



The **BACKBENDER'S GAZETTE**

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

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President's Message *by Matt Dillon*

The heat is on! In more ways than one, things are heating up here in Houston and at the HGMS. Phyllis George and I have just returned from attending the American Federation of Mineralogical Societies'/Rocky Mountain Federation of Mineralogical Society's annual convention which was graciously and very nicely hosted this year by the Chapparral Rockhounds club in Roswell, New Mexico. The weather and hospitality was wonderful!



Progress on the new air-abrasives room in our clubhouse is now very obvious, and many of our new club-members have been taking advantage of our well-equipped and well-managed shop and helpful shop foremen.

While on my trip to New Mexico, I spent the first couple of days visiting my cousin Ana who lives in Albuquerque. I really enjoyed her hospitality and wonderful new home with its great view of the Sandia Mountains. The weather was great for the most part, and I was able to visit the Coronado State Monument, which is located about three miles from her subdivision. It was very interesting to see one of the early pueblos and the preserved art of the native inhabitants. I also spent some time with my son, Corbin, who is taking his master's in trumpet courses at New Mexico University.

After visiting with my cousin and my son, I picked up Phyllis at the airport and we drove on to Roswell, which is about a four-hour drive from Albuquerque.

The Roswell Convention and Civic Center buildings and facilities are beautiful and very accessible. The Chaparral Rockhounds did a great job of hosting both federation conventions, and their club members were most gracious and helpful when we had

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General Meeting Programs

June 26: To be announced

July 24: To be announced

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Every article submitted to the BBG is edited for grammar and content prior to publication. Any flaming is removed.

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Purpose of HGMS

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

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

Advertising rates: \$70 for 2 months, ¼ page; \$150 for 6 months, ¼ page.

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

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

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questions or needed directions to the different venues.

While the show itself was rather small, it was well-organized and there were numerous and wonderful displays to see. I believe they had ten dealers, and two or three of these were from the Houston and Texas area. I had some success in their silent auction and brought back a couple of very nice polished Oregon thundereggs. I will be uploading some photographs taken during our trip of my visit to my cousin's home in Rio Rancho (located just north of Albuquerque) and the sights from Roswell and the Chaparral Rockhound's show.

I was pleased to see some old friends and was very happy to hear our own Ron Carman mention that our club is hosting the September 2008 AFMS show to be held at the Humble Civic Center. Phyllis George (HGMS Newsletter Editor) took home the well-deserved AFMS first-place trophy for The Backbender's Gazette in the Large Bulletin category, and she also accepted the trophies and certificates won by a number of HGMS members.

A Board "hot-topic" has been the Boards' approval of the 2007 budget, and my thanks go to Matt Phillips who stood in for me and to all those who participated in helping to resolve this issue. A copy of the approved budget will be made available at the clubhouse for anyone wishing to see it.

I hope you all are finding ways to have fun during the upcoming hot summer months, that you are staying safe, and that you will spare some time to help Tom Wright and his crew move the stairs out of the way of the new room construction (as well as provide any other assistance he may need). Please feel free to contact Tom or me if you do want to help and need more information on the dates, times, and types of help needed. And remember, the quicker this job gets done, the better off we all will be in improving our great clubhouse facilities.

Lapidary Materials Index

by Art Smith

Member of the Houston Gem & Mineral Society

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About 15 years ago when my wife was doing beading, I found out that when buying beads with her that many of the materials were not what their names implied they were. So I started a list of materials for my own reference and tried to get as much data as I could on each material for my own benefit and to learn where they came from and why some were so expensive and others so cheap. I also found out that some materials probably were not good as beads because of the minerals the beads contained—particularly if they were being worn around babies or children who might grab and suck on them while the children were being carried.

I started a paper file with lots of partial data, but when I was really interested in a material, I would do more research and add it to the list. I had about 40 to 50 materials in the index on my laptop computer. Unfortunately when my laptop's hard drive com-

pletely cratered a couple of years ago, I lost it all. I had failed to back it up. Now I have to start anew, so I thought I would use it in our newsletter as a kind of library project open to the whole club. I need input from you about additional categories or fields to include in the index. Then I need data on the materials to put in it. The computer program I will use is Microsoft Works, the same as is used for our library Index. So the data needs to be short and concise. Some detailed data can be included, but it will not print out and can be retrieved only if you actually go to that field on the computer screen.

Here is my preliminary data on two materials: Brazilian agate and lapis Nevada. The data included in () does not show up on the list but will be available when you go to that field with the computer. The form I am using is not the same format that will be printed here, but the data will be the same.

name: agate **Brazilian** **lapis Nevada**
mineral: quartz (cryptocrystalline, chalcedony) rock
composition: SiO₂ scapolite, zoisite, (diopside)
transparency: trans. to opaque opaque
color: gray,black,(white, unless treated) white,pink,(green)
patterns: concentric bands mottled
hardness: 7 5 to 7
country: Brazil U.S.A.
state: Rio Grande do Sul Nevada
location: numerous Clover mine, mtns W NV
deposit: aluvial Skarn
polish: excellent good
available: abundant scarce now
cost: moderate moderate
treatment: heat-red (dye all colors) none
history: 1800 (settlers from Idar Oberstein) 1990s
uses: slabs, bookends (jewelry, carvings) jewelry, carvings
comments: large sizes becoming scarce large pieces fractured
reference: Sauer, J.R. 1982, Brazil Paradise of Gems .. owner handout 1990

That is my thoughts on the data sheet. I would appreciate any comments, corrections, additions, or suggestions either through e-mail or written so I have a record. If you tell me in person without a written record, it may get lost.

Fields can be added or deleted even after the data collecting begins. Initially all material names will be used and data eventually will be entered for each field as it is obtained. If a material like say, wonderstone, comes from different localities with different characteristics, compositions, and uses, each should be included as separate entries under the same name, wonderstone.

Initially strictly faceting material will not be included but may be included later or in a separate catalog. There is no intention to keep this information restricted or unavailable, but will be available to anyone requesting it—probably on a CD-Rom.

HGMS Does Well at the AFMS Convention

by Phyllis George

HGMS Newsletter Editor

I have just returned from the AFMS 2007 Show and Convention held in Roswell, New Mexico. It was wonderful to see old friends and make new ones. My primary purpose for being there (other than seeing the show which had **lots** of outstanding cases) was to attend the Bulletin Editors' Breakfast. A month earlier Kitty Starbuck, AFMS Bulletin Editor Aids Chair, sent me postcards announcing that six of the HGMS contest entries had placed in the top ten in their particular categories—Adult Article Advanced, Original Adult Article, Poetry, and Large Bulletin. A seventh entry from HGMS was sent on to the AFMS in the Original Article—Juniors Under 12 category, but I didn't learn that until it was announced at the Editor's Breakfast.

That's quite a feat. The only way to be entered into the AFMS contest is to be one of the top three in a category at the regional federation level—in our case, in the South Central Federation of Mineral Societies (SCFMS) contest. After the SCFMS Bulletin Aids Chair receives the judged entries from the SCFMS judges, he or she forwards the top three in each category to the AFMS judges. By implication, everyone who is entered at the AFMS level has won 1st, 2nd, or 3rd at the SCFMS level. That usually (but not always) means they have won trophies too.

The SCFMS show will be held September 1–2 in Arlington, TX and is sponsored by the Arlington Gem & Mineral Club. I have not received any feedback from the SCFMS Bulletin Aids Chair about HGMS entries placing in the top ten in their categories, but all will be revealed at the SCFMS Bulletin Editors' Breakfast. The show is at the Arlington Convention Center Exhibit Hall, 1200 Ballpark Way, Arlington, TX 76011. Their Web site is <http://www.tses.org/index.htm>.

The AFMS First, Second, and Third places receive a trophy, a pin, and a certificate. All the others receive a certificate. Only the top ten places in a category are numbered, and all other entries receive Honorable Mention. I came home with the following trophies and certificates:

HGMS Wins in 2007 AFMS Bulletin Editors' Contest			
Name	Category	Rank	Title
Phyllis George	Large Bulletins	1	The Backbender's Gazette
Scott Singleton	Adult Articles Advanced	1	Ancient and Modern Cycads
Albert J. Robb III	Adult Articles Advanced	5	Middle Eocene Shark and Ray Fossils of Texas
Art Smith	Adult Articles Advanced	6	Why Collect Microminerals?
Sunday Bennett	Original Adult Articles	1	For the Love of a Bead
Terry Proctor	Adult Poetry	5	This Old Hammer
Jerdahn Campbell	Original Articles—Juniors Under 12	Honorable Mention	Lignite Mine Field Trip



Phyllis George accepting her First Place trophy for the Backbender's Gazette from AFMS President Bob Carlson.



