



The **BACKBENDER'S GAZETTE**

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

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November 2007



President's Message

*by Matt Dillon
2007 HGMS President*

October is another month to be thankful! We are all thankful for our show's great success and for the hard work all of the volunteers and our Show Chairperson, Sigrid Stewart, did to make it turn out so well. We are thankful to have this great club, growing faster than anyone ever imagined, and for all of the new members who will be giving our future show leaders a helping hand in putting on the shows to follow.



Sigrid will report on the show at our November 27 General Meeting, and I know we are all eager to hear it. I have received many compliments and positive comments both during and after the show from those who came to look around, those who represent other clubs, the dealers, and from just plain folks who were experiencing the excitement of such an event for the first time.

We can also be thankful that the new air abrasives room is almost finished, and some intense fossil cleaning will no doubt be taking place as soon as it is.

Continued on page 4

General Meeting Program

October 23, 2007--**Precious Metal Recycling:** Davis Gilbert started in the PM (Precious Metals) industry in 1979. He has been seen on NBC, ABC, CNBC, the Discovery Channel, and he also has been interviewed by the Chicago Tribune, New York Times, and over 300 other newspapers in the U.S. and abroad for his expertise in computer recycling. He is also a founder in computer recycling and a co-founder in the establishment of the Computer Recycling Coalition in Washington D.C. You won't want to miss this program!

November 27, 2007--A World of Discovery on a Calcite Surface: Kevin Davis, one of this year's recipients of an AFMS/SCFMS scholarship, will show us how imperfec-

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*Every article published in the BBG is edited for grammar and content. Any flaming is removed. **NOTE NEW E-MAIL ADDRESS***

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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>.

President's Message continued from page 1

As many of you already know, we will not have a regular General Meeting in December, but we will all get together and have a great time at our annual Christmas Party to be held the second Saturday in December. The party will be discussed at the November General Meeting.

In the meantime, have a great time with your rock collecting, fossil hunting, mineral digging, jewelry making, or whatever hobby or pastime you are involved in.

Programs Information continued from page 1

tions on calcite surfaces create beautiful growth spirals that can be used to decipher the physics and chemistry of mineral formation. Movies of molecular-scale calcite growth give insight into how organisms produce calcium carbonate biominerals and demonstrate that knowledge of mineral surfaces at the smallest scales is necessary for a geochemical understanding of weathering and crystallization.

Kevin is a Ph.D. student at Rice University and Professor of Geology at San Jacinto College. He has previously received an M.S. in Earth and Atmospheric Science from Georgia Tech and a B.S. in Chemistry from the University of Virginia.

Magnet Cove Rutile Sixlings and Eightlings

by Art Smith

artsmithite@msn.com

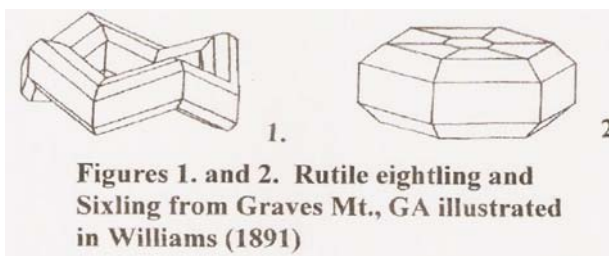
Member of the Houston Gem & Mineral Society

The most sought-after mineral from the Magnet Cove, Hot Spring County, Arkansas' intrusive ring-dike complex are the eightling twins of rutile that may reach a size of over 2 cm across. Those of us who have collected Magnet Cove minerals for years would probably agree, strange as it may seem, that they are one of the minerals from there that we know the least about. Our thoughts and ideas have evolved slowly as we have collected, exchanged data, ideas, and read available articles on Magnet Cove. There are several reasons for this general lack of data and understanding. Probably the most significant is the fact that most rutile occurs in the topographically low interior of the Cove where the rocks are deeply weathered and covered with alluvium so outcrops are few and even the few are often covered with thick brush plus all are on private property where access can be difficult. Also contributing to this is the fact that the early papers were written in German and the best mineralogy (Williams 1891) was not completed when he got sick and died in November 1891. Unfortunately the pages on rutile seem to suffer from these unfortunate events. Williams' volume, though dated 1891, may not have been published until 1892 or even later. John Branner, the Arkansas State Geologist, paid for the printing of many of the Arkansas Geological Survey volumes himself, but usually some years after they were written. The last of the writing was completed on Williams' death bed and was probably finished by a field assistant or relative. Even so, the volume was



considered a model for future studies of this type and overall contains a lot of good information.

When you want to see what a Magnet Cove cyclic rutile twin looks like, you open Williams (1891) to Figures 33 and



Figures 1. and 2. Rutile eightling and Sixling from Graves Mt., GA illustrated in Williams (1891)

34, shown here slightly simplified in Figures 1 and 2. Unfortunately these two diagrams are not like most Magnet Cove sixlings or eightlings, and as a matter of fact as Howard (1999) points out, they are borrowed without due credit from Rose (1862) and are actually diagrams of Graves Mountain rutile twins but in Williams (1891) labeled to be from Magnet Cove.

