facility. The HGMS Librarian will be asked if our Library already has these copies. If we do, another option is to auction the collection. Note – Jim Kendall is looking for a good, low-cost, library management/search system.
- **Proposed 2014 Budget:** Rodney Linehan reviewed previous profit and loss statements to build a functional 2014 budget for Board review and approval. The preliminary 2014 budget was discussed, and the final budget will be approved at the April Board Meeting.
- **Speaker Gift Membership:** After our last monthly meeting, club member John Cooper suggested that speakers from out-of-town (who are not currently members of HGMS) be awarded a one year membership to honor them for making the effort to come in and present to our club. All agreed this was a nice gesture and does not cost the club anything. Mary Ann Mitscherling moved and Jillynn Hailes seconded that all speakers who present General Meeting programs during 2014 and are not already HGMS members be awarded a one year gift membership. The motion passed unanimously.
- **Participation in Clear Lake Gem & Mineral Show:** Ray Kizer will set up the HGMS info booth at the Clear Lake Gem & Mineral Show, and he has been organizing people to help staff the booth. So far volunteers include Beverly Mace, Douglas Dodds, Patricia Gannon-Hildbold, and George Wolf. Additional volunteers are welcome. Mary Ann Mitscherling agreed to help on Saturday afternoon.
- Paul Brandes mentioned that the **Youth Section** would really like to have a flat screen TV to replace the old television at the front of the main room for showing educational DVDs to kids (and adults). Michele Marsel noted that the brace on the old, heavy TV is loose.
- Ray Kizer announced that he would like donations of quality door prizes for 2014

General Meetings. The Board also discussed having more frequent auctions this year as a way to generate income for the club. We will feature a silent auction at the March General Meeting which will close before the Program begins. Board members are asked to bring 1–2 donation items each for the auction.

**Adjourn:** Jillynn Hailes moved to adjourn the meeting, and Phyllis George seconded. The motion passed unanimously, and the meeting was adjourned at 9:23 p.m.

## How To Write an Article for Your Club's Bulletin in Twelve Steps

by Terry Yoschak, Roseville Rock Rollers Bulletin Editor

Based on "Getting Your Club to Write,"

by Dennis Westman, Minnesota; Mineral Club

from S.C.R.I.B.E. Newsletter, 10-11/2004

via CFMS Newsletter September 2005 and The Pineywoods Rooter 11/2013

**Step 1:** Pick a subject that interests you. It could be a story about something you have done (collecting agates, panning for gold), or it could be research about something you have never done (digging up dinosaur fossils in Antarctica).

**Step 2:** Map it out. Planning is everything. You have to figure out how to get from A to Z in your story. Outline with pencil and paper the bare bones of your story. Jot down important things you "must have" in the article (where the collecting took place, how many gold nuggets you found). Keep in mind the five Ws of journalism: **Who, What, Where, When, Why**. Your outline should include all of them.

**Step 3:** Start writing. Do not worry about spelling, grammar, or punctuation. That's what editors are for. Refer back to your outline, use your own voice, and let the story flow naturally, as you would tell it to a friend. With your outline, you will not forget all those exciting tidbits that you might have left out if you were just spouting off to your friends.

**Step 4:** Plot, characters, scenery, and dialogue. If you were submitting a movie script, you would be kicked out of the producer's office for leaving any of these items out. A story cannot be a story without them; it will not "sell" to the audience. Let's cover those four items in the next few steps.

**Step 5:** Plot. Writing is not rambling. The ideas of Beginning, Middle, and End are universal to all stories. Usually a normal timeline is followed, where "what happened next" is the rule. The most common exception to this rule is a flashback ("The saber-toothed cat plunged into the sticky tar pit, unaware that his fossilized bones would be left for us to find 20,000 years later").

**Step 6:** Characters. The people who are in the story: it is your job to describe them, from height, age, hair color, and clothing, to habits and attitude. Simply writing "Jake drove us as far as Mesquite," is not the same as writing, "With Jake's spiky green hair

and his crazy attitude toward other drivers on the road, we feared we'd never make it to Mesquite." Strictly speaking, only people can be characters, but no one will complain if animals, plants, and rocks have personalities in your story as well.