Matt Dillon and Phyllis George at the Bulletin Editor's Breakfast.

Photos by Bill Pattillo

I'm a New Member or Visitor

*Author unknown
via Shasta Gem Roc Toc 6/06,
Breccia 6/2007, and others*

I see you at the meetings,
But you never say "Hello"
You're busy all the time you're there
With those you already know.
I sit among the members
And yet I'm a lonesome guy
The new fish are as strange as I
But you old fellows pass me by.
But remember you asked us in
And you talk of fellowship!
You could step across the room,
But you never make the trip.
Why can't you nod and say "Hello"
Or stop and shake my hand.
Then go and sit among your friends.
Now THAT I would understand.
I'll be at your next gathering,
My time there I'll spend,
Do you think you could introduce yourself?
I want to be your friend.

**Editor's note: I think we all need to search out
the newcomers and make them feel welcome!**

Megaspherulites

by Paul V. Heinrich

Member of the Houston Gem & Mineral Society

Rockhounds, volcanologists, and other people who either collect or study volcanic rocks and minerals are quite familiar with more-or-less spherical bodies which are commonly found in glassy, typically rhyolitic lavas and felsic welded ash flow tuffs (ignimbrites). These spherical bodies, called “spherulites,” consist of radiating masses of either acicular crystals (also known as spherulites) of feldspar, different polymorphs of quartz, or combination of both arranged around a nucleus within its center. In some cases, these spherical bodies do not exhibit a distinct radial crystalline texture. However, they are still considered spherulites because they share a common origin with and often occur together with spherulites exhibiting radial textures.

Spherulites are a very common feature found in obsidian, pitchstone, vitrophyre, and ignimbrites. The “snowflakes” of snowflake obsidian are a typical example of spherulites found in a rhyolitic volcanic rock. Typically, these spherulites range in size from a few millimeters to just less than one centimeter. However in very rare cases, spherulites greater than 20 cm in diameter (called “megaspherulites”) form decimeter- and meter-scale size natural stone balls as discussed by Smith et al. (2001a) and Tremallo (1998).

Silver Cliff, Colorado

The best documented example of megaspherulites, as described in detail by Smith et al. (2001a, 2001b), Tremallo (1998) Tremallo et al. (1998), are found in the Black Obsidian Quarry just north of Silver Cliff, Custer County, Colorado. These light gray to light brownish gray megaspherulites, which range in diameter from 0.21 to 4.3 meters, occur within a black to greenish black vitrophyre with microscopic albite and biotite phenocrysts. This vitrophyre is the middle unit of a 76- to 106-meter thick Middle Tertiary rhyolitic lava flow. The megaspherulites consist of fine to very fine grained radiating masses of acicular sanidine with interstitial quartz; 3 to 4 millimeter veins of feldspar; and secondary purple fluorite and manganese oxide dendrites. The acicular sanidine occurs as compound, fan-shaped masses which form radiating columnar-like jointing and cone structures (Smith et al., 2001a, 2001b).

Cerro Piedra Bola, Jalisco State, Mexico

The most spectacular known example of megaspherulites are stone balls, which range in diameter from 1.4 to 2 meters, and are found on and around Cerro Piedra Bola (Stirling 1969a, 1969b). It lies within the Sierra de Ameca about 6.2 miles southwest of Ahualulco de Mercado, Jalisco State, Mexico in the area of 20° 39' 13.7" N, 104° 03' 27" W. Contrary to some descriptions, these stone balls occur not only in spherical to semispherical shapes but as pear-shapes, cojoined twins, and dumbbells. In addition they are composed of devitrified volcanic material. According to Stirling (1969b), individual stone balls were encased in ash-flow deposits. Regionally, these tuffs have been dated to be 20 to 32 million years old (Frey 2007). According to Stirling (1969a,

1969b), Dr. Robert L. Smith of the United States Geological Survey conducted a detailed petrographic analysis of samples from these stone balls. Unfortunately, the report that discussed these analyses was never published. It and the other field notes, pictures, samples, and petrographic thin sections of Dr. Smith and Dr. Stirling pertaining to their research appeared to have been lost. Currently, efforts are being made to protect these natural stone balls and to make them more accessible to tourists.

Klondyke, Arizona

Simon (1962) has briefly described megaspherulites, which are similar in nature to the stone balls of Cerro Piedra Bola, Jalisco State, Mexico, from the Santa Teresa - Turnbull Mountains near Klondyke, Graham County, Arizona. They occur in the east side of a gully on the west flank of these mountains in the center of Section 18, T. 6S., R. 20 E. about 610 meters east of the road to Imperial Mountain and about 8 kilometers north of Klondyke. These megaspherulites have an average of about 1 meter with some individual examples that are more than 2 meters in diameter. They consist of spherulitic, radiolitic, and axiolitic aggregates of cristobillite, mica, orthoclase, plagioclase, and quartz. They occur in a black vitrophyre, which is about 12 meters thick and contains phenocrysts of feldspar and sparse biotite and quartz. This vitrophyre is the middle layer of a partially devitrified welded ash flow tuff, which is over 20 to 27 meters thick (Simon 1962).

Other Reported Megaspherulites

Megaspherulites have been reported from other locations in the world. Fuller (1931) reported the presence of megaspherulites, as large as 3 feet (0.9 meters) in diameter, within Tertiary "laminated rhyolites" exposed within Steens Mountain, Harney County, Oregon. In addition, Walker and Scheller (2004) reported the presence of megaspherulites within outcrops of the basal part of the Precambrian Tile Red rhyolite in the St. Francois Mountains of Missouri. In both cases details about the physical characteristics of these megaspherulites have not been published. Stirling (1969a, 1969b) also reported that megaspherulites with maximum diameters of only 0.6 meters have been found at six sites in outcrops of ash flow tuffs within an unspecified 1,300 square kilometer area around Los Alamos, New Mexico.

Rockhound State Park, New Mexico

One place where rock hounds can observe and collect specimens of spherulites is Rockhound State Park near Deming, New Mexico (McLemore and Dunbar, 2000, Dunbar and McLemore, 2001, 2002). These spherulites range in size from 1 mm to about 30 cm in diameter. The spherulites, which are larger than 20 cm in diameter, are technically small megaspherulites. They occur in rhyolitic lavas. Many consist of concentrically zone dark grey to pinkish material surrounding a reddish core. Other spherulites of similar material are partly hollow. In a third group of these spherulites, this void space has been filled with agate, chalcedony, and quartz crystals. The concentrically banded portions of these spherulites have been shown by microprobe analysis to consist of intergrown quartz, alkali feldspar, plagioclase feldspar, and magnetite (Dunbar and McLemore 2002).

Origin of the megaspherulites

There are two ways, it has been proposed, by which megaspherulites may form:

1. By hydration and the devitrification of rhyolitic lava after it cooled or ash flow tuff during cooling on the surface or
2. The rapid primary crystallization of lava as it cooled.

Because of the lack of features associated with widespread hydration and secondary devitrification, Smith et al. (2001a, 2001b) and Tremallo (1998) argue that the Silver Cliff megaspherulites originated as the result of the rapid cooling of lava which had cooled far below the crystallization temperature of the erupted magma before crystallization began. When a lava cools below the temperature at which it would normally crystallize, the resultant "undercooling" can result in very rapid crystallization (Lofgren 1980). They attributed the large size of these megaspherulites to the high water content (5 to 7 weight percent) of the lava and an extremely limited number of sites where nucleation for them occurred. The smaller spherulites found at Rockhound State Park and in snowflake obsidian formed by the rapid primary crystallization of rhyolitic lavas (Dunbar and McLemore 2002).

