



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

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

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October 2006

## **President's Message**

*by Scott Singleton*



**E**ven though this is the "October" issue of our award-winning BBG, I'm writing this message well before the show, and as in past years, you will also receive this message prior to the show. Therefore, regarding our show, I would like to state in no uncertain terms my firm belief that *each club member* who lives in the Houston area, who is in town during the show, and who is not otherwise unable to travel due to job or health, should at least make an appearance at this show. Why would I make such a seemingly outlandish statement? Let's just call it a matter of pride. I believe we belong to the **best** gem and mineral society in this part of the country, and being the best means that there are certain expectations that the community has for us and that we have for ourselves. One of those expectations is



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## **September 26 General Meeting Presentation**

*by Matt Dillon*

*HGMS 1<sup>st</sup> Vice President*

**D**r. David W. Mittlefehldt, also known as "Duck," will speak on Martian meteorites and the geology of Mars. His talk will focus on the results returned by the two Mars rovers from the Meridiani Planum and Gusev Crater. Working around the clock, the ground support teams and scientists crunch the piles of data returned by the two rovers located on opposite sides of Mars.

To keep the teams up to speed and coordinated during the mission, The Mars Exploration Rover Collaborative Information Portal (CIP) is the hub and distribution center for essential information. CIP is a one-stop location where science and operations teams can find out what is going on. CIP maps all the mission information and presents it to users in an easy-to-use interface.

CIP was developed with input from the team members on the 1997 Pathfinder Mars

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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 \$30 for an adult membership, \$40 for a couple, \$50 for a family (including all children aged 5-18), and \$8 for a youth membership (ages 5-18).

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 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 Internet address is <http://www.hgms.org>.

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*President's Message continued from page 1*

support of our primary outreach activity—the annual show. “Support” doesn’t mean you have to volunteer your time to do something (even though that is certainly appreciated by those who *are* volunteering their time). Support can be more subtle, like merely showing up to see what the show is about. By just doing that, you support your club, and in return you are assured of leaving the show with some kind of knowledge you didn’t have before you came. This I call “the benefit of membership.” But it comes along with “the responsibility of membership.”

Following the show, there are several important events coming up. The first is a fantastic opportunity that has been thrown our way. **David W. Mittlefehldt Ph.D.**, a NASA meteorite geochemist, has offered to give us a talk on Martian meteorites during our September General Meeting on Tuesday, September 26 (That's his photo below). Our first VP, Matt Dillon, spent a considerable amount of effort trying to attract somebody from NASA, and this presentation represents the fruits of that effort. I'd like to see as many people as possible at that General Meeting so we can impress upon NASA that we are a dynamic and vibrant organization that is worth their while.

In October we have two items of importance. First is a Lapidary Section Auction on Saturday, October 14 (see notice in this and the last BBG). Be sure to check them out. Second is the nominating committee for club officers, including the Show Committee. They will be active during the month and need your support. If any of them asks you to serve as an officer, please give their request your full consideration.

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*General Meeting Presentation continued from page 1*

exploration mission and from the current mission staff, and its purpose is to help manage the vast collection of information and incoming data while coordinating 240 scientists and engineers.

“Duck” and the other scientists and engineers can punch into the CIP at any time and find out what has happened in any one of many different places and learn what each team is working on. He may have a unique need and can subscribe to that specific information, such as looking at an image of what was possibly once a Mars river bed. CIP can notify him when any new images of it come into that system.



Dr. Mittlefehldt is a scientist in the Astromaterials Research Office at NASA Johnson Space Center (JSC) where he manages the neutron activation analysis laboratory. He researches the formation of meteorites and how they relate to the early history of the solar system. His major interests are Martian meteorites and achondrite and stony iron meteorites. Additional information about him is available at <http://ares.jsc.nasa.gov/People/mittlefehldtdavid.html>.

He was a team member on the 1997 and 2001 Antarctic Search for Meteorites (ANSMET) field teams. He has been an Associate Editor for Meteoritics and Planetary Science since 1998. He served as Acting Meteorite Curator for NASA/JSC in 2001 and is a Principle Investigator in NASA's Cosmochemistry Program. He has published extensively on the petrology and geochemistry of meteorites, and a selection of his recent research can be found at <http://ares.jsc.nasa.gov/mittlefehldt/>.

## Doin' the No-Rain Dance—Our Show Is Here!

*by Sigrid Stewart*

*HGMS 2006 Show Chairman*

**B**y the time you read this, we will be in full-tilt show mode. **Load 'em Up Wednesday:** September 20, 6 p.m.–7:30 p.m., at the clubhouse. On the Wednesday night before the show, we will load up the U-Haul and volunteer vehicles with items to be transported to the Humble Civic Center.

**Setup Day, Thursday:** September 21, 8 a.m.–12 p.m., at the Humble Civic Center. Beginning at about 8 a.m., we will need volunteers to unload the U-Haul truck and cases. Members of each Section must be prepared to set up their own booths. We also need to drape about half of the dealer tables. At 11 a.m., the dealers start arriving to begin their own setup, but work on the Section booths will continue.

**Volunteer and Dealer Appreciation Dinner Thursday:** September 21, 6:30 p.m.–7:30 p.m., at the Humble Civic Center. We host this dinner every year to show our appreciation to all of our volunteers and dealers.

Fellow HGMS members, now is the time that all your hard work pays off. Work with your friends and help welcome all those folks, dealers and customers alike, who missed our show last year and are looking forward to the 2006 Show. We have a Club to be proud of, and we're going to have a great show!

## Show Auction Report

*by Scott Singleton*

**S**aturday, September 9 was a busy day at the clubhouse. Neal "shop elf" Immea amazingly consented to open the shop doors to any and all club members for a free shop day in order to entice people into participating in a novel



experiment—an attempt to divest ourselves of some of the large quantity of collection material we have. Our intrepid volunteers (Matt Phillips, Stan Perkins, and Neal Immega) prepared enough silent auction material to cover both sides of three rows of tables. The silent auction lasted from 2 p.m. to 5 p.m. About 95% of the material received bids, in many cases quite competitively, and the result was a gross take of \$1025 (plus the value of some material not yet claimed or paid for). Most of this material came from the Kemp collection, with the remainder from the Offeman collection. The proceeds of this auction are to be split with each of those collection owners.



Then the hungry crowd was insistent on being fed dinner, so Show Chairperson Sigrid Stewart came through with about 20 pizzas plus salad, and the attendees provided desserts. The assembled food was devoured by about 60 people. With full stomachs, the crowd was treated to a live auction by Wayne Barnett and Steve Blyskal.

Most of the material was again from the Kemp collection, with the remainder being donations by club members as well as material from the Karotkin collection. By about 8:30 all the material had been auctioned off, and the final tally showed a gross take of \$1028. The portion of that take representing the Kemp material will be split with Russ Kemp.

The success of these events is due to two things—our club members and our gracious collection donors. Without these we would not have a club or have such interesting and fun events. My thanks go out to everybody who participated.

### **September 9—Show Pizza Party**

*by Sigrid Stewart*

*2006 Show Chairman*

**W**ow, what a busy day! Over 60 club members gathered at the HGMS club house on Saturday, September 9. Kicking off the activities was a FREE shop day hosted by Neal that had people frantically cutting and grinding, while others, equally frantic, cataloged material for the Paleo Section Silent Auction and the evening Pizza Party Auction. Starting at 2:00, bargain hunters cruised the tables looking for great deals while working on their section's projects and visiting with friends. Many show committee members were present, and a lot of "show" business was transacted in between the work of cutting slabs and setting up tables. Salads were prepared, competition entries were completed, arrangements for show and section work were



made, and donations of desserts and items for the evening auction poured in. Promptly at 5:00 the silent auction ended, pizzas were fetched, and at 5:30 dinner was served. Adding to the fun was a birthday cake for Scott Singleton, and the assembled members all sang Happy Birthday to him. After dinner the Show Chairman made heartfelt pleas for help at the show, and then the auction began. Good specimens were snapped up, and a good time was had by all.



Steve Blyskall (left) and Neal Immega at the free shop day

Thank you all for your help and support at the Pizza Party and Auction, and thank you too for all your work at the Labeling Party. So many people are volunteering their time and support. That's what makes this club great!

The four following photos were taken by Steve Blyskal during the silent auction before the Pizza Party.



Right (in foreground, L to R): Sigrid Stewart, Phyllis George, Margaret Hardman-Muye, and Pat Hildbold. Art Smith is visible in the background.



Below in the foreground (L to R): Fred Brueckner, Margaret Hardman-Muye, and Lilli Arnoni. Beverly Mace is off to the right.







## Mining History and Mines That Produce Mineral Specimens

by Art Smith

Member of the Houston Gem & Mineral Society

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**A**lmost for as many years as I have collected minerals, I have collected books on mining history, particularly on those mines that have produced mineral specimens. I do not remember the year exactly, but it was in the late 1950s or early 1960s in New York City that I purchased my first book on mining history for the grand sum of \$0.75. The title is *Anaconda*, and the reason it was so cheap was because it was printed on acid paper which had already yellowed and would probably become brittle. It is the history of the Anaconda Company which in those days was still the principal company mining copper in Butte, Montana, then called “the richest hill on earth.” Since that day I have purchased many more such books and read most of them.

