



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

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

Volume XXXVII - No. 4

April 2006

## **General Meeting Programs: March 28 and April 25**

*by Matt Dillon*

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

**M**arch 28: What are the fundamental principles on which the HGMS is built (and on which our tax status is based)? The first text one sees upon visiting our Web site is the following: *The Houston Gem and Mineral Society is a not-for-profit organization dedicated to study in the areas of earth science and related fields and arts. A major focus of the HGMS is education. Through classes offered at the clubhouse and through our scholarship fund, the HGMS encourages its individuals and groups to better their knowledge and understanding in these areas.*

I think everyone is familiar with our adult education classes and the outreach activities we are engaged in (such as our Annual Show). But did you know that since the early 1990s ConocoPhillips has given us a \$2,500 annual grant to produce and distribute mineral and fossil kits to school kids? Do you know what kits we have or the proper way to go about getting a kit? Do you know kids who do not otherwise have access to such learning materials and whose school would enjoy receiving one or two of these kits? Come to the March 28 General Meeting and learn the basics behind this very important but underutilized program. Neal Immega will show what you can do. He will be giving a basic 4<sup>th</sup> grade Rock Cycle talk and will tell you lots of helpful hints on how to put on a successful program.

**April 25:** In April we are very fortunate to have a distinguished professor at Rice University give our presentation. Dr. Richard G. Gordon is a Geophysics professor in the Earth Sciences Department of Rice University. His specialty is Quantitative Tectonics, which essentially is the measurement and study of tectonic plates on the earth's crust and their motion.

His presentation will be about **hot spots**—sites of volcanism in the interior of tectonic plates or excessive volcanism along the boundaries of tectonic plates. Examples of hot spots include Hawaii, Yellowstone, Iceland, and Java. A fundamental question that pertains to the inner workings of the Earth is how fast hot spots move relative to one another. Some workers think that motion between hotspots can be as fast as 80 mm/year, which is faster than the relative motion between many pairs of plates, whereas Dr. Gordon says that it cannot be more than about 10 mm/year and perhaps much less. He will discuss the history of research on this subject as well as ongoing investigations at Rice University.

## Contents

General Meeting Programs: March 28 and April25 .....	1
Purpose of HGMS .....	3
HGMS Officers .....	3
Collection Disposal—Another Alternative .....	4
Letter from Lilli Armoni .....	5
North Sulfur River Field Trip .....	6
Ancient and Modern Cycads .....	8
May 3 Mineral Section Auction .....	15
Book Review – The Mistaken Extinction. Dinosaur Evolution and the Origin of Birds .....	15
February General Meeting Program .....	16
HGMS General Meeting .....	16
HGMS Board Meeting .....	17
Mineral Section .....	20
Day Light Section .....	21
In Our Library .....	21
What Do I Wear to a Dig, and What Do I pack for it? .....	22
SCFMS Safety Report .....	23
Rock Collecting Pouch Directions .....	24
DUES ARE DUE .....	24
AFMS President's Message .....	29
AFMS President-Elect's Message .....	29
Truth & Some Consequences .....	30
2006 SCFMS Annual Show .....	32
Opal Cracks and Crazing .....	32
AFMS Code of Ethics .....	32
ShowTime 2006 .....	34
Calendars .....	35

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*Editor: Phyllis B. George  
22407 Park Point Drive  
Katy, TX 77450-5852  
Phone: (281) 395-3087  
Copy is due for the May issue by  
Wednesday, April 12, 2006.*

*E-mail the Editor and Webmaster at  
pgeorge4@houston.rr.com*

## Purpose of HGMS

**T**he 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>.

## Collection Disposal—Another Alternative

by Art Smith

*Member of the Houston Gem & Mineral Society*

For several years the Houston Gem & Mineral Society has had what we consider a successful program for mineral, lapidary, gemstone, and fossil collection disposal. No, we are not a repository for specimens though we do have some specimens on display. We offer several alternatives depending on the type of collection and the wishes of the collection owner. To date there have been no high-end mineral or fossil specimens or extremely large collections except for two mixed lapidary and mineral collections and a fossil collection. We might not be the best resource for a large, high end mineral or fossil collection, but since we have not tried it, we do not know how much interest or money they might possibly generate. Certainly we would have to advertise outside of our own organization to find buyers or bidders for such a collection.

We have received self-collected specimens of fair to good quality and prefer that the collection not be appraised, but this does not prevent our dealing with a collection, and we can have a written appraisal if desired. The donation of an appraised collection that the owner is planning to use as a tax deduction has its own set of rules—one of which requires us to retain the collection for a certain period of time before disposal.

Our School Collections program can use miniature to small cabinet-sized specimens for the school sets, but we prefer quantities of each mineral. The value of these specimens is determined by what they would cost us if we purchased them for the sets, so the donation would equal the total value of the material. If there were some extremely hard to find material, we might be willing to purchase it with funds from ConocoPhillips who cosponsor this very successful program (which was initiated in 1993).

Specimens not appropriate for the School Collections would be disposed of by special sale or auction. Some of the proceeds from the sale would be considered a cash donation to the Society. We allow the owner of the collection to retain up to 50% of the proceeds, and the remainder would be considered a cash donation to the Society. Although most of the specimens are sold individually, some of the material may be sold by the flat, box, or bucket, and if the collection owner desires a minimum bid on some items, that is permissible.

Members who buy the lower-end material will wash, clean, and trim the specimens and often resell them in the swap area at our show. However, they receive only swap dollars that they must spend with show dealers. Beginning collectors and young collectors are able to purchase very reasonably priced material that ordinarily would not be available because most dealers cannot afford to handle this type of material. In many cases such material might be thrown out, but now it is recycled back to collectors.

Larger and better quality specimens do very well in our auctions and sales, and the owner again is allowed to keep up to 50% of the proceeds—and that may be a lot better than selling them for 20 to 30 cents on the dollar. For the last four or five years,

we have handled enough material to have silent auctions of 50 to 100 specimens or flats lasting about a month. This occurs for at least ten months of the year and includes some Saturday morning sales. There have been no complaints and lots of satisfaction expressed by most people disposing of their collections through us and the buyers of these specimens.

Certainly we can only dispose of a limited amount of material this way, but we recently had auctions and sales of a fairly large lapidary-gemstone-mineral collection that netted the owners over \$4000 for their share. Small potatoes you say for a large collection. Yes, but without this disposal, the collection might have ended up in the dump. Instead, everyone involved including donor, bidders, buyers, and the Houston Gem & Mineral Society benefited. So do not rule out your local society, organization, or club when disposing of any rock, mineral, gemstone, or fossil material. Equipment and books have also been included in some of our sales. Certainly just about any collection has some value and deserves a chance to be recycled.

Disposal of mineral collections has been the subject of several articles in the *Mineral News* in 2005 and 2006. This will be my contribution to the discussions.

### Letter from Lilli Arnoni

**Editor's note:** *Lilli sent this to me in plenty of time for the March newsletter, but I set it on the wrong stack of papers and didn't find it until two days after the March newsletter went to the printer. My apologies, Lilli, and I hope putting it in the April newsletter is okay.*

Lilli Arnoni  
4141 S. Braeswood Blvd. #158  
Houston, Texas 77025  
713-660-4819  
January 27, 2006

### To all my friends at HGMS,

**O**n Saturday 7<sup>th</sup> January it was a brilliant day and I decided that I'm going to have a wonderful day. Neal Immega gave me a ride to the club, and I proceeded to work on my opal. At lunch time, we all got out into the parking lot and I was looking for someone to give me a ride. I promptly fell over a bloody cement divider and broke my right arm, missing the rear bumper of Neal's car by three inches.

Two or three days after I got over my initial shock, I came to realize how lucky I was to have been helped out in so many ways—friends calling my daughter, calling 911, and putting my jacket under my head. When the EMTs were busy strapping me to the gurney, somehow my arm was not yet in the right position (it felt like it was falling off) and a very thoughtful friend came over and helped me feel more comfortable.

Although it was a painful experience, I feel so lucky to have been surrounded by friends. Thank you all.

(I dictated this to my daughter who wrote for me since I can't write with my left hand).

**North Sulfur River Field Trip***January 28-29, 2006**It didn't rain enough.**by Neal Immega*

**I**t was a dark and stormy day. Intermittent rain showers expanding to mittent rain showers. Message on the two-way radio: "Neal, I am having serious traction is-  
sues back here."