Judging from the limited data which is available about the Cerro Piedra Bola stone balls, these megaspherulites were also created as extremely hot volcanic ash began to crystallize as feldspar, quartz, and other minerals at widely scattered specific points around some nuclei. The crystallization processed outward from each point to form a spherical body, which was harder than the ash surrounding it. Before the entire body of volcanic ash could crystallize into a solid mass, the layer of ash cooled enough to freeze the process, leaving scattered and typically isolated megaspherulites spheres of crystallized ash within softer ash flow tuff. Later, after it had been deeply buried and uplifted as part of the Sierra de Ameca, the softer ash was eroded from around the megaspherulites to form the Cerro Piedra Bola stone balls (Stirling 1969a, 1969b).

The Klondyke megaspherulites, like the Cerro Piedra Bola stone balls, were likely formed by the crystallization of extremely hot volcanic ash during cooling after being deposited as an ash flow tuff. Crystallization experiments, i.e. (Lofgren 1980), indicate that the idea that spherulites can form by low temperature devitrification, as proposed by Simon (1962), lacks scientific validity.

Misidentification of Megaspherulites

As in the case of meter-scale cannonball concretions, fringe archaeologists and supporters of prehistoric extraterrestrial visitors, i.e. UFO Area (2007), have misidentified megaspherulites, specifically those found around Cerro Piedra Bola, as *artificial stone balls*. They argue that they were carved in the prehistoric past by either an alleged lost civilization of their choice or aliens from outer space. However, arguments for the artificial origin of these megaspherulites are based on various claims including:

1. It is impossible for natural processes to create spherical or quasi-spherical stone balls.
2. They are "perfectly round-shaped spheres."
3. These stone balls are composed of granite.

All of this has been refuted by what has been published about them.

In addition the authors, who argue for the artificial nature of the megaspherulites found near Cerro Piedra Bola, consistently overlook facts which contradict such interpretations. Such facts include observations that some of these stone spheres are either “pear shaped,” “joined as twins,” or have a “dumbbell shape.” They also ignore the fact that these stone balls have eroded out of a 20 to 30 million-year-old ash flow tuff which completely encased them originally.

Summary

Although rare, megaspherulites form some very spectacular spherical meter-scale spherical structures. These large and typically, but not always, spherical objects, can be formed by the cooling and crystallization of rhyolitic lava and ash. They are truly remarkable features as can be seen in the folklore about prehistoric lost civilizations and extraterrestrial visitors which the Cerro de Bolas megaspherulites in the Sierra de Ameca have generated.

Acknowledgments

I thank Dr. Nelia W. Dunbar, New Mexico Bureau of Geology & Mineral Resources, for reviewing a draft of this article and her constructive suggestions about how to improve it. I also thank Mrs. Catherine O’Sullivan of the Smithsonian Institution and Dr. Glenn S. Cook, United States Geological Survey for their assistance in my attempts to find the field notes, reports, and observations of either Dr. Mathew W. Stirling or Dr. Robert L. Smith.

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Jasper Field Trip Report

by Scott Singleton

At 9:00 a.m. on June 2, 2007, 24 adults and five kids met at The Stump restaurant just east of the dam at Sam Rayburn Reservoir (north of Jasper, Texas). We were met by our host, Ron Ducote and his wife, Donna. Many of the attendees car pooled to our meeting point for which I was very thankful because we were to have limited parking space at the field trip locality. After further combining of vehicles, seven trucks plus the host's truck left The Stump and journeyed a mile or two to a Temple Inland access road. (Temple Inland is a paper company that has extensive acreage in east Texas. The reason this field trip was important is because they are selling off much of their holdings, so this property may fall into private hands and be closed off to rock hounds. We won't know this for sure until late this year).

Ron took us about a mile off the paved road, and we parked on top of a hill. It turns out that Temple Inland has been clearing a portion of the acreage surrounding the hill top. There was plenty of parking space although it was a bit of a hike down the hill to streams on either side. The clearing was performed because Temple Inland lost significant portions of their forest when hurricane Rita came through in September 2005, an event that we in the HGMS should remember well since we cancelled our show because of it.

Ron then gave us our final marching orders. We agreed to spend no more than 3½ hours in the streams and to return to the assembly area at 1:00 p.m. so we could all exit the property together. Ron didn't want people leaving earlier or later; he needed to be assured that all were accounted for. He told us that the stream on the east side of

us was clogged with downed trees from Rita, so he recommended that we go down to the stream on the west side. He said that stream was also clogged with trees, but of the petrified variety. We were then on our way.



1. The intrepid crew marches off into the gully in search of petrified wood.

If any of the 29 members of this field trip were worried that the best pieces would be scarfed by those in the lead, their worries were soon put to rest. It was apparent that Ron was not joking when he said the stream was clogged with trees. In this area, all of the coarse rocks and gravel was petrified wood. Those who had been here before warned people that the real problem was deciding which pieces you were willing to



2 ...and what do they find but a stream loaded with petrified wood of all sizes.



3. Tony Ma with the piece of his dreams. Now, if he can only get it out of the stream and into the back of his truck...



4. Rich Geist (foreground) and John Cooper (background) digging in the stream bank for lag material which was definitely plentiful.

lug up the hill to your car, a feat which seemed equivalent to climbing Mt. Everest. Thus, I would dare say that most of the big pieces remain where we found them—in the stream.

Somewhere about midday most people found their way back to the parking area where they traded stories about the big ones that got away and those that didn't (Figure 5). Of course there was a lot of bragging going on, much of it well-deserved (Figure 6). One person (a teacher friend of Rich Geist's from Lufkin) did a major hike downstream and claimed that it took an hour and a quarter to return. However, he had the goods to prove it was worthwhile—three excellent palm pieces and a thoroughly bored piece of *Engelhardia* (tropical walnut) (Figure 7). He said he was dropping pieces all the way back because it was too exhausting



5. Assembling at the parking area swapping tall tales of the ones that got away. On the right (in the red shirt) is Ron Ducote, our host.



6. Mark Lindberg with his prize catch of the day. A check on the scales after getting home revealed that his prize weighed 120 pounds!



7. A quarter round of Engelhardia (tropical walnut) shot through with insect borings.

8. (Right) A sampling from the author's field trip collection. I am partial to specimens with good silicification (for polishing) and color, in this case golds and reds.



to carry them. My own personal preference was pieces that had vivid color to them—golds and reds—for polishing and tumbling (see bottom image on facing page).

Geology of the Locality

Previously I had assumed that the petrified wood at this locality was sourced from the Oligocene Catahoula Formation. However, after carefully marking on a map the location of streams we were hunting and observing the stratigraphy of the locality, I now feel that this wood is being sourced from the Miocene Fleming Formation. I suspected I was in trouble with my previous interpretation after reading about the stratigraphy of the Catahoula. On the east Texas coastal plain and extending some way into the central Texas coastal plain, the Catahoula has two members: The Chita Member and the Onalaska Member.

The Chita Member is the lowest and is a fluvial sand unit. It produces wood at a number of localities, including (from southwest to northeast) Moulton, La Grange, Anderson (near College Station in Grimes County), the Blue Lagoon near Huntsville, and on the south shores of Sam Rayburn Reservoir and Toledo Bend Reservoir. This wood tends to be opalized and contained in opal-impregnated sandstone although this opalization is more prevalent in central Texas Catahoula outcrops. Sometimes only casts are found because the fluvial sands were too aerobic to preserve wood cells.

The Onalaska Member is a clay unit and comprises the upper three quarters of the Catahoula in most locations, although its thickness diminishes to the west. It generally is not supposed to be fossil-bearing as it is comprised of low-energy floodplain muds.

