



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

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

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May 2005

## **President's Message**

*April, 2005*

*by Norman Lenz*

*HGMS President, 2004-2005*



**F**ellow HGMS Club Members,

The Board has finished its revision of the Houston Gem and Mineral Society Bylaws and has approved presenting the revised version for vote by the Membership in the May General Meeting. There were only minor differences of opinion within the Board, and the review session went very smoothly. Most changes are clarification of the way we already function. I would like to thank Scott Singleton for chairing the Committee plus everyone who provided input to these clarifications and revisions. One change that each Section should understand is that Board members are no longer allowed to give their voting proxy to another Board member. However, Section Chairs may appoint a temporary Represen-



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*Continued on page 4*

## **April Program**

*by Scott Singleton*

**T**his month (April) our presentation will be given by Todd Kent, director of the documentary en titled "Rockhounds: The Movie." I've been keeping the membership up-to-date with the progress of making this movie. It was finished in early March and is now making the rounds among Rock & Gem clubs. The Food Table is taking it to each show they do this year. San Antonio (first weekend in April) was its first appearance.



The following is from the Rock & Gem article on the movie in March 2005: "The

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*Copy is due for the June issue by Sunday, May 8, 2005. (When the 8th falls on Saturday, I create the BBG that same weekend.)*

## 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 mo, ¼ page; \$150 for 6 mo, 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*

tative to the Board if their elected Representative is not able to attend Board meetings. The temporary Representative will have voting rights at Board meetings until the elected Representative is able to resume his or her position. The final Bylaws changes will be posted on the HGMS Web site and at the Clubhouse.

Beverly Mace has been giving past members until the end of March each year to pay HGMS dues before deleting delinquent past members from the membership list. This date and action is now reflected in the Bylaws. A list of paid members will be given to the shop supervisor, and people who have not paid will not be allowed to use the shop equipment or receive the Backbenders Gazette until their dues are paid. Our insurance policy covers members only.

Tom Wright and David Hawkins have done a good job of replacing stained ceiling tiles and organizing the Clubhouse. We can expect a certain amount of clutter as a normal result of our hobby, and having periodic cleanups as normal also. The Clubhouse has been exterminated for spiders, roaches, silverfish etc. The final step in the cleanup will be to shampoo the carpet. This should be completed by the time you read this message.

This month's auction will include some surplus equipment. The equipment is in the general storage area, and the bidding sheet is with the other bidding sheets on top of the large showcase in the large meeting room. There are minimum bids on some equipment. I would like to thank the Clear Lake Gem and Mineral Society for donating their saw to HGMS. It will replace one of the saws we have been using in our shop.

The shop has been very busy most Saturdays. Neal Immega, our shop elf, has been given permission to make some badly needed upgrades and repairs to keep our shop equipment running well. The shop is there for your use and enjoyment, so take advantage of the opportunity.

If you have a question, ask it! If you have a suggestion, make it! If you have a talent, share it!

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*April General Meeting Program continued from page 1*

independent file will show the fun, adventure, wackiness, and people involved in the hobby of gem and mineral collecting.

The film includes segments on the World Championship Quartz Crystal Dig in Mount Ida, fossil hunting with Dinosaur George Blasing, and the Rock Food Table at the Houston Gem and Mineral Show."

More information about this movie can be found on their Web site, <http://www.savvycenter.com/explorer/rockhounds/default.htm>, including a streaming video teaser.

## Fakes! Fraud? Enhanced and Altered Mineral Specimens

by Art Smith

*Member of the Houston Gem & Mineral Society*

Some new Society members attending Mineral Section meetings have asked about which specimen upgrading processes are acceptable. I've outlined below some of the things done to mineral specimens, given some examples, and commented about what is acceptable in the mineral collecting hobby today. There are two extremes of thought about what is acceptable and what is not. I have been collecting minerals for 49 years, and there is a definite swing from the one extreme that says a collected specimen can be washed under a light stream of water to remove soil but nothing else should be done, toward the other extreme that says anything goes and whatever makes a specimen look better and sell better is okay and can be done. Like most extremes, the middle ground is the safest, and fortunately most collectors and dealers would fall into this middle ground. However, being aware of alterations that may have been done to specimens is prudent, particularly if you are buying them.

### I. Heat

- A. **Hydration or dehydration** can be natural or induced—like blow torching the tips of gypsum crystals. This dehydrates them and turns them white (unacceptable). Hydration is less intentional, but along with oxidation causes secondary minerals to form on specimens before mining and later in mines. The most common formed in mines are gypsum, copiapite, goethite, melanterite, and a host of others (for most collectors, they are acceptable as minerals unless the processes are deliberately man induced).
- B. **Change of color** to enhance crystals like zoisite to turn purple and be tanzanite. Amethyst when heated becomes yellow and is called citrine. Since both of these are gemstone, they seem to have acceptability if the changes are permanent. However as mineral specimens, they generally are not acceptable.

### II. Radiation has the same effect whether natural or induced.

- A. **Change of color** from colorless quartz to smoky, in beryl from pale blue to yellow, clear topaz to blue. Although more acceptable in the gem industry, it is not completely acceptable in mineral specimens and is considered fraud if not mentioned when sold.
- B. **Damage** such as radiation burns or alteration of some associated minerals can occur. However, most radiation is limited to gem minerals or specimens with one or two minerals such as quartz and feldspar which do not seem to be harmed.

### III. Chemical reactions and changes induced.

- A. **Acidizing** can be used to bring out color like the deep purple color in purpurite-heterosite (acceptable). Bleach changes colorless Moroccan anglesite to an

orange-red (unacceptable). It can be used to remove some visible scratches in calcite (can be acceptable). It is also used to hide major damaged calcite (not acceptable) and to give it a good luster (acid polishing, unacceptable). Removing calcite from embedded or coated minerals is generally acceptable unless it changes the appearance of the other mineral. Cleaning and brightening tarnished silver or copper with acid may give it an etched and very unnatural look which may not be acceptable. A thin patina on the metal is much preferred now than the artificial bright look.

- B. Basic reactions** such as using Draino™ to shine some dull pyrite or to remove embedded clay or clay coatings (if done with care and no ill effects on appearance, it is acceptable).

#### IV. Additions to Specimens

##### A. Coatings

1. **Permanent** coatings such as lacquer, shellac, acrylics etc. improve luster, hide thin coatings, hide some damage such as thin cracks, and may darken some minerals (generally not acceptable).
2. **Temporary** coatings such as water or oils may do the same as above but usually evaporate with time and generally are not acceptable.

- C. Hidden foil** under transparent or semitransparent crystals between the crystals and the matrix tend to brighten the crystals, and it is not acceptable.

- D. Fillings** such as plaster, epoxy, ground mineral, etc.

- E. Crystal reconstruction** such as incomplete or damaged New Jersey Franklinite crystals or others (not acceptable).

- F. Matrix construction or reconstruction** in any form is not acceptable. It was done with Brazilian aquamarines for years.

##### G. Gluing specimens

1. **Crystals back into matrix** is acceptable only if they are returned to their original places and they are sold as reconstructed. The cubic Spanish pyrites are a prime example, but they are not always sold as reassembled.

Herkimer quartz crystal groups free of matrix also generally are reassembled.

2. **Repairing** broken crystals or matrix is acceptable if it is done expertly and “repaired” is written on the label.