The two locations for rutile listed by Williams for Magnet Cove rutile specimens are Perovskite Hill and the southeast corner of the Cove southeast of the house marked R. C. Preston, No 1 on his map where he says they are not common. The problem with this is that these two locations are the best locations for eightlings but not for rutile paramorphs or other forms of rutile which are much more abundant than the eightlings, particularly in the north interior of the Cove where rutile was mined in the 1930s and 1940s but was collected loose in the soil when exposed during rains or plowing before the 1840s. The Richardson farm just northeast of the mining area was a famous early collecting area but was already considered to be collected-out by the time Williams (1891) did his investigations. These two deficiencies are indicative that this part of the volume was probably finished by someone else not as familiar with Magnet Cove as Williams probably was.

Actually these two locations are still the best known—and only known locations—in Magnet Cove for eightlings though stray ones can turn up about anywhere in the interior of Magnet Cove. Both locations are in the Cove's interior, but one is in the southeast and the other in the southwest, and both are near the base of interior wall of the steep high outer-most syenite rim. In both locations the crystals could have come from anywhere upslope because none are found with matrix or in place. Actually Perovskite Hill is underlain by carbonatite that is not generally considered the source of the rutile eightlings because none are found in any of the other carbonatites. Except for Clyde Hardin and a few others (Smith 2003), Perovskite Hill has been off-limits for many years. The southeast location, more recently known as the York place or farm, is where collecting was done in a plowed field just west of the house. The R.C. Preston house mentioned by Williams was on the west side of the field. However, in about 2001 a new house was built where the field was. Although we do not know in what rock type the rutile eightlings formed, it is generally assumed they formed in or on feldspar dikes like the paramorphs and other rutile crystals from the Magnet Cove Rutile Company mine that are very common and abundant and still can be collected today with permission, hard work, and luck.

A typical Magnet Cove rutile eightling is shown in Figure 3. Most drawings or sketches like this one are looking down on the specimen, but if the crystal is well preserved and you look at it from the side, the individual attached crystals show a slight zigzag pattern—but not quite as strong as that shown on Rose's Graves Mountain, Georgia specimen. Magnet Cove crystals generally have a pin-hole size opening in the center unlike the Graves Mountain, Georgia eightling.

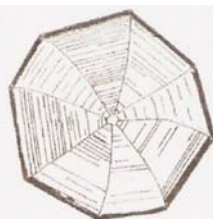


Figure 3. Plan view of a typical Magnet Cove rutile eightling

In September 2006, I bought an unusual Clyde Hardin specimen from Perovskite Hill. The specimen is elongated, about 1 cm tall, and is illustrated by idealized Figure 4. The zigzag pattern on the side is more exaggerated like the Graves Mountain crystal, but the opposite half, in reality, is not as fully developed as the side shown and fills in where the large center opening should be. This crystal has a smaller, more typical eightling slightly embedded on one side that was omitted from the sketch. It is the only eightling I have seen with this elongate shape from Magnet Cove, and if it had been cut off a short distance from the top, it would be similar to the Graves Mountain crystal drawing—at least on this side.

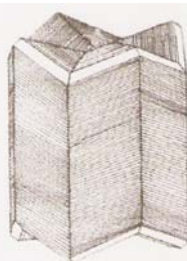


Figure 4. Elongated rutile Eightling from Perovskite Hill with similar zig zag pattern as Figure 2.

Another type of twinned crystal that may be an eightling or a fourling or may be a combination of both is shown in Figure 5. They are generally fairly small, under 1 cm across, and are characterized by a distinct central hole shaped like a star or pointed cross. Most of the faces are not striated, but rarely some portion may be striated. I have three such crystals, and one is from Clyde Hardin, collected at Perovskite Hill. The others have no specific Magnet Cove location. One crystal segment seems to have a division line (as shown by the dashed line) indicating it may be twinned and actually be two crystals. Others have hints of this. The striations may be absent because of poor preservation, or they never may have been there.



Figure 5. Rutile with pointed Cross-shaped center from Perovskite Hill.

I mentioned that the sixling crystal drawing from Graves Mountain does not look like any of those from Magnet Cove, but for years I searched for one like it. If you carefully read Williams' explanation of Bauer's (1891) drawings which he includes in his volume, you can get an idea of what a Magnet Cove sixling looks like, but the drawings themselves can be hard to interpret. However, better data is given in Howard (1999). He had George Megerle translate Bauer's paper—a difficult task because it was in the classic old style high German. The essence is that Magnet Cove rutile sixlings look like a brookite pseudohexahedral dipyraind and a rutile paramorph of such a crystal (Figure 6). Many specimens are almost impossible to visibly distinguish, but the paramorphs tend to have smoother surfaces than the sixlings, and the striations are not usually as well developed as shown. Some rutile sixlings seem to be composed of numerous intergrown crystals almost in a random patchwork as crudely shown in Figure 7. Some are so distorted that they seem more like a crude sphere than the expected sixling shape.

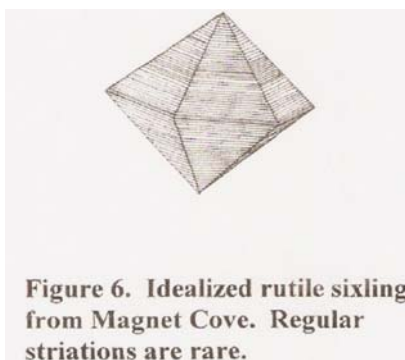


Figure 6. Idealized rutile sixling from Magnet Cove. Regular striations are rare.