Most of these books, except the Colorado portion, make up the mining history section of our library. I have not yet given the Colorado portion to the library because there is no room for it. The Colorado portion contains almost as many mining history books as those already on the shelves of the library. There are a few duplicate Colorado mining history books in that section already.

So when I saw a new book entitled, *A Room for the Summer: adventure, misadventure, and seduction in the mines of the Coeur D’Alene*, I bought it because the title sounded intriguing. The Coeur D’Alene is the home of the Bunker Hill silver mine among others, and it was once an important silver and lead producing area. Specimens

from the mine are usually rare, but just before Gulf Resources shut down the mine in 1981, exploration in some of the older and shallower areas of the mine revealed an area with pockets of green and orange pyromorphite.

The orange contains more arsenic in it but not enough to be the composition of mimetite. Some of it is more botryoidal with indistinct individual crystals. The bright olive green prismatic hexagonal crystals of pyromorphite are some of the finest in the world. Gulf Resources, the mine owner at that time, allowed the crystals to be collected, and they then selected the finest and largest for display in their main office in Houston. The rest flooded the Tucson show with specimens which seemed outrageously pricy. However, by the next year they were mostly gone with only a very limited selection still available from dealers at Tucson.

Eventually Gulf Resources scrapped the idle mine and all of its surface facilities. Then, what was left of the mine was sold. The fantastic large specimen of pyromorphite from their Houston office was donated to the Houston Museum of Natural Science. Irene Offeman was handling the HMNS mineral collection, and with the help of Al Kidwell, I remember the three of us dipping the specimen base into a tub of Elmer's glue to keep it from "shedding" small pieces and to stabilize it for display. It is still on display in the mineral hall and is one of the finest pieces there.

However, back to the book that eventually came in the mail—I was pleased when I opened it to read that Fritz Wolfe, the author, graduated from high school in 1956 and obtained a job at the Bunker Hill mine during his summer vacations while attending New Mexico Tech in Socorro. Since I graduated from high school in 1953, I knew I would relate well to the time period and to his experiences. The book is not a journal of his working at the mine, but it contains some of the highlights and various aspects of mining plus descriptions of the people he met. Being written about fifty years after the events is some disadvantage. By reading memoirs and other such books, I have learned that the situations are as remembered by the author when written and may diverge from the actual facts of the time. Still, I found it easy reading, mostly factual from what I know of the area, and enjoyable.

The author did a bit of mineral collecting or perhaps more of ore or sample collecting while living in Seattle which got him interested in mining as a career. There was not much in the way of specimen minerals to describe when he mined because then they were already deep underground, and most of the ore in the mine was veins of massive galena that contained the silver. However, he does tell of an incident told to him by the miners about mining in the shallower workings and opening a small vein that poured out pieces of wire silver. The mine eventually reached a depth of 6000 feet, and except for the shallow mining, most long past, good specimens were nonexistent. Fritz does mention that when the gutted and flooded mine was finally sold to Bob Hopper in 1991, Bob made a living mining the by-passed, shallow, high-grade zinc ore and selling rare specimens of pyrolusite to collectors. Fritz!! Pyrolusite is ugly and black, a manganese oxide, and not often desired by specimen collectors. It is the beautiful bright green specimens of pyromorphite, the lead phosphate, that Bob was again selling to mineral collectors. I sure wish I had bought a fine one when I had a chance in Tucson.

## The Wonderful World of Auctions

by James Wark

*Member of the Houston Gem & Mineral Society*

One dollar bid, now two, now two, will you give me two. Sold to number 17 for a dollar.

Welcome to the world of auctions. An auction is a sale where goodies are sold to the highest bidder, regardless of the original cost. First question is, where are auctions held? With the invention of the Internet, just look under **auctions**. Your newspaper has a section just for auctions. Or for great steals too numerous to list, Federal give-away hotlines are as follows:

**Department of Defense (DOD): 1-800-GOVT-BUY**

**General Services Administration: 1 800-488-3111**

DOD has the deal where you have sealed bids, and the G.S.A. has sales where you bid at live auctions. Sealed bids are where you have until a certain date and time to turn in your bid in a sealed envelope, and it will be opened with everybody else's at the same time. That means if you are the only one who turns in a bid, you just bought it, regardless of price. Do you feel lucky or what?

**What is sold at auctions?** You name it. The list is too long for this article, but to touch on a few—real estate, art work, cars, trucks, office equipment, ships, computers. The list would be shorter on what is not sold. Even possessions of the famous can be yours. Always find out what the rules and regulations are before you show up raising your hand or waving your paddle. For instance, check out if they have a *buyer's premium*. That could be as much as 15%. OUCH! An extra \$150.00 for every \$1000.00 you spend. And let's not forget local taxes (average 8%).

But some have no buyer's premium at all. Every auction company has different rules. Also check out whether there is a minimum or reserve. If it's over your budget, don't waste your time. But if it's advertised as no minimum or no reserve, you could hit the jackpot if you are the only one there who wants the fine, outstanding merchandise.

**White HOT Tip:** At an auction, you will meet other investors. Learn what they are buying. That way if you see what they want while you're at another auction, buy it cheap and sell it to them. **Added hint:** Have them pick it up at the auction site. How much is that worth?

**Another feature in my bag of tricks:** Watch who is bidding against you for the big lots. After the bidding is over, ask what they wanted out of the lot. Sell part of the lot to them to recover your purchase price, and save on some loading and unloading. That gets tiring quickly.

**And one last hot tip:** Get a number (called a *permanent number*) from the auction company. You are assigned your own number so if you are late arriving at the auction, you can head right to the auction without having to register each time.

**Let others start the bids:** That way you are not the bad guy who always starts too low. Or jump in as it slows down. Remember, the only reason the auctioneer is there is to extract as much money from the crowd as possible. *And think of this. Its very important in my opinion. NEVER make your maximum bid your first bid.* You wouldn't have a second bid. Attend a few auctions before you ever bid. See what goes on. Check them out first.

- Set your spending amount before the auction starts.
- Have your buyers lined up with payment.
- Buy at least 50% below wholesale.
- Know your maximum and don't go over it. Remember, the ringers (people who draw bids from the crowd) are there for one purpose. That's to have you go home with an empty wallet and a full truck.
- Check the item out before you purchase it. Suppose you buy a forklift, and it does not have a motor in it. Gotcha! Another for electronics. Do what I call the "pop and smoke test." If that happens, it's scrap. At most auctions, it's an as-is-where-is sale. Don't assume anything at a sale. Once the auctioneer says sold, it's yours. Some accept credit cards, but some will only accept cash or a check with a bank letter of guarantee. They will want their money at the end of the auction. No surprise there.

Some of the best buys are not at the established auction houses. They have a certain amount of money they must get for their material. Most of their stuff has been consigned to them from people in the business of resale or estates.

The best ones for me are the government auctions. That includes federal, state, county, school districts, cities, hospitals, and the list goes on. They need to clean out their warehouses so they can fill them up with surplus again. It's an ongoing deal that never seems to stop. What a deal. And now most auctions can be previewed online. What a time saver that is. Some are online auctions where you can buy without even leaving your seat.

I learned all this information as first-hand experience during the years I have spent buying and selling. Have fun and make a million.

### **Hope Springs**

*by Matt Dillon*

*Member of the Houston Gem & Mineral Society*

**I** am frequently reminded that "hope springs eternal," and I see evidence of that in many aspects of our daily lives. However, sometimes that evidence is somewhat hidden under the skin of our society and needs to be pricked a little to bring it into the light of day.

For a number of years I have been hearing of the demise—sometimes only thoughtless rumors—of different gem and mineral societies. Unfortunately, there have been a few of the clubs that did fall apart or simply died out due to a lack of local community interest.

When I have time to reflect on the statements I have heard from club members who used to belong to that other club, a few subjects appear to be falling along a common thread. Too often those who could have done something to prevent this phenomenon did little or nothing. And way too often, the only thing they did do was complain about the club and about how it had lost its collective will to continue the atmosphere that drew members to the club in the first place.

I seldom hear about what that former member of the “other club” did—or tried to do—to prevent that club from sinking to its demise.

Here is a short list of things to consider doing if you want to help your club survive in this ever-changing world and its “every day brings new technology” theme.

1. Be a proactive member who gives something other than criticism to the club you joined.
2. Look at your club’s policies and procedures—its educational efforts and the interaction it has with the educational community. Determine if there is a way to increase or improve education and community interaction.
3. Never pass up an opportunity to promote your club to those you meet in everyday life, no matter what their particular walk in life is.
4. Ask your neighbors, coworkers, and others with whom you regularly interact if they are aware of the club or society and what it does.
5. Read your club’s newsletter. Determine whether it reflects positive views of your club, and determine if there is anything you can do to add to that effort or to just simply learn more about your club.
6. No matter how small or how distant it is from other communities, your club has the potential to affect others. Get involved in putting on shows or other events that will provide more opportunities for the youth in your area so they can be hopeful about their future. (You may want to consider joining with another small club or two to put on a show or to hold an event)

This list is just a sample of things that you can do to ensure the long and fruitful existence of your club. Remember, a mattress with only one spring stands out in only one place. We make the bed we lie in, and we should use all the springs we can find to make it better.