3. **Adding** additional crystals that were never on the specimen is never acceptable and is fraudulent. It is done with Brookite on quartz from Magnet Cove, Arkansas. It has been done with Mexican wire silver specimens and commonly done to upgrade gold specimens.

## V. Physical Alterations To Improve Or Create Crystal Specimens

### A. Polishing and grinding

1. **Polishing** one or more faces to improve visibility of inclusions can be acceptable. Polishing to remove surface imperfections or damage is not acceptable.
2. **Grinding and polishing** to create a termination or new face on a broken or damaged crystal. Also creating a compete crystal from a crystalline or massive piece of mineral.

**B. Creating specimens** such as using lead with a thin coating of gold to simulate a gold nugget. Aluminum shavings to simulate wire silver. CZ shaped to simulate a natural diamond crystal, shaped colored glass to simulate any gem minerals.

**VI. Artificial Elements or Compounds** are often sold as minerals, but they are not. Examples are: silicon carbide from Niagara Falls, bismuth crystals from Germany, zincite crystals from Poland, Some Italian sulfur crystals, grown wire silver, slag or other furnace products, glass, plus gypsum, halite, chalcantite, alum, and other crystals formed from man-made solutions

Man is very ingenious when it comes to making fakes or enhancing things that are to be sold. I probably have not covered everything. Many things are treacherous, particularly for the person who is spending money on expensive and showy specimens. Restoration or alteration may be acceptable for a showy specimen of rhodochrosite crystals and may be acceptable for a scientific specimen intended for possible future study. There can be many caveats for the uninformed buyer. For further reading on this subject see the following:

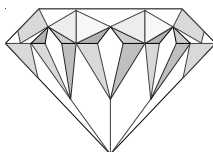
### REFERENCES:

Dunn, P.J., R.E. Bentley, and W.E. Wilson 1981 Mineral Fakes. *Mineralogical Record* 12:197-219.

Edwards, Don 2003 Mineral fakes and forgeries. *U.K. Journal of Mines and Minerals* 23:6-8.

Fryer, Chuck, editor 1981 Gem trade Notes: Manufactured emerald specimens. *Gems and Gemology* 17:102.

Kile, D.E. and W. E. Wilson 1997 Editorial: Specimen repair and restoration: an attitude check. *Mineralogical Record* 28:82-84.





## Mineral Section



*by Steve Blyskal, Chairperson & Dean Lagerwall, Assistant Chairperson*

### Upcoming Meeting Topics:

**May 4, AUCTION:** Specimens from HGMS members will be auctioned with a portion of the proceeds going to the Mineral Section. This is the same auction format practiced the past few years; please read the accompanying announcement for further details. Refreshments will be provided.

**May 18, Fakes, Frauds, and Alterations:** Ever wonder if those specimens that looked too good to be true were authentic? Some alterations are beneficial and can allow the specimen's beauty to be better observed or can help increase the stability of the specimen. But some are outright frauds. Knowing the difference can help you avoid costly and embarrassing purchases. Now is your chance to see some examples and to hear about others. Altering the specimen from its natural condition can take many forms (heat, irradiation, acid treatment, tarnish removal, removal of a secondary mineral coating, polishing, cutting, lacquering, shellacking, oiling, reconstruction, gluing other minerals or crystals onto a specimen, etc). We are asking that examples of any specimens that may fit into these categories be brought to this meeting to be used as examples for other members. Refreshments will be provided.

**June 1, SWAP-NIGHT:** As our final meeting before our summer hiatus, we will have a Swap Night where excess material from our collections can be bought/sold/swapped. This will be an informal event and will be held inside. All are invited to participate and swap. Setup is from 7:00 to 7:30, and the formal meeting will be kept to a minimum to allow ample time for specimen exchange. Refreshments will be provided.



## Paleontology Section

*March 2005*

*by Rick Rexroad, Chairperson*



**W**ayne Barnett's presentation on echinoids during the March 15, 2005 Paleontology Section meeting was spine-tingling. These spiny little creatures first developed in late Ordovician times. The number of echinoid genera started to spread rapidly during Triassic and Jurassic times. Echinoids are abundant in the Cretaceous deposits of central Texas, and echinoid expansion continued in the Cenozoic. There are currently 800 to 900 genera of echinoids. The excellent preservation of echinoids in the fossil record occurs in part because the spines and tests of echinoids are composed of dolomite ( $\text{CaMgCO}_3$ ), which is harder than the calcite and aragonite ( $\text{CaCO}_3$ ) materials that are typical of other marine organisms. Although they may appear delicate, echinoids are capable of excavating cavities in the coral matrices of reefs. They are largely vegetarian and are a favorite food group of many larger forms of sea life, including sea otters on the west coast of the U.S. Echinoids, which eat kelp and kelp roots, flourished when sea otter populations diminished off Califor-

nia. Kelp forests were depleted until the area was repopulated with sea otters, who feast on echinoids. We hope to take a field trip to the Lake Brownwood area to look for Pennsylvanian echinoids later this year when lower water levels allow us to access the outcrop area.

Speaking of field trips, Neal Immega led a field trip to collect Pennsylvanian fossils at Jacksboro and Mineral Wells, Texas on March 12–13, 2005. Only those lucky enough to be retired had time to unpack and sort their finds in time for the Show-n-Tell portion of the March 15 meeting. Other Show-n-Tell items presented at the March meeting included Paula Rutledge's Cretaceous critters from Decatur, Texas, Wayne's huge Glass Mountain sponge (?) specimen, Mike Reeves' Bridgeport, Texas sponge-world, and Terry Proctor's almost to-die-for Lake Brownwood Pennsylvanian echinoids. Speaking of Terry and field trips, a reprise of the Terry-led "Last Trip to Tulsa" to collect Pennsylvanian plant fossils may occur in the near future—we hope to soon be "Living on Tulsa Time." Getting back to the Brownwood area, we're looking forward to seeing fossils collected during Lexy Beniek's recent Easter-weekend field trip.

#### Upcoming Paleontology Section Presentations

Ann Molineaux from the Texas Memorial Museum in Austin will be the featured speaker during the Paleontology Section's April 19, 2005 meeting. Ann will be discussing reefs in Texas from the Permian in west Texas, through the Cretaceous in central Texas, to the modern Flower Garden reef off High Island, Texas. Ann is one of our favorite and most sought-after lecturers. Everyone is invited to attend the April 19 meeting. Please mark this event on your calendars.

Paul Combs, a graduate student at Texas A&M-Corpus Christi, will speak at the May 17, 2005 Paleontology meeting. Paul will discuss a significant discovery of Pleistocene fossils at a gravel pit near Robbstown, Texas, which is the basis for his Master's Degree study. Mr. Combs served 21 years as a former Army Intelligence officer, followed by seven more years as a Department of Defense civilian which included 19 years of overseas work. Paul is proficient in seven languages, so will likely be able to communicate with any foreign visitors who may choose to attend. He will be bringing 40 pounds of 13,500-year old fossils (including teeth, bones, tusk fragments, and petrified wood) as audience giveaways. Everyone is invited to attend.