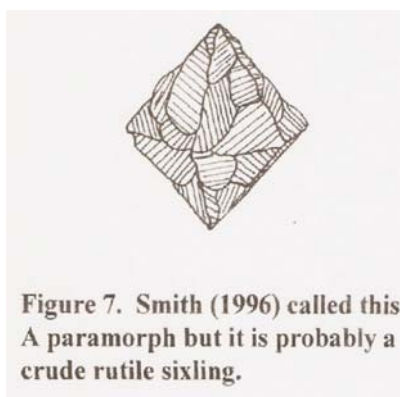


Figure 7. Smith (1996) called this A paramorph but it is probably a crude rutile sixling.

Where the best place to find the rutile sixlings or other twins in Magnet Cove is difficult to state. Most that I have seen have no specific Magnet Cove locations on their labels. They seem to be quite rare at the Magnet Cove Rutile Company mine area and at the collecting area in Cove Creek adjacent to the Mo-Ti prospect area where the paramorphs are also abundant. The trillings, fourlings, sixteenlings, and other twins that I have observed are mostly distorted or incomplete rutile eightlings. The other twinned specimens pictured in Bauer (1891) and reproduced in Williams (1891) must be very rare, and I have never seen any good specimens from Magnet Cove. Many of the early finds were put in collections that were sent to Germany where there evidently was more of a demand for them. However Bement had some good ones in his collection that eventually ended up in the American Museum of Natural History in the early part of the 20th Century (Gratacap 1914). Williams (1991) discusses each of the twinned specimens illustrated by Bauer (1891), but it does not appear he saw any himself, or perhaps this portion was written after his death.

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Ask Your Gemologist

by Mark Villanueva G.G., A.J.P., C.S.P

Contact me at Gemologist@hgms.org

Editor's note: Mark volunteered to write a monthly column on gem identification and related matters, and I am delighted to have him as a regular contributor. I look forward to receiving his articles, and I'm sure they will be a valuable addition to the BBG. Feel free to contact him with gemology-related questions at Gemologist@hgms.org.

I had a great time at the Gem show. I was sorry to hear that Sherman Trumble, the gentleman working the Gem ID, was ill, but I welcomed the opportunity to fill in for him at the GEM ID station.

I identified over 120 gems in about four hours. One person handed me a stone and asked what it was. She said that she could return it if it was not real. I identified it as a natural Zoisite (Tanzanite) then she asked if I was qualified to give her a value of the stone. I answered that I am an active Member of the National Association of Jewelry Appraisers and that appraisals are part of my job. (My credentials are listed at the end of this article.) I told her the value was \$1,200.00. She was very happy because she had just paid \$900.00 inside the show for it.

I love to bird watch and have a passion for watching ruby-throated humming birds. The ruby-throat is a breed found throughout Eastern to Midwestern North America and from southern Canada to the Gulf of Mexico. In the winter they are in Mexico, Central America, and on Caribbean islands, although a few remain in the Gulf States and on the Outer Banks of North Carolina. What is amazing about these birds is that they make a remarkable, nonstop flight of 18–20 hours crossing the Gulf.

I love the ruby-throat so much that I had one made. I brought my one-of-a-kind hand-manufactured 18 karat yellow gold ruby-throated hummingbird (*Archilochus colubris*)

and three other items to the HGMS show to display while I was working in the Gem ID booth.

The humming bird is hand-made with 3½ carat total weight of precious gemstones—diamonds, emeralds, rubies, and sapphires. The bird has 143 diamonds—all colorless, D-E-F, and clarity that is Flawless to Internally Flawless. The 154 emeralds

were imported from Columbia, and the 40 certified rubies on the bird's throat were imported from Myanmar, (formally known as Burma). They are a rich, full red with a slightly bluish hue, and two blue cabochon sapphire eyes. The wings are hand engraved with details of the feathers. The humming bird is perched on a natural matrix of sphalerite with trace amounts of galena and chalcopyrite. All of this rests on a polished, Noreena Jasper from the Pilbara region of Western Australia. This beautiful bird was designed and crafted by Daniel Hoang, President of Daniel & Company Fine Jewelry and Watches. Value: \$12,500.00



Item 2: 2.52 carat intense fancy yellow pear shape/cut diamond VVS1 clarity, excellent polish and excellent symmetry. The diamond is mounted in a hand-manufactured 18 Karat white gold setting. The yellow diamond is accompanied by two trapezoid fancy cut diamonds D color – VVS1 clarity, 1.10 carat total weight. One diamond is featured on each side of the yellow diamond and is prong set. Value: \$72,000.00



Item 3: Custom hand-manufactured 18 karat white gold dwarf honey bee brooch – subgenus, *Apis florae*. The honey bee has 50 round brilliant diamonds bead set. Color F-G, Clarity, VS1 ½ Carat total weight. Value: \$878.00

Item: 4: Custom hand-manufactured daisy flower broach. The broach has 10 oval cut rubies weighing 1.75 carat total gem weight with 45 round brilliant cut diamonds G-H color, VS clarity. ¼ carat total weight. This broach is manufactured in 18 karat white gold and was designed by Tia Bui. Value: \$1,250.00

In August I attended the National Association of Jewelry Appraisers 28th Annual Midyear Conference in Atlanta, Georgia. The conference concentrated on several work

areas which confront appraisers on a daily basis. I attended lectures and hands-on workshops that were given on hallmarks, trademarks, signature jewelry diamond grading valuing Old European cut diamonds and valuing granulation jewelry. During the conference, I successfully passed the Farnsworth – Munsell 100 HUE test for color vision.