**Step 7:** Scenery. The setting of the story includes the natural landscape and the man-made objects in it (roads, tools, vehicles, buildings, etc.). This is where you can really get imaginative with descriptions, since no two people see the same object in the same way. If you want to describe a yellow crystal as "lemony" or an empty desert as "filled with the promise of geological secrets," it is up to you.

**Step 8:** Dialogue. What do the characters say in the story? Though many stories are written without dialogue, it is usually more interesting if you include some. Writing that "Julie was excited about her fossil find," is less interesting than writing, "We all heard Julie yell, 'I think I found a complete tooth!'" Internal dialogue—describing your thoughts and emotions—also adds to a story, making it more compelling than a "just the facts, ma'am" report.

**Step 9:** Go back and revise. You have written your story by now, following Steps 1 through 8. But it is pretty rough; it could be better. Go back over it, maybe read it out loud to a friend, add a few things you forgot, or cut out some unnecessary sentences. Substitute a better word or phrase for the ones you wrote originally. Polish it. Rockhounds all know that most everything looks better with a good polish on it.

**Step 10:** Give your story a title. A catchy title is always a plus, and will draw readers to your story. "Titanic" is a better title than "An Interrupted Ocean Voyage." But do not go overboard! A simple, appropriate title is still better than a contrived, overly cute one.

**Step 11:** Space is a consideration. Everyone who writes for publication in print (bulletins, newspapers, magazines) must deal with space limitations. Cutting your work is often necessary. Writer Stephen King says that you should always cut out or condense at least one-third of everything you have written. It is like over-packing for a trip: when you return home, you realize that you didn't need to cart around all that extra baggage. In the real world, an editor will have to cut your story if you do not do it yourself.

**Step 12:** Prepare for next time. If you were not entirely happy with your first story, think about future possibilities. Carry a small notebook with you and jot down observations about people, scenery, conversations, etc. You will be surprised at how easily this will guide you in completing Steps 1 through 8.



## Bench Tips

by Brad Smith

*More Bench Tips by Brad Smith are at <http://www.facebook.com/BenchTips/> or search for "Bench Tips for Jewelry Making" on Amazon.com*

### TRY A TOOTHPICK

The round, stronger toothpicks have a multitude of uses on the jewelry bench. I use them for mixing epoxy resin, for applying paste solder, with Zam for polishing in tight spots, and with a bit of beeswax for stone setting. They're particularly good for testing the fit of a small faceted stone in a prong or tube set finding. Just break off the sharp tip, mold a little wax over it, and press it onto the table of your stone.



What have you tried them for?

### DO BEZELS SHRINK?

The engineer in me says there's no reason a bezel should shrink when I solder it onto a base plate, but I sometimes find that the stone won't quite fit into the bezel that was perfect just before soldering.

If that ever happens to you, here's a fix that usually works for those times when there's just a minor problem. I file or sand the stone down a little around its base. For soft cabs like turquoise, lapis, jet, or howlite, you can use a sanding stick. Harder cabs like jasper or agates will require a diamond file. In a pinch, a ruby nail file from the drug-store will work.

There are two important things to remember when doing this. First, you can only make a minor adjustment to the stone's size. All filing or sanding has to be hidden by the bezel because it takes the polish off the stone.

Secondly, remember to round off all sharp edges on the bottom of the stone. A sharp edge here might sit on a little extra solder that's in the bottom joint of your bezel. Just a little bump here can put enough stress on the stone to risk breakage when you burnish the bezel down over the stone.

### RING SIZE VARIATIONS

The numerical sizes marked on ring gauges and ring mandrels are often not the same across different manufacturers. If you are using a ring gauge to measure a customer, be sure to compare the markings on the gauge with the markings on the mandrel you use to make the ring. They may not be the same.





Also, you may have to adjust a little for the width of the ring shank. If you are making a wide-shank ring, the ring generally has to be a little bit larger in diameter than the ring gauge size in order to get a comfortable fit.

## FILIGREE WIRE

Making wire for filigree is quite simple. Take a double strand of 24-26 gauge silver wire, twist it tightly, and then flatten it a bit. While the basics are straightforward, here are a few tips that will quickly make you an expert with filigree.

Filigree looks best when the wire has a very tight twist. The way I do this is to start with dead soft wire and twist it until it breaks. It always seems to break on one end or the other. I like to use a screw gun, although a Dremel or Foredom also works well. Be sure to keep a little tension on the wires as you twist. Then to get a real tight twist, I anneal the wire and twist it a second time until it breaks.