Ropes tied to mesquite trees so we can get back up the bank. More weight from mud on our boots than from mud on the specimens in the trunk. Field trip members, lined up on the bridge watching the gray flood below. Only Lewis Hall would risk his camera in the rain to take a group photo at the Bug Tussle store. You would think this was a pretty typical Immega field trip, but sadly, it was still not enough rain.



Fig. 1: Escaped Lunatics!



Fig. 2: Real Troupers

I have wanted to collect vertebrates from the Sulfur River for ages. The target area is bounded by Commerce, Wolfe City (likely named by George Wolf), Ben Franklin (a possible source for lightning rods?), and Honey Grove (no bees, no trees). It consists of artificial outcrops made by a WPA project that cut a real channel for the Peace River. The rock is upper Cretaceous, the Ozan Member of the Taylor formation. It contains mosasaur vertebra and teeth, shark teeth, and parts from many fish including a huge, big-toothed fish named *Xiphactinus* (though his friends just call him Sir).



Fig. 3: "A bad day fossil collecting is better than a good day in the office."

no rain in the previous eight weeks, and the stock tanks were dry. We got an inch of rain (mostly down the back of my neck), but it soaked in and only a little water went down the river. The flow did not even erase the tracks of the 4-wheelers that people use to race up and down the riverbed. A local man said that people look for skeletons that way.

Ladonia, Texas really wants your business, and they have a park right on the river to make it easy for you to get in and out. They have a graveled parking lot, a four-stall carport to keep you out of the sun (rain?), concrete stairs to the river, and a pickup load of tooth-

containing rock next to the parking lot for the less adventuresome people to pick through.



Fig. 4: Park N of Ladonia on Hwy 50

I have heard that after a rain, folks from the Dallas Paleo Society wait on the bridges for the water to go down so they can be first on the site. Lies and slander. It just is not true. During my one day in the rain, I saw four carloads of people waiting IN the river for the water to go down, and only a few were from Dallas Paleo. So, don't believe everything you hear—it is actually much worse. I had not visited this area, and as a result they were suffering from a record drought. There was



Fig. 5: Steps from the river to the park



We did find mosasaur vertebra and teeth, but not enough to make the trip a huge success. A much more interesting stop was at a place (location withheld) where a red limey bed can be found that has an amazing concentration of shark teeth, maybe 1%. I am considering using it in the next shark tooth dig at the science museum. We also visited the ever-popular Post Oak Creek at Sherman, TX. This locality is public (email me if you want it) because there is an unlimited amount of sand containing vertebrate material under the bridge. It is not nearly as rich in teeth as the red bed, but there are more than you would find at the Midlothian quarries.



Fig.6: 1 inch Mosasaur tooth



Fig.7: Post Oak Creek, Sherman, TX

So the trip was a success if we want material to run a shark tooth dig but not for finding mosasaur parts. The farmers and ranchers should hire me to visit every one of the drought-stricken places in Texas. Maybe I could stay until all the stock tanks were full and the river was running bank to bank. I might take as my fee the guarantee that HGMS gets to be first into the creeks after the water goes down.

### **Ancient and Modern Cycads**

*by Scott Singleton*

*Member of the Houston Gem & Mineral Society*

**T**he phylum Cycadophyta now consists only of the order Cycadales, which currently consists of only three families worldwide. However in the Mesozoic, cycads were represented by a much larger group of Cycadales plus another large order named Cycadeoidales (called Bennettitales by some previous authors). The phylum Cycadophyta is thought to have evolved from the Paleozoic seed ferns (Pteridosperms) as did conifers and eventually angiosperms. However, Cycadeoids became extinct by the end of the Cretaceous, so any Tertiary cycad fossils would necessarily be Cycadales.

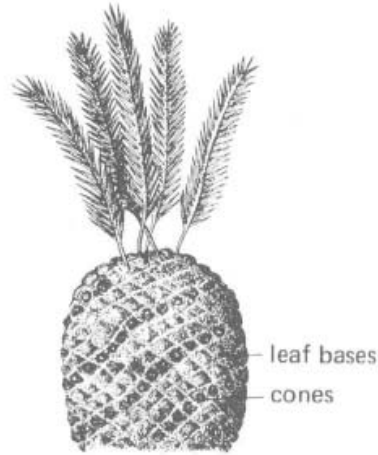
“The two orders are very similar, particularly with respect to general growth habit and leaf organization. Trunks of both orders range from short and squat (Figure 2) to tall and columnar (Figure1) and are covered by a protective layer of leaf bases that persist after the leaves drop off...The basic difference between (the two is that) cones occur at the apex (top) of the stem (in) living cycads (Figure 1), but are embedded among the



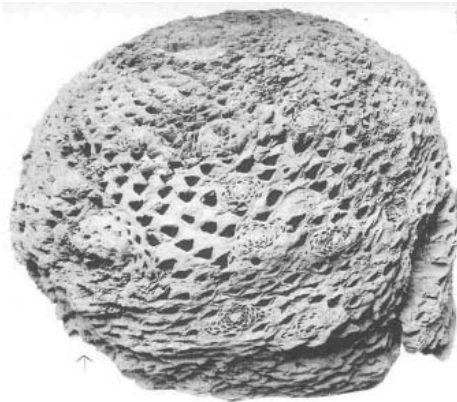
leaf bases in Cycadeoids (Figures 2-5)” (Tidwell, 1998). There are other primary differences having to do with the method of origination of leaf bases within the trunk and the seed and pollen producing structures that set Cycadeoids well apart botanically from the Cycadales.



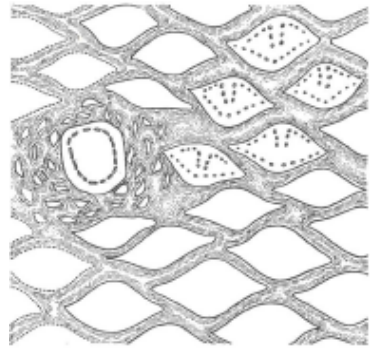
**Figure 1:** Cycadale structure.



**Figure 2:** Cycadeoid structure (both from Tidwell, 1998)



**Figure 3:** Cycadeoid trunk showing fruits



**Figure 4:** Cycadeoid tangential section and leaf bases (from Wieland, 1916). 4 cm from exterior of trunk showing leaf bases and fruit (from Wieland, 1906).



Typical Series of Piedmont-Black Hawk Cycadeoids.  $\times 0.09$ .

**Figure 5:** Yale University Cycadeoid collection from the Black Hills of South Dakota (from Wieland, 1916).

Interestingly enough, from a distance large species of cycads look something like small palm trees with stout stems because of the persistent leaf bases on the exterior of the trunk and the crown of spirally-arranged compound leaves. Because of this similarity, a cycad imported from the Far East to be used as a potted and landscape plant in the Southern US is given the name “Sago Palm”!

**Cycad Anatomy:** In transverse section, the stele (or trunk) of Cycadales and Cycadeoids has a large central pith (or medulla) surrounded by a broad ring of vascular tissue composed of secondary phloem and secondary xylem dissected by wide rays (Figures 6 and 7). The secondary xylem is composed of a high percentage of parenchyma among the normal tracheid cells (this is called *manoxylic*). This is followed by a cortex and then an outer “armor” that is composed of ramentum (described below), leaf bases, and (in Cycadeoids) cones (Figures 6 and 7). Both the pith and the cortex can contain secretory canals that (if not preserved well in the fossil specimen) may somewhat resemble vascular bundles in *Palmoxylon*. Leaf traces in the cortex appear in a C-shaped bundle (Figure 6), similar to fern leaf traces.

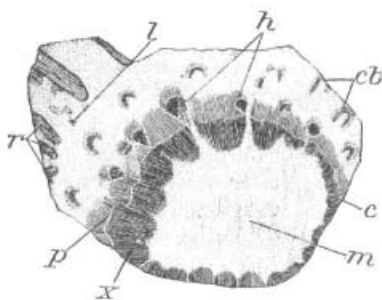
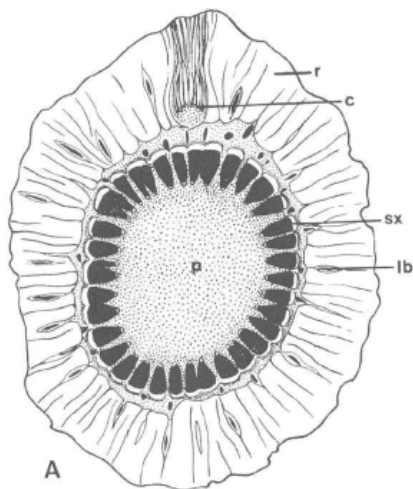


Fig. 35.—*Cycadella* sp.