Credentials:

Name: Mark Villanueva G.G., A.J.P., C.S.P

Title/Position: 8 Years Store Manager, 6 Years Guild Gemologist, 5 Years Jewelry Appraiser

Years at bench: As a hobby three years (not for retail manufacturing)

Colleges/Technical school: North Central Institute, University of Maryland and holds an undergraduate degree from ITT Technical Institute for Computer Information Systems Information Technology (CINS-IT)

Qualifications/Member Associations:

Registered Guild Gemologist Diamond Council of America
Certified Diamontologist Diamond Council of America
Recipient: Diamonds & Diamond Grading Certif. .. Gemological Institute of America (GIA)
Diploma, Diamond Grading International Gemological Institute
A.J.P; Accredited Jewelry Professional Gemological Institute of America (GIA)
 Certificate: Jewelry Essentials GIA
 Certificate: Diamond Essentials GIA
 Certificate: Colored Stone Essentials GIA
C.S.P; Certified Sales Professional Jewelers of America

Certified J-BAR, Jewelers Vigilance Committee
NAJA Member of National Association of Jewelry Appraisers
TJA Member of Texas Jewelers Association
GIA Alumni Association
HGMS Member Houston Gem and Mineral Society
2006 Qualified as an Expert Witness for the Harris County Civil Courts
2006 Testified Expert Witness State Farm Insurance Agency

The Mysterious Hico Structure, Hamilton-Erath Counties, Texas

by Paul V. Heinrich

Member of The Houston Gem & Mineral Society

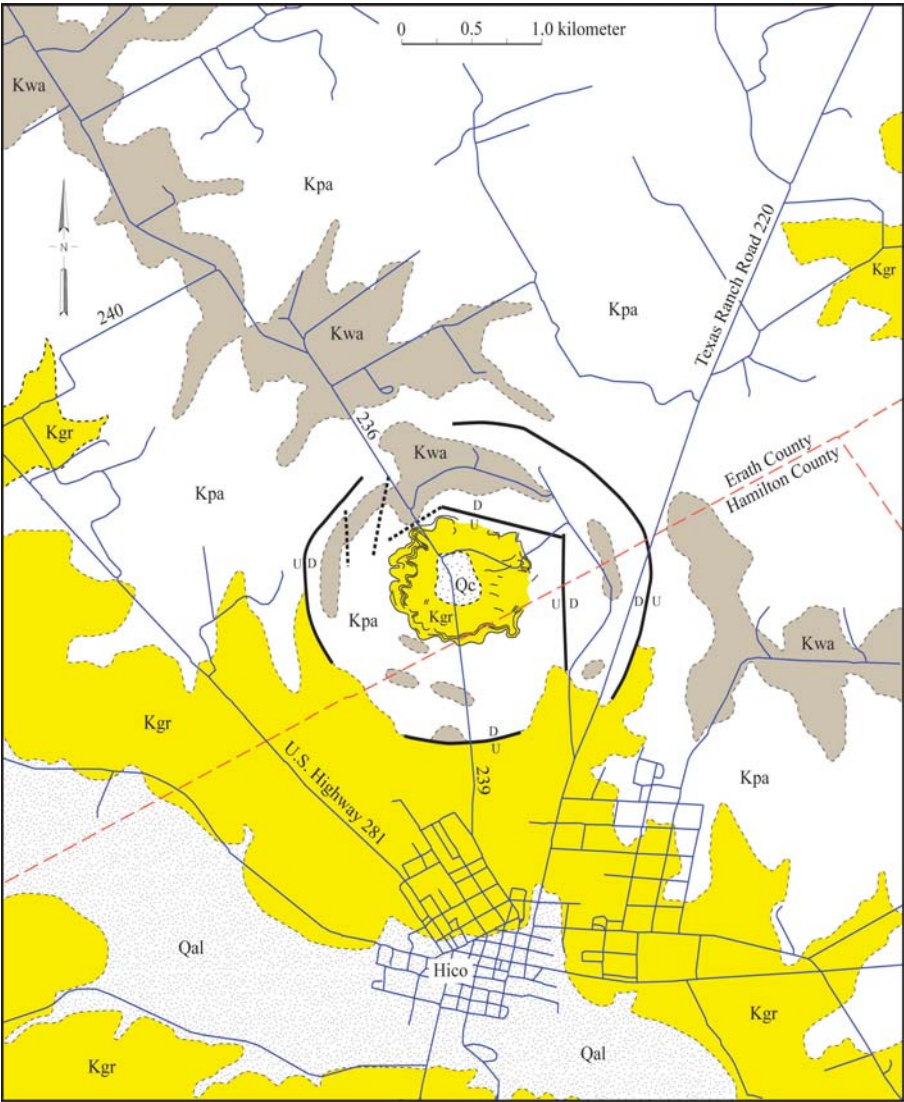
Within Texas, credible proposals have been made for the extraterrestrial impact origin of five geological structures. Convincing cases have been made for three of these structures, i.e. Marquez structure (Leon County), Odessa crater (Ector County), and Sierra Madera (Pecos County), of being of impact origin (Gibson 1990; Littlefield et al. 2007; Howard et al. 1972; Wilshire et al. 1968; Wong 2001). Another proposed Texas impact structure, the Wilbarger structure in Wilbarger County, has been discredited by detailed field research (Nelson 2006). The origin of the last of these structures, the Hico structure, which lies in Hamilton-Erath County, remains an unresolved mystery.