### Fossiling and Painting in Brownwood

*by Lexy Bieniek*

*Photos by Matthew Phillips on next two pages*

**W**OW! What a trip! An intrepid group of four met at 1509 Vincent Street in Brownwood, Texas on Friday, March 25 and Saturday, March 26 to paint the house and go trekking for fossils. The group consisted of Matt Phillips, Stan Perkins, and the Bienieks. Friday morning we painted the front porch, ate lunch, and headed for the spillway at the Brownwood dam. It was gorgeous. The sun was shining, the temperature was just right, and the formation was fully exposed. The trekkers encountered only one BIG problem—the water was too deep for us to cross the spillway. After several attempts to cross at different places, a conference was held and it

was decided to go to Wilson's Clay Pit. So off we went down the road past Fairview Cemetery across the Jim Ned Branch and on to the clay pit. We managed to crawl or roll or slide beneath the fence. We found crinoid stems, crinoid calyxes, trilobites and one petalodus tooth. Then we headed for supper at the Dairy Queen.

### A Weekend at Brownwood

*by Matthew Phillips*

Word was sent out for a Brownwood fossil hunt with Lexy Bieniek as leader, and in exchange for staying at her house, Stan and I volunteered to help paint the porch. So Friday we painted the porch. Saturday, due to rain, we painted two rooms inside. When weather permitted, we rode in Lexy and Mike's truck to various sites to collect fossils and GPS locations.

Since I am a novice, I picked up everything that I saw and brought home about 35 pounds of material. Most of the weight was from a coral reef where I picked up micro-sized material with a shovel, scooping mud and fossils together to be sifted and washed later. With Lexy's help it was easy to learn that Brownwood has a wealth of fossil material, and much has been exposed due to the rain.



**Coming Attractions:                  Lapidary Programs**

- April 18 ..... Demo: **Drilling holes** in stone.  
May 16..... Demo: Making **Doubles**  
June 20 ..... Practice **Riveting** and other cold attachments



## The Caverns

*by Donald Elrod, 8 years old*

*Notes taken March 9, 2005*

*Editor's note: Donald went to the Natural Bridge Caverns over spring break and wrote this description for his mother, who was unable to go.*

Inside of the cavern it is hot and humid. It drips in special places.  
Deep in the cave is a lake named Emerald Lake.

A lot of breath taking sights you can see in the cave.

After you walk for a couple minutes, you will come to a very large dome. It must be at least five stories tall.

The depth of the cave is at least 216 feet.

Stalactites are a type of rock form which is firmly attached to the ceiling of the cave, although a stalagmite is a rock form attached to the floor of the cave. As they grow together from the bottom and from the top, they form a column. This process can take from 100 to 1,000 years to complete.

If you touch a rock in the cave, it will turn black and stop growing and die.

The forms in the cave are made completely out of limestone.

## HGMS Show Committee Membership Drive and Retreat

*by Carol Thompson, HGMS Show Chairman*

The Show Committee is gearing up for the 2005 show. The majority of our planning starts in May and lasts through the show. We have several vacancies on the Show Committee and are looking for volunteers to fill those positions. Most do not require any previous knowledge. (One of the benefits of participation in the HGMS Show Committee is excellent on-the-job training. What a plus!).

### **Areas of need include:**

- Assistant Show Chairman
- Education Committee
- Scout Committee
- Security

As I'm sure everybody in the club knows by now, we have one of the most successful shows—if not THE most successful show—in the SCFMS. We proved that to the Federation last September. The main reason why we have this successful a show is the high level of participation by HGMS members. Without a LARGE number of volunteers, we would be unable to put on such a show.

I would like to ask each club member if you would consider participating in the Show Committee. The difference between participating on the Committee and at the show is

mainly planning. The Show Committee plans the show, and the entire Club puts it on in September. If you would consider helping with this planning, please call or e-mail me at 281-328-7025 or carolynthompson@landam.com. We very much need your help in this critical phase leading up to the show.

For those of you interested, we treat our Show Committee members very well. As several of you know, we do everything that a normal Club Section would do. We have at least one large dinner party each year, and we have several excursions (or retreats) where we build friendships and have fun.

In fact, we're having a retreat at the end of April to south Texas (Choke Canyon Reservoir, Three Rivers, Tilden area) to look for petrified wood and palm frond impressions. It will be on the weekend of either April 23 or April 30 (we haven't firmed up plans yet). It will be an over nighter due to the distance. This is a great opportunity to get onboard with a fun-loving "Section" and immediately start having fun!

Please let me know if you would like to volunteer to be on the Committee and start having fun with us.

### **HGMS Board Approves Bylaw Changes**

*by Scott Singleton  
First Vice-President*

**A**t the April HGMS Board meeting, Board members approved proposed changes to the HGMS Bylaws. According to the Bylaws, notice must be given to the General Membership of these changes at least 30 days prior to their being voted on at a General Meeting. Due to the extent of the changes (they occur on each page of the Bylaws), we do not feel it appropriate to include the entire document in the BBG. Therefore copies of the proposed changes will be posted at various locations around the Clubhouse for members to view.

We can discuss these changes, or at least make members aware of them, at the April General Meeting. Then we will formally discuss and vote on the changes during the May General Meeting.

I encourage each member to at least browse through the proposed changes. Those with a keen interest in these types of things can receive a digital copy by e-mailing either Norm Lenz (lenz@houston.rr.com) or me (ssingle@airmail.net). Either of us will be happy to discuss any of the proposed changes either in person or over the phone (Norm: 713-880-9708, Scott: 713-664-9033).

### **Shop Hint**

*Via Breccia 4/05 and others*

**D****enim Patches:** Did you know that denim iron-on patches make excellent polishing disks? They will adhere to surfaces when ordinary glues will not. Obtain the largest ones you can to fit your wheel disks and cut to fit.

## In Our Library

by Art Smith, Librarian

In recent weeks the big project of the library has been to shift things around so more things fit on the shelves. The set of *Encyclopedia Britannica* is being removed to give more space for the areas where the state publications are kept. Also *Texas Wild Life* magazine is being removed to give more room to the periodicals. The Lapidary Section has donated an almost complete set of *Wire Artist*, and I have copied two issues of Dean Lagerwall's to complete the set. It will be sent to the binder on my next trip there. If you plan to copy anything from it, it probably would be best to do it now before they are bound.

I am contemplating dropping some journal subscriptions next year. On the top of the list are *American Mineralogist* and *Economic Geology*. Both have become so specialized that they seldom contain any pertinent information for hobbyists. I will keep a subscription to the electronic versions on the Web. Each takes 3 to 5 inches of shelf space for new volumes each year.

The video racks are completely full. We have no room for any more. Fortunately, the plan is to try and get most future videos on DVD, and they will be kept in a different place. It would be nice to transfer some of our VHS tapes to DVD someday.

Other than that, things are about normal in the library. I have finished my library work on the Illinois Locality Index, and it is in the hands of several Illinois collectors for their review, corrections, and additions.

I am starting an article at the request of *The Mineralogical Record* on the classic mineral locality of Magnet Cove. Fortunately I expect to get some help from two other people: Mike Howard and Bumpi Barwood. It will be a fairly long term project, and we do not expect to have the first draft done much before the first of next year.

Plan ahead! Before you go on that trip, know where possible collecting areas are and what you can collect.

## Additions to Paleo Library and Current Index

by Paula Rutledge, Paleo Librarian

More books have been added to the Paleo Library and are on the shelves ready to be checked out. The most current listing of our books is on the Web site. You can access the entire list of books from the Web site at [www.hgms.org](http://www.hgms.org). Click on the Paleontology link at the top of the page. Once the Paleo page opens, click on the Paleontology Library Index link just below the Tyrannosaurus Rex skull.