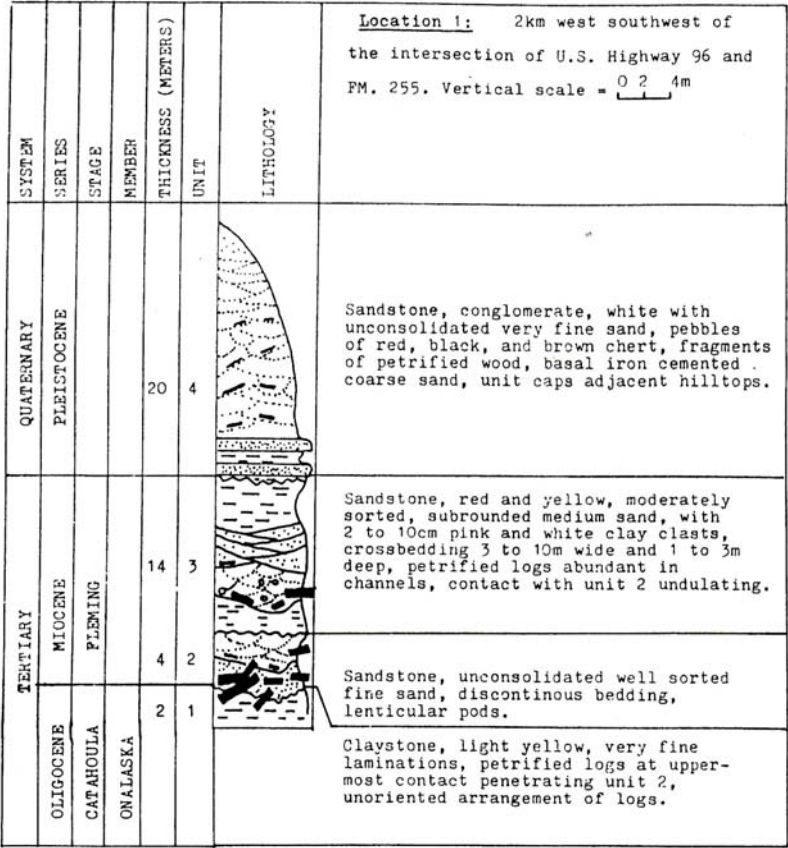
Unfortunately for us, the Jasper field trip locality is in the upper portion of the Catahoula. Observant field trip participants would note that the stream in which we were walking was cut into very sticky clay. This is the Onalaska Member. Observant participants also would note that all of the wood was in the stream as debris. Where wood was in the banks, those banks were composed of previous stream deposits and not the clay of the Onalaska Member.

In previous research from past years, I had turned up a Master's thesis by Michael Chadwick from Stephen F. Austin State University in 1988. It was on the Catahoula Formation in Jasper County. Many of his localities are familiar to me, including the south shore of Sam Rayburn Reservoir and an abandoned quarry called the Blue Hole. One of his localities is of particular interest because it lies about a mile to the east of our present field trip locality. He trenched (to remove topsoil) from the top of the hill down to the stream in order to develop a stratigraphic cross-section of his locality. He determined that the wood was being sourced from basal and mid-level Miocene Fleming Formation unconformities (Figure 9). In other words, the logs were deposited as log jams in lower Miocene rivers.

This means that the wood we were collecting is actually eroding out of the formation somewhere between the current stream and the hill top where we parked. Subsequent research has shown me that the coarse, red, hard sandstone at the top of the hill is the lower portion of the Pliocene Willis Formation. Several field trip participants noted

APPENDIX F

Stratigraphic Section of Location 1



9. Stratigraphic column from Michael Chadwick's thesis (Identification and Geological Significance of Petrified Wood from the Oligocene Catahoula Formation, Jasper County, Texas; Stephen F. Austin State University, 1988). The locality from which this section was taken lies about a mile to the east of our field trip location.

that there was some wood in this sandstone. The prevailing opinion is that the wood there was redeposited from the erosion of previous units during the Pliocene. (Some of this is indicated in Chadwick's strat column in Figure 9, but some of the formation boundaries were further defined after his thesis was written).

Because of the importance of this locality as well as the possibility it may be lost to us, I need to go out there this summer to trench some of the sediments at this locality and

compare them to Chadwick's strat column. If I'm to use this information in my research, I need to be able to defend my assessment of the source of this petrified wood.

If anybody else cares to participate in this geological excavation, contact me. I'd be happy to have some help. I will be doing a lot of digging, and it will be hot. Average July temperatures in Jasper are the same as in Houston—94°. I will be spending the night in Jasper and starting near dawn while it is still cool. I might even spend two nights in Jasper if I don't get enough done in one day. You can reach me via email (fossilwood@houston.rr.com) or phone (713-664-9033).

Show Committee's College Station Petrified Wood Field Trip

by Sigrid Stewart

2007 Show Chair

The intrepid explorer pushes doggedly through the underbrush, wishing vainly for a machete. She pauses briefly to wipe the sweat from her brow and to appraise the small trees draped with vines that stand between her and the bottom of the ravine where unknown paleontological specimens beckon to be discovered. Around the bend of the creek she hears other members of the party exclaiming over the wonders to be found. Gamely she grasps a vine to traverse across the muddy slope before she can at last step into the creek bed. She straightens up and surveys her next target, only to hear a companion waiting on the trail above say, "That vine looks like poison ivy!"

Eek! Well, that was it for White Creek for me, because I bailed to go wash my hands and arms. But it wasn't the end of the day! After scrubbing up a bit, we continued on to the well-known subdivision area off of 2818 and met David there. We planned to check the access into Turkey Creek, source of much wood collected in the past.

The crew at White Creek near the entry point



Our trip started at White Creek; most of the crew of 12 arrived early and trekked through the stream, slipping on the mud and falling in.



Hunting gravel bars further downstream

The late arrivals just picked through small pieces near the entry. By then most folks were ready for a break, and we went to lunch at Rosa's, a new fast-food Mexican restaurant. A few of the gang headed back to Houston early.



We make new friends!

Next we went to a construction site east of the Hwy 6 bypass, and we picked up some surface wood until we were chased off. Undaunted, we returned to the White Creek area and tried to get in from the north, but the road was blocked with a locked gate so we back-tracked and went across through a subdivision south from the end of the road. When we reached the creek, there was a thirty foot undercut drop-off, and we



Back at the car enjoying some of our finds. Left to right are Scott Singleton, Tom Lammers, Bob Fischer, Ken Cox, and David Lindberg.

had to go along the creek to find a way to get in. Finally we pushed through the brush to a small tributary, but only Scott Singleton and the girls made it into White Creek. After the poison ivy incident, some left for Houston, and we returned to Turkey Creek to the well-known subdivision area near Villa Maria.



Kids and Mud:
Kids always have a great time on field trips—Scott Singleton's daughter Lorraine and friend Gabby.

Scott's comments on White Creek: There were some larger pieces in the stream, but no whole logs. I saw probably a dozen in the 50–200 lb class. Interestingly enough, there was a variety of types—tan with opal on the outside, orange or brown, and very dark brown to black. These obviously were sourcing from a variety of environments and were not picked over yet. I brought back a piece that has two clear terredo borings. That is what I really wanted from there since that is the area where Rick Rexroad found his terredo-bored log.

The girls and I had a great time on the stream at this site. It was difficult getting back up, but that's the price we pay. There are definitely some big pieces there—actually more big pieces than small. I didn't bring any big ones back because I knew I couldn't get them up the hill. I actually picked up a piece of coal from the coal seam I saw high up in the wall. I'm going to send some pics and a description to Dr. Yancey and see what he says.

I found two live oak pieces in the morning at the 2818 site. Those species definitely are not supposed to be there. I think they come from the Pleistocene cover a little to the north around Hwy 6.

Steve's Comments: We drove to the right from the entry road and up the hill and checked out a couple of the streets off to the left. They are currently building homes, and I could see some exposed wood in the area, so there are still possibilities around the edges and along the roads where the grass is not taking hold because of the gravels. There are numerous blow-outs in the grassy areas where I found lots of small silicified pieces two to three years ago, so those areas still are prospective.



We checked out the cleared areas up a new road that goes up the hill to the left from the creek and the new bridge and found some small pieces of wood, including some left by others (Max and Joan?). Then we walked downhill to Turkey Creek to check it out, and found that they have dumped several tons of limestone boulders down the slope to protect the road and the new bridge from erosion by high water. The angle of repose of the boulders is quite steep, and they didn't look settled in yet. It wasn't safe to go down that slope even though I could see the bars in the stream that I knew were chock full of petrified wood pieces. Both side of Turkey Creek upstream and downstream had the limestone boulders in place, and that was the case everywhere we looked where there were gullies or streams.

Steve Blyskal and new finds

We did find some cleared land for future road and home sites upslope from Turkey creek. It was a virgin area since there was wood everywhere on the surface. We left 100s of pieces there and only took the best we found. Once they put a road in for this part of the development, probably sometime this year, that will mark the end of possible virgin areas. This is where we found the large log.