The Hico structure is a circular disturbance that is developed in Lower Cretaceous strata, upper Glen Rose, Paluxy, and lower Walnut formations about 3 km (1.8 miles) north of Hico, Texas and 32.085 degrees north latitude and 98.0342 degrees west longitude. On aerial photographs, it appears as a circular feature about 3 km (1.8 miles) in diameter (Figure 1). The arc segments comprising this anomaly consists of tree lines and drainages associated with ring-like troughs which encircle the central uplift of the Hico structure. On Landsat imagery, the Hico structure is at the center of a subtle 9-km (5.5 mile) diameter circular feature (Wiberg 1981, 1982; Milton 1987).

History

Mr. William J. McBride first discovered the Hico structure in 1953 while mapping the geology of Hamilton County for Humble Oil and Refining Company. In 1956, they drilled the center of this structure looking for oil and gas. Unfortunately, well logs and other data acquired during the drilling of this well and McBride's original report were lost in a warehouse fire (Wiberg 1981). If copies of the report, well logs, seismic sections, or other data were archived elsewhere and survived the fire and could be located, they might provide invaluable data concerning the origin of the Hico structure.

Later Mr. Oscar Monnig, a Fort Worth meteorite collector and amateur astronomer, pointed out this enigmatic structure as a potential impact structure to Dr. James R. Underwood, who at the time was a professor for West Texas State University. Later, Dr. Underwood suggested to Ms. L. Wiberg that the Hico structure would be a suitable subject of study for a master's thesis at Texas Christian University. This research



LEGEND

Cretaceous Period

- Kwa Walnut Formation
- Kpa Paluxy Formation
- Kgr Glen Rose Formation

Quaternary Period

- Qal Alluvium
- Qc Bedrock hidden by colluvium

- County line
- Road
- Deformed marker bed
- Normal Fault, D = downthrown, U = upthrown

Figure 1. Geologic map of Hico structure. Compiled from Plates 1, 2, and 3 of Wiberg (1981).

yielded Wiberg (1981, 1982) and Milton (1987). Approximately twenty years after Wilson (1981, 1982), Heggy et al. (2004) examined the Hico structure using ground penetrating radar and analysis of SRTM Digital Elevation Model.

Local Geology

The bedrock in which the Hico structure has developed consists predominately of nearly horizontal Lower Cretaceous marls, limestone, and sandstone, which dips about 3.5 m per km (18.5 ft per mile) toward the southeast (Figure 1). The oldest strata exposed within the vicinity of the Hico structure is 24 m (79 ft) of micritic and fossiliferous limestone alternating with resistant beds of marls and belongs to the upper Glen Rose formation,. Overlying the Glen Rose Formation is 15 to 20 m (49 to 66 ft) of reddish brown, friable sandstone containing hematite concretions of the Paluxy Formation. Some 40 m (130 ft) of the lower and middle Walnut Formation consisting of calcareous clays and thin-bedded limestones overlies the Paluxy Formation and outcrops in the vicinity of the Hico structure. Both the Paluxy and Walnut formations contained distinctive limestone and sandstone marker beds used to map the deformation of strata within the Hico structure in detail (Wiberg 1981; Milton 1987).

Structure

As interpreted by Wiberg (1981, 1982) and Milton (1987), the Hico structure consists of a circular feature about 3 km (1.8 miles) in diameter consisting of a central uplift and a ring graben (Figure 1). In addition, they noted that the Hico structure lies at the center of a subtle 9-km (5.5 mile) in diameter circular feature of uncertain origin.

The central uplift of the Hico structure, as illustrated by Wiberg (1981) and Milton (1987), consists of outer and medial zones of circumferential folding surrounding the center of the structure, which is hidden by colluvial deposits (Figure 1). The outer zone of folding consists of open, undulating “pie-crust” folds, which are defined by the marker beds recognized by Wiberg (1981). Toward the center of the feature, these folds become tighter to form a medial zone of chevron folds with axes radial to center of the Hico structure. These folds consist of vertical or near-vertical beds of Glen Rose limestone. Holocene and Quaternary colluvial deposits blanket the center of the central uplift. As a result, neither the age nor the structure of the rocks comprising the center of this structure is known. Wiberg (1981) and Milton (1987) suspect that the bedrock within the center consist of Pennsylvanian-age sandstones of the Twin Mountain Formation which have been uplifted by as much as 80 m (260 ft)(Wiberg 1981, 1982; Milton 1987).

Wiberg (1981, 1982) and Milton (1987) argue that a ring graben surrounds the central uplift. They concluded that the outer boundary of this ring graben is defined by a series of major faults, which are part of a ring fault (Figure 1). The inner boundary of this graben consists of numerous obscured faults, which have small displacement ranging from 8 to 18 m (26 to 59 feet). Within the ring graben, erosional outliers of Walnut Formation have been downfaulted into Paluxy and Glen Rose Formation. Although largely obscured by alluvial and colluvial deposits, circumferential folding also appears to be present within the ring graben (Wiberg 1981, 1982; Milton 1987).