Transverse section through the summit of a small silicified trunk from the Freezeout Hills, Carbon County, Wyoming, showing the medulla, woody cylinder, cortex, and a portion of the enveloping armor of old leaf bases. Natural size.

m, medulla; x, xylem; c, cambium; p, pith; h, leaf (or peduncle) traces arising from the xylem or woody cylinder; cb, horseshoe-shaped cortical bundles, or leaf traces; l, insertion of leaf base in cortex; r, ramentum of leaf bases.



A

**Figure 6:** Transverse section through the upper portion of a Cycadeoid trunk with anatomical features identified (from Wieland, 1906).

**Figure 7:** Transverse section through the mid-section of a Cycadeoid trunk showing pith (p), secondary xylem (sx), and a thick armor consisting of ramentum (r), leaf bases (lb), and cone (c) (from Stewart and Rothwell, 1993). Cortex is thin and is between secondary xylem and ramentum.

The outer armor of a cycad trunk consists of leaf bases that remain after the leaf dies and falls off. Leaf bases appear rhombohedral in cross section and give cycad trunks their distinctive look (Figures 2, 3, and 4). Between the leaf bases are a dense packing of ramentum which start their lives as a flat, tongue-shaped scale on the exterior of the trunk. Their purpose is entirely one of protection. As they age, they may lose their tips and become embedded between leaves. Thus, the bulk volume of cycad trunk armor may be half ramentum, densely packed between the leaf bases and (in Cycadeoids) cones.

Cycadeoid cones appear on the exterior of the trunk as a circular mass surrounded by small leaf traces (Figures 3 and 4). In cross-section, cones extend through the entire armor section, opening their distal end to the outside upon maturity (Figure 7). The cones themselves contain all of the spore and seed producing structures (Figures 8 and 9), and are often seen in exquisite detail in fossil specimens. The presence of cones in the armor section of a fossil cycad positively identifies it as a Cycadeoid rather than a relative of the extant Cycadales. For instance, the popular Patagonian (Argentina) cycads are Jurassic in age and show obvious cones, thus they are Cycadeoids.



Figure 8: Longitudinal section through ovulate cone of a Cycadeoid. This cone is mature and shows developed seeds and stems (10x) (from Wieland, 1916).

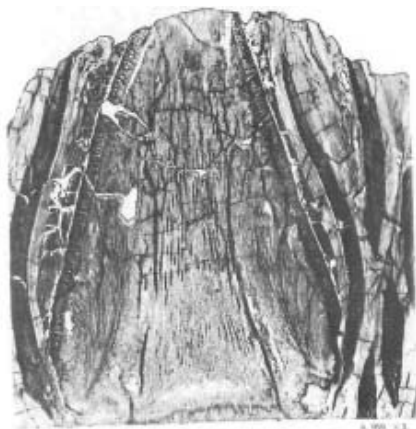


Figure 9: Longitudinal section through ovulate cone of a Cycadeoid. This cone is young and is only starting to develop seeds (3x) (from Wieland, 1916).

The stem morphology of cycad trunks varies considerably depending on the species as well as the position on the trunk. A thick armor made up of leaf bases and ramentum is likely in the lower sections, thinning upward toward the apical meristem (growth tip). The secondary xylem is also likely to be thicker in the lower portions that have undergone multiple years of annual growth (Figure 10). The cortex is likely to be developed in the upper portions where new growth is prominent. The pith is present through the entire stem (Figures 10 and 11), but both the cortex and the pith have the unfortunate liability of being less dense (more spongy) than either the secondary xylem or armor. During growth this can lead to either being squeezed or compressed,

and compressive stresses during fossilization can lead to a considerable reduction in volume of both. (Note that on many of the illustrations in this text the cortex is either thin or not visible).

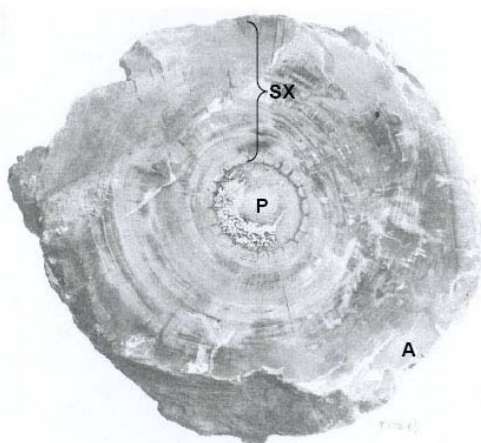
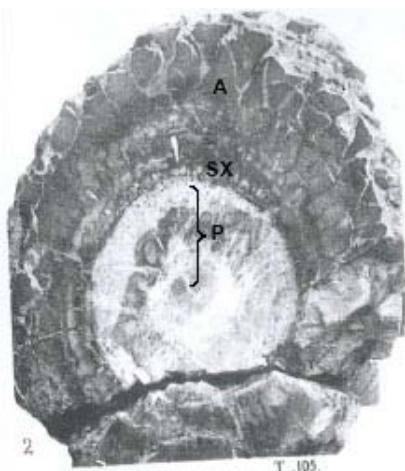


Figure 10: Transverse section through the base of a Cycadeoidea Jenneyana trunk showing a small pith (P), thick secondary xylem (SX), and an armor section (A) that has been mostly eroded away (from Wieland, 1906).

**Figure 11:** Transverse section through the mid region of a *Cycadeoidea Stillwelli* trunk showing substantial pith (P), minimal secondary xylem (SX), and a thick armor from Wieland, 1916).



Occurrence in Texas: Cycads and cycadeoidea occur in Texas, although they are not common or widely reported. Fontaine (1893) described an abundance of cycad, conifer, and fern leaves from the Glen Rose Formation, lower Cretaceous (Trinity Group), two miles up the Paluxy River from the town of Glen Rose.

His specimens were from limestone that he judged was deposited some distance from shore. He did not, however, mention any cycad trunks (or any wood) being found.

Wieland (1931), the well-regarded early researcher in fossil cycads, described a visit to Stephenville where, through the courtesy of a number of devoted rockhounds, he obtained numerous cycadeoid trunks for the US National Museum at Yale. Wieland identified and named five distinct species. The specimens were collected from a variety of locations, but were all from the lowest Cretaceous Trinity Group. Based on current nomenclature, the localities (and formations in parentheses) are, from north to south:

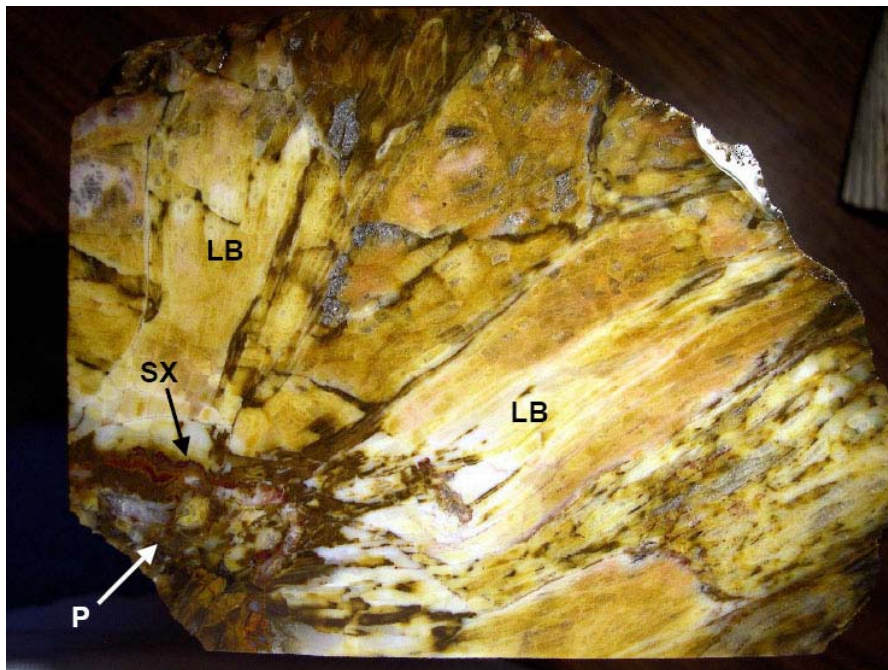
Bridgeport, Wise County (Antlers Sand or Twin Mountains)  
 Tolar, Hood County (Paluxy Sand)  
 Stephenville, Erath County (Paluxy Sand)  
 Comanche, Comanche County (Twin Mountains)  
 Fredericksburg, Gillespie County (Hensell Sand)

Cycads occur in the Tertiary of Texas in the central Gulf Coast area approximately consisting of Karnes, Live Oak, and McMullen Counties (although the actual extent may be larger). The age of these cycads is not well constrained. I have verification that they occur in the George West area (Goliad Fm., Miocene), and I have heard reports of them occurring in the prolific Manning Fm. (Upper Eocene Jackson Group). However, I have not personally verified the Manning Fm. reports. Compounding this issue, the Goliad Formation in the George West area is problematic. Those caliche-impregnated sediments are related to the paleo-Nueces River drainage, and many of the specimens are very rounded, indicating they have undergone transport and weathering at some time in the past. Thus, they may or may not represent in-situ material, and therefore may or may not be derived from Miocene age plants. It is apparent that further research and documentation is needed on these fossil remains.