**Steve Blyskal and Sigrid Stewart
and the log that got away**

Scott: My bottom line advice to you is to forget it unless it is small enough for several guys to lift AND it is of sufficient quality to go through the effort to retrieve. We've seen lots of logs there and many of them are not worth a huge amount of effort. If they are easily obtainable (how can a 1000 lb log be easily obtainable?) then it might be cool to have, but otherwise they're not worth the effort. Logs that are entirely blond-

colored are usually not worth it. You can calculate the weight by calculating the volume of a cylinder ($\pi \times r^2 \times \text{length}$) and multiplying it by the density of quartz (2.7 g/cc, with appropriate conversion factors).



Steve: I used Scott's basic formula and conversions to come up with the figure of ~1100 lbs for an 18-inch log that was 4 feet long. That is certainly more than most people can lift. I'll let someone else collect it. After cleaning wood, we had about 30 pieces from the construction site on Hwy 60 (first place after lunch) and Turkey Creek. I didn't see any snakewood or palm among what we collected, but there were a number of 10–15 pounders, including some pieces with unusual characteristics.

Show Committee Dinner Party

June 12, 2007

by Sigrid Stewart

Every year in June members of the Show Committee get together for their annual Show Committee Dinner Party. It's a chance to mingle and visit a little bit before the pressure of show preparation really hits. This year and for the past few years, the dinner was held at Scott Singleton's house which has the great advantage of being centrally located and easy to find. And of course Scott and Eileen are always wonderful hosts! They have a lovely home that is tastefully decorated—complete with interesting specimens.



Elsa Kapitan-White, Nancy Fischer, Mary Ann Mitscherling, Joan Riley, Karen Burns, Eileen Singleton, Sigrid Stewart

This is a pot luck affair where everyone shows off their favorite dishes or experiments with exciting new ones. I brought ribs (first time ever to cook them!) and chocolate cake—a popular old-time recipe, Michele Marsel brought fried chicken, Karen Burns brought blueberry pie, and Steve Blyskal brought sweet potatoes. There were salads and side dishes, desserts, and cokes and beer to sip around the pool on a beautiful evening, while various committee heads updated the group on their progress and requested feedback on projects.

We checked out postcard shots and voted for our favorites with many comments. And we had door prizes! Elizabeth got a beautiful chunk of green moss agate that I had to



Michele Marsel, Scott Singleton, Rick and Elizabeth Sheehy



Above in foreground: Elsa Kapitan White, Eileen Singleton, Rick and Elizabeth Sheehy, Michele Marsel, Bob Fischer, Scott Singleton. In back, Mary Ann Mitscherling, Sigrid Stewart, Nancy Fischer, and Karen Burns

twist my own arm to donate. Several people went home with striking slabs of petrified wood cut by our own petrified wood expert, Scott.

Eileen sent several more people home with big chunks of Scott's petrified wood. So lots of us went home with a bonus as well as with memories of a very pleasant evening.

2007 Show Committee Announces NEW Volunteer Incentive Program

Earn a Show Buck for every shift you work and redeem them for cool stuff. Stay tuned for more details. Mark your calendar for the Show weekend—September 21-23, 2007.

Rock Birds Get Married

by Matthew Phillips

After a suitable time together, Theresa and I knew we would marry. Old friends, co-workers, and members of HGMS all gave us plenty of advice. Since we both work, time is always tight. We selected a Las Vegas marriage package and studied what was available for us to see in Arizona and Nevada. We set out on Saturday, April 21 and flew to Las Vegas where we were married. We then rented a car and drove to Hoover Dam, Flagstaff, Sedona, then Phoenix, and we finally returned to Houston, Texas on Thursday April 26.

We didn't do much rockhounding, but there were plenty of rock sights in our plan. In anticipation of the trip, I purchased an 18 mm to 200 mm lens for my Sony Alpha camera.

April 21 and 22—Wedding activities. To others considering the cheap route for a Las Vegas marriage, I suggest that you expect cost cutting to be done by those you employ. The limousine turned out to be a modified stretch Hummer (not suitable for entering by someone well dressed). The cake was from the deep freeze and was missing icing on one side. All employees seemed to think dressing in old worn cotton attire is professional. On the plus side, the Baptist Minister was A+ excellent.

April 23—We began our drive to Sedona, Arizona. Using a GPS is a surreal experience—while traveling it can make you an expert and dummy at the same time, but it is worthwhile. We stopped at Hoover Dam and parked at various spots that allowed an overview, and we also observed the new causeway construction that someday will allow traffic passage across above the dam itself. The countryside is very dry, and when water is seen, it appears with very little plant life. The weather was cool and windy; the industrial sites seen along the way appeared to be for cement and gravel purposes.

Approaching Williams, a light amount of sleet damped the windshield and roads but caused no difficulty. A gas station attendant did advise that snow was pending, so we should be careful driving down the Oak Creek Canyon route. About one-third of the way between Flagstaff and Sedona, we stopped at a lookout point. There we found jewelry for sale made by local Indians sheltered in tents of clear sheet plastic. I purchased a pair of silver and malachite earrings to match Theresa's pendant necklace.

The drive down the Oak Creek Canyon is worth exploring; the road does have many hairpin curves. I advise those who go there to please drive with patience and to remember that the danger is not the cliff beyond the (sometimes there) guard rails but the road itself. Be watchful of oncoming traffic that drifts across the center line. We arrived at Sedona just at sunset and were able to find our accommodations.

April 24, 2007—We backtracked up the Oak Creek Canyon route through Flagstaff to Williams for the train ride—the weather was cool and clear. The train personnel provided plenty of entertainment and color; for me the view from the train was uninteresting and bland until we arrived at the Grand Canyon. There of course the view became as wonderful and fantastic as expected. During the tourist season car traffic to the south rim is restricted to handicap and park employees only, so access is by bus or by the train. Transportation is provided two ways on the rim—one is commercial, and the other provided by the park is free of cost. Park employees explained that the free shuttle is quite dependable. There is little risk in missing the exit time. We stuck with the commercial bus which included three stops with 20–30 minute stops and commentary provided by the driver. This also allowed us time to explore the lodge, station area, and the Indian store. Later we enjoyed the colorful entertainment on the way home. Yes, we encountered the train robbers and escaped unscathed. The trip down Oak Creek Canyon after dark was a test but still enjoyable; we were just more careful, and traffic was not too bad.

April 25, 2007—Pink Jeep Day at Sedona, another clear and cool day great for sightseeing. The company provides jeep rides through the surrounding area. There is room for six to eight people plus the company driver. It appeared to me that around 40 to 50 trips were provided per day, and the view from each stop is worth remembering. Progress is slow enough to not bounce too much, but some inclined areas are extreme. Seat belts and hand holds are necessary all through the route. The driver provides commentary and insights about the area. It is worth doing the trip again.

April 26—Final day we left at sunrise and headed to Jerome searching for rock shops there. Our mistake was thinking they would be open before 10 a.m. The Phoenix area has become quite metropolitan. A side trip to Tempe, then on to Apache Junction. It was enjoyable seeing the Superstition Mountain again which was just about the only item left that I remember. Everything else had changed due to increased population. We boarded our flight and returned home. If you attended the May 2007 General Meeting, the program was a PowerPoint presentation showing our trip to Nevada and Arizona.

Clements High School Thanks *National Science Olympiad*

Dear Mr. Blyskal, Mr. Immega, and Mr. Singleton,

How are you? We competed in the National Science Olympiad in Wichita, Kansas this past weekend. Out of 60 teams, we placed 32nd overall and received medals in 2 of the 23 events. This is the first time Clements High School has advanced to nationals, and we are inspired by the experience to prepare better next year. We will definitely study hard for the Rocks and Minerals event! Thank you so much again for your time

and help! Have a wonderful summer! Sincerely, Julia Wong

Susan Lenz Update

June 7, 2007

by Norm Lenz

Dear HGMS Friends,
Susan has had two seizures since my last update a month ago. We consulted with a specialist at the UT Seizure Clinic and are adjusting medications again. This is a trial and error process that will take at least a month for the seizure clinic to complete. Meanwhile, the additional seizure medication makes her too weak to continue OT and PT. We can resume therapy again later if her health improves.

Antibiotics are slowly solving the problem of abscesses. There is little or no discharge. However, she is now complaining of stomach pain. We are requesting an appointment with a GI specialist to check this new problem.

We have tried several therapy techniques to stimulate Susan's brain and help her sense of well-being. These include massage therapy, aroma therapy, and supplements. Music therapy is next on our therapy list.

Susan's next MRI is scheduled for 6/18. Dr. Yung will interpret the scans for us on 6/19.