Wiberg (1981) reported observing a subtle 9-km (5.5-mile) in diameter circular feature, within which the Hico structure lies at its center, in Landsat imagery. She was unable to find a geological explanation for this feature.

Later, Heggy et al. (2004) examined the Digital Elevation Model (DEM) constructed from the Shuttle Radar Topography Mission (SRTM) data. They found three previously unrecognized topographic rings, of which the outermost one is 5 to 6 km (3 to 3.7 miles) in diameter. Ground-penetrating radar study of these rings indicates that these rings are controlled by ring faults similar to those that form the outer boundary on the ring graben.

They concluded that the outermost ring represents the true diameter of the Hico structure. They make no mention of the 9-km (5.5-mile) in diameter feature observed by Wiberg (1981).

Evidence of Shock Metamorphism

Wiberg (1981) collected samples of a marker bed composed of calcite-cemented sandstone from outcrops of folded Paluxy Formation exposed in the central uplift of the Hico structure. Powdered samples of this sandstone were analyzed using x-ray diffraction. No indication of coesite, a high-pressure form of quartz created by extraterrestrial impacts, was found in these samples. She also prepared samples of sandstone and limestone from the folded strata of the central uplift. She found a lack of any evidence of shock metamorphism in either the sandstone or limestone samples (Wiberg 1981, 1982; Milton 1987).

Milton (1987) examined two borrow pits exposing friable limestone of the Glen Rose Formation within the central uplift. In one borrow pit, she found surfaces exhibiting convergent striations. Although the striations are irregular due to the friable nature of the limestone, they were interpreted by Milton (1987) to be shatter cones.

Geophysical Surveys

Wiberg (1981) acquired gravity and magnetic data along transects across the Hico structure. Analyses of this geophysical data revealed neither gravity nor magnetic anomalies associated with its central uplift. She did find weak Bouguer gravity anomalies associated with the ring faults associated with the ring graben (Wiberg 1981, 1982; Milton 1987).

Discussion

According to the Spray and Hines (2007), the principal criteria for determining if a geological feature is an impact structure formed by the hypervelocity impact of a meteorite or comet are:

- (1.) Presence of shatter cones,
- (2.) Presence of shocked quartz with multiple planar deformation features within *in situ* minerals,
- (3.) Presence of high-pressure mineral polymorphs within *in situ* minerals,
- (4.) Morphometry of the structure,

- (5.) Presence of an impact melt sheet and/or dikes, and impact melt breccias, and the presence of impact pseudotachylyte and breccias associated with radial and concentric fault systems.

So far in terms of these criteria, only the morphometry of the Hico structure and the report of shatter cones by Milton (1987) having been found in a borrow pit appear to meet these criteria. Unfortunately, Milton (1987) provides neither the detail descriptions nor photographs needed to document the occurrence of shatter cones. As a result, the existing published evidence is inadequate and insufficient to demonstrate the existence of shatter cones associated with the Hico structure.

The morphometry of the Hico structure is generally regarded as insufficient proof of its impact origin. Unfortunately, circular terrestrial structures, e.g., volcanoes, salt diapirs, and glacial features are generated by numerous other means, so the Hico structure's circular morphometry is not sufficient to prove impact structure status. However, as discussed by Wiberg (1981, 1982) and Milton (1987), the internal structure, which includes a ring graben and central uplift, of the Hico structure is quite similar to known impact structures. This and the lack of any plausible nonimpact mechanisms for its origin strongly indicate but do not prove that it is an extraterrestrial impact structure.

Conclusions

Although conclusive evidence for the extraterrestrial impact origin of the Hico structure is still yet to be found, it appears that it is quite likely an extraterrestrial impact structure.

The search for definitive evidence of shock metamorphism associated with the Hico structure is still incomplete. First, the identity of the bedrock underlying the center of this structure still needs to be determined. Finding uplifted and deformed Pennsylvanian bedrock beneath the colluvium covering the center of this structure will greatly strengthen the case for the impact origin of this structure. In addition, it is within the strata underlying the center of the Hico structure where the best chance for finding shocked quartz exists. Finally, the shattered cones reported by Milton (1978) need to be verified and better documented before they can be accepted as proof of the impact origin of this structure.

In addition, another unanswered question is the significance of the 9 km in diameter feature reported by Wiberg (1981). The existence and origin of this circular feature was completely ignored by Heggy et al. (2004)'s investigation of smaller circular features. Whether it is real, how it formed, and what its relation is to the Hico structure remains an unresolved mystery.

Acknowledgments

I thank Douglas Carlson, Assistant Professor of Research, Louisiana Geological Survey for taking the time to review this article and his advice on how to improve it.

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Late-Breaking Club News

Are you getting e-mails about HGMS activities? If not, contact n_immega@swbell.net and let him know that you want to be on the list.

The Big Show

by Mary Ann Mitscherling

September 14, 2007

The Show is like a hive of busy bees.
Excitement mounting as the days grow short,
We labor through the ambiguities
As simple good intentions are called forth.

We spend our hours solving endless problems
Of people, places, timing, and spaces.
We review our budget and our purpose
With hopes of succeeding with good graces.