If you have Excel on your home computer, you may copy the library list and load it on your computer. I mention this because the computer in the Paleo Library is so old (a dinosaur by computer standards) that it is **extremely slow** to use to find books. I find it much faster to load the information on my home computer and do my searches there.

When using the Paleo Library computer, remember that it is **slow**. It is **slow** to start up,

and it is **slow** to wake if the screen has gone to sleep. (If you can't get the computer to turn on, chances are it is already on but the screen has gone to sleep. Try moving the mouse or hitting the space bar for 20 to 30 seconds (or longer) to get it to wake up.)

The Web site list of books may be a few days more current than the list on the Paleo Library computer because the Web site list can be uploaded from home at any time, but it sometimes takes a few days to get over to the library to load data.

More book donations are still coming in. Updates will be continuing to the index.

## Two New Education Classes in June, 2005

*by Mary Ann Mitscherling*

**T**wo new classes are being offered this June. **Rock Carving** starts June 4 from 4:00 to 8:00 p.m., and **Enameling** start June 12 from 1:00 to 4:00 p.m. See our Web site and our postings in the clubhouse and see page 20 in this issue for class descriptions. A Show and Tell presentation on what to expect in each class will be made at the May 24 General Meeting. Patty Scott will teach the Enameling class. Ed Clay will teach the Rock Carving class. The full schedule of classes through October follows:

<b>Mold Making</b>	April 17 and April 24, 1–4 p.m.
<b>Cabochon Cutting</b>	April 17, 1–4 p.m.
<b>Jewelry Fabrication</b>	May 3, every Tuesday and Friday for 13 classes, 7–10 p.m.
<b>Beginning Wire Wrapping</b>	May 15, May 22, June 5, 2–5 p.m.
<b>Cabochon Cutting</b>	May 15, 1–4 p.m.
<b>Rock Carving</b>	June 4 and June 11, 4–8 p.m.
<b>Enameling</b>	June 12, June 19, June 26, July 10, July 17 and July 24, 1–4 p.m.
<b>Cabochon Cutting</b>	June 12, 1–4 p.m.
<b>Jewelry Fabrication</b>	June 28 every Tuesday and Friday for 13 classes, 7–10 p.m.
<b>Precious Metal Clay</b>	August 21, 10–5 p.m.
<b>Cabochon Cutting</b>	October 16, 1–4 p.m.

## Slab Saw Donated by Clear Lake Gem and Mineral Society

*by Neal Immega*

**I**t is great to have friends, and even better to have friends with extra equipment. Our shop has been enriched by the donation of an 18" slab saw by the Clear Lake club. Dick Rathjen even delivered it! It is so clean that Tom Wright was considering forbidding anyone to use it. He thought that our shop could label it "This is what a clean saw looks like." Have you ever bought a used car and were told that it had only been driven to church on Sundays? Well, we are going to use the donation to replace one of our existing saws that has been "ridden hard and been put away wet." Thanks.

## School Fossil Kits

by Neal "Educational Elf" Immega

**Y**ou have heard it all in management classes I am sure: "The goal is in sight," "The end is near," or my favorite: "The light at the end of the tunnel." With this kind of windup, don't think I am going to stop writing until I get in all the details. You have been warned. You are going to find out where all the bodies are buried.

One of the crown jewels of the club is our program for making earth science teaching kits for schools. Who better to create "jewels" than a gem and mineral society? The idea is that when one of us gives a talk at a school, the member can use a collection of rocks, minerals, or fossils and LEAVE it behind! Wow, what a concept! If you give talks to organized groups of kids, you can participate. We don't have the resources to be a supply house to provide kits to every earth science instructor, or even all those nearby. If **you** give a talk, **you** can take and leave behind **TWO** of these kits.

One of the requirements is that you fill out a form telling where the kits are going. This is for providing some feedback to keep our sponsor informed and happy. Yes, HGMS is the grateful recipient of a grant to assist in the creation of these kits. ConocoPhillips provides \$2,500 each year toward buying boxes and hard-to-find items for the kits. Club members provide the expertise, labor, and about  $\frac{3}{4}$  of the specimens. Art Smith, the guiding light and nurturer of this program for many years, has stepped aside. Fortunately, other people have picked up the slack, notably Steve Blyskal.

But I digress. This is an article on the Paleo School Kits. I know, that reads like we are providing building materials for old schools. I am sure that our editor would suggest "Earth Science Teaching Materials for Paleontology," otherwise known by the snappy acronym of ESTMOP. I rather like FOSSIL as an acronym, but I cannot think how to expand it into a snappy label. Maybe **Fine Old Samples Somewhat Illegibly Labeled?** Art always made up all the kits himself, including the fossil ones. In an effort to spread the load, the Paleo Section is now building the fossil kits.

There is always a choke point in every process. For the Paleo Section, it was the lack of a place to store the boxes of sorted fossils. It would take a miracle to find empty space in the clubhouse! Strange as it seems, that would make Paul McGarry a miracle worker because he donated a trailer for the storage of several heavy and difficult-to-move items for the show, including iron frames for the fluorescent light display. When Paul waved his wand and made the iron frames disappear, I bought industrial shelving and captured the space.

No one else wanted that space because there was a serious roof leak there, but another angel, Norm Lenz, got the roof fixed. Then, too, it would have taken the HGMS Board longer to move on it if Tom Lammers had not told them that the roof was "all shot." Wow, we are going to have enough angels for a heavenly chorus soon. Another angel soon appeared in the form of Paula Rutledge's childhood crush, Paul Heinrich. It seems that Paul's father took his family everywhere and collected all sorts of earth

materials, including thousands of pounds of fossils. I do not know how many pounds Paul donated, but we moved enough stuff to fill four pickup trucks to their load limit. I am adding a lot more rock-toting angels to the list. The Heinrich collection was perfect for school kits because the fossils are mostly "good enough," they are well labeled, and there are *lots* of them.

The main force behind the actual assembly of the fossil kits has been Stan Perkins, an enthusiastic new member with a get-it-done attitude. Another new member, Sunday Bennett, provided able assistance. Sunday likes the process of arranging the fossils by size and color and shape but that may be just her art training showing up. The rest of us work hard at humoring her because the size of her husband, Rusty, makes disagreement unwise. Stan made several innovations such as using plastic bags to hold the large and irregular fossils and including real lesson plans with the kits.

Get out there and give talks and give away **Fossil** kits. All the angels will bless you.

### AFMS President's Message

#### Our Bulletin Editors

by Bill Smith, AFMS President  
from AFMS Newsletter 4/05

**A**s President, I receive newsletters from throughout the AFMS. This is one of the most important, demanding, and overlooked positions in our clubs. I do read every newsletter and have found all to contain useful information, even for one who has been a rock hound for over 25 years. I randomly picked five bulletins to comment on because of the limited space for my message, even though I could comment on all of the hundred or so I receive. I want to let everyone know how important our editors are when it comes to disseminating information to our members.



Editor Ellery Borow of *The Rocky Road*, newsletter of the Water-Oak Gem and Mineral Society, Waterville, ME is also their President along with several other club positions. He sent me a personal letter thanking all the AFMS personnel for their input to the AFMS newsletter which he uses, as the President, to help make the club meetings more interesting and to help retain members.