The final step in prepping the filigree wire is to flatten it slightly with a planishing hammer or rolling mill. The amount of flattening is a personal preference. I like to reduce the diameter about 25%. The wire will be quite stiff at this point, so it's best to anneal it again before starting to make the filigree shapes.

Annealing the fine wire can be tricky. For a good anneal, all areas of the wire must be heated uniformly to just barely red and then immediately quenched in water. It's so easy to melt the wire if you're heating with a torch. The easiest way is to use an oven set at about 1150 F. Bind the wire into a coil, heat it for 5 minutes, and quench. If no oven is available, place the coil on a piece of copper or steel sheet and heat from the bottom.

## SUPER PICKLE

We've all made the mistake of putting some steel into the pickle pot. This can cause all your pieces to be coated with copper. Easiest way I have found to clean it off is to fill half a coffee cup with new hot pickle and put in an ounce or two of hydrogen peroxide from the drug store. Throw your pieces in, and the coating is gone in about 10 minutes. When finished, pour the solution back into your pickle pot.

Many people think that when some steel gets into the pickle, the solution is contaminated and should be thrown away. Not true, as long as you can remove all the steel from the pickle. In fact, the pickle should work even better after the steel is removed. Pickle works by dissolving the copper oxides that form during soldering. Pickle gets "old" when it cannot hold any more dissolved copper. Putting steel in the pot forces some of the copper to come out of solution, meaning the pickle is then able to dissolve more copper.

**2014 AFMS/RMFMS Convention & Show**  
*from Rocky Mountain Federation News 3/2014*  
*by Richard Jaeger, President AFMS*

**Dear Fellow Rockhounds:**

I want to invite and encourage you to attend the combined American Federation/Rocky Mountain Federation Show & Convention in Tulsa, Oklahoma from July 9 to 13, 2014. The actual show is from July 11 to 13 with various meetings beginning on July 9. The AFMS Show is always a wonderful opportunity to visit with fellow rockhounds from around the country. It is also a chance to share ideas, see new materials, make new friends, and become more familiar with another area of our wonderful country.



The Tulsa Rock & Mineral Society, in conjunction with the RMFMS, has been working hard to provide us with an excellent show. It will be complete with dealers, a variety of exhibits, kid's activities, programs, silent auction, field trips, and more. They will also be providing the usual All-Officers Luncheon on Thursday, the Cracker Barrel on Friday, the Awards Banquet Saturday evening and Breakfast with the Editors and Webmasters on Sunday morning. You should really try to attend one or more these functions as they truly add to the show experience. Of course this is also where the AFMS will conduct the business of our Federation. The AFMS Uniform Rules Committee will meet Wednesday evening with the annual AFMS Board of Directors and AFMS Scholarship Foundation meetings taking place on Thursday.

Once again, I invite you attend the AFMS/RMFMS Show & Convention, and I am looking forward to visiting with as many of you as I can.

**AFMS Safety**

*Wear the Mask for the Task*

*by Ellery Borow*

*AFMS Safety Chair*

*from AFMS Newsletter 2/2014*

Perhaps you have heard the expression, "Wear the right mask for the task at hand." Then again perhaps you may not have heard of it, seeing's how I just made it up. Because it rhymes, it may be more memorable as a safety message. Catch phrases are handy for making a safety guideline a memorable guideline. What the expression "wear the right mask for the task" means to convey is the message that for many rockhounds, silver and goldsmiths, lapidary tasks and so on, wearing a specific-for-the-task mask may be advisable.



Rockhound tasks often involve being in an area of dry, wind-blown dust. For such situations a simple, properly fitted, dust mask would be suitable for protecting the lungs from airborne dust.

Silversmithing and goldsmithing operations may also involve dry dust such as when using rouge or polishing powder to finish a piece of work. Smithing tasks may also involve fumes from soldering and pickling operations. A dry-dust type of mask would not offer suitable protection to the lungs from the detrimental effect of soldering fumes. Masks providing protection from harmful fumes would be a more appropriate choice. Even under the best of circumstances where a suitable ventilation system is being used during soldering operations, wearing a mask for protection from vapors may be advisable.