### **For the Love of a Bead**

*by Sunday Bennett*

*Member of the Houston Gem & Mineral Society*

**G**emstones, fossils, rocks, minerals, sea shells, seeds, bones—put a hole in them and you’ve got a bead. Mankind, clever as always, made use of this and made the most of it. Dating back to 8000–6500 B.C., the lowly bead, whether large, small, or in between, has served as many purposes as there are beading materials. And for those who didn’t know, the least of all bead purposes has been to adorn the feminine frame.

Taking a walk back in bead time, we might stumble upon the abacus, an early form of counting that predated the invention of numbers, never needed batteries, and beat the heck out of using fingers and toes. A simple tool of beads strung on a wire frame



helped keep track of addition and subtraction, and it made the first accountants very happy people.

Found at the tombs of Ur in ancient Iraq, roughly 2,500 B.C., Queen Puabi literally wore her fortune. Beads of lapis lazuli, carnelian, and gold strung on and about the queen represented her status and the healthy economy of her time. Even today in modern cultures, gold in the form of beads is the only wealth some people possess.

As currency, trade beads have traveled far and wide. Many of the oldest trade beads originated in Europe and India and then made their way to West Africa. Arab traders took the overland route from North Africa, while 500 years later, European traders decided to cut out the middle man and sail the beads directly to eager buyers. Beads bought everything from gold and ivory to palm oil. Bound forward a few centuries, and you'll come upon the greatest bead sale ever. It is well rumored that beads were part of the sale that purchased a little spit of an island now called Manhattan.

Integral to many religions, beads play a significant role in the Sufi, Christian, Hindu, Buddhist, and Native American beliefs.

Gemstone beads have long been said to bring about healing. For instance, did you know that ancient Romans wore blood agate beads to ward off insect bites? Jet, an organic material and type of lignite coal, was laid in the Pueblo Indian graves as a form of protection in the afterlife. Modern crystal healers use the mineral prehnite to reduce high blood pressure and control hypertension.

However you come upon beads, however you use them, buy them, trade them, make them, and wear them, rest assured that you are adding to a long and illustrious bead lineage. Should you want to learn more, I suggest you read *The History of Beads: from 30,000 B.C. to the Present* by Lois Sherr Dubin.

In a small class I taught in August, I attempted to pass along this love of beads. I plan to teach further classes on bead weaving and to include a field trip to a bead shop. I hope to convert more of the naïve into bead freaks.

### **Bibliography:**

<http://www.rings-things.com> (A wholesale company with information on the folklore of gemstones.)

<http://www.thefurtrapper.com> (A series of articles on Mountain Men and trade with indigenous Americans, by Ned Eddins)

<http://www.thebeadsite.com> (The Center for Bead Research, Peter Francis, Jr., director)

<http://www.beadbugle.com> (The History of African beads by various authors including "The Beads of Bohemia," by Peter Francis, Jr.)

### **The Youth Section Needs You!**

**B**everly Mace and her assistants need more help with the Youth Section which meets the first and third Saturdays of each month from 10 a.m. to 12 a.m. On September 2 they had 20 youth members present, and it was almost more than they could handle. If you are interested in helping, please call or e-mail Beverly.

## Security Issue!

by Rick Rexroad

**O**n the morning of September 9, 2006, it was discovered that the front door to the Clubhouse had been left unlocked for an indeterminate period of time. **It is the responsibility of all HGMS Club members to take precautions to ensure the security of HGMS. If you are the last person to leave the clubhouse, please be sure that ALL doors are locked when you leave.**

## Day Light Section

by Frances Arrighi

**F**ourteen members attended the 10 July meeting of the Day Light Section. We worked on our mokume gane; however we ran into problems. The second and third billets did not fuse. This showed up when we started to forge the billet. To add to our problems, the kiln broke. The kiln has been repaired, and Tom Wright tried a fusion which seemed to work. We should be able to continue this work at our 14 August meeting. This will be Professor Link's last meeting with us this year. We certainly do appreciate his efforts. We also thank Tom Wright and Neal Immega for fixing the kiln. I will continue the mokume gane procedure in the next issue unless we run into more trouble.

Don't forget that you need a 30 x 22 mm cabochon for both the September and October meetings.

*(Editor's Note: Frances thought she had sent the previous information to me for placement in the September issue of the BBG. Since that didn't happen, I'm combining that article with the article she sent me for the October issue—see below.)*

Thirteen members attended the 14 August, 2006, meeting of the Day Light Section. This was Professor Val Link's last meeting with us this year. He gave a short lecture on the procedures for decorating Mokume Gane pieces.

Unfortunately, only four members have billets of Mokume Gane to work with. The first attempt was successful. The other four or five attempts were failures. Some billets did not fuse; others melted instead of fusing. Tom Wright finally decided to stop trying for awhile. We surely do thank Tom and Val for their efforts this summer.

The program for the October meeting will be making a wire wrapped sterling silver bracelet. Be sure to bring a 22 x 30 mm cabochon also.

## Lapidary Section

by Kathy Konkel

Lapidary Section Chair

**W**e invite you to join us on Monday, **October 16** at 7:30 p.m. for a hands-on lesson in wire wrapping with Karen Burns as our featured instructor. Two ring designs will be presented using gold-filled wire and pearls. *Please bring a ring mandrel if you have one.*

The Lapidary Section would like to thank Ed Clay for his marvelous presentation on August 21 when he demonstrated techniques for making doublets and triplets. He showed us that expensive tools were not required, and from start to finish we had a great time.

The listing below shows the remaining Lapidary Section programs for 2006.

<b>September 18</b>	Using beads to set a cabochon—hands on!
<b>October 16</b>	Wire Wrapping—hands on
<b>October 14 (Saturday)</b>	Lapidary Auction—11 a.m.-1 p.m. Bring in your auction items and view what's already here. 1:00-2:00 Lunch (bring a food item; meat provided) 2:00 Auction begins
<b>November 20</b>	Texturing Metals (rolling mill, flex shaft & hammer)—hands on.

### **Paleontology Section October Presentation**

*by Rick Rexroad*

**Scott Singleton** will be the guest speaker at the Paleo Section meeting on Tuesday, October 17, 2006. Scott will describe his recent experiences collecting plant fossils in the St. Clair Shale in Pennsylvania. This is a classic U.S. collecting location, one of the most notable collecting localities in the eastern U.S. Please join us for what is sure to be an exciting and informative presentation.

### **Report on the August General Meeting Program**

*by Matt Phillips*

**P**resentations at the HGMS General Meetings are always a great treat, and Ed Tendell's talk was no exception. His presentation of rock hounding across Texas, New Mexico, and into Arizona via a selection of cell phone pictures was fascinating. Interspersed with "Where am I" and short movie clips for humor, he showed that reading books about rock hounding across the Southwest can reward you with new sites to explore. Also included was advice about how to be prepared and how important it is to know the particulars about an area. He talked about all the best ways to search, and he alerted us to always travelling in a group for safety.

### **Susan Lenz Update**

*by Norm Lenz*

*September 8, 2006*

*Editor's Note: I included an article about Susan Lenz and her battle with cancer in last month's issue of the BBG. I thought you would be interested in this most recent e-mail update received from her husband Norm.*

Dear HGMS friends,

There has not been any noticeable progress these last two weeks. Susan's last round of chemotherapy affected her more than usual. Susan's white blood cell count dropped to 0.8 instead of the normal 4.0–11.0. Several other counts were low also. She is taking antibiotics to help prevent infections until her counts improve. She is also taking injections for five days to help boost her counts. Meanwhile her chemotherapy treatment has been put on hold, and we are avoiding public places as much as possible to reduce the chance of infection. Her next blood test is on Monday, September 11.

In-home physical therapy has been discontinued, and outpatient therapy has been recommended. We are trying to get that established now.

### **Positives:**

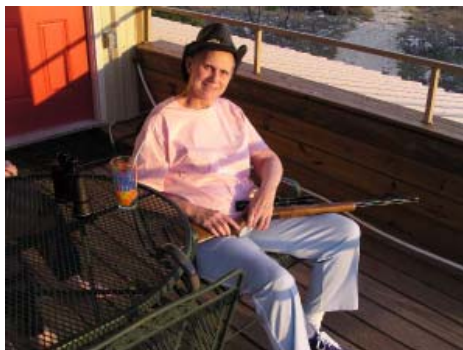
- Susan can walk short distances with a cane and a little assistance from me or Tanya.
- Susan's voice is stronger.
- Her sense of humor and short term memory is reasonably good considering her overall health.
- Susan is able to feed herself part of what she eats.
- Susan eats well and sleeps well.
- We were able to visit our Hill Country property last weekend.

### **Negatives:**

- White blood cell counts are dangerously low.
- She has sore gums. This is probably due to her low blood counts.
- Tremors remain a constant bother. We have a new prescription to try but are waiting until her blood counts improve before starting.
- Susan still needs assistance getting up, walking or sitting down.
- Susan's short term memory is about 75% and Long term memory is at about 90% of normal.

**Photo:** Susan, on our apartment deck. No, this is not deer season and she is not holding a deer hunting rifle. It is my poisonous snake control device.