Figure 12 shows a section of a George West fossil cycad. This specimen is from a sizable cycad trunk. Prior to slicing, it was about 6" in diameter and 10" tall, and the diameter represented only about ¼ of the trunk. The remainder had undoubtedly broken off due to natural fracturing and weathering.

Mineralization is substantial, which is typical for material from that area. Despite this, basic anatomical features of a cycad can be seen, including the pith, secondary xylem, and two leaf bases. Armor is not distinguishable, leading me to hypothesize that this is a section from the upper portion of the trunk that had a thick cortex in which leaf bases were imbedded. The armor section, therefore, would have been removed by erosion.



**Figure 12:** One quarter section of a fossil cycad from George West, Live Oak County (Goliad Fm., Miocene). Although very mineralized, several anatomical features are present [pith (P), secondary xylem (SX), leaf base (LB)]. The outer portion of the trunk was missing due to weathering. Specimen is 5" across from left to right.

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### **Book Review – The Mistaken Extinction. Dinosaur Evolution and the Origin of Birds**

*By Lowell Dingus and Timothy Rowe*

*Review by Neal Immeaga*

**E**xecutive summary – Literally everything about possible origins of the Cretaceous extinction and why birds are little dinosaurs.

Thanks to Terry Brawner for donating this book. It is incredibly complete. Do you think the meteorite theory of extinction is bunk? So do the authors. Do you get the chills when a hawk stares at you? You should. Hawks are raptors in the current avian definition and the ancient dino one as well. You should check out this book from the paleo library because you are going to need more than the two weeks that the public library gives you to read it.

### **May 3 Mineral Section Auction**

*Auction Format*

*by Dean Lagerwall*



**O**n Wednesday May 3 at 7:30 p.m., the Mineral Section will be having its annual auction to help raise money for the Section. Once again, we are allowing **ALL** HGMS members to bring specimens to the auction and keep a portion of the proceeds. The proceeds of at least one of the specimens (your choice) must be donated to the Section. Five additional specimens are allowed for each person with a portion of each specimen (10%) going to the Section and the rest going to the person who brought the item.

This is a great way for **ALL** of you HGMS members to thin out your duplicate specimens and to benefit both yourself and the Mineral Section. Put a minimum bid on the more expensive pieces if you desire. Since this event will draw from all Sections, expect a variety of items to be auctioned and a very interesting and entertaining event. Set up and viewing is from 7:00 to 7:30 p.m. with the auction starting at 7:45.

If you have any questions, call Dean at (979) 480-9373.

## February General Meeting Program

**M**s. Katalin Markus was our very congenial presenter. She was last year's recipient of the scholarship funds we gave to the University of Houston, and she is learning metal arts with Professor Val Link. Her main focus is jewelry design. She gave a very interesting slide presentation and brought some of her work in to show us.



## HGMS General Meeting by Margaret Hardman-Muye February 28, 2006

**F**ernando Lorente was introduced as a guest.

**Education Committee:** Dave Hawkins reported that there is a new class schedule on the Web site. An ad has been placed in the Medical Center News by the Education Committee.

**Day Light Section:** Mary Ann Mitscherling says they are making burnishers out of agate. Several were available to look at.

**Faceting:** Phyllis George stated that the GemCad software is on the office computer.

**Lapidary:** A hands-on program on fusion will be presented by Tom Wright at the March meeting. The April program will be on amber.

**Mineral:** Steve Blyskal says discussion continues about the Tucson show, the Clear Lake Show, and there will also be a video shown.

**Paleontology:** Neal Immega give the program on the Dinosaur exhibit currently on display at the museum. They are arranging an HGMS tour of that exhibit as well.

**Youth:** The youth are working hard in the shop. Twelve to thirteen young people have been coming to each meeting.

**Field Trips:** In April there will be a trip to the Alcoa/Rockdale lignite mine (Shadow Oaks Mine).

**Clubhouse/Shop:** New 6" wheels are being installed. Tom Wright and Charlie Fredregill have reworked the benches in the middle classroom. Shop lights have been replaced. More lights will be added to the garage, and we are getting estimates for new wiring and replacement of the three outdoor lights. Paul McGarry donated six new tables. Pleas do not use them for dirty work.

**Membership:** Dues are due!

**Newsletter:** Please get submissions to Phyllis George by the **WEDNESDAY BEFORE the second weekend of every month.**

**Web Site:** We have moved to a new, larger, less expensive Web server company.

**Library:** We have received a large book donation from Al and Marian Tidwell.

**Other Business:** There will be a Tailgate Swap on Sunday March 5, from 10:00 a.m. to 4:00 p.m.

### HGMS Board Meeting

March 7, 2006

by Margaret Hardman-Muye, Secretary

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

**M**eeting was called to order at 7:30 p.m. by Scott Singleton.  
February minutes were approved via e-mail.

**Treasurer's Report:** (Paul McGarry and Lowell Stouder)

- No financial statement was available. Lowell will get with Paul's accountant and will eventually take over doing the statements.
- Scott Singleton reviewed copies of IRS filings from 2001 through 2005. The

Secretary will place them in the Board notebook for the appropriate year.

- There were several checks that have not cleared the bank, and the people involved have been contacted. Lowell has the check numbers now and will look through past statements to see if they have been cashed.
- Paul did not pay the insurance bill, so our Ohio Causality Insurance was cancelled on 2/27/06. Lowell will send them a payment immediately.
- Scott read the insurance declarations page and gave a copy to the Secretary to file in the Board notebook.
- After a discussion, it was decided that Matt Phillips will take digital photos of club equipment beginning with an overall view of each room, then photos of each individual item. Once the photos are done, copies will be given to each Section to make an assessment of each item's replacement value. These will be compiled into a document we can use later for insurance purposes if we have a loss.
- Paul will take the new signatory card for the bank account to the bank on March 8 or 9.

### Committee and Section Reports

**Show:** Sigrid Stewart reported that HGMS had a table at the Clear Lake Show. We also planning to have a table at the Intergem Show. Show pads, letterhead, etc have been printed. Show dates have been submitted on the *Rock and Gem* and *Lapidary Journal* Web pages and will come out in print soon. It was suggested that she investigate free publication in *Rocks and Minerals* and *Mineral News*. Lowell reported that he has sent out letters to the various vendors and demo people and is getting good response.

**Newsletter:** After some discussion, we decided that no changes will be made. Phyllis would like submissions by Wednesday before the 2<sup>nd</sup> Saturday of every month.

**Membership:** Dues are coming in. There is no information yet regarding the total membership numbers.

**Library:** Art Smith has received a donation of books and maps from Al and Marion Kidwell.

### Old and New Business:

#### ➤ Clubhouse:

- ◆ Matt Phillips reported that the office computer is now working although it is slow. It has a new hard drive, a new CD-RW drive, upgraded memory, and the operating system is Windows XP. He also loaded legal copies of GemCad, Norton Antivirus, and Microsoft Word and Excel. He turned in a request for reimbursement.
- ◆ Beverly has purchased the additional white tables.
- ◆ A proposal for air filtration in the shop was presented by Matt Phillips. He is looking at a box that will fit under the back tables and will exchange the air in the shop 11 times an hour. The cost will be about \$350.00. This does NOT include the cost of the filter. He is still waiting on information about that cost. He was asked to discuss the system with Neal Immega and Tom Wright.
- ◆ Tom Wright has talked with Fantastic Carpet Services. They can strip, wax,

and buff the vinyl floors and clean the carpet for \$350.00 every three months. After some discussion, the Board decided that twice a year would probably be enough. Scott will ask Tom to contact them about a price for doing this twice a year.