Positives:

- There is still no evidence of tumor regrowth on Susan's last MRI.
- Blood counts, protein and electrolyte levels are good.
- She eats well, sleeps well, and does not seem to have any pain except for occasional stomach aches.
- We were able to visit our property in the Hill Country a couple of times since my last update. However, she is too weak to travel this weekend.
- We were able to visit Susan's mother in Indiana for Mother's Day and Tanya's birthday. It was a hard trip but well worth the effort. Tanya, Heather, and Susan all spent time with their mothers.

Negatives:

- Susan is able to feed herself only a small portion of what she eats.
- We tried a new tremor control medication without any improvement in her tremors.
- A blood test for thyroid problems has indicated a potential issue. More tests may be necessary to determine if she needs treatment.
- Susan needs more assistance with dressing, walking, bathing, and eating than at my last update.
- Her legs are so weak that she can barely support her own weight.

Thank you for keeping us in your thoughts and prayers while we continue our war. (Photos of Susan are on the following page.)

Norm



Susan with Janet and with Tracy, two of her four sisters we saw during the Mother's Day trip.

In Our Library

by Art Smith, Librarian

I finally have found a new book binder, and he has the first batch of our journals that he is binding. He is not as convenient as the other binder, but hopefully he will not make false promises and keep for nine months things that were supposed to be done in 10 days. We are not in a rush to get them bound. However, a promise and contract should be kept within in a reasonable amount of time unless there are extenuating circumstances.

I have two boxes of books and journals to add to the shelves, but I find I have to do some shifting to fit them in. This is particularly true of the journals which keep adding new volumes each year. As years go by, we have to be more selective about what goes into the library and need to put into storage things not often used. Hopefully there will not be too many things in storage. Notes in the library Index will mention in which box the books are being stored.

If there are some books out there on any hobby-related subject that we should have, please inform me and I will try to obtain it. There is a new mineral magazine being published in English in Spain. I have managed to get the two 2006 issues, and they are in the library. It is called *Mineral Up*. It seems to be of good quality, so I will try to subscribe to it.

Lapidary Section

by Kathy Konkel

Our meeting **Monday, July 16 at 7:29 p.m.** will be informative and interesting when Tom Wright demonstrates cold connection of metal with the use of rivets.

Prior to the Lapidary Section meeting, the shop is available for use from 5:00 p.m. until 7:15 p.m. The usual shop fees apply. We are always interested in your current projects, so please bring them and show us!

Day Light Section

by Frances Arrighi

Seventeen members and one guest attended the 14 May, 2007 meeting of the Day Light Section. The program was devoted to discussing our summer meetings with Professor Link. We will be learning the technique Keum Boo. This is a Korean technique in which fine gold foil or leaf is burnished into fine silver pieces that are at a temperature of around 600–800 degrees F. The gold firmly adheres to the silver, and many interesting designs can be placed on silver using this technique.

Patty Scott could not attend the meeting, but she left three pieces in which she had used this technique. All three were small earrings. One was gold over the entire piece. The second had three triangular pieces of gold burnished into the silver. The earring was then treated with liver of sulfur. The triangular pieces stayed gold and the silver oxidized and became black. The third had a small stone set into it.

We look forward to having Professor Link with us this summer.

HGMS General Meeting Minutes

May 22, 2007

by Karen Burns standing in for Denise Bicknell, HGMS Secretary

The meeting was called to order at 7:35 p.m. by President Matt Dillon.

New Room: Dave Hawkins discussed the new room that will be constructed inside our building and asked for patience on the part of our members while the space is built. If you have problems, see Tom Wright or Gary Anderson for help.

New Assistant Treasurer: Matt Dillon announced that Rod Linehan, a local CPA, has agreed to serve as Assistant Treasurer to assist Lowell Souder.

Matt Dillon announced that Matt Phillips would be providing the program for the evening.

Show Committee: Sigrid Stewart, Chairman of the Show Committee, reported that the recent field trip was very successful with good specimens brought back. Anyone interested in helping to prepare for the show is invited to contact Sigrid or any member of the committee. Everyone is welcome.

Day Light Section: Sunday Bennett reminded Day Light Section members that the summer program will be creating Keum Boo metal for making jewelry. 24K gold leaf is applied to a sheet of fine silver at a high temperature, and once it is applied, it cannot be scraped or worn off. Val Link will again be directing our program.

Faceting Section: The Faceting Section program in May was about the use of specific gravity in identifying minerals. Wayne Barnett demonstrated its use.

Lapidary Section: Phyllis George reported that the Lapidary Section watched a demonstration by Boyce Gahagan who created a wire-wrap pendant setting for a large

faceted stone. The June meeting will teach members how to make their own nylon hammers for use on metal—it will pound without denting or scratching. The cost for supplies should be less than \$5.

Mineral Section: Art Smith announced the Section will have a swap session on June 6, and the meeting is open to all members.

Paleo Section: Terry Brawner announced that Lexy Bieniek presented a talk on global warming at the last meeting. The trip to Mazon Creek, IL will be June 29–July 1. Please contact Neal Immega for more information.

Youth Section: Beverly Mace announced that the most recent Youth Section meeting was also attended by members from the Austin club. They wanted to learn more about how our Youth Section worked, and they seemed very impressed with our program.

Web Site: A new “Assumption of Risk” form is on our Web site. The form must be completed and given to the person in charge of field trips. If you downloaded a copy before the General Meeting, please go back to our Web site and get the most recent version. The old one was dated 2002.

Show Wall Displays: Mary Ann Mitscherling announced that the Show Committee is preparing displays for the walls of the auditorium during our show. If you have photos or ideas for these posters, please contact her.

Wire Order: Karen Burns told members who ordered wire that the order has been placed and should arrive the first week of June.

Door Prize: The prize was won by Terry Procter.

Program: Matt Philips presented the program for the evening—a PowerPoint travelogue of his honeymoon trip to Las Vegas, the Grand Canyon, and Sedona. His pictures, most of which were taken from a moving vehicle, help remind us of the stark majesty of our southwestern states.

The meeting was adjourned at 9:15 pm.

Lincoln's Marble Leaks

via Rockhound Ramblings 2/2006, Breccia 6/2007 and others

Did you know the Lincoln Memorial in Washington, DC, is sprouting stalactites and stalagmites in its basement? This phenomenon is caused by water seeping through the marble. Though the Memorial is only a little over 55 years old, the formations have grown several feet in length. When the Memorial was built, engineers sank 122 cylinders to bedrock 50 feet underground on a rectangular platform, thus forming a cavernous space beneath the floor. This is where the stalactites and stalagmites are growing.

HGMS Board Meeting Minutes

June 5, 2007

by Denise Bicknell, Secretary

	President	Matt Dillon	X	Faceting Rep.	Phyllis George
X	1 st Vice President	Matt Phillips	X	Lapidary Rep.	Karen Burns
X	2 nd Vice President	Beverly Mace	X	Mineral Rep.	Art Smith
	Treasurer	Lowell Stouder		Paleontology Rep.	Terry Brawner
X	Secretary	Denise Bicknell	X	Day Light Rep.	Sunday Bennett
X	Past President	Scott Singleton	X	Asst. Treasurer	Rodney Linehan

The meeting was called to order at 7:35 p.m. by Matt Phillips, 1st Vice President

Approval of May Minutes was done via e-mail

Treasurer's Report:

1. The Board discussed the need to include bank balances that are maintained under the banner of HGMS in HGMS' Income Tax Return. The Paleontology Section has provided a statement.
2. Beverly Mace reported the bank balance in Lowell's absence. Beverly will pay all bills in Lowell's absence.
3. Matt Dillon will inquire about Lowell's status.
4. Sigrid Stewart presented the approved 2007 Show Budget to clarify items in Lowell's Show Spreadsheet so that the Proposed 2007 Budget could be finalized. A copy is attached.
5. The HGMS 2007 Budget was approved. A copy is attached.
6. Matt Dillon will contact Steve Blyskal and request that he find out if grant money is still available for this year and that if so he applies for it for this year as well as for next year.