Lapidary tasks on the other hand, usually involve the need for lung protection from the presence of wet dust. Wet dust requires a different type of mask—one that catches the dust but does not block the flow of air to the lungs. A standard dry dust mask would rapidly clog and be rendered useless when used in a wet-dust environment.

Another common material used in lapidary tasks is the mixing and application of epoxy resins. Epoxies, as I'm sure you have noted from reading the safety labels, emit volatiles that are harmful if inhaled. Labels on epoxies usually stress using the product in a well-ventilated area. If the usage is in an area not all that well ventilated, a mask suitable for epoxy vapors may be used.

Were one to look in any reasonably complete safety equipment catalog, one would find a bewildering array of safety masks made by numerous vendors and suitable for every imaginable task. No brief safety article can mention all the various products available for rockhound, smithing, and lapidary tasks, but catalog sales representatives could easily offer mask guidance for your particular needs. Even in modestly equipped hardware and building supply stores, one may be able to find masks suitable to the task.

The takeaway message in all this discussion is that your lungs are important, and they need to be protected. Numerous safety masks can offer that protection. The trick is to choose the mask that fits the task. Actually, a similar statement may be made for many rockhound tasks—use the right hammer and chisel, select the right safety goggles wear the right footwear, choose the right gloves, and so on.

Being safe involves making good choices. Please be informed—please be safe.

### Thoughts

The smile on your face is the light in the window that tells people that you are at home.  
-Scribe, 1988

In these days of uncertainty, the only thing that you can count on is your fingers. -  
Scribe, 1988

## How to Tell Your Adit from a Hole in the Ground

by Walt Margerum

via *The Tumbler* 12/2013 and *Gem Cutters News* 2/2014

If you are like me, you come across mining terms all the time and sometimes you wonder what they mean. I have therefore compiled a short list of terms with their meanings to assist and edify everyone.

1. Adit — an almost horizontal tunnel from the surface to where you hope the ore is. Sometimes the adit is dug primarily for haulage of ore from the vein to the outside so that it can be more easily put in the dump. In this case it is called a haulage adit.
2. Decline — a tunnel dug at an angle too steep to walk easily. When you are at the bottom, it is called a X%A&\$ incline.
3. Drift — a horizontal or nearly horizontal tunnel that usually does not intersect the surface, but hopefully follows the ore. If it intersects the vein, it is called a cross drift. If it passes through the vein, it is called a X%A&\$ drift.
4. Dump — the large pile of useless rock you spent many hours removing from the mine to get at the ore. Quite often everything from the mine.
5. Foot Wall — the lower wall of a vein. The one you try to stand on that is usually steep enough that you slide down it to the vein.
6. Head Wall — the upper wall of a vein. The one you bang your head on.
7. Mine — a usually valueless hole in the ground into which otherwise intelligent individuals are willing to dump all their money.
8. Ore — the material removed from the mine that is sold in a vain attempt to make a profit.
9. Raise — a vertical or almost vertical shaft dug after you discover the vein is above the location of your tunnel.
10. Shaft — a vertical or almost vertical hole dug from the surface either along the vein or to where you hope the vein can be found. It is used to extract the ore until you decide it is easier to dig an adit for that purpose. This decision is usually made long after common sense dictates that is how you should have done it in the first place.
11. Stope — a large hole dug to extract ore. If the ore falls on your head as you remove it, it is called an overhead stope. If you have to bend over to dig the ore, it is called a backache.
12. Tunnel — a drift or adit. The term is usually used when you get lost and neither intersect the surface or the ore.
13. Vein — the body of rock that contains mostly gangue and a small amount of ore.

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*Continued on page 25*

2014 SCFMS/BATON ROUGE GEM & MINERAL SOCIETY SHOW



THE BATON ROUGE GEM & MINERAL SOCIETY SHOW  
and  
SCFMS REGIONAL CONVENTION SCHEDULE  
Marriott Hotel  
Hilton Ave.

Show Times: Saturday, August 9      10:00 – 5:00  
                         Sunday, August 10      10:00 – 5:00

**SCFMS Activities: Saturday, August 9 in the Beauregard Room**

Breakfast with the Editors and Webmasters: .....8:00  
SCFMS Meeting: .....1:00  
SCFMS Awards Banquet: .....7: 00

Sunday, August 10<sup>th</sup> in the Beauregard Room

Rolling Rock Club Meeting: .....8:00

Room Rate Discounts will be available

14. Winze — a hole dug to intersect the ore after you discover the vein is below the level of your tunnel.

I hope that you find these definitions useful.