Edith E. Hammond, editor of the *Granite Chips*, Southeastern New Hampshire Mineral Club, Dover, NH was given a standing ovation at their Christmas Party for being editor of the Granite Chips for 38 years. The newsletter is done on a SWINTEC typewriter. Hard to believe what can still be done on a typewriter.

Being a paleontologist, it was interesting to receive the *PALEO Newsletter* from the Austin Paleontological Society, Austin, TX, editor, Jean Wallace. I sure wish I could have been on some of those field trips. I also was very pleased to see three articles

from the AFMS newsletter included. Eye Safety by Bill Klase, Loud and Clear by George Loud, and even my President's Message.

Several bulletins are now available via computer. I just ran off *Slabs and Cabs* from the Gulf Coast Gem and Mineral Society, Corpus Christi, TX. The editor, Donna J. Roethler, has a large portion of the newsletter in color. You have to check the calendar page to see how innovative Donna is at using color as an attractor to get members to read the page.

The *Arrowhead News* from the Indian Mounds Rock and Mineral Club, Wyoming, Michigan, editor Edward Benjamin, has numerous pictures from a Demonstration Night. These pictures show people of all ages involved. The one with Bill Schoonveld showing a young student how to make a cab on a genie says it all. It just doesn't get any better than this.

I want to thank all the editors for your dedicated support to your club, your Regional Federation, and the AFMS. I remember our AFMS newsletter editor, Carolyn Weinberger, saying her newsletter is no better than her input. It just amazes me how all of you can take whatever input you receive and make such an informative newsletter.

### **AFMS President-Elect Message**

*by Jim Robinson*

*from AFMS Newsletter 4/05*

I am sure many of you reading this message have heard of the recent legislation which cancels the Golden Age Passports and Golden Access passes to National Parks and Public Lands through the nation. In the last days before the holidays, congress passed a mammoth appropriations bill some 3000 pages long. This bill contains, besides the necessary budgets for departments, thousands of pork barrel amendments for a wide variety of projects. This is typical of many bills passed by Congress, and most of these amendments are never read nor discussed.



One such part of this bill cancels the lifetime Golden Age Passport for seniors legislation (currently a one time payment of \$10.00). In its place, Congress has voted to create the "America The Beautiful" card at \$100 per year. For this we would be allowed access to all USFS and BLM lands for the purpose of recreation and to the National Parks.

To use a phrase from an article by Peter Martin, President of Scribe: "The threat to Gem, Mineral, and Rockhounding clubs is clear, but we are not the only ones affected. Consider the impact on a church picnic into a USFS forest, and the need to ensure that everyone has his or her pass. Perhaps the commercial collecting agents will turn their primary focus on rock hounding and the godly, and leave hunters alone. Who will demand a pass from someone with a loaded rifle?"

This section to the house bill was inserted at the last moment as a late night deal between two Representatives from Alaska and Ohio, neither of whom have public lands in their districts. This section was never discussed on the floor of the House or the Senate. The way in which this section became law is an affront to every law-abiding citizen of this country. I hope each and every one will join me in making this known to all our elected officials in the House and Senate.

**Photos Taken at the San Antonio Show by Matthew Phillips**



Matt Dillon inspects a potential purchase

Carved obsidian (right)



Scott Singleton identifies petrified wood (below)



## Houston Gem and Mineral Society Class Descriptions

*by Mary Ann Mitscherling*

**M**embership in HGMS is required to take a class. All classes are held in the HGMS Clubhouse, 10805 Brooklet at Rockley. The class schedule is subject to change based on expected attendance and instructor availability. Call 713 957-2001 if you wish to take a particular class or for more information. When enough students request the class you want, you will be contacted. A \$25 advance nonrefundable deposit is required to reserve a spot in a scheduled class. Send your name, e-mail address, telephone number, and a list of your classes of interest to [maryann@hal-pc.org](mailto:maryann@hal-pc.org).

**Cutting Cabochons:** Cut and polish one oval cabochon in class. One Sunday 2-5 p.m., \$30; class is limited to 4 students.

**Jewelry Fabrication:** Learn and practice skills for professional jewelry making at beginning, intermediate, or advanced level. Two week nights per week for 6½ weeks for each level, 7-10 p.m., \$390, 13 3-hour classes; class is limited to 6 students.

**Chasing and Repoussé:** Learn how to make chasing and repoussé tools using tool steel which you will harden and temper. The tools will belong to the students. The class also includes instruction in use of the tools by working on copper. Repoussé is the technique of using steel punches driven by a hammer to create shapes and forms by stretching metal downward into the pitch material supporting it. Chasing is the technique of working on the front side of the metal to refine the shape, form, and texture of the object. Tool steel and copper is supplied by HGMS. Six Sundays 1-4 p.m., \$180; class is limited to 6 students.

**Wax Modeling and Lost Wax Casting:** Work with different types of waxes and modeling techniques and cast the prepared wax models, 6 Sundays 1-4 p.m., \$180; class is limited to 6 students.

**Mold Making:** Learn how to make rubber molds that will be used to make wax patterns for lost wax casting. All materials are provided. Two Sundays 1-4 p.m., \$60.

**Ad Hoc Casting:** Bring your prepared flasks for final processing. Price of class is based on the number of flasks you bring to process. One week day, 6: 9 p.m..

**Wire Wrapping:** Beginning and advanced levels produce bracelets, cabochon pendants, and rings. Three Sundays, 2-5 p.m., or one week night 7-10 p.m. for three weeks, \$90; class is limited to 6 students.

**Precious Metal Clay® (PMC):** PMC consists of microscopic particles of silver or gold suspended in an organic binder and creates a material similar to clay. PMC is worked with simple tools to create jewelry pieces. When heated in a kiln, it forms solid metal that can be worked with conventional tools. Students will learn basic techniques and will complete four pieces of jewelry. One Sunday from 9 a.m. to 5 p.m., \$90; class is limited to 8 students.

**Enameling:** This course introduces the beginning student to fundamental techniques used in vitreous enameling (the firing of glass on metal). The student will learn the basics of metal preparation, enamel selection, and application. The enameled pieces created in this class will be kiln fired. Students will learn proper kiln management. Torch-fired enamels will not be addressed in this course. Prior jewelry fabrication experience is helpful but not required. Six Sundays, 1: 4 p.m., \$180; class is limited to 6 students.

**Rock Carving:** Students will learn flute and pierce carving using a carving box (supplied by student) or using a shallow bowl with flat bottom, carving tools, Lexan disks, flex shaft, and associated tools. Lexan disks prepared in class will belong to the student. Students will work with tiger eye, moss agate, jasper, or jade that is free of cracks, flaws, pits, and vugs. Two Saturdays, 4–8 p.m., \$100; class is limited to 5 students.

### HGMS Board Meeting

March 7, 2005

*by Paula Rutledge, Faceting Representative  
acting as Secretary*

**B**oard members present: President Norm Lenz, 1<sup>st</sup> Vice-President Scott Singleton, 2<sup>nd</sup> Vice-President Beverly Mace, Treasurer Paul McGarry, Faceting Representative Paula Rutledge, Lapidary Rep. David Hawkins, Mineral Rep. Art Smith, Paleontology Rep. John Moffitt, Day Light Rep. Tom Wright

A change in the way minutes are handled was made and the motion carried. The meeting minutes will be sent to the Board. The Board will vote on approval of the minutes at the following Board Meeting. A copy of the minutes will not be put in the binder or sent to the BBG until approved.