- ◆ The Board also discussed the need for a monthly cleaning service. Scott will ask Tom to check into this. It was also agreed that Section Reps will talk to their sections about cleaning up after themselves at the end of each meeting. It is also part of the Shop Foreman's job to ensure that people in the shop clean up after themselves before they leave for the day.
  - ◆ Tom Wright sent a proposal and three bids regarding renovation of the men's bathroom. He suggested that we use the PBJ Specialty bid for \$650.00, as they are the cheapest bid that will do what we need done. Matt Dillon moved, seconded by Terry Brawner, that we accept the PBJ bid for \$650.00 and have Tom proceed with the repairs. **Motion passed.**
  - ◆ Scott asked if the Club wanted a donated 27" JVC TV and a Panasonic DVD player. After discussion, it was decided to accept the DVD player and not the TV.
  - ◆ The Fire Marshall visited the clubhouse recently, talking with Tom Wright and Charlie Fredregill. After they explained what we do, the Fire Marshall says we **do not** need a fire permit.
- **501(c)3 compliance:** Terry Proctor says that we appear to be in good standing with the State as a "not for profit" organization. He will get information regarding federal procedures. The club needs to send a letter to the State every year with our new officers listed. This duty was added to the secretary's list of things to do and to pass on to the next secretary.
- **Tailgate Swap:** Matt Dillon says there was poor attendance at the March 5 tailgate event, probably because of conflicts with field trips and a show in Corpus Christi. The weather was great, and the people who did come did well.
- **Web Site:** Phyllis George expressed her concern that she is the only person with administrator rights to the Web site. She suggested three people who could serve in this function, Neal Immega, Scott Singleton, and Paula Rutledge. The Board agreed that she should get these people access if they are willing. She will contact them and get them added to the system as administrators if they are willing.
- **Procedure for selection of Show Chairman and Asst. Show Chairman:** There is no Assistant Show Chair at this time. The Board reviewed bylaws for current requirements. The bylaws give this responsibility to the President. It was suggested that we need to define the term, "timely." Scott will write up the proposed amendments and present them to the Board next month.
- **HGMS signs:** Scott read the information from the management company regarding their policies. They have various requirements for signs, which include approval from the architectural committee. Scott will write a letter to them requesting permission to repaint our sign in orange.

- **HGMS banner replacement:** Scott has spoken to the “Embroid Me” banner company, who says that a nylon banner with appliquéd lettering will be about \$200.00 to \$300.00. A discussion was held about the logo. We agreed it should probably be appliquéd instead of silk screened. Art, Beverly, and Scott will look for photos of the banner, and Scott will also talk with Gary Anderson to see if we can figure out exactly what the color scheme was and how the original logo was done.

Meeting was adjourned at 9:30 PM.

## Mineral Section

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

**M**ineral Section meetings occur on the 1<sup>st</sup> and 3<sup>rd</sup> Wednesdays of each month from September (3<sup>rd</sup> Wednesday only) through June (1<sup>st</sup> Wednesday only).

## Upcoming Meeting Topics

**April 5: Geodes of Monroe County, Indiana** presented by David Gardner. David has been collecting geodes from this area for years. He will include a description of the geode formation processes in the area and will have some pictures and a bunch of geodes that he has collected. Refreshments will be provided.

**April 19: Minerals of the Silver Trail, Yukon Territory, Canada** presented by Mark Mauthner (of the Houston Museum of Natural Science). If you were unable to attend the Tucson show this year, you missed a great show. You now have an opportunity to see a talk that was given by Mark Mauthner during the Tucson Mineralogical Symposium. See *Mineralogical Record*, January-February 2006, v 37, no. 1, page 67 for an abstract of this talk. Refreshments will be provided.

**May 3: 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 17: Native Copper:** Come learn about the variety and uses of this mineral. Bring in some pieces from your own collection and let us drool. Dean Lagerwall will host the meeting. Refreshments will be provided.

**June 7: Macro and Micro Photography:** For the last meeting before our summer hiatus, Sam Norwood will present various techniques for macro and micro photography. The discussion will include techniques for taking close-up photographs—close-up lenses, telephoto lenses, macro lenses, reversing normal lenses, bellows, extension tubes, microscope systems, and CCD cameras. Processing of photographs will also be covered: cropping, clean-up, and merging photos with Helicon Focus to increase depth of field. This meeting was rescheduled from March 15 due to a work conflict. Refreshments will be provided.

**We will meet again September 6** in preparation for the September HGMS show.



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



## Day Light Section

*by Frances Arrighi*



The Day Light Section did not meet in December. Seventeen members attended the January 9 meeting. Karen Burns had the program, which was making a pair of wire wrapped ear rings. We used gold filled wire and made a bead of this wire which was attached to a regular bead. These were dangle ear rings. A necklace can be made in like manner.

At the 13 February meeting, we plan to make agate burnishers. These are to be used for Keum Boo. We plan to use the technique of Keum Boo in the future. At the March meeting we plan to complete the burnishers. Tom Wright is going to help in these programs. Gary Anderson donated and cut the agate. We thank Gary and Tom very much for their efforts.

## In Our Library

*by Art Smith, Librarian*

We continue to get new publications donated to our library. The latest are some maps and books by Al and Marion Kidwell. These are now in the process of being evaluated and cataloged. We thank Al and Marion for thinking of us and for making this generous donation. Many of the books should be on the shelves by the time you read this. Maps are always important for collecting trips, and we appreciate having them. Material like this that is donated to the HGMS is deductible during the year the donation is made.

So far our new bindery is working out well, and the turn-around time is at most two weeks instead of the several months' wait we had previously experienced. The work is very comparable and maybe a bit better. However, to get the price of \$45 a volume, we need two or more volumes of the same journal to be bound at one time or it is \$70.

We again have a few issues of magazines turning up missing. If you borrow single issues, please return them to the shelves. We cannot bind them unless we have a complete volume or year.

The Mineral Section has donated a new Sony VHS and DVD player that we are keeping in the library. It works well on the TV in the main meeting room and may be used by any Section or club member, but **it must stay in the clubhouse.**

The current auction is part 1 of mineral specimens featuring azurite and malachite from Bisbee, Arizona and Morenci, Arizona. The auction contains many nice colorful specimens, and the proceeds will be split 50/50 with Sam and Ginger Christo.

The *Wire Artist* has been bound into three volumes and is back on the shelf. Periodicals are filed alphabetically, so it is at the end of the publications.

## What Do I Wear to a Dig, and What Do I pack for it?

by Chris Robinson

*Tulsa Rock & Mineral Society Member*

*from T-Town Rockhound 8/2005*

**I** haven't been digging for rocks, minerals, or fossils for quite some time. What do I wear to a dig?

### **In the heat, one must have:**

- a hat (baseball or wide brim)
- a bandanna
- a hard hat (if one is required)
- an oversized long-sleeved white shirt to keep the sun from frying your skin, especially if you are fair skinned.
- Gloves are necessary to protect your hands while digging—they may be cloth or rubber. I like the rubbery garden kind because they are thicker. You can't pick up a dime, but it is handy for picking up that special rock.
- If it rains, a lightweight poncho is a definite must. One can use it as a "tent" while digging. In my case I look like the proverbial "Orange Pup Tent." Hey, I was dry!
- Most importantly, bring the SUNSCREEN. If you are fair skinned or you have children with your party, I would strongly suggest 45 SPF or higher.
- BUG REPELLENT: Bring spray, lotion, or wipes. This is very important too. (I consider this to be worn!)
- A whistle—wear it around your neck. It is very easy to get lost or lose your bearings, to wander away from the group or buddy, or to become sick or hurt.
- **ALWAYS KEEP A BUDDY AROUND JUST IN CASE.**

### **What to pack:**

- Use a sturdy knapsack. It must be lightweight to carry on your back.
- A bucket, plastic container, or flat box is handy to tote along with you.
- This next is a must—WATER, WATER, WATER. (Did I mention WATER?) I like to pack a washcloth too, just in case I start getting overheated and feel sick. At least the cloth or bandanna can be wet with WATER. You can wear it around your head or neck area.

### **Also good to take along are:**

- a compass
- a magnifying glass or loupe
- a brush
- knee pads
- pick hammer
- chisel
- Gardening tools work well too
- Newspapers
- small plastic bags
- egg boxes for small specimens
- permanent marker are good to pack as well
- Throw a couple of band-aids in your knapsack as well. But most importantly,

keep a FIRST AID KIT handy.