**Food for Thought**

“Experts predict that eventually every home will have a computer, which means that our personal lives will be just as messed up as things at the office. -Scribe, 1988

“Wendell’s Wisdom” Be thoughtful of the opinions of others. There are three sides to a controversy ... yours, the other person’s, and the right one! -Scribe, 1988

## Show Time 2014

April 12-13	Abilene, TX	Central Texas Gem & Mineral Society Abilene Civic Center, N. 6th & Pine St. kmcDaniel23@suddenlink.net; rockclub.txol.net
April 12-13	Waco, TX	Waco Gem & Mineral Club Extraco Events Center, 4601 Bosque Blvd. loubbluefeather@gmail.com
April 18-20	Alpine, TX	Chihuahuan Desert Gem & Mineral Club 801 W. Holland, Ave, between 12th & 13th Sts. paulgraybeal@moonlightgemstones.com
April 25-27	Houston, TX	Fine Mineral Shows--Annual Show Embassy Suites Hotel, 2911 Sage Rd. Near The Galleria-Houston. dave@finemineralshow.com www.FineMineralShow.com
April 26-27	Lubbock, TX	Lubbock Gem & Mineral Society Lubbock Memorial Civic Center 1501 Mac Davis Lane walt@lubbockgemandmineral.org www.lubbockgemandmineral.org
May 24-25	Fort Worth, TX	Fort Worth Gem & Mineral Club Will Rogers Memorial Center Amon G. Carter Exhibit Bldg 3401 W. Lancaster fwgmc@embarqmail.com; www.fortworthgemandmineralclub.org
June 7-8	Grapevine, TX	Arlington Gem & Mineral Club Grapevine Convention Center 1209 S. Main St. Krisk@kirstnerphotogrhy.com
June 7-8	Stafford, TX	The Bead Market The Stafford Centre; 10505 Cash Rd. rebekah@thebeadmarket.net www.thebeadmarket.net
November 7-9	Humble, TX	Houston Gem & Mineral Society Humble Civic Center, 8233 Will Clayton Pkwy. 5 miles east of Bush Intercontinental Airport 1 mile east of Hwy. 59 www.hgms.org; show@hgms.org



2014		April				2014
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 7:30 Board Meeting	2 7:30 Mineral Section 10-3 Shop open	3 7:30 Archeology Section	4	5 10-5 Shop Open 10-12 Youth Section
6 10-4 Shop Open	7	8 7:30 Show Committee	9 7:00 Faceting Section 10-3 Shop Open	10	11	12 10-5 Shop Open
13 10-4 Shop Open Palm Sunday	14 1:00 Day Light Section Passover begins	15 7:30 Paleo Section Income taxes due	16 7:30 Mineral Section 10-3 Shop open	17	18 Good Friday	19 10-5 Shop Open 10-12 Youth Section 1:30 Beading Section
20 10-4 Shop Open Easter Sunday	21 7:30 Lapidary Section	22 7:30 General Meeting	23 10-3 Shop open	24	25	26 10-5 Shop Open
27 10-4 Shop Open	28	29	30 10-3 Shop open			

2014		May				2014
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 7:30 Archeology Section	2	3 10-5 Shop Open 10-12 Youth Section
4 10-4 Shop Open	5	6 7:30 Board Meeting	7 7:30 Mineral Section 10-3 Shop open	8	9	10 10-5 Shop Open
11 10-4 Shop Open Mother's Day	12 1:00 Day Light Section	13 7:30 Show Committee	14 7:00 Faceting Section 10-3 Shop Open	15	16	17 10-5 Shop Open 10-12 Youth Section 1:30 Beading Section
18 10-4 Shop Open	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 10-4 Shop Open	26 Memorial Day	27 7:30 General Meeting	28 10-3 Shop open	29	30	31 10-5 Shop Open

# **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 — 2012 - 1st (Large)  
2013 - 1st (Large)



## **AFMS**

1998 - 2nd (Large)  
2004 - 3rd (Large)  
2007 - 1st (Large)  
2010 - 2nd (Large)  
2012 - 3rd (Large)  
2013 - 3rd (Large)



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