Susan received many nice birthday cards and e-cards, flowers, food basket, etc. As always, we thank you for your continued support of our war against cancer. Each time we go to M.D. Anderson, we see many people in similar circumstances. We see patients in the early stages of their war and people in the final stages. We see people using wheelchairs, walkers, and canes. We see people wearing masks because their immune systems are so depleted, people with IV ports for chemotherapy input, people with no hair due to radiation and chemo-



therapy treatments, people of many races from many countries. We see children, men, women, young, old, poor, and wealthy. Cancer finds many methods of attack and has no favorites. We are doing better than many families in our situation. For that, we are grateful!

## **SCFMS 2006 Bulletin Editors' Breakfast and Awards —and AFMS Awards Too**

*August 19, 2006*

*by Phyllis George*

*HGMS Editor*

**T**his year the SCFMS annual show was hosted by Ark-La-Tex Gem & Mineral Society in Bossier City, Louisiana. The Bulletin Editor's Breakfast on Saturday, August 19, was well attended, and the food was outstanding. It was catered by students of the Bossier Parish Community College School of Culinary Arts, and they definitely had learned the culinary arts. You should have been there. You missed a very delicious—and exciting—morning. Paul Good, Editor of the SCFMS Newsletter, had a box labeled “Top Secret” on a side table, but he was very tight-lipped about it. Even Ike House, SCFMS Bulletin Aids Chairman, was in the dark. But more about that later.

Joe Beasley, Ark-La-Tex Show Chairman, gave the Welcome, and Jack Adams, Ark-La-Tex member, gave the invocation. Ike House introduced the past and current SCFMS and AFMS office holders who were there. Chuck Shuler, SCFMS Executive Vice President, welcomed us to the Awards portion of the program in the absence of Bill Medford, SCFMS President. Due to a home emergency, Bill was unable to make it at the last moment. We all missed him and hope his wife is doing well.

Ike House announced all the certificate winners and trophy winners in the SCFMS Bulletin Editors' Contest, and Robin House handed them out. There were LOTS and LOTS of awards and lots of excitement. All entrants received certificates; the first three in each category received trophies. SCFMS trophy winners in each category are automatically entered in the AFMS contest. The SCFMS awards won by HGMS members are shown in the table at the top of the opposite page.

When all of the hubbub and excitement from the SCFMS awards announcements died down, Paul Good stood and moved the “Top Secret” box front and center. He said he had prepared a PowerPoint presentation for us, and announced that we were about to embark on a top secret mission—a trip to Nashville, Tennessee where the AFMS show was being held that very weekend. He also announced that until that moment, only five people in the entire U.S. knew about the trip: he, his wife Margaret, and three others.

Suddenly (via PowerPoint), we were all in limousines going to the airport, we boarded the plane, and were flying at 26,000 feet. Then we landed and we found ourselves one day into the future. It was Sunday, August 20, the day of the AFMS Editors' Breakfast. Jim Robinson, AFMS President, and Kitty Starbuck, AFMS Publication Chair, had messages for us welcoming us to the convention and show.



SCFMS Contest Awards		
Adult Articles		
Rank	Author	Title
9	James Wark	Precious Metal Mine
HM	D.R. "Matt" Dillon	From Dream to Reality
HM	Sandra Stevens	Llano Fieldtrip—By Myself
Advanced Adult Articles		
1	Art Smith	Fakes! Fraud? Enhanced and Altered Mineral Specimens
2	Dean Lagerwall	Creating Mini-Flats
3	Neal Immega	Ammonites—Shared Efforts
Junior Articles—Under 12		
1	Donald Elrod	The Caverns
Poetry		
9	Mary Ann Mitscherling	Rockhounding
Web Sites		
2	Phyllis George	www.hgms.org
Large Bulletins		
1	Phyllis George	The Backbender's Gazette

Kitty handed out the AFMS awards from the Top Secret box using Ike House and Chuck Shuler has her proxies. That was truly an exciting time! The awards won by HGMS members in the AFMS contest are:

AFMS Contest Awards		
Advanced Adult Articles		
Rank	Name	Title
2	Dean Lagerwall	Creating Mini-Flats
3	Art Smith	Fakes! Fraud? Enhanced and Altered Mineral Specimens
8	Neal Immega	Ammonites—Shared Efforts
Junior Articles—Under 12		
5	Donald Elrod	The Caverns
Large Bulletins		
7	Phyllis George	The Backbender's Gazette

The only downside was that Paul said no one would pay for our trip back to Bossier City. The people who paid our way to Nashville had not been consulted about that, and they refused to pay our way back. We would have to get back any way we could. Bummer!

See? I told you that you should have been there. Matt Dillon and I were the only HGMS members at the Editor's Breakfast, so we picked up all the HGMS awards. See photos on the next page.



Phyllis George holding the Advanced Adult Article awards assisted by Ike House (right), Bulletin Aids Chair, and his wife, Robin House.

Photos by Bill Pattillo

First Place Trophy for the BBG in the Large Bulletin category. Ike House is on the right., and Matt Dillon is visible on the left.



Matt Dillon (left) with other winners in the Adult Article category.



Matt Dillon and Phyllis George standing outside the Bossier City Civic Center with their awards

Photo by Diane Giza

### **Kudos to HGMS Authors!**

*SCFMS Judge's comments about  
The Backbender's Gazette, July 2005 Issue  
by Dan Imel  
S.C.R.I.B.E Editor*

**P**hyllis: Another outstanding issue. As with the November issue, every "t" was crossed and every "i" dotted. This time I had no issue with the amount of coverage for the SCFMS. You do an outstanding job of including photos of club activities, and the quantity of articles from your members would make 99% of the clubs out there turn green with envy. Please convey to your members for me what an outstanding job they do in helping you produce a fantastic newsletter.

Dan Imel (*Note to Dan Imel: You just did. Thank you from all of us!*)

### **In Our Library**

*by Art Smith  
HGMS Librarian*

**T**he book sale was moderately successful, and we received over \$200. A few IOUs have not been paid, but the sale will have earned over \$300 if and when the IOUs are paid. The main objective was to put the duplicate books into use with club members. The books remaining will be offered for sale at the show.

We received some books, mostly on jewelry from Russell Kemp who recently lost his wife. They will be filed under Lapidary—Jewelry section—and alphabetically by author.

These books should give those of you who are into jewelry making some good ideas, plus if you are interested, information on the historical aspects of some designs and symbols. We appreciate these books very much. Thank you Russell.

The Kidwell books are finally mostly all filed, and the Kemp books will soon follow. They have been logged into our database and labeled. I finally got some additional colored tapes ordered. What do the tapes mean? They designate which area the books are filed in. Blue is for Regional including foreign countries and U.S. States. Yellow is Mineralogy, Mining History, Rocks, and Economic Geology. Green is Paleontology—yes, we have a few, particularly on dinosaurs. Red is Lapidary, including metals, jewelry, faceting, and gemstones. White labels are youth and for checkout. Books with colored labels and periodicals can be used only in the clubhouse. They cannot be checked out, but we do have a copy machine that is available in the office at 5 cents a copy.

Auctions in the big case are for the benefit of the whole society. We have enough of the Kidwell material to have at least two more auctions after the present one in the case.

Then we have Irene Offeman's minerals and fossils to dispose of. There is a small bit of lapidary material with it and some fluorescent material. I hope to mix a few of her fossils in with it too.

So it looks like we will currently have enough material to have interesting auctions into next year. The purpose of these auctions is:

- 1 To raise money for the Society
- 2 To increase the interest and attendance at the General Meetings.
- 3 To disperse material to club members that they can use or add to their collection.
- 4 To benefit anyone who wants to or needs to dispose of material or specimens. They may keep up to half of the money obtained, and any they do not keep is credited as a donation to the club which is nonprofit organization—so the donation is tax deductible. Check with me if you would like to take advantage of this sometime.

A recent book, *Fluorite, the Collector's Choice*, has been published by Lithographe which used to be called Extra Lapis International. *Lapis* is a German mineral magazine that started publishing a separate thematic publication each year on various topics all in German. Extra Lapis International started updating and publishing the back issues in English a few years ago. Generally the topics covered are broad but a great, usually stimulating and compact, overview is given. This is particularly true of the fluorite issue. If you collect fluorite, or a particular mineral, or some area that they cover, I would highly recommend that you obtain a copy. Information can be obtained at [www.lithographe.org](http://www.lithographe.org). Our fluorite issue is under Minerals—Fluorite—Lithographe.



## General Meeting Minutes

August 23, 2006

by Margaret Hardman-Muye

HGMS Secretary

**S**cott Singleton called the meeting to order at 7:30 p.m. Guests introduced were Betty Miller, Maryann Hall, Margo and Bill Bedman, Russ Hawkins, and Ed Tindell.

**Education Committee:** There will be a casting class this month. The beading class is full.

**Day Light Section:** The Section has finished doing Mokume Gane under the instruction of Val Link. In September, Cheryl Norwood will be presenting "Beading Cabochons." In October, they will make a wire wrapped bracelet.

**Faceting Section:** The August program was on how to orient rough to get the best finished stone. In September, the program will be how to select the best rough.