### Reports

**Backbenders Gazette:** ..... Phyllis George (not in attendance)

**Shop and Clubhouse:** ..... David Hawkins/Tom Wright

- David Hawkins and Tom Wright are in the process of changing out water-stained ceiling tiles.
- The fossil cleaning and assembly area will be cleaned.
- Carpets in the club house will be cleaned.

**Membership:** ..... Beverly Mace

Half the membership have renewed their HGMS dues.

**Treasurer's Report:** ..... Paul McGarry

**Library:** ..... Art Smith

**Show Committee:** ..... Carol Thompson (not in attendance)

**Education Committee Report:** .... Mary Ann Mitscherling

## Special Committee Reports

- **Nominating Committee:** ..... Art Smith, Tom Wright, Matt Dillon
- The committee has given Norm Lenz a list of Assistant Show Chair nominees.
- **HGMS Web Site Committee:** Paula Rutledge
- **Bylaw Committee:** ..... Scott Singleton, John Moffitt

## Section Board Representatives:

- **Faceting:** ..... Paula Rutledge
- **Lapidary** ..... David Hawkins
- **Paleontology** ..... John Moffitt
- **Mineral** ..... Art Smith
- **Day Light** ..... Tom Wright
- **Youth** ..... Beverly Mace

**Programs for Next Month:** ..... Scott Singleton

## Old Business

- Members who have not paid their 2005 dues by February will be considered delinquent as stated in the HGMS bylaws.
- There is now a list for the position of Assistant Show Chair. This list has been presented to Carolyn Thompson.
- An exchange of the 2004 show guest list with the HMNS is being considered.

## New Business

- A donation to the Tsunami Relief Fund was suggested by Lilli Arone. Norm Lenz asked for a motion. No motion was made. No action was taken.
- An educational summer camp for children, suggested by Karen Burns, will be considered pending an official proposal before the Board. Norm Lenz will contact Karen to ask if she would like to organize this and make the official proposal.
- A suggestion by Karen Burns for educational special events (such as birthdays) for children to raise funds was not put into a motion. The suggestion could not be considered due to concerns over liability and housekeeping.
- A motion was made for a privacy partition wall to be built in both bathrooms. Tom Lammers suggested this. John Moffitt moved to allow Tom Lammers to do the construction. David Hawkins seconded the motion. The motion was approved unanimously. Norm Lenz will contact Mr. Lammers.
- It was moved to exterminate the entire clubhouse for insect pests after a member reported seeing a brown recluse spider. Scott Singleton moved to accept. John Moffitt seconded. The motion was approved unanimously. Norm Lenz will contact a chosen exterminator. The cost of extermination will be \$250.00
- A nomination of members for Honorary Lifetime Membership was tabled until more information could be presented about the members in question.
- Treasurer Paul McGarry presented the new 2005 Budget.
  - ◆ Neal Immega suggested that additional monies be allocated for the shop budget. Since a figure could not be given, the Board decided to keep the shop budget as it is and for Neal to request additional monies as needed.
  - ◆ Beverly Mace noted that the budgeted amount for postal fees is adequate to

handle mailing out the BBG and would cover any future postal rate increases.

- ◆ Tom Wright moved to accept the 2005 HGMS Budget as presented by Paul McGarry. David Hawkins seconded the motion. The motion passed.
- Matt Dillon asked the Board for approval of Ed Tindell's Rock Swap Meet to be held in the HGMS parking on Sunday, April 10.
  - ◆ John Moffitt moved for approval. Art Smith seconded the motion. Scott Singleton objected.
  - ◆ An amendment was made to ask for approval in advance before an announcement is made in public. John Moffitt seconded this amendment. The amendment passed.
  - ◆ David Hawkins moved to accept the Swap Meet for April 10, and Tom Wright seconded. The motion passed.
- Due to time constraints, a discussion of the Bylaws Changes was postponed until the next Board meeting.
  - ◆ Scott Singleton asked that the Bylaw Changes be given first consideration at the next meeting.
  - ◆ Tom Wright also wished to present changes he would like to see incorporated in the Bylaws at the next meeting.

The **Standing Committees** shall be as follows:

- Clubhouse Committee ..... David Hawkins/Tom Wright
- Field Trip Committee ..... Neal Immega
- History Committee ..... Art Smith
- Library Committee ..... Art Smith
- Membership Committee ..... Beverly Mace
- Newsletter Committee ..... Phyllis George
- Program Committee ..... Scott Singleton
- Refreshments Committee ..... By volunteers

**Special Committees:**

- Nominating Committee ..... Art Smith, Tom Wright, Matt Dillon
- Show Committee ..... Carol Thompson
- Bylaw Committee ..... Scott Singleton, John Moffitt
- Web Site Committee ..... Paula Rutledge

**SCFMS President**  
**Words from William**  
*by William Medford*

*from SCFMS Newsletter 3-4/05*

**I**t seems like only yesterday that we were conducting the final Federation business for 2004 and electing officers for 2005. Now we are in the advanced planning and preparation for the 2005 meeting and the election of officers for 2006. These actions do not occur overnight, and it takes a large amount of time and effort to ensure that the Federation is functional in all areas.

In this regard I am asking that each club, society, school, etc. canvas its membership to determine who within the organization would be willing to serve in some capacity

within the Federation. To start with, this may only be as a member of some committee or as a trainee for a future position. Whatever it may be, it is a start to keeping the Federation strong with younger member leadership. This Federation has remained strong under the watchful eye of the founding members and the willingness of the younger members to step up to assume the responsibility of leadership. We need youth in all our programs and seek your help in finding new and willing people to be our leaders of the future.

The 2005 Federation convention will be in Austin, Texas, in connection with the Austin Gem and Mineral Society annual show. It will be December 2 through December 4, so it is not too soon for each club to begin determining who will be attending and representing your organization. As you know, it is the responsibility of every club to send a Delegate to the convention. That delegate is usually the club President or a person appointed by the President to represent the club. Don't wait, start planning now to attend the convention and be ready for your convention packet when it arrives in the summer.

The nominating committee is already looking for people to assume the leadership roles for 2006. None of these positions require a full-time commitment. There are duties that require some time each month, but these tasks are not a burden. Please let the Federation know of your intent to serve, or give us the name of someone who has indicated that they are willing to serve.

The Federation needs clubs to make bids for hosting the Federation convention for 2007, 2009, and 2010. Please give us a date and an alternate so that we can get your date established and on record. If your club has never hosted a Federation Convention event, please don't be frightened at the thought. There are many people in the Federation who will be glad to assist you with the planning. The most important thing is to plan a convention around your annual show. We need to plan ahead so that there is not a last minute rush to find a club to host the annual meeting.

There are still clubs who have not paid their annual dues for 2005. They were due in January, so check your records and get those dues paid. Also several of our clubs have forgotten to send in an updated officer roster for 2005. We need this roster for us to be able to contact the proper person in your organization. This information is needed for the Federation directory.

I look forward to meeting and visiting with many of you at upcoming shows. Support your SCFMS clubs and organizations by attending meetings and shows. Remember, if you want them to attend your show, you should be willing to make the effort to attend the shows of other clubs.