**Optional things to consider are:**

- a pick axe
- shovel
- crow bar
- flashlight
- black light (if the dig requires it).
- This next item is brilliant—a **ski pole to use as a walking stick**. They are so sturdy. You can pick one up cheaply, and it is a great idea. Some members from the Wichita Club had them and told me about them. And get this—if you are an environmentalist, you can take it with you and pick up trash! Hey, what a concept!

This is all I can think of for now. HAVE A SAFE AND FUN DIG!!!

### **SCFMS Safety Report**

*by George Browne, SCFMS Safety Chair  
from SCFMS Newsletter 1-2/2006*

**A**ccident: I hate the word accident. In my opinion, the word is often misused and definitely over used. The dictionary defines accident as “an event occurring by chance or from unknown causes.” Most people regard an accident as an unavoidable, unfortunate mishap. What we often call accidents most definitely are not accidental.

Have you ever read a headline that stated that two people were killed in an auto accident? Then when you read the story, it stated that the car was going over 100 mph on the wrong side of the road at night in a rain storm. Well, that was no accident. That was not by chance. That was not from some unknown cause. That was not unavoidable. What that was, was a car crash that killed two people because someone was doing something stupid. It was avoidable, thus it was not an accident.

There are, in fact, very few real auto accidents. There are however, many car crashes. Perhaps if you were driving along and a meteor struck your car, that might be considered an accident. But if you ran a red light and hit someone, that is a car crash—not an accident. We can avoid car crashes by obeying the traffic laws and practicing safety rules. These rules and laws are designed to keep two cars, a car and another object, or a car and a person or animal from attempting to occupy the same space at the same time which is a physical impossibility.

The same concept applies to our shops and field trips. What we call accidents are usually not accidents. They are fatal, property damaging, or injury incidents which were probably caused by you or someone doing something careless, wrong, or stupid—and they could have been prevented.

It is unlikely that I will ever change the misuse or overuse of the word accident. Some say it's just semantics. But wouldn't it be great if I could. Just think, everyone would be forced to accept the fact that they (you) are responsible for their (your) own acts.

No longer would anyone have the luxury of pretending that it happened by chance or

that is was unavoidable. No more cop-outs. You are responsible. It is your job to practice safety, so DO IT!

### DUES ARE DUE

*from Rear Trunk, date unknown*

*Via Huntin' & Diggin' 3/2006*

You pay your dues and what do you get?  
Year filled with fun and friends - you bet!  
You learn about rocks, and minerals too,  
There's oodles and oodles of things to do

There's field trips and shows and programs galore,  
Now, what do you mean? - "Can't we offer you more!"  
Sure, there's scads of books for you to read  
To keep your old noggin from going to seed.

There's auctions and door prizes and raffles to boot,  
If you're lucky enough you can win lots of loot.  
You don't have to remember - you're reminded to meet  
By your monthly bulletin which we hope is a treat.

There are displays at most meetings for you to see.  
And punch and goodies for refreshments to please.  
You can visit with friends to your heart's content  
So—do pay your dues—'tis money well spent.

Did I hear you say "WORK?" Yes, there's that too,  
But, it can be fun if you WORK with the crew.  
Just do your share—don't leave it to others,  
We'd all shirk the work if we had our druthers.

So plunk down your money and smile when you do,  
"Cause there's lots of pleasure in store for you."  
Can't think of a way you get more for your dough,  
Than by joining a ROCK CLUB with 'get up and go'.

### Rock Collecting Pouch Directions

*by Alan Silverstein, ajs@frii.com*

*from Rocky Mountain Federation News 12/2005*

*via The Sooner Rockologist 12/2005*

**P**urpose: This Web page (<http://users.frii.com/ajs/RockPouch.htm>) illustrates and gives directions on how to make a field tested "Mark III" sew-it-yourself rock collecting pouch for carrying small stones. I documented and shared my design just for fun.

I do a lot of hunting for small rocks to tumble polish (see my tumble polishing site at <http://users.frii.com/ajs/RockTumbling.htm>). Once upon a time I started using a

carpenter's pouch with a tie-on cloth string waistband. The capacity wasn't great, the string was painful when the pouch was full, and it wore out and broke fast. I improved on the pouch through several models until I arrived at the design explained here.

### Features:

- **Good capacity:** When I fold a full pouch over in the middle and dump it into a bucket, I find it holds up to about a gallon of rocks. This is about the limit of comfort anyway for weight and volume hanging from my waist. The pouch can handle individual rocks up to about baseball-size. (On longer outings bigger treasures go into my knapsack, where I also carry plastic bags, water, munchies, sunscreen, etc.)
- **Rugged:** My old pouch (third model) has held up well after many outings. (See my old pouch at <http://users.frii.com/ajs/RockPouchOld.JPG>.) It doesn't mind being filled up or being wet, muddy, brought home full, etc. Also, the buckle doesn't pop open even when the pack is full and I'm contorting my way up a steep, rocky hill.
- **Easy to use:** The pouch is convenient to access, but you can almost ignore that it's on your waist. It doesn't interfere with wearing a light pack or knapsack at the same time.

Also, I discovered it's important that the front side fabric be wider at the top of the pouch than the back side fabric, allowing the pockets to "bulge open" and be easy to fill. Overlooking this results in a tidy-looking pouch that's almost impossible to use when it's strapped around your waist.

- **Hands-free use:** You can add rocks to the pouch "by feel" while continuing to scan for more finds.
- **Multi-purpose:** I've also found the pouch handy for carrying a one-liter water bottle, rock tools like a chisel, etc.
- **Optional rock hammer loop(s):** You can sew on some extra webbing to make a place to hang one or more tools like a rock hammer on your hip.
- **Not expensive:** Materials to build a pouch cost me about \$7 in 2004. The fabric is the cheap part. Most of the expense is for webbing and buckle parts.
- **Fun to make:** Construction takes about an hour, more or less, depending on your sewing machine and your skills.



My old, well-used, third-generation rock pouch made from recycled jeans material.



A brand new pouch, not yet used, made of fresh rather than recycled fabric, following the same design.

## Parts list:

Item needed	Approx. cost	Notes
<b>Fabric</b> indigo denim, stretch, 19x22" (97% cotton, 2% lycra)	\$1.00	Vary to taste. Some people recommend canvas, but I don't think this would be as easy to sew, nor last as long.
<b>Webbing</b> 1x60"	\$1.84	Color of your choice.
<b>Buckle</b> plastic, no-sew, 1"	\$2.32	Color of your choice. A "no-sew" model is easier to replace later if it gets broken, say by being caught in a car door. (Guess how I discovered this, as you can see in the picture of my <a href="#">old pouch</a> where I had to replace the buckle on the short side.)
<b>Loose end clips</b> 2-pack, 1"	\$1.29	Only needed with no-sew buckles. These hold the loose ends of the webbing straps out of the way and keep the buckle adjustments from working loose.

## Directions:

1. **Cut the fabric** to the size and shape shown in the pattern—overall 19" wide at the top tapering to 17" wide at 9" down and continuing to be 17" wide for another 13" (a 17"x13" rectangle).

You can vary these dimensions to taste. I've found that these numbers work pretty well in terms of pouch size and capacity—neither too big nor too small—and provide enough slack on the pocket fronts.

2. **Decorate:** If you want to sew a cloth patch or other decorations to the front of the pouch, now's the time to do it. I didn't happen to think of this for the pouches illustrated above.
3. **Fold and hem the top edge down** 1/2" or less, good side out. This hem becomes the top outer edge of the pockets. Use one or two folds as you prefer, but beware of using two folds unless you and your sewing machine can handle a lot of fabric thickness at the corners later. With a single fold the raw edge inside the pouch frays a little, but this doesn't bother me.
4. **Sew basic shape:** Fold vertically 8.5" down from the top (9" less the hem), inside out. The horizontal fold (at the top of the rectangular lower portion of the fabric) becomes the bottom of the pouch. Overlap the sides such that the edges align, although this means you will have extra fabric on what will become the front of the pouch pockets. Ensure that the sides are symmetrical; measure if necessary. Sew a sturdy hem 1/2" wide or less in the overlapped material. Overstitch at the tops for strength.
5. **Finish sides:** Turn the pouch right side out and hem the remaining 4" of non-overlapped sides, now at the top of the pouch, for strength. Note: I failed to do this right in the new pouch pictured above. Instead I had to over-sew some extra material for strength. These upper outer corners take a lot of the weight and are the first places to wear out and rip, so make them strong.