**Lapidary Section:** Upcoming programs are listed in the BBG. Ed Clay did a program on making doublets, and members made a doublet for themselves. September 18 will feature Cheryl Norwood and beaded cabochons.

**Mineral Section:** No meeting was held. The meeting in September will be preparation for the show.

**Youth Section:** The number of youth participating has increased dramatically. A photographer from the Chronicle was at the shop recently to do an article.

**Show:** On September 9, from 5:30–9:30 p.m., there will be a preshow pizza party and auction. Large posters of tourmaline will be sold at the show. A small copy is on display at the clubhouse.

**Clubhouse/Shop:** There is a new water saw located near the sink.

**Newsletter/Web Site:** Phyllis George gave out certificates and plaques to a number of HGMS members who won awards for their articles published in the BBG. A complete list is on page 19.

### New Business:

**A Nominating Committee** for club officers is needed for September. Each Section is to send a representative's name to the September Board meeting.

**Show and Tell:** James Wark showed various types of aluminum scrap.

**Door Prize:** Margo Bedman won the door prize of a topaz necklace and earrings donated by Pat Hildbold.



**HGMS Board Meeting Minutes***September 5, 2006**by Margaret Hardman-Muye**2006 HGMS Secretary*

	President	Scott Singleton	X	Faceting Rep.	Phyllis George
X	1 <sup>st</sup> Vice President	Matt Dillon	X	Lapidary Rep.	Dave Hawkins
	2 <sup>nd</sup> Vice President	Beverly Mace	X	Mineral Rep.	Art Smith
X	Treasurer	Paul McGarry	X	Paleontology Rep.	Terry Brawner
	Treasurer Assistant	Lowell Stouder	X	Day Light Rep.	Sunday Bennett
X	Secretary	Margaret Hardman-Muye		Past President	Norm Lenz

**Call to order, 7:30,** by Vice President, Matt Dillon

Approval of August Minutes **was done via e-mail.**

Margaret was asked to please add a copy of the new Bylaw revisions to the Board Book.

**Treasurer's Report:** Lowell Stouder brought copies of the Net Worth Report (attached), but had to leave before the meeting started. There were several questions about the monthly actual expenditures, as the figures reported did not seem to match the Education and Show Chairpersons' figures. Paul McGarry will check with Lowell to see if these are the current figures or last year's figures.

### **Committee and Section Reports**

- **Youth:** Sunday Bennett brought a request from Beverly Mace. There were over 20 kids at the Youth Section meeting, and she needs several additional volunteers to help supervise them. We will ask Scott Singleton to request volunteers at the General Meeting, and a request also will be placed in the BBG by Phyllis George.
- **Program:** Matt Dillon says that Dave Mittlefehldt, from NASA, will give a report on the Mars Exploration at the September meeting. October's meeting will feature Matt's talk about agate identification in the field.
- **Show:** Sigrid Stewart gave a written report (attached). All is progressing. T-shirts and posters will be for sale at the show. The Pizza Party and auction is Saturday, September 9. Tickets have been mailed out and flyers distributed.

### **Old and New Business**

- 1 **SCFMS show and Annual Meeting:** Phyllis George gave an in-depth report on the **SCFMS meeting** which she and Matt Dillon attended. The full reports are attached and available in the Board Book. John Moffitt was re-elected as the representative for our district, District 2. SCFMS has lost some older clubs, but has gained some new ones. It is a concern that many members are advancing in

age. The Insurance program is changing to a new carrier, Union Standard. This is only liability insurance. There is a dues form that needs to be submitted as soon after November 1 as possible. SCFMS is looking for a club to host a judging seminar. Phyllis has receipts for Matt's and her expenses and was asked to give them to the Treasurer for reimbursement.

- 2 **Nominating Committee for 2007 officers:** Matt read the requirements for the nominating committee. The following people have been suggested by their sections: Lapidary, Margaret Hardman-Muye; Paleo, Terry Brawner; Faceting, Phyllis George; Mineral, Steve Blyskal. Two other persons were suggested (Beverly Mace and Tom Wright), and Matt will contact them to see if they are willing. The committee agreed to meet on Saturday, September 9 at 5:00 p.m. at the clubhouse.
- 3 **Insurance coverage changes:** Our current insurance coverage does not cover the contents of the building. To change existing coverage to \$270,000 for personal property, we would have to pay \$640 for the period from September 1, 2006 until policy renewal in February, 2007. Terry Brawner moved, seconded by Phyllis George, that we pay this \$640.00 to increase our coverage for the next six months. Motion passed.

A consensus of the Board was that a deductible of \$2000.00 to \$2500.00 would be preferable to the \$500 deductible that we currently have. If this is not possible, \$5,000.00 would be our next choice. Scott Singleton will be asked to get a price for this deductible amount.

- 4 **Club house issue: Monthly cleaning service** - Tom Wright has found someone to do the cleaning, according to Art Smith, but details are unknown at this time.
- 5 **Building Owners Annual Board Meeting minutes:** Terry Brawner gave a copy of these minutes to the Board, and a copy is attached to the minutes.
- 6 **Committee on abuse prevention:** Matt Dillon reports that there have been a few suggestions, and the work done thus far needs to have input from the attorney, Terry Proctor.
- 7 **Clarification of policy regarding Club equipment offsite usage:** This discussion was tabled until October.
- 8 **Report on investigation of power companies:** Terry Brawner has developed a list of companies; however, they would not talk to him until he can give them an account number and ESI ID, as we have a business account. They want a history of our past usage.
- 9 **Walk-through at HCC on Thursday, September 21.** Matt Dillon, Scott Singleton, and Sigrid Stewart will participate in a walk-through of the show facility.

Meeting Adjourned at 9:10 p.m.

## Dino Skeletons Will Be Action Figures Again

by Erika Engelhaupt

from the August 28, 2006 issue of *The Philadelphia Inquirer*

(Reprinted by permission of the author)

**PATERSON, N.J.** - More lifelike—and accurate—poses are reinvigorating the Carnegie museum's collection of dinosaur skeletons. A team of restorers in New Jersey is busy at work.

Tom Bugler bends over a 2 1/2-inch-wide steel rod, with his blowtorch blazing and sweat beading above his dark glasses. A few deft tugs, and the metal assumes the shape of a bone laid in the Earth more than 65 million years ago.

When he's finished, the rod will run up the back of a *Tyrannosaurus rex*'s leg as smoothly as the seam on a pair of nylon stockings.

Those long legs will then stand flexed and ready to charge, as befits the top carnivore of its time. It's taken more than 60 years for someone to fix this *T. rex* so it can stand in death the way it towered in life. All these years, the beast has been lashed to an undignified mounting with its tail dragging in the dirt, a posture that would have dislocated its hips when alive.

Tucked away in a weedy industrial stretch of Paterson, Phil Fraley Productions is home to one of the most ambitious dinosaur reconstructions ever attempted. Pittsburgh's Carnegie Museum of Natural History hired the studio for a dinosaur overhaul, spending \$36 million to triple floor space and update tired displays for the "Dinosaurs in Their World" exhibit opening in late 2007.



**Matt Ruby restores a "Tyrannosaurus rex" foot at Phil Fraley Productions in Paterson, N.J.**

More than 100 years ago, paleontologists started pulling dinosaur bones from rocks and trying to assemble them into whole creatures. The problem was, no one knew how they stood, ran, or behaved. Worse, the scientists made mistakes: heads on the wrong bodies, missing body parts guessed at, and skeletons forced into unnatural postures. Over the last 40 years, paleontologists have uncovered startling finds that helped set the record straight.

Many of the 15 skeletons in the museum's display will be remounted in new action stances—a lunging attack, a swishing tail—

to replace stiff Victorian poses. The immobile fossils will capture the feel of motion in

a frozen instant. Fraley's team of 30 specialized artists and craftsmen is working with Carnegie scientists to make their recreations vivid as well as accurate.

Thus, a charging *Allosaurus*, a leading carnivore of its day, is trapped forever a nip away from the whipping tail of *Apatosaurus*. The hulking *Apatosaurus* never faces off with him, but is caught just starting to swing her massive neck around. Her baby will soon be added to the scene, huddling between mother's front feet for protection.

"We're recreating a moment here, one one-thousandth of a second that could have happened 150 million years ago," says Fraley, one of the planet's few experts in assembling fossil dinosaur bones into lifelike skeletons. His soft voice is nearly drowned out by the whoosh of a 250,000-BTU torch burning white-hot at 1,700 degrees, just right for bending venerable Pittsburgh steel into the supple forms that support *Apatosaurus*' 20-foot-long neck.

When Carnegie scientists unearthed a nearly complete *Allosaurus* skeleton in 1915 and took it back to the museum from Utah, paleontologists assembled it standing upright with its tail dragging on the ground. "They were mounted in a very straight pose for scientific study, to be able to see how they fit together. There was no sense of movement or gesture or drama," Fraley says. The result looked like a sad-sack kangaroo, hunched over and barely able to drag itself around.

But over the years, more and more fossils turned up new information. "Now we know they didn't drag their tails, because out of thousands of footprints and hundreds of tracks, we rarely see any tail marks next to them," says Carnegie paleontologist Matt Lamanna.