Frowns become smiles as volunteers arrive.
What other occupation offers this?
Effort grows upon effort to survive,
While weariness grows to a state of bliss.

We find the future end we work toward
Is that the journey is its own reward.

2007 Show Retrospective

by Sigrid Stewart

2007 Show Chairman

*The photos used in this article were taken by John Mitscherling,
Matt Phillips, Ken Rivet, Steve Blyskal, and Matt Dillon.*

Well, we pulled it off, dear friends and fellow club members. I have gone into both the shows I have worked now with the HGMS thinking that this daunting task may be nearly insurmountable, and of course, it isn't! It just takes a year's worth of planning by your devoted Show Committee members, an evening of packing and a day of set-up, 3 days of hard work by many club members, and a little wrap up! How did we do?



First the numbers: A total of 4653 adults, seniors, students, and children came through the front doors on Friday, Saturday, and Sunday. School Daze guided 2225 children through our Friday program accompanied by 607 teachers, assistants and home-school parents, and 500 Boy and Girl Scouts went through our Saturday Scouting program. 130 concrete slabs were thoroughly demolished in the Dino Dig, and we could have used more! 105 Club volunteers signed up to work 275 shifts, assisted by 40 San Jacinto students and the usual last minute volunteers.

Thursday was incredibly busy! There were the usual surprises. Electrical problems

were slowly resolved. Everyone forgot that the air-conditioning was off while the doors were open. Dallas Paleo could not attend, and at the last minute, neither could Dreamstar. This left a gap in our layout that was gleefully exploited by club members



Stever Wilkerson fascinates the kids with his demonstration of using wooden spools to grind a cabochon.

who enjoy demonstrating their lapidary skills. Facetors, beaders, wire-wrappers, and lapidaries rearranged tables and laid out their equipment. Our special exhibit, the Lost Gardens of Pangaea slowly took shape, and finally the pteranodon flew over Texas once more. After the setup was complete, there was the Dealer's and Volunteers Appreciation Dinner to look forward to, and we enjoyed pasta and a talk by the Fiendish Dr. Phil and his sister Melinda. Finally after some last-

minute touch-ups, we could all go home to rest and brace ourselves for the coming Kid's Day.

Friday started with the clang of school bus doors followed by flocks of kids trooping through to observe the treasures and learn just a little about Earth Science and our hobby. Our Security people (below--??? on left and James Wark on right) were right on the spot to get them unloaded safely, and our Education committee members worked hard all day to guide them along. In the afternoon, home schoolers and their parents came for their own educational experience. By late afternoon, we could really start enjoying ourselves.



Customers checked out geode cracking and the Fluorescent Room. Demonstrators wrapped, ground, and faceted, and our very own Castaways performed lost wax casting for appreciative audiences. Kathy Konkel demonstrates the art of casting (below left). Shiara Trumble and Nancy Fischer kept the Information Booth humming, and Chase Jennings rocked the Silent Auction. Neal and Inda Immega held forth at the Houston Museum of Natural Science (HMNS) booth, and Paleo did a great job as usual of displaying their fossil finds. Everyone had a great time cruising around to



Hospitality Room--Michele Marsel on right and Pat Hildbod on left



look at fascinating new offerings from the dealers, and the dealers were smiling! I think all the dealers had a profitable show.

We enjoyed dozens of hot dogs and drank hundreds of bottles of water. Five loaves of garlic bread, 40 quarts of pasta, and a mountain of salad

were consumed at the Appreciation Dinner for Dealers and Volunteers. On Sunday Morning the Rolling Rock Club enjoyed home-made kolaches. The Hospitality Committee was hopping, to say the least. Thanks especially to Pat and Clifford Hildbold who hustled sodas in the Hospitality Room all weekend.





Top photo: Scott Singleton giving information about petrified wood and minerals to show goers in the Swap area.

Lower photo: The DinoDig in full swing. Kids are breaking up concrete slabs to find fossils.



Visitors to Pangea Garden



Bill and Lois Pattillo's nationally known Rock Food Table

The children and parents of the Youth Section provided two games that were very popular, so they also had a very successful show. This will benefit their activities at the club house all through next year, giving them funds for project supplies. Our club members had great bargains in the Swap Area and our customers showed their appreciation by making this a record year for the Swap Area. As a result, Swappers were able to acquire some outstanding specimens from the dealers.

The Honor Roll

I want everyone to know who our hard-working Show Committee Members are. Next time you see these folks, give them an ATTABOY! Al Lucas (Security Chair), Anna Campbell (Education), Beverly Mace (Youth and Cases), Cheryl Lucas (volunteers), Chris Peek (Tickets), Clay Keiffer (Scouts), David Temple (Scouts), Elsa Kapitan-White (Education), Jeannie Barna (Hospitality), Jennifer Lee (Publicity), Joan Riley

(Publicity), Lexy Bieniek (Education), Mary Ann Mitscherling (Volunteers), Matt Broussard (Scouts), Matt Phillips (Property), Michele Marsel (Assistant Show Chairman), Mike Bieniek (Scouts), Mike Reves (Scouts), Nancy Fischer (Information Booth), Pat Hildhold (Hospitality), Pat Smith (Publicity), Rick Rexroad (Dealer and Tickets Chair), Scott Singleton (Education and Scouts Chair), Sharon Choens, (Education), Shiara Trumble (Information Booth), Steve Blyskal (Publicity and Swap Chair), Tom Lammers (Scouts)

The Few, the Proud, the Survivors!