6. **Sew centerline:** Fold the pouch over horizontally to find and crease the middle. If necessary, measure to find the middle of the slack material on the front of the pouch so the pockets are symmetrical. Unfold and sew down the centerline where the front and back overlap, dividing the pouch into two halves. Overstitch at the top for strength.

Yes, you can skip dividing the pouch into two halves, but I find this convenient in some ways, such as dividing rocks into two types as they are collected. Also it's more comfortable than a single large pocket would be.

7. **Sew inside corners:** While the pouch is still on the machine from the previous step, sew a U-shape on each side near the centerline to close off the inside corners of each pocket. How big a U is up to you. This optional step prevents small stones from getting stuck in the corners.

On the new pouch pictured above it's hard to see this stitching because my new wife convinced me it's gauche to use wrong-color thread like I did on the old pouch.

8. **Sew outside corners:** Now, do the same thing to the outside corners to finish each U.
9. **Sleeve over webbing:** Lay the webbing horizontally across the top of the pouch above the pocket. Fold the top "flap" over the webbing and sew it into a sleeve without yet attaching it to the webbing, so it can still slide left and right.

Whether to fold the flap forward or backward is up to you; either way is OK depending on the finished look you want. Bringing it forward means the nicer outside of the denim is mostly what you see, but the raw edge of the material also shows (shrug).

10. **Attach to webbing:** Slide the webbing through the sleeve until it's placed where you want it, probably not in the center. Think about it for a moment before sewing. I like the buckle to end up on my left side, somewhat behind, but not in the very middle of my back, so it's easier to reach. Also 60" is more webbing than you should need, depending on your waist size. Figure out how much you need on the "short side" to go through one half of the buckle, put it in the right place, and leave a bit of loose end.

Once you have it where you want it, sew the heck out of the sleeve to firmly attach it to the webbing. Especially overstitch at the corners near where the webbing leaves the sleeve. I also like to run a vertical line in the center.

11. **Finish belt:** Cut unneeded material off the long end of the webbing. With a 36" waist, I found I could cut off about 8" and still have a good length of loose end. To determine this I put the webbing ends through the buckles, put on the pouch, and fiddled with adjustments until it felt right.

After cutting off the extra webbing, seal the ends by using the flame of a match, lighter, or candle to melt the threads a bit so they won't fray. Remove the buckles,

add the loose-end retainers, put the buckles back on, and set everything the way you like it.

- 12. Add hammer loop:** If you want a hammer loop, sew a short piece of webbing to the long side of the "belt," on the outside of course, near the pouch. Be sure to make the loop bigger than you might think.

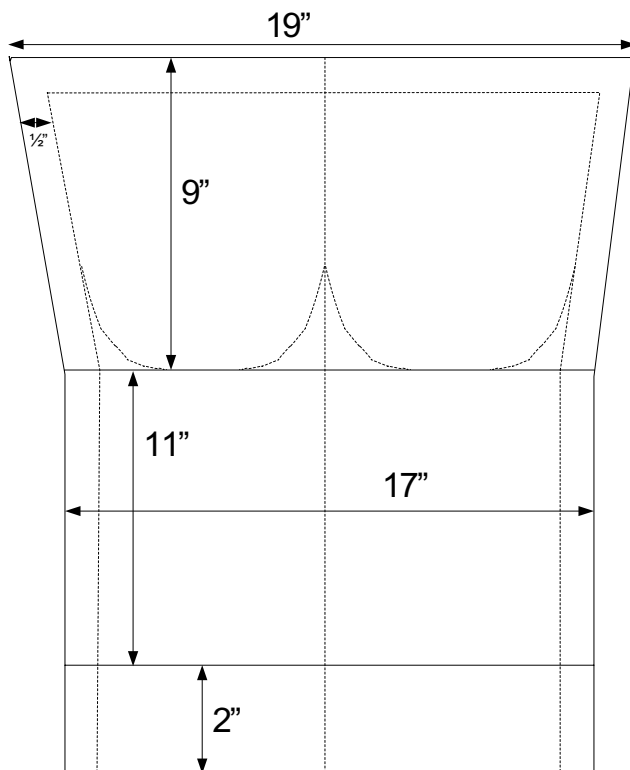
Start by attaching one end near the pouch, then while you're wearing the pouch, hold or pin the other end of the loop where you think you want it, and try inserting and removing the hammer. You'll figure out how much loop material to use and how far out from the other end to attach it for best results. Then sew down the other end of the loop.

- 13. Go have fun:** That's it!

To put on the pouch, bring the belt around your waist so the buckle halves are in front. Connect them, then slide the pouch around (in my case, to the left) so the pockets are in front and the buckle ends up out of the way but still in reach (on my left rear). Being on the longer side, the hammer loop ends up on my right hip. If you need to adjust the straps to make the pouch looser or tighter, you might be able to do it

while wearing it (if it's empty), but usually it's easier to take it off first.

Not to scale. Note, exact dimensions are not critical.  
Material suggested: Heavy stretch denim (jeans fabric).



## AFMS President's Message

by Jim Robinson

from The AFMS Newsletter 3/2006

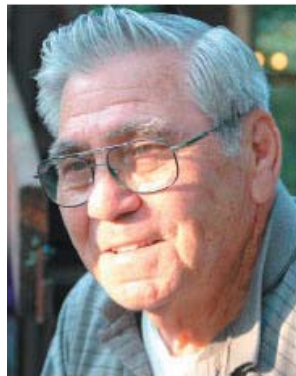
The monthly President's message in your club bulletin is one of the most important functions the President has. It likely is the most difficult function to do.

Each month you need a message that is informative and of general interest to the overall membership. This can be a challenge, especially when it is not known who and how many people are reading it.

This can be a real problem with an organization as large and diverse as the AFMS since we are spread out over the entire United States, and the President has little opportunity to meet and talk with most of the general membership. We attend the meetings of the member Federations, but even if we attend all seven meetings, we are able to talk with only a few of the people who belong to clubs in each of the regional federations.

I have an idea that will make the job easier and more informative for everyone. It requires the help of the editors throughout the AFMS. If they will just run the messages from the officers and committee chairs of the AFMS each month in their own publications, this will get the word out to the membership at large. I am sure it comes as no surprise when I say there are literally hundreds of our members out there who have no idea of the many things the AFMS has to offer. This is sad indeed, especially since we have the tools to keep everyone informed—The Bulletin and Newsletter Editors.

I would like to take communication one step further. For the next few months, I would like to use the President's column as a forum. I invite anyone who has a concern or who has anything they would like to address to write, call, or e-mail me. We will address it in the Presidents' messages over the next few months. I don't promise I will always have a ready answer or solution in every case, but I do promise to find it. I am happy to say we have the finest team that anyone could ever ask for, and they will be happy to find the answers or to help in every way they can.



## AFMS President-Elect's Message

*Some Thoughts on What We Do...*

by Dr. Robert Carlson

from the AFMS Newsletter 3/2006

As I write this, it is very cold—the middle of winter. As you read this, it will soon be spring. Spring is the time to start thinking about the year's upcoming activities. One of the most important activities is your club's annual show. It

is the major opportunity for your club to display your best of the best. You will be displaying your treasures to each other and to the public.

The point of this message is that at our annual shows we display to each other and to a very small segment of the public. We generally hold our shows at a fair-ground, a convention hall, or another location that has inexpensive rent. Advertising brings to this remote location only those people who are familiar with Gem and Mineral Shows, but not a lot of other people.



The AFMS, like your club, is an educational organization—our tax exempt status is based upon it. What we really need to do is reach that very large segment of the population who do not know that we exist. I am therefore suggesting that you consider holding your show in a place that draws the general public for another purpose—a joint event with a mall, an annual public event. A circus or county fair are examples of places where lots of people would come for purposes other than a gem and mineral show. People coming would be exposed to our hobby and perhaps infected by it. Years ago, one of my clubs held shows in a Mall, and we had a high volume of traffic. We had many people come who didn't know they were interested in rockhounding, but then they became interested.