A paleontological renaissance began in the 1960s when John Ostrom first discovered a raptor dinosaur, *Deinonychus*, that looked like it killed prey by leaping and ripping with its powerful claw. Surprised by the find, Ostrom revived an idea from the late 1800s that dinosaurs acted more like active birds than sluggish lizards.

Then in the 1990s, feathered dinosaurs and ancient birds starting pouring out of Chinese rock in Liaoning Province. A complete lineage emerged, from toothy feathered dinosaurs such as *Sinosauropteryx* to the earliest modern bird, the duck-like *Gansus* described earlier this summer. In between were intermediates such as *Archaeopteryx* and *Confuciusornis*, with a modern-looking beak but claws hooking out from its wings.

"We know beyond a shadow of a doubt that dinosaurs were the ancestors of birds," Lamanna says.

In Fraley's studio, *Allosaurus* now stands pitched forward, tail held high for balance. Think of a roadrunner dashing across a hot desert highway, and you've got the picture. But the fossil spent years in an unnatural state before being restored to lifelike grandeur.

Carnegie paleontologist Chris Beard bends over *Allosaurus*' leg to point out tiny cracks and patches of plaster from past repair jobs. "Over the years, this specimen had been coated with layers of shellac. Whenever the skeleton started to look a little old and

dusty, someone would come along and add another coat,” leaving the dinosaur dark and glossy.

And some of the fossils were coming apart in pieces, damaged by years of surreptitious touching and floor vibrations from millions of feet filing past.

Fralely's crew stripped off layers of shellac and grime with denatured alcohol. Underneath, the real fossil emerged, grainy and mottled with flaws and scars.

Using real fossil bones makes the Carnegie exhibit special, but also makes the work more difficult. Many museums and traveling shows use casts, lightweight reproductions made with molds. Casts are much lighter and easier to mount; *Apatosaurus*' fossil femur alone weighs 800 pounds while its cast counterpart seems feather-light at about 200 pounds. This exhibit will feature many skeletons that were found nearly complete, with casts used just to fill in missing parts.

Carnegie's *Allosaurus*, for example, was found with only part of a skull, so a cast from a better University of Utah specimen stands in. It presides over a corner of the studio with a gaping mouth and small hands crossed neatly across its chest.

“He looks really diabolical and scheming,” says creative metalworker Larry Lee, who is part of the team making the metal braces, called the armature, that hold the bones together.



ELIZABETH ROBERTSON / Inquirer Suburban Staff  
**Phil Fraley inspects the jaws of an 'Allosaurus.'** "We're re-creating a moment here ... that could have happened 150 million years ago."

Reshaping the armature is key to taking a dinosaur from stiff to spry. A thick vein of metal supports the graceful underside of the giant *Apatosaurus*' curving neck. The armature was recycled from the original Pittsburgh steel that Andrew Carnegie ordered for his new museum's dinosaur mounts nearly 100 years ago.

Now that *Apatosaurus* is complete, Fraley's group will start taking it apart, bone by bone, to be shipped along with disassembled sections of armature back to the museum in Pittsburgh. There, it all goes back together again.

For now, a giant called *Diplodocus* is getting a bone makeover before being mounted. Technicians Jennifer Powell and Matt Ruby are focused on *T. rex*'s foot, cleaning real bone and scraping away at casts with tiny cheese-grater-like tools called stone rasps that resculpt toes to match real specimens.

Meanwhile, ceramicist Joanie Turbek sculpts new forearms for *Diplodocus*, one of the longest dinosaurs that ever lived. Foam bones are coated with fiberglass and white



liquid plastic that hardens to a shiny finish. Finally moldable resin covers the whole bone, and Turbek presses them all over with small green rubber stamps to add texture. The stamps are made by molding rubber to real fossil bones, creating impressions that give the casts the bumps and nicks of the real thing.

The dinosaurs won't go home to a big empty hall, either. Lush environments complete with recreated plants and animals will surround the fossils, taking visitors on a walk through dinosaur history.

Moving from the Jurassic period into the later Cretaceous, plants will change from ferns and cycads to magnolias and maples. In a transitional area between

the two, a lake scene from the Liaoning Province of China will feature feathered dinosaurs and highlight connections between North American and East Asian dinosaurs.



Carnegie's exhibit is not the only one taking fossils into the modern era. Philadelphia's Academy of Natural Sciences was one of the first museums to unveil a hall filled with updated, tail-swishing dinosaurs in 1986. One of the fixes at that time involved a little chiropractic work on the museum's *Corythosaurus*, a duck-billed dinosaur whose vertebrae were jammed into an unnatural alignment to fit the tail-dragging fashion of paleontology's early days.

"They thought dinosaurs were reptiles and walked on four legs, so they forced it even though it didn't fit," says Anthony Paino, the academy's dinosaur hall supervisor. Now, he says, museums have loosened up and tend to focus on dinosaurs as living creatures that inhabited the entire Earth, including Antarctica.

"We're creating a dramatic scene," Fraley says. "This scene could have happened, and then you finish the story."

In Fraley's workshop, the work continues, fueled by caffeine and the constant thump of music (the CDs include works, aptly, by the Beastie Boys). And one by one, dinosaurs are freed from uncomfortable binds and settled into postures they might just remember from life.

### Mistake-asaurus

Over the years *Apatosaurus* was known by two names, went headless for nearly 20 years, and then, to top it off, sported the wrong head. Here's a reckoning of the mistakes and the corrections.

- In 1877, Othniel Marsh discovered and named *Apatosaurus* based on an incomplete skeleton.
- Two years later, Marsh found a more complete *Apatosaurus* but thought he'd found a new species. He coined a new name: *Brontosaurus*. The mistake stood until *Brontosaurus* was officially struck from the records in 1974.
- The original *Apatosaurus* fossils were found headless, so Marsh finished his specimen by adding a head found miles away on a different dinosaur, *Camarasaurus*. During years of confusion and suspicion that Marsh had assigned the wrong head, the Carnegie Museum first left its own specimen headless and then mounted a *Camarasaurus* skull in 1932. Eventually, a complete skeleton find cleared up the mystery, and Carnegie's specimen got its rightful head in 1979.
- Along with the newly aloft tail, Fraley's team updated *Apatosaurus*' feet to stand in more of a column instead of splayed out, moved the feet closer together, lowered the shoulders, and moved the ribs back to bring the posture into alignment.

Peek into Phil Fraley's studio at: <http://www.carnegiemnh.org/ditw/>

Contact Erika Engelhaupt at 215-854-5568 or [eeengelhaupt@phillynews.com](mailto:eeengelhaupt@phillynews.com)

### ***T. rex Tells Its Age***

*Press Release from The Royal Tyrrell Museum of Palaeontology*

*Via Newsletter of the Kentucky Paleontological Society 7/2006*

*Article submitted to the BBG by Terry Brawner*

**T**he evidence is in: *T. rex* lived fast and died young. Scientists attribute teenage growth spurts as the reason *Tyrannosaurus rex* reached enormous proportions, gaining more than two kilograms a day at its adolescent peak. But a study by a team of paleontologists, including Dr. Philip Currie from the Royal Tyrrell Museum, charts the development and growth patterns of tyrannosaurs and indicates that the lifespan of North America's largest known carnivorous dinosaur likely lasted less than 30 years.

"This is an aspect of the biology that's new to science," explains Currie. "We have been able to plot successfully the rate of growth during each year of the dinosaur's life, estimate its body mass as it grew, and to determine the dinosaur's lifespan."

Like trees, dinosaur bones are marked by growth rings, but as large meat-eating dinosaurs grew, the limb bones hollowed in the center, remodeling themselves and erasing much of the growth record. Dr. Greg Erickson, Florida State University biologist and lead researcher on the project, discovered that some tyrannosaur bones remained solid and did not hollow out. He put together a team of experts on large theropods to track how *T. rex* grew to be the 6,000-kilogram king of the tyrannosaur family.

Growth ring spacing in cross-sectioned bones shows that at approximately age 14,

*T. rex* started four years of rapid growth, surpassing the growth rates of other large meat-eating dinosaurs from the Late Cretaceous. This spurt gave *T. rex* the distinction of being the world's second-largest theropod, outstripped only by *Giganotosaurus* found in Argentina.

The number of nearly complete *T. rex* specimens has risen from only 11 to more than 30 in the past decade. Two of these and more than half of the other tyrannosaur specimens sampled for the study are housed at the Royal Tyrrell Museum.

Currie, the only Canadian paleontologist on the research team, has collected the remains of more than a dozen tyrannosaurs from a bone bed in central Alberta. He now estimates the pack was made up of two or three older adults (over 21 years of age), one young adult (about 17 years of age), one juvenile (about 10 years of age), and four sub-adults (from 12 to 17 years of age) that were each in a stage of rapid growth. The youngest dinosaur found in the quarry is estimated to be only two years old.

According to Currie the approach used in this study will have an enormous impact on the understanding of tyrannosaur biology, including their growth, physiology, population dynamics, and variation. Now that the method has been shown to work with theropods, it can be applied to all of the other major groups of dinosaurs that once populated Alberta and the rest of the world.