Committee and Section Reports:

- **Programs:** Matt Phillips presented a list of suggested speakers and asked for suggestions for topics and speakers. He suggested that a list be prepared to pass on to those who will be obtaining programs in the future.
- **Show:** Sigrid Stewart reported that the Show Committee is progressing and that things will soon be moving quickly. She reported that three new dealers have been offered spots. Michele Marsel, Assistant Show Chair, presented a Show Incentive Program. She announced that the Show Committee has created Show Bucks as part of an incentive program to persuade more members to work in the show. These Show Bucks will be redeemable in a number of ways. She requested that they be redeemable in the shop and for specially created classes. Karen Burns moved that the Board accept the proposal. The item was tabled until the Show Committee discusses the topic with the Shop Foreman and the Education Chair.
- **Shop and Clubhouse:** **The build-out of the new classroom has commenced.** Several walls are framed. More help will be needed to move the stairs. This needs

to be done at a time when there is little activity in the clubhouse.

- **Mineral:** Art Smith reported the Section's annual Swap/Sell meeting will be held on June 6. All members are invited to participate.
- **Newsletter/Web Site:** Phyllis George reported that HGMS has five members who ranked in the top ten at the AFMS level in their categories: Scott Singleton, Art Smith, and Albert Ross III in the Adult Article Advanced category, Sunday Bennett in the Adult Article, and Terry Proctor in Poetry. The BBG is also in the top ten. The AMFS Show is being held June 4–9. Phyllis will attend the show and meetings to represent HGMS and the BBG. She requested reimbursement for her expenses. Scott Singleton moved that we allow up to \$600 for her expenses, it was seconded by Art Smith, the motion passed.
- **Membership:** Beverly Mace reported that a new Roster is being prepared.

Review of Action Items from last Board meeting: Included in Business section

Old and New Business:

1. Matt Phillips reported that he and Sunday Bennett are working with a new sign company to obtain bids for letters measuring 20 x 18 inches. These are for a sign to be placed on the front of the building.
2. A question was raised about installation of the new stovetop. Sunday Bennett reported that she thought Neal Immega plans to install it when he returns from the field.
3. San Jacinto College is a 2-year school. The Board would like all scholarships to be given to a Junior or Senior student so that we can be sure the money will be used for Earth Sciences/Lapidary related study. The recipient must be attending a local institution. Sunday Bennett will consult Val Link this summer concerning suggestions for a scholarship recipient. No money for a scholarship is in the budget at this time, therefore the topic was tabled until after the 2007 show. Sigrid Stewart suggested a scholarship committee be formed and guidelines be created. She said she could provide a copy of guidelines used by the Midland Club as a template.
4. There is a roof leak in the women's restroom and a second leak is in the attic. Water was streaming down a pipe during a rainstorm. Matt Phillips will see that Tom Wright knows about the issue.
5. Michele Marsel reported tripping over a concrete parking block in the parking lot. These blocks are hard to see, especially in the dark, because they are obscured by vehicles and shadow. More lighting was suggested as was removal of the blocks. Fluorescent paint was suggested for the parking blocks and for the low ramp in front of the large overhead doors. Tom Wright will be consulted for suggestions. Matt Phillips or Matt Dillon will contact the management company to request removal of the bumpers or request that they be painted with fluorescent paint.
6. Denise Bicknell reported that Holly Smith does not have lymphoma but still faces health issues.
7. A proposal to amend the Bylaws was distributed.

The meeting was adjourned at 9:25 p.m.

AFMS President's Message*by Dr. Robert Carlson**AFMS President**Excerpt from the AFMS Newsletter 6/2007*

I receive club bulletins from all over the United States, and I am amazed and awed by the width and breadth of the activities in which the clubs are involved. There are at least two clubs that operate a Museum. Many of the clubs have bulletins that contain articles that are of such scientific depth that I have to get out my dictionary to understand what they are talking about.



This is a large and diversified organization. Each club has its own special interests, some are oriented toward fossils, some toward lapidary, and some are mineral collectors. Whatever their primary focus, successful clubs tend to have several things in common. First, they embrace a broad range of activities and interests. They generally have a newsletter and an annual show. Field trips are a must, whether it is for collecting or for education such as visiting museums. Lastly, and perhaps most important, they cater to Juniors; whether it is a Juniors organization within the club, outreach to schools or other Juniors organizations such as Scouting, or special Junior activities at their annual Show.

Successful clubs try to get the public involved in their activities, especially the younger people. Is your club a successful club?

AFMS Safety Message*Be Safe—Be Well**by Don Monroe**AFMS Safety Chair**from AFMS Newsletter 2/2007***Feet Hurt? Check Footwear and Foot Care!**

I remember some of my older relatives saying that when your feet hurt, you hurt all over. I never gave it much thought until I approached significant maturity. Then my feet began to cause a bit more trouble, and I had to make changes in footwear and foot care. I well remember the lectures they gave us in the Army before we went on marches, hikes, or field exercises. Always we had to have an extra pair of clean, dry socks, and we had to inspect our feet carefully each morning and each evening and keep our boots and feet as dry as possible. It was darned good advice.



All of us must become more sensitive to our footwear. We should select sturdy shoes. I know ladies, they may not be stylish. We must have shoes that fit properly. We may

have gotten in the habit of buying one particular size, but they may no longer fit. Two factors can figure into this. First, I have been told that a few years ago manufacturers changed the standards for shoe sizes, and shoes became ever so slightly smaller. A second factor is that as we become older, our feet may tend to change in size, width, or length. We may need to consult a knowledgeable supplier of footwear so that we purchase a size that does not cramp our toes and that gives proper support. Much comfort can be derived from either good quality arch supports or custom-made orthotics. This may cost you a little money, but it can be a good investment in the long run.

The second part of the basic equation of foot comfort is foot care. Let's start with the toenails. An ingrown toenail can really be a source of pain and infection, and they can actually be dangerous. Nails should be trimmed straight across and trimmed often. They do not have to be cut extra short; just don't let them touch the inside of the toe of the shoe. Be alert to strange tendencies for the toenails to "cup" or "curl," and watch out for discoloration. There are fungus growths that enjoy attacking your toenails, and they can cause big trouble.

Malformations of the toes and feet can occur and are bad news. Hammer toes, bunions, and corns often result from poorly fitted shoes, and these conditions may require medical assistance. There are other foot problems that I do not even know about, and I am not sure that I want to.

Paying close attention to our toes and feet in general is most important. With age comes the onset of noninsulin-dependent or type 2 diabetes. Diabetes has a nasty habit of causing sores or infections on the feet, and this **must** be avoided. Untreated sores on the feet can result in amputation or in some other form of surgery.

In closing, let me remind you that our feet are fragile, and we must not run down to our work area or studio for even a minute without proper footwear. It is really easy to break toes, and often very little can be done to repair the damage. Having your toes taped together is less than comfortable, and often that is the only thing that can be done to achieve healing.

I must declare to you that I am not a physician, and I have no contact with the medical profession other than sleeping with a nurse (my wife), but I do know that as long as we persist in walking upright, we must take care of our feet.

Rock Candy

*from <http://rockhoundingar.com/pebblepups/growcryst.html>
via Arrowhead News 04/2007*

Dissolve 1½ cups sugar in ½ cup boiling water. This is a thick, hot syrup. It will burn you and keep on burning your skin because it is sticky, so be VERY careful not to spill it on yourself! We put our solution in a 1½-inch deep tray and suspended crochet twine from chopsticks for the crystals to grow onto. These crystals grew for about two and a half weeks before we couldn't stand it anymore and took them out.

Arrowhead News Editor's note: If desired, you can add a few drops of flavoring or food coloring when dissolving the sugar. Use a natural string or thread for this, not nylon. One week is usually long enough, although the longer you wait, the larger the crystals will grow.



Inca Indians Used Solar Power to Cut Stones

via Coastal Waves, 4/2007 and Breccia 6/2007 and others

An Earth Science professor who has visited and done research at several sites in Peru where the Incas lived 1000 years ago, believes he has the answer to a mystery that has puzzled archeologists for years. "The Incas used solar power, not manpower, to cut the huge stones that they used to build their massive cities," said Dr. Ivan Watkins of St. Cloud University of Minnesota. Watkins said his theory supercedes all previous theories because they do not account for all the evidence. He believes that is enough circumstantial evidence in the preserved Inca traditions to support his idea. The sun was important to the Incas and was venerated in an annual festival, he noted. Some cultural records indicate that the Indians renewed an eternal flame by lighting a torch with the sun's rays reflected from a priest's bracelet. "There is no doubt in my mind that they know how to do it; everything points to it," Watkins said.