Think of the types of things we display in gem and mineral shows and where else the public might see them:

- **Minerals:** Museums perhaps
- **Micromount Minerals:** Very select museums
- **Lapidary:** Some jewelry stores, novelty and souvenir shops
- **Gemstone carvings:** Museums
- **Faceted stones:** Jewelry stores (but only for standard cuts)
- **Jewelry:** Jewelry stores
- **Educational:** Libraries perhaps
- **Fossils:** Museums, some libraries
- **Petrified materials:** Museums, novelty and souvenir shops
- **Ultraviolet materials:** Specialty museums

As you can see, unless people frequent museums, jewelry stores, or gem and mineral shows, they won't benefit from the legacy of skill and dedication that we provide.

Consider displaying to a larger segment of the population.

### **Truth & Some Consequences**

*by Jon Spunaugle*

*AFMS Conservation & Legislation Chair*

*from AFMS Newsletter 2/2006*

**D**uring the last few weeks of the year 2005, Congress was trying to pass a Budget Bill entitled Deficit Reduction Act of 2005 (HR 4241) before adjourning for the year end holiday. Contained in a version of the U.S. House of Repre-

sentatives Bill were two sections (Sections 6201 and 6202) that would make changes to the Mining Law. One section increased the annual fees paid on mining claims and increased, slightly, the size of a mining claim. A second section would have removed the prohibition on patenting a mining claim. This prohibition on patents was put into law in the mid '90s. The patenting of a mining claim transfers, for a fee, the surface rights on public land to the claim owner and thus is, in fact, selling of public lands to private parties. Perhaps you read about all of this in the news reports last December.



Because several sections of this Budget Bill were controversial (including this mining bill change and a provision to open a small part of the Arctic National Wildlife Reserve [ANWAR] to oil drilling and other provisions), this version of the Budget Bill failed to get enough votes to pass and was withdrawn to be modified to remove the controversial provisions. However Congress is still working on this Budget Bill, so stay tuned. It is hard to predict what will happen when Congress reconvenes in late January, 2006. The "sister" legislation to this House Bill is found under Senate Bill S-1932.

When I reviewed the House Bill HR 4241, I did not see any major threat to hobby collectors in either section of the proposed mining law provisions. Those inclined to oppose the patenting of mining claims would feel otherwise. However, I always deplore these "hidden" sections in a Bill that normally should contain budget or appropriations language only. It just seems to me that if these things need to be changed, then it should be done—in this case—in a separate Bill to change the mining law. Hiding these provisions in these gigantic last minute Bills that are put together hurriedly by staff members and voted on with little debate and even less knowledge of what all they contain is not what most people I talk to think Congress should be doing. A recent example I am reminded of is a Bill passed a year ago that contained a section creating the new "America the Beautiful Pass," the Federal Lands Recreation Enhancement Act of 2004. This Act was added as a section of the general appropriations Bill (HR 4818) late in 2004. It was passed as Congress was adjourning a year ago in November. We did not realize what had happened until January, 2005 when it was already the law of the land.

Speaking of the "America the Beautiful Pass," I expect that there will be public input opportunities on the development, use, and cost of this national pass in 2006 in preparation for implementation in 2007. These opportunities will be published in the Federal Register. We'll be watching for them and try to keep you informed.

There is nothing new to report on the Fossil Bill which seems to be bottled up in the U.S. House of Representatives Natural Resource Committee for now.

**Lastly**, if you are aware of any hobby problems in the area of my Committee's responsibility that I have not written about, I would appreciate an e-mail at <jonspe@juno.com> or a phone call at (360) 835-9313 to alert me.

## 2006 SCFMS Annual Show

This year's annual South Central Federation of Mineral Societies show will be hosted by the Ark-La-Tex Gem & Mineral Society August 19–20. It will be held at the Bossier Civic Center in Bossier City, Louisiana.

### Opal Cracks and Crazing

*by Paul Downing*

*from Serendipity Gem 01/1992,*

*via Rocky Echoes 9/05 and The Rockcollector 9/05*

Opal they say is a delicate stone. They are wrong! Two things may happen to an opal. It may crack or it may craze. An opal may crack when subjected to severe pressure applied by a sharp instrument. An opal may craze if it dries out or changes its internal structure; but the vast majority of opals do not crack or craze.

Crazing is readily identifiable in an opal. It starts with small-intertwined cracks at the surface of the stone, which may spread over time. The pattern they form looks like a spider web or a dried mud puddle. Scientists do not know why some opals craze. One common explanation is that the opal loses part of the water trapped between silica spheres. It then shrinks and the surface tension causes the crazing. Another explanation is that the chemical structure of the silica spheres changes because of being exposed to the light. The energy of the light activates the chemical reaction.

Cracking is easily distinguished from crazing. Cracks are long and go into the stone. When examined with transmitted light, a crack reflects an orange light from one or more directions. Usually there is only one crack. Cracks are caused by external pressure. The miners break up large pieces of opal by squeezing them between the sharp jaws of a file nipper. Prongs in jewelry designed for faceted stones do the same thing to an opal. Most cracked opals are the result of inappropriate setting. On rare occasion, an opal will crack for no apparent reason. People have told me of opals that cracked in their rings when they went outside in very cold weather.

The problems of cracking and crazing made me curious, so I started an experiment about a year ago. I took several opals and put them in a paper bowl in the freezer. After several days, they were frozen solid. I then ran them under scalding tap water. After repeating this exercise six times, none of the opals cracked or crazed. Next, I placed these opals in a west window and let them bake in the hot Florida sun. After almost a year, not a one has cracked or crazed. The experiment included opals of several types. Base colors ranged from white to gray. Some opals had full fire, some only lines of color, and some had no fire at all. They were from Coober Pedy, Mintabe, Andamooka, and Lightning Ridge. Some had inclusions in them. Others had cracks. Neither the inclusions nor the cracks spread.

I conclude from my observations that we really do not know why an opal crazes. We do know that almost all (well over 99%) of the opal from any Australian mining area does not craze. We know that almost all cracking results from pressure caused by improper setting of the opal or by rough wear. Opal has an undeserved reputation. Cracking and crazing are very rare. Is opal delicate? Not really.



**AFMS Code of Ethics***from the AFMS Newsletter 9/2000*

**I** will respect both private and public property and will do no collecting on privately owned land without the owner's permission.

I will keep informed on all laws, regulations, and rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind—fences, signs, buildings.

I will leave all gates as found.

I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.

I will discard no burning material—matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks or other water supply.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockbound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field trip leaders and those in designated authority in all collecting areas.

I will report to my club or Federation officers, Bureau of Land management or other authorities, any deposit of petrified materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule," will use "Good Outdoor Manners," and will at all times conduct myself in a manner which will add to the stature and Public "image" of rockhounds everywhere.

## ShowTime 2006

March 24-26	San Antonio, TX	Southwest Gem & Mineral Society Morris Activity Center; Freeman Coliseum SBC Center Pkwy., Gate E Bobby Schultz 210-337-8908 swgms_sat@yahoo.com
April 8-9	Abilene, TX	Central Texas Gem & Mineral Society Abilene Civic Center, N. 6th and Pine Sallie Lightfoot (325) 692-4642 slightfoot@aol.com
April 14-16	Houston, TX	International Gem & Jewelry Show Reliant Center at Reliant Park info@intergem.net, www.intergem.com
April 14-16	Marfa, TX	Chihuahuan Desert Gem & Mineral Society American Vets Bldg, Highland Ave. paulgraybeal@moonlightgemstones.com
April 29-30	Lubbock, TX	Lubbock Gem & Mineral Society
May 27-28	Fort Worth, TX	Fort Worth Gem & Mineral Society
May 19-21	Southgate, MI	MWF & Midwest Mineral & Lapidary Soc. Southgate Arena, 14700 Reaume Parkway
May 27-28	Ft. Worth, TX	Ft. Worth Gem & Mineral Club Show Will Rodgers Memorial Center, Amon Carter Exhibit Hall, 3401 West Lancaster elsiegeorge@aol.com; Elsie K. 817-648-9416
July 14-16	Houston, TX	International Gem & Jewelry Show, Inc. Reliant Center at Reliant Park info@intergem.net; www.intergem.com
August 12-13	Arlington, TX	Texas School of Earth Sciences
August 15-20	Nashville, TN	AFMS, SFMS, & Middle Tennessee G & M Tenn. State Fair Grounds., Creative Arts Bldg.
August 19-20	Bossier City, LA	SCFMS & Ark-La-Tex Gem & Mineral Soc. Bossier Civic Center
September 2-3	Jasper, TX	Pine Country Gem & Mineral Society
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

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

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

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

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

10805 BROOKLET  
HOUSTON, TEXAS 77099  
(281) 530-0942



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## **AFMS**

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