### AFMS President's Message

*Summer Thoughts*

*by Jim Robinson*

*AFMS President*

*from AFMS Newsletter 9/2006*

**A**ugust in Jacksonville is always hot and humid, but it's my guess that this one will be one for the record books. As I write this in late July, it has been in the middle nineties for the 6<sup>th</sup> straight day without a cloud in the sky. In my area of the county, we have had less than one inch of rain in three months, and the farmers and the rest of us are really suffering. The AFMS/SFMS Annual Meeting will be coming up soon; it's going to be a pleasure to get out of town for a few days. I sure hope that Nashville will be cooler!

Speaking of the annual meeting, you may or may not read this message before the 16th of August, but for those who do, we hope to see many of you there. It's still not too late to hop in the car or catch a plane so you can come and join us. We have some important matters coming up at this meeting, and we need all the Federations represented.

Keeping in mind the ever-increasing cost of gasoline and other travel expenses, we understand that it could put a stress on some budgets. Some Federations, the SFMS being one of them, pay their officers' expenses to the AFMS annual meeting. I am not



aware of what financial help is being offered by the other Federations, but it is becoming more and more important to assist these devoted officers and committee people who have made the hobby what it is today.

The summer has been relatively quiet, and not much has happened to report. I guess that's a good thing. I have seen some rumbling about the Paleontological Resources Protection Act (anti-rockhounding bill). Thanks to the help of a "rockhound" member of Congress, it's likely to remain bottled up in committee for this session. (*Editor's note: Could this rockhound member of Congress be HGMS's very own John Culberson?*) WE have to be ever vigilant though—it could rear its ugly head again anytime.

If I don't see you at Nashville, have a safe, healthy and pleasant remainder of the summer.

### **Having Fun—AFMS Junior Activities**

*Thinking Small: Thumbnail Collecting*

*by Jim Brace-Thompson*

*AFMS Junior Activities Chair*

*from AFMS Newsletter 9/2006*

**I**n my effort to develop new activities for FRA merit badges, this month I've been thinking small, probably because an article in a recent issue of *Rocks & Minerals* caught my eye: "The Year in Micromounting." The lens of a microscope can bring into focus astounding examples of perfectly formed crystals and fossils no bigger than a grain of sand with nary a ding or blemish. However, the art of the micromount can require a real bankroll to get a microscope and other specialized equipment, and it requires a truly steady hand and lots of experience and patience to prepare micromineral and microfossil specimens for study



and display. So while I'm thinking small when it comes to kids' activities, I shouldn't think *that* small! Fortunately, there's an intermediate step between the pinhead micromount and the fist-sized cabinet specimen—the category of minerals and fossils known as thumbnails. (As a rule of thumb, so to speak, if it fits in a 5-inch cube, it's a cabinet mineral; a miniature mineral will fit in a 2-inch cube; a thumbnail fits in a 1-inch cube; and a micromount requires magnification.)

Helping kids build thumbnail collections has several advantages. For one, a collection of thumbnails takes a lot less room to store. Over 100 specimens can easily fit in a space just one foot by two feet. For another, these smaller specimens can often—but not always!—be a lot kinder to a child's budget at a gem show. Finally, working with smaller specimens helps a child develop concentration and focus.

A good way to start collecting thumbnails with your club's kids is to take a field trip to



the club rock pile or to the backyard of a willing club member who has a 40-year accumulation sinking into the ground. In this case, you won't be looking for the spectacular, one-of-a-kind giant hunk of semiprecious. Instead, seek the rejects and cast-offs—the quartz or calcite-filled geode that shattered under a hammer blow and now lies in unwanted pieces, or that chunk of rotting granite shedding flakes of mica, quartz, and

feldspar. These pieces may have been deemed unfit as cabinet specimens, but on closer inspection they may yield perfect thumbnails. Encourage your kids to get up-close-and-personal with the rocks. Other sources include trading and more traditional field trips to mines and mineral localities listed in the guidebooks and gem shows.

After collecting, you can lead kids in an evening exercise of cleaning and trimming their specimens to size, followed by another evening teaching how to mount and store specimens. Basic supplies needed might include hammers and small chisels (and eye protection!), pliers to snip away pieces of matrix, a regular hand magnifying glass—or better, a bench magnifier that allows you to work with hands free—and tweezers and glue.

Thumbnail minerals are often stored in perky boxes named after their creator, Willard Perkins. These small plastic boxes, available from mineral suppliers, usually have a black bottom lined with Styrofoam and a clear plastic top. Specimens can be pushed into the Styrofoam or mounted and glued on pedestals made from clear plastic sticks, toothpicks or tiny corks painted black, pins and tacks, or plastic bristles from combs or hair brushes. Kids just starting out might store their thumb-nail specimens in those small plastic boxes with magnifier tops. Or even a simple matchbox will do.

There is one frustration to note about this aspect of our hobby—an apparent lack of reference resources. I've found Milton Speckel's *The Complete Guide to Micromounts* in the used book pile at a gem show. Originally published in 1965 by Gembooks and apparently reissued in 1980 by Gem Guide Books, it now seems to be available only in the used book circuit. And that's about it! If anyone out there knows of other helpful resources and publications for micro- and thumbnail collecting, I'd sure appreciate hearing about them ([jbraceth@adelphia.net](mailto:jbraceth@adelphia.net)).

With thumbnail collecting, thinking small can result in big smiles as kids build an affordable, space-saving collection from specimens that are often overlooked while—as always—having fun!

*AFMS Newsletter Editor's Note: Probably the best reference on micromounting is The Complete Book of Micromounting authored by Micromount Hall of Fame member Quintin Wight. It's available from Mineralogical Record.*

## Changing Show Dates

by Don Shurtz

*Editor for Pleasant Oaks Gem and Mineral Club  
from Chips and Chatter 9/2006*

*Pleasant Oaks Gem and Mineral Club of Dallas, TX*

*www.pogmc.org*

**S**everal of the Pleasant Oaks Club Officers received the following e-mail from Keith Harmon. Keith is a past president of the SCFMS and has been a dealer in our show for many years, so I think he speaks from a position of authority:

I was reading your newsletter, and in the June issue I noticed a mention in the Executive Committee notes that your club is planning to change show dates in 2007 to March 31–April 1. Current show dates for 2006 are to remain September 30–October 1. While I am certain your club is not entertaining this move lightly, I would ask you to think about the following suggestions:

1. Any time a show changes its dates, it is detrimental. People get used to an event occurring at a regular time, and they look for it at that time. The only reason to radically change a show date is if it is forced on them because of problems with the venue location or by the time slot being occupied by another event. The same holds true for changing show location.
2. The first weekend in October is an ideal time frame. Your major dealers have just returned from the Denver Gem and Mineral show with their newest purchases, and this is the first or second show for them to offer the new items to the public. This is important because the absolute best selections of new merchandise are available at the Pleasant Oaks Show. (A definite positive in any advertisements) Most people who collect lapidary, mineral, fossil, or related items recognize this and plan to attend your show. Because of this timing event, your show is not loaded with picked-over materials that have been displayed since February.
3. Other shows in the immediate area are Waco in May, Fort Worth in May, Arlington in the first weekend of September, and Dallas in mid-November. Your October date is ideally situated, and you will not be in conflict with any local shows or with other South Central Federation Shows—a very important aspect for your dealers. Conversely in March and April, other major shows like Corpus Christi, San Antonio, and Lubbock all have scheduling difficulties with their venues, and they can and do jump dates by as much as four weeks a year. This is a major scheduling nightmare for vendors, and adding Pleasant Oaks into the mix adds a potential for show schedules on the same date.

While this may not concern your club too much, it is a real dilemma for vendors who make a living providing booths at these shows. To be forced



to drop a show because of booking conflicts is a serious hardship. This was extremely apparent a couple of years ago when Pleasant Oaks scheduled your show dates at the same time as the Denver show. Several of the major dealers at the Pleasant Oaks show had to make the unpleasant choice of which show to attend, and Pleasant Oaks lost several quality dealers that year. Fortunately, the problem was corrected the following year.

4. An additional suggestion is do NOT change dealer locations within your show. People who attend the show rely on your postcards to tell them when to come. They rely on their memory of where they purchased what they liked so they can return to the vendor they want to see. They do not remember dealer or company names, but they do remember where they want to go. The practice of assigning slots on who pays when is a built-in conflict between the dealer and club and dealer to dealer. When the club moves a dealer from the spot his customers expect him to be in, he gets angry. This is reasonably expected since from his view he will be losing some of his customers who will not recognize him. When a dealer is moved because another dealer wants his location, the bumped dealer gets MAD. This is entirely foreseeable, and it causes animosity between dealers—a situation that could and should have been prevented. The upshot is that happy dealers give a show a great reputation, and quality dealers are then readily available.

Quality dealers equal quality shows and good attendance. Unhappy dealers bicker and fuss and run down a show, and eventually quality dealers are hard to come by. Fortunately, the quality dealers in your show have good rapport with each other, and no bitterness exists between them yet. This is the only show I participate in or have heard about where this problem exists. Dealer moves within a show should be made only when requested by a dealer and when that move does not affect an existing dealer's space. Ideally those moves are made when an existing dealer no longer participates in a show.