## SCFMS Safety Report

by George Browne

SCFMS Safety Chair

SCFMS Newsletter 3-4/05

**T**his safety message is actually more of a nature article than a safety article because the subject is not dangerous—it's just scary. The subject is tarantulas. They are our largest spiders and they are hairy and fearsome looking.

Tarantulas are found on every continent except Antarctica. The largest species are found in South America. Here in North America over 30 species have been identified, and 14 known species are found in Texas. They can be found in all terrains but are generally found in the Southwest. Since they are cold blooded, they are not active in cold temperatures. They are generally seen in late spring and summer. If you have done much driving on rural roads in late spring, you may have seen what looked like a ribbon of dark smoke crossing the road. On close inspection you see that the ribbon is actually a migration of tarantulas. No one seems to know for certain what causes this phenomenon. It may be a mating thing, or it could be a quest for new terrain.

Most tarantulas live in ground burrows and feed on insects or anything small enough to catch. They do have fangs that contain poison that they use to subdue their prey. Their bite is also their last line of defense. Their first line of defense is to assume an attack position by throwing itself back on its haunches and lifting its front legs. This intimidating posture is a deterrent to predators. It also allows the tarantula to throw urticating hairs from its front legs, which can be quite irritating when they get in the eyes of the attacker.

So tarantulas do bite and they do secrete a poison, but there has NEVER been a reported case of a human death from a tarantula bite. Of course there is always the remote possibility of a fatal allergic reaction. The following is an example of just how harmless these creatures are. Several years ago our son was in a Boy Scout troop that had a week-long summer camp in the Texas hill country. Some of the boys were successful in capturing a few tarantulas. Being resourceful scouts they took a length of thread from their sewing kit and tied it around the spider and tied the other end to a safety pin, which they attached to their uniform shirt. The spider was looking for places to hide so it would go into the shirt pocket. Wednesday was parent's day. The parents would show up Wednesday evening to get a look at the campsite and have dinner with the boys around the campfire. At the appropriate time the boys would pull the tarantulas out of their pockets and get the desired effect of shocking moms and terrifying little sisters. Some of the boys did get bitten, but it was no worse than an ant or mosquito bite. The scoutmaster did make sure that the boys did not bring their new pets home with them.

Tarantulas are nocturnal, so they stay hidden during the day in their burrows. The burrow may be under a rock. So if you come along, spot a potential piece of petrified wood, turn it over and expose a tarantula, don't panic and hit yourself in the head with your own rock hammer or fall off a bluff. Just stay cool, take a deep breath and the spider will probably try to escape. You won't get bitten unless you try to handle the

creature. If you practice good field trip safety, you will be wearing gloves, a long-sleeve shirt, and long pants so you will be protected if there is an encounter. If you are bitten, just treat the bite like any insect bite. Place ice on it to reduce the swelling and take some over-the-counter product like Benadryl™.

Tarantulas in our area are usually not larger than three inches, but they have been found as large as five inches. Their big hairy size makes them scary, but they are not nearly as dangerous as their smaller cousins: the black widow or brown recluses. While researching material for this article on the Internet, I was amazed to find so many people that collect, buy, sell, and trade tarantulas. They are even listed on eBay. It made me glad that I only like rocks.

Stay safe. Only you can prevent an accident.

### Chemical Weathering Experiment

*by Christine Vasper*

*from The Post Rock 12/04: Exploring Creation with General Science*

*by Dr. Jay Wile, via Breccia 3/05*

**T**his would be a fun project to share with your children or grandchildren:

**Supplies needed:** Vinegar, empty glass jar, and small limestone rock

#### Procedure:

- A. Put the limestone rock into the glass jar.
- B. Pour vinegar in the jar and cover.
- C. Watch the limestone rock dissolve. You will see bubbles coming out of the rock.
- D. Let the jar sit overnight.
- E. In the morning, look at the rock. Does it look smaller? Swirl the vinegar around in the jar. Do you see the powdery sediment? It came from the rock.
- F. Add more vinegar to the jar.
- G. Study the rock again a few days later. The vinegar should have evaporated. What do you see now? I found crystals in my jar. It was a baby stalagmite.

### Exciting News of the 2005 AFMS Endowment Fund Raffle Prizes

*by Joy Bourne, AFMS Endowment Fund Chair*

*from AFMS Newsletter 3/05*

**W**e have received pledges for a total of twelve spectacular prizes to offer this year, and will have pictures of all of them to post on the AFMS Web site shortly. To whet your appetites for ticket purchases, here are some pictures and descriptions of five more of the new prizes.

1–2. Two more lovely opal pendants. The cabochons measure 8x15 mm and 10x14 mm in size, and both show red and green fiery sparkles throughout. The stones were in the inventory of the Endowment Fund and were cut, finished, and set by Shirley Leeson, CFMS, and Dee Holand, NFMS. Each is valued at \$200.



3. A rare specimen of nine Eocene fossil bird tracks from Green River fm, Soldiers' Summit, Utah. The size of plate is 9"x 9.25". Donated by Bill Klose, EFMLS/AFMS Safety Chairman from the Paleontological Research Institute of Ithaca, NY, Donation authorized by Dr. Warren Allmon, Director of the Institute. Approximate value is \$150.



4. This fabulous Pecos Diamond Gem Tree is made of 327 double-terminated "Pecos Valley Diamonds" on the tree itself. The base is of alabaster and has nine clusters of crystals. The tree was made by Howell Whiting's daughter, Diane Weir of the Chaparral Rockhounds, and is worth approximately \$85 to \$100.



5. A beautiful butterfly carved from petrified wood, pedestal-mounted, and donated by AFMS President Bill Smith of NFMS. It is a caramel and cream color, 3¾" wide and just over 3½ inches long. Bill says he has never seen this cream color before—and its value is \$100–\$150.



As you are reading this article, the AFMS Endowment Fund Committee members are already out there selling tickets for the 2005 fund raising raffle. Contact your Regional Federation's committee member to purchase tickets for yourself or to reserve a block of tickets for your club. Regional committee members are as follows:

**CFMS** Bural LaRue  
P. O. Box 1657  
Rialto, CA 92377-1657  
(909) 874-5664  
bplarue@earthlink.net

**MWF** Marvin Starbuck  
7636 East V Ave  
Vicksburg, MI 49097-9307  
(616) 649-1991  
minedump@iserv.net

**RMFMS** Howell T. Whiting  
2300 South Union Ave  
Roswell, NM 88203  
(505) 622-5679  
htwdhw@dfn.com

**SFMS** Ken Anderson  
2023 Briarwood Circle  
Fort Mill, SC 29735  
(803) 547-5147

**EFMLS** Joy Bourne  
RR#1, Box 159A  
Towanda, PA 18848-9739  
(570) 265-6454  
csprings@epix.net

**NFMS** Jack L. Edwards  
1475 Bussell Road  
Walla Walla, WA 99362  
(509) 529-3673  
edwardsj@wwics.com

**SCFMS** Joyce Speed  
4680 Wisteria  
Dallas, TX 75211-8026  
(214) 337-9446  
llispeed@yahoo.com

**NC State Paleontologist Discovers Soft Tissue in Dinosaur Bones***NC State University News Services 3/24/05, via Breccia 4/05*[http://www.ncsu.edu/news/press\\_releases/05\\_03/075.htm](http://www.ncsu.edu/news/press_releases/05_03/075.htm)

**C**onventional wisdom among paleontologists states that when dinosaurs died and became fossilized, soft tissues didn't preserve—the bones were essentially transformed into “rocks” through a gradual replacement of all organic material by minerals. New research by a North Carolina State University paleontologist, however, could literally turn that theory inside out.