Watkins believes that Incas used gold dish-shaped or parabolic reflectors to concentrate the sun's energy to carve rocks with a beam of light. "They had the technology 1000 years ago," he said. "Every Inca temple contained a golden dish." Watkins believes the dishes were probably cut up and destroyed when the Spanish Conquistadors conquered the Incas in the 15th century. Additional evidence to support the theory can be found in the Gold Museum of Bogota, Columbia. Four small dishes appear to have the shape needed to focus the sun's rays. A parabolic dish looks like a TV satellite dish. "When sunlight is reflected on a parabola, the focused energy can be directed by moving the dish," Watkins explained.

"The dishes used by the Incas were 'two men across.' That's a pretty big dish, and it could burn a lot. It would be large enough to cut rock easily. The huge dish allowed the Incas to cut rocks in a precise fashion. The stone blocks are so closely matched that a knife blade cannot be inserted between them," he noted. Previously, scientists have theorized the massive stones of Inca cities were hammered with other stones; broken with wooden or metal wedges; etched with organic acids; or sanded with grains of sand and water. But Watkins noted that some of the rocks are carved with sharp inside corners and that there are clean edges of cut rock near stress fractures in the rocks. Crude stone hammers could not be used to achieve those kinds of results. Watkins said his theory evolved after he noticed a glaze on the wall of a cave that had Inca stonework in it. "In order to get a glaze, what you have to do is heat the rock, fire it up. What happened in this cave is that they had heated the rock quite severely."

The Inca villages were rediscovered in 1911. The capital of the Inca Empire was near the Peruvian town of Cuzco, but the most famous of the sites is Machu Pichu in the mountains of south central Peru.

The professor conducted experiments on his theory at the Federal Bureau of Mines in the twin cities and found that rock could be cut with a 10-watt laser. A huge dish like those Watkins believes were used could generate 6000 watts of energy. Watkins has been awarded a patent for a solar dish similar to those he believes the Incas used. He plans to test the dish on red granite in the St. Cloud area since it is the same (type) as that found in the mountains of Peru. He plans to take a sabbatical next year to detail his dish theory and three other theories. He also hopes to learn how the Incas transported the rocks from the quarries, miles away, to the village sites.

Leopard Carving

by Allan Livingstone

*Livingstone Art & Gem, Box 694, Cold Lake AB T9M 1P2 780-594-7315
alibaba@telusplanet.net*

from The Calgary Lapidary Journal 6/2007

I don't know how I came by my first chunk of Mexican Leopardskin Jasper, but I know that once I had it, I was always impressed with it. It was such a beautiful, striking material, always bringing comment and requiring a second look. Of course it was the perfect choice for a leopard carving. In fact, I kept telling people, "Someday I'm going to carve a leopard out of it", until I realized if I didn't get on it I was just lying to people. Maybe it was a carving of a pig out of Leopardskin Jasper that became the catalyst. I looked on it with such disdain because the material seemed such an inappropriate choice for a pig. It was clear I must carve a leopard.

I looked the piece over. Leopardskin Jasper is entirely loaded with spots, but it also has the odd black and tan sheet going through it which shows on the surface as a stripe. I had to find an area free of that stripe. There seemed to be a pyramid-like shape in the piece that was just spots, so I cut the piece out as near as I could to the stripes and got a nice chunk that would accommodate a leopard sitting on its haunches looking back over its left shoulder. The tail could be wrapped around its rump.

I started off looking for pictures of leopards in poses close to the position I was after. I found lots of material, but very few choices that would be of any help. It's easier today with the Internet, but this was around 1991. The study of the leopard led to other things, like our company logo, jewelry (designed in the leopard motif), and my first silver casting of a leopard profile. Anyway, I managed to find one image that was a help.



I drew outlines of the leopard onto the rock with permanent marker from all sides, then I clamped it into my 14" Lortone chop saw. I put on a particulate mask and made successive cuts down to that contour, then with a flat screwdriver I broke off the rock still standing. This got rid of a lot of material right away.

Then I took the piece to a 100-grit 8" diamond grinding wheel and continued to grind down the shape. Further removal of the material in this way was done with diamond cutoff wheels and coarse diamond burrs in a clamped #30 Foredom hand piece under a water drip. Soon it was to the point where I could begin the smoothing with a 220 grit 8 x 3" silicon carbide belt and small pads made from 220 belts. Then 400 grit. Then 600 grit. Polishing was done with a 1200 mesh diamond compound and beefed up with extra 1200 powder, then 8000 mesh diamond on hard felt wheels, small sticks, and anything else that would hold the grit and get into small details.

The leopard now stood at about 3½ inches tall. My plan was to cut the eyes out of chrysoprase, and I was amazed at how small they had to be in order to be in proportion. I remember a carving of a house cat I had seen years before with chrysoprase eyes, and they looked like day-glow jelly beans. Recalling that fright, I was determined the eyes should be exactly in proportion and the right shape. Nothing else would do!

I mounted the leopard on a highly polished slab of Mexican peacock obsidian that had a strong green and purple sheen. I enjoyed creating the leopard, and it drew a lot of attention.

Years ago at the show in Medicine Hat, Alberta, Komarovich Originals Ltd. of Calgary thanked us for the amount of leopardskin jasper they sold after people saw what could be done with it.

Happy Trails! Allan



Tourmaline



Fluora

Images from
SCRIBE 2006 CD

ShowTime 2007

August 18-19	Bossier City, LA	Ark-La-Tex Gem & Mineral Society Bossier Civic Center, 620 Benton Rd Charlie Johns (318) 687-4929 cwsejohns@bellsouth.net www.larockclub.com
August 25-26	Jasper, TX	Pine Country Gem & Mineral Society VFW Bldg., FM 2799 and FM 1747, 9 miles west of Jasper; Sharon Kerr, (409) 384-3441 or (409) 489-0487; seadigest@aol.com.
September 1-2	Arlington, TX	Arlington Gem & Mineral Club -- SCFMS Arlington Convention Center 1200 Ballpark Way; Karen Cessna, (817) 860- 5232, Rick Kupke (817) 465-5270 rickkupke@nwiis.com; http://tses.org.
September 21-23	Humble, TX	Houston Gem & Mineral Society Humble Civic Center, 8233 Will Clayton Pkwy. 5 miles east of Bush Intercontinental Airport 1 mile east of Hwy. 59 sigrid.stewart@chevrontexaco.com
September 21-23	Jacksonville, FL	Jacksonville Gem & Mineral Society Morocco Temple, 3800 St. Johns Bluff Rd. Mary Chambliss, (904) 269-4046 IvoryTowers@msn.com
October 11-13	Mt. Ida, AR	World Champ. Quartz Crystals Digging Con- test; Montgomery County Fairgrounds, Fair- grounds Rd.; Thu. 9-3, Fri. 9-3, Sat. 9-3; adults \$90, preregistration \$75; dig in working crys- tal mines, keep all you dig, maybe even win a prize. Maureen Walther, Mount Ida Area Chamber of Commerce, Mount Ida, AR 71957 (870)867-2723; director@mtidachamber.com www.mtidachamber.com.
October 13-14	Dallas, TX	North Texas Earth Science Association Brookhaven College, EMGI Center 3939 Valley View Ln.; Nick Theis (972) 242-2634; n2theis@gmail.com.
November 17-18	Mesquite, TX	Dallas Gem & Mineral Society Resistol Arena Exhibition Hall I-635 & Military Pkwy (Exit 4) www.dallasgemandmineral.org/index.html

2007		JULY				2007
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3 7:30 Board Meeting	4 Independence Day	5	6	7 10-12 Youth Section 10-5 Shop Open
8	9 1:00 Day Light Section	10 7:30 Show Committee	11 7:30 Faceting Section	12	13	14 10-5 Shop Open
15	16 5:00-7:15 Shop Open 7:30 Lapidary Section	17 7:30 Paleo Section	18	19	20	21 10-12 Youth Section 10-5 Shop Open
22	23	24 5:00-7:15 Shop Open 7:30 General Meeting	25 7:00 Beading Group	26	27	28 10-5 Shop Open
29	30	31				

2007		AUGUST				2007
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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The BACKBENDER'S GAZETTE

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

10805 BROOKLET

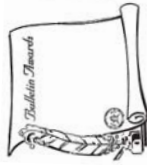
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