I am pointing these items out as a dealer as well as being a Show Chairman myself. My experience in this area is based on 13 years of actively participating in shows and managing shows. We currently participate in 26 to 27 shows annually, and I am the show chairman for the East Texas Gem and Mineral Show in Tyler. I hope this helps in your planning.

If your Editor has a current copy of the Houston Gem and Mineral Society's newsletter *Backbender's Gazette*, I would also suggest you look at the Article by Scott Singleton, President of HGMS. This article is part four of a five-part history of the HGMS Annual Show. It points out the good and the bad that have occurred for the last several years and lessons to be learned from putting on a show. On page 48, Scott points out five things that he learned and recommended to their board of directors. The number one thing he recommended was FALL is a better time for retail sales, but above all the date must be consistent.

This is written not as criticisms but as suggestions that should be considered. I am personally affected by your board's decision, so I believe I do have a responsibility to offer these thoughts. My only concern is for the continued and improved success of the Pleasant Oaks Show and Club. We enjoy being a part of your show and look forward to participating each year. We have always had good shows at Brookhaven College and hope to continue to do so.

Respectfully,  
Keith Harmon  
keithharmon@earthlink.net

It turns out that I do have a copy of the *Backbender's Gazette* that Keith refers to, and I would like to quote five points from the article "History of the HGMS Annual Show" by Scott Singleton (August 2006 *Backbender's Gazette*):

1. "Fall is a better time for retail sales, but above all the date must be consistent
2. We need quality guidelines for dealer acceptance and need to be governed by the all-important customer-to-dealer ratio.
3. We need to attract kids
4. We need to stifle the rotating Show Committee membership problem
5. We need to have an attention-grabbing headliner exhibit for the show."

The article goes on to describe some things "we did to shoot ourselves in the foot."

1. "DO NOT change show venues unless it is unavoidable. This certainly happens sometimes for reasons beyond our control, but should be avoided. The reason is simple: for annual events, the buying public gets accustomed to seeing and doing things at the same time and place, year after year. Publicity doesn't have to be repeated for existing clientele.
2. DO NOT change show dates. This is a cardinal sin. Settle on a date and stick with it
3. Abide by sensible financial plans...
4. The general public is much more inclined to come to a show if it is interesting. I'm sorry, but in my opinion just having tons of dealers does not make a show interesting. Yes, this means I do not find Intergem shows interesting, with their 200 dealers packed into Reliant Center. True, Intergem continues to draw large numbers of attendees, but Intergem has seen a steady drop in attendance for many years, and I do not believe they will be able to turn it around with their current format."

I think there may be a valuable lesson that was learned by the Houston Gem and Mineral Club, and I think that we are about to learn the same lesson. However, I feel that we may not have the resources to recover from learning a bad lesson. We have taken action to change our show dates to the spring, and that information shows up on this year's show flyer. However, like anything else, that decision is not yet set in concrete (e.g., letters requesting dealer contracts have not been sent out). Perhaps we should listen to the words of a very knowledgeable dealer and learn from the lessons of the Houston G&MS by reconsidering our show date decision.

## Eleven Ways to Become a Fossil

*Author Unknown*

*from Paleo Newsletter, 4/2001; via Breccia 7/2006 and others*

**FREEZING:** This rare creature has suffered a minimum of change. His arteries may still contain dried blood, his stomach undigested food. Most common is the Ice-Age mammoth of Siberia and Alaska.

**DRYING OR DESSICATION:** If these organisms were thoroughly dried, they can be of high quality. Best known are the camels and sloths found in our Southwest caves.

**WAX AND ASPHALT:** Natural paraffin makes an excellent preservative, as proved by specimens found in Polish mines. The most famous asphalt fossils are still embedded in the La Brea Tar Pits in California.

**SIMPLE BURIAL:** English bogs are famous for their buried forests. Sand dollars, sea urchins, and mollusks have been preserved by this method for up to 75 million years.

**CARBONIZATION:** Incomplete decay of volatile substances leaves carbon behind, sometimes reducing organisms to paper-thin layers of shiny black film that reveal much detail.

**PETRIFICATION:** Our common stony fossils got that way by permineralization, the replacement of the structure by dissolved minerals, or by secondary replacement such as when limey fossils are dissolved and replaced by silica.

**MOLDS AND CASTS:** Natural molds in sediment remain after organisms decay. Sandstone beds reveal molds of shells and trees, and the finest molds are Northern European amber, which has perfectly preserved the forms of insects.

**IMPRINTS:** Sandstone, shale, and tuff reveal external molds of very thin objects such as leaves. Best known of these are the Illinois Coal-Age plant imprints.

**TRACKS, TRAILS, BURROWS:** Dinosaur prints are the most famous of these. But Nebraska's "Devil's Corkscrew" once housed a beaver who dug an eight-foot spiral hole.

**CASTINGS & COPROLITES:** Ancient worms swallowed sand to help digest small organisms; they regurgitated these castings. Coprolite is a polite word for petrified dung.

**GASTROLITHS:** Many ancient reptiles ground their food with these stones (as do our modern fowl). The stones are rounded, smooth, and even polished at times. Also known as "gizzard stones."

**ShowTime 2006**

September 22-24	Humble, TX	Houston Gem & Mineral Society Humble Civic Center 5 miles east of Bush Intercontinental Airport 1 mile east of Hwy. 59 Call Sigrid Stewart 281-239-0377; e-mail sigrid.stewart@chevrontexaco.com
Sept. 30-Oct. 1	Denison, TX	Texoma Rockhounds Denison Senior Citizens Ctr, 531 W. Chestnut Rosemary Siems <a href="mailto:ramblingrosetoo@yahoo.com">ramblingrosetoo@yahoo.com</a>
Sept. 30-Oct. 1	Farmers Branch, TX	Pleasant Oaks Gem & Mineral Club EMGI, Brookhaven College, 3939 Valley View Don Shurtz, <a href="mailto:don.shurtz@gmail.com">don.shurtz@gmail.com</a>
October 14-15	Orlando, FL	Florida Fossil Hunters Central Florida Fairgrounds 4603 W. Colonial Dr. Valerie First, 407-699-9274, <a href="mailto:vjfirst@aol.com">vjfirst@aol.com</a>
October 14-15	Temple, TX	Tri-City Gem & Mineral Society Mayborn Civic & Convent'n Cntr, 3303 N. 3rd Leslie O'Connally, 254-939-7015
October 20-22	Victoria, TX	Victoria Gem & Mineral Society Victoria Community Center
October 21-22	Glen Rose, TX	Fossilmania--Austin & Dallas Paleo Societies Somervell County Expo Center, Hwy. 67 Bill Morgan, 210-492-9163 <a href="mailto:morgan@uthscsa.edu">morgan@uthscsa.edu</a> , <a href="http://www.dallaspaleo.org">www.dallaspaleo.org</a>
November 4-5	Midland, TX	Midland Gem & Mineral Society Midland Center, 105 N. Main St. Craig Tellinghuisen 39122 N. County Road 1243 Midland, TX 79707-9712, (432) 697-7668
November 11-12	DeRidder, LA	DeRidder Gem & Mineral Society Exhibit Hall, Beauregard Parish Fair Grounds 610 West Dr.; Adam Valin (337) 585-3693 <a href="mailto:adam.valin@bellsouth.com">adam.valin@bellsouth.com</a>
November 17-19	W. Palm Beach, FL	Eastern Federation
November 18-19	Dallas, TX	Dallas Gem & Mineral Society Resistol Arena Exhibition Hall, 1818 Rodeo David Pirnie, 972-278-4845 <a href="http://www.dallasgemandmineralshow.com">www.dallasgemandmineralshow.com</a>
December 1-3	Austin, TX	Austin Gem & Mineral Society

2006		OCTOBER				2006
Sun	Mon	Tues	Wed	Thu	Fri	Sat
1	2	3 7:30 Board Meeting	4 7:30 Mineral Section	5	6	7 10-12 Youth Section 11-5 Shop Open
8	9 1:00 Day Light Section	10 7:30 Show Comm	11 7:30 Faceting Section	12	13	14 11-5 Shop Open Lapidary Lunch 1 p.m. Lapidary Auction 2 p.m.
15	16 5:00-7:15 Shop Open 7:30 Lapidary Section	17 7:30 Paleo Section	18 7:30 Mineral Section	19	20	21 10-12 Youth Section 11-5 Shop Open
22	23	24 7:30 General Meeting	25	26	27	28 11-5 Shop Open
29	30	31 Halloween				

2006		NOVEMBER				2006
Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1 7:30 Mineral Section	2	3	4 10-12 Youth Section 11-5 Shop Open
5	6	7 7:30 Board Meeting	8 7:30 Faceting Section	9	10	11 11-5 Shop Open
12	13 1:00 Day Light Section	14 7:30 Show Comm	15 7:30 Mineral Section	16	17	18 10-12 Youth Section 11-5 Shop Open
19	20 5:00-7:15 Shop Open 7:30 Lapidary Section	21 7:30 Paleo Section	22	23 Thanksgiving	24	25 11-5 Shop Open
26	27	28 7:30 General Meeting	29	30		

# **The BACKBENDER'S GAZETTE**

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

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HOUSTON, TEXAS 77099

(281) 530-0942



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