Dr. Mary Schweitzer, assistant professor of paleontology with a joint appointment at the N.C. Museum of Natural Sciences, has succeeded in isolating soft tissue from the femur of a 68 million year old dinosaur. Not only is the tissue largely intact, it's still transparent and pliable, and microscopic interior structures resembling blood vessels and even cells are still present.

In a paper published in the March 25 edition of the journal *Science*, Schweitzer describes the process by which she and her technician, Jennifer Wittmeyer, isolated soft organic tissue from the leg bone of a 68 million year old *Tyrannosaurus rex*. Schweitzer was interested in studying the microstructure and organic components of a dinosaur's bone. All bone is made up of a combination of protein (and other organic molecules) and minerals. In modern bone, removing the minerals leaves supple, soft organic materials that are much easier to work with in a lab. In contrast, fossilized bone is believed to be completely mineralized, meaning no organics are present. Attempting to dissolve the minerals from a piece of fossilized bone, so the theory goes, would merely dissolve the entire fossil. But the team was surprised by what actually happened when they removed the minerals from the *T. rex* femur fragment.

The removal process left behind stretchy bone matrix material that, when examined microscopically, seemed to show blood vessels, osteocytes, or bone building cells, and other recognizable organic features. Since current data indicates that living birds are more closely related to dinosaurs than any other group, Schweitzer compared the findings from the *T. rex* with structures found in modern-day ostriches. In both samples, transparent branching blood vessels were present, and many of the small microstructures present in the *T. rex* sample displayed the same appearance as the blood and bone cells from the ostrich sample.

Schweitzer then duplicated her findings with at least three other well-preserved dinosaur specimens, one 80-million-year-old hadrosaur and two 65-million-year old tyrannosaurs. All of these specimens preserved vessels, cell-like structures, or flexible matrix that resembled bone collagen from modern specimens. Current theories about fossil preservation hold that organic molecules should not preserve beyond 100,000 years.

Schweitzer hopes that further research will reveal exactly what the soft structures isolated from these bones are made of. Do they consist of the original cells, and if so, do the cells still contain genetic information? Her early studies of the material suggest that at least some fragments of the dinosaurs' original molecular material may still be

present. "We may not really know as much about how fossils are preserved as we think," says Schweitzer. "Our preliminary research shows that antibodies that recognize collagen react to chemical extracts of this fossil bone. If further studies confirm this, we may have the potential to learn more not only about the dinosaurs themselves, but also about how and why they were preserved in the first place."

The research was funded by NC State, the N.C. Museum of Natural Sciences and the National Science.

### Utah Emerald

*Excerpted from an article in the Denver Post 2/14/99  
via Breccia 4/05 and others*

A man found an irregular stone in the Uinta Mountains near Hanna, Utah, about 50 miles northeast of Provo. Eventually it was identified as a 30-carat emerald by Jeff Keith, a geology professor at Brigham Young University. He was skeptical that it had formed naturally, so he and a graduate student checked out the area themselves. They did not find emeralds, but did find a huge vein, estimated at 170,000 tons of fibrous calcite. The calcite, some of which has been used for carvings and other decorative collectibles, could be worth \$120 million. The abundance of the fibrous calcite indicates there are deposits of emeralds buried deep in the Uintas. The area is similar (more than 20 similarities) to the Villeta Formation in Columbia from which come the most valuable emeralds in the world. The Utah emerald is now in the possession of the finder's mother, but it has little market value. Eventually people may discover more emeralds in the Uintas.

### Ironing a Duck

*via Breccia 4/05 and others*

Rebecca Clarren in the July/August Audubon magazine writes that scientists at Victoria University in Melbourne, Australia have reported it may be possible to use super-fine, nontoxic iron dust and powerful magnets to remove up to 98 percent of oil and contaminants from bird feathers. In the past, ducks, penguins, and other birds covered in the sludge from oil and fuel spills have been cleaned by hand with liquid detergent—hard on the birds and hard on the rescuers. This process, if successful, is much more environmentally friendly than using phosphate-based detergents which can act like a fertilizer and cause destructive, deadly algal blooms.



**ShowTime 2005**

April 23-24	Memphis, TN	Memphis Archaeological & Geological Soc. Pipkin Building Midsouth Fairgrounds W.C. McDaniel (901) 274-7706
April 29-May 1	Rogers, AR	Northwest Arkansas Gem & Mineral Society Rogers Expo Center, 2223 Walnut DeLane Cox (479) 254-0894
April 30-May 1	Lubbock, TX	Lubbock Gem & Mineral Society Lubbock Civic Center Archie Scott (806) 894-1584
May 6-8	Marietta, GA	Georgia Mineral Society Cobb Cnty. Civic Cntr, 548 S. Marietta Pkwy Jay Gorday (770) 986-0822
May 14-15	Waco, TX	Waco Gem & Mineral Club Fine Arts Bldg, Heart of Texas Fair Complex 4601 Bosque Blvd. Ruby Lois Jones 254-666-4077
May 28-29	Fort Worth, TX	Fort Worth Gem & Mineral Society Will Rogers Memorial Center
June 4-5	Birmingham, AL	Alabama Mineral & Lapidary Society Tannehill Ironworks Historical State Park I-20/59 S Ext 100 rickkittinger@bellsouth.com
August 13-14	Baton Rouge, LA	Baton Rouge Gem & Mineral Society Frat. Order of Police, BR Lodge number 1 10777 Greenwell Springs Rd. Clara Broussard (225) 687-3864
August 19-21	Bossier City, LA	Ark-La-Tex Gem & Mineral Society Bossier Civic Center, 620 Benton Rd. Charlie Johns (318) 687-4929
August 27-28	Arlington, TX	Texas School of Earth Sciences (formerly Arlington Gem & Mineral Club) University of Texas, Arlington
September 3-4	Jasper, TX	Pine Country Gem & Mineral Society VFW Building 7 miles west of Jasper
September 17-18	Farmers Branch, TX	Pleasant Oaks Gem & Mineral Club Ellison Miles Geotechnology Institute 3939 Valley View Lane

2005		MAY				2005
Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3 7:30 Board Meeting	4 7:30 Mineral Section	5	6	7 10-12 Youth Section 11-3 Shop Open
8	9 1:00 Day Light Section	10 7:30 Show Comm	11 7:30 Faceting Section	12	13	14 11-3 Shop Open
15	16 7:30 Lapidary Section	17 7:30 Paleo Section	18 7:30 Mineral Section	19	20	21 10-12 Youth Section 11-3 Shop Open
22	23	24 7:30 General Meeting	25	26	27	28 11-3 Shop Open
29	30	31				

2005		JUNE				2005
Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1 7:30 Mineral Section	2	3	4 10-12 Youth Section 11-3 Shop Open
5	6	7 7:30 Board Meeting	8 7:30 Faceting Section	9	10	11 11-3 Shop Open
12	13 1:00 Day Light Section	14 7:30 Show Comm	15	16	17	18 10-12 Youth Section 11-3 Shop Open
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# ***The* BACKBENDER'S GAZETTE**

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

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