Every year as the show ends, members converge on their Section's area to pack up their group's equipment, tear off the skirting, take down the cases, roll up the banners and load it back onto the truck for the ride back to the clubhouse. When everything is unloaded from the truck, we all sit down to a fried chicken Survivor's Dinner. This year we also had a Survivor's Dinner North for the Security detail who continued to help dealers with teardown and kept everyone safe after the truck left. Keep this much appreciated satellite dinner in mind for next year!

More Thanks

It takes the effort of many to stage a show like this: Special thanks to all the Sections who worked so hard in their areas to provide the personal touch that only club participation can give. It's one thing to look at a faceted stone, and quite another to watch someone facet a stone. And the Castaways in their embroidered aprons sure looked sharp, didn't they?

Grand Prize

At the end of the show, we drew raffle tickets for the Grand Prize, a 20.5 mm citrine donated by Michele Marsel and mounted by Wayne Barnett. Thank you, Michele and Wayne! Our lucky winner was Linda Alfaro of Humble, who was attending the show with her grandchildren. The photo on the right shows 2007 HGMS President Matt Dillon presenting the Grand Prize to Linda with 2007 HGMS Show Chair Sigrid Stewart looking on.) This year we had a 2nd Grand Prize, a set of tickets to an HMNS event donated by David Temple of HMNS (thank you, David!), and the winner was Mel Johnson of Houston.



Club Member Ticket Sales Appreciation

Speaking of raffles, we promised a special drawing to encourage people to return either the money from the sale of their tickets or the unused tickets. Everyone who is accounted for at the time of the November General meeting will be eligible for that drawing. So please return your unused tickets. (Of course, we would take money too.) The prize will be the second set of HMNS tickets donated by David Temple.

Show Bucks

And I hope you collected your Show Bucks. One Show Buck is good for one dollar's worth of shop time, with the exception of the big saws. Five Show bucks can get you a special class. Michele Marsel is offering to host a **mini-class on dichroic glass** in her home workshop. Details: Sunday, 10/28, Friday, 11/2, or Saturday, 11/3 (depending on sign-ups) The class includes an overview of working with dichroic glass—what it is, how it works, etc., look at instructor samples, and a demonstration on creating two different types of dichroic glass cabochons. Included with the class are materials for each participant to make two cabs. Additional materials will be available for purchase. Firing of the cabs is also included. Call Michele to sign up.

Shiara Trumble has promised another **opal cutting class**, and Karen Burns will do a **wire-wrap class**, times to be announced. Call Sigrid at 281-239-0377 if you are interested in signing up. In addition, Steve Blyskal or Matt Phillips will do a mineral photograph for five Show Bucks.

Field Trip



A piece of petrified wood that quickly found its way to Sigrid's back yard.



To express our appreciation for everyone's hard work at the show, the Show Committee would like to sponsor a petrified wood field trip to College Station on November 10. We'll go up to College Station in the morning, look around, and maybe have some lunch at Rosa's again. Steve and Sigrid went on a little scouting mission just to locate some new sites for you to explore including one with some highly silicified wood where Steve found his first palm wood. Please give Sigrid a call to sign up, and we'll get the details to you.

Susan Lenz Update

by Norm Lenz

September 19, 2007

Dear HGMS Friends,
Susan has had good days and bad days since my last update. She has had three more seizures prompting a 23-hour EEG and sleep study last week. We are still waiting for the interpretation of the two studies.

Susan received many birthday cards, phone calls, and Web site messages. We show and read all cards and messages to her.

Susan's mom was able to spend two weeks with us during Susan's birthday. She prepared Susan's favorite meal of fried chicken, mashed potatoes, chicken gravy, fresh Indiana tomatoes, and oatmeal cake. We all enjoyed her expert cooking and good company. Additional cake creations included pineapple upside-down cake, fruit cocktail cake, and red cake. Down home delicacies included potato cakes, fried mush, fried green tomatoes, wilted lettuce, and potato soup. Can you tell I like my mother-in-law?

Positives:

- There is still no evidence of tumor regrowth on Susan's last MRI. Her oncologist is now saying that she is in remission. Only 40 percent of patients with Susan's diagnosis reach the 18-month point during their treatment and recovery. We have waited a long time to hear the word **remission!**
- We have been able to visit our retirement property in the Hill Country. Susan struggles with the 24 steps to the upstairs apartment, but we give her lots of help. I have ordered a wheelchair lift to solve this problem. It is made in Canada and will take several weeks to arrive in Texas. It will take a few more weeks to install. We hope to have it working before Christmas.
- The problems of abscesses and stomach upset are mostly under control.
- She eats well, mostly sleeps well, and does not seem to have any chronic pain.

Negatives:

- Radiation treatment caused collateral damage to the opposite (left) side of Susan's brain. Her oncologist says this sometimes happens. He says they are not yet able to determine who is susceptible to this type of damage and who is not.
- Susan is able to feed herself only a portion of what she eats. Her seizure specialist is has prescribed an additional tremor control drug as an experiment. Her tremors are actually worse than they were before. We will probably discontinue the new drug and take her to a movement disorder specialist.
- Susan's thyroid output and sodium levels are low. These are often side effects of the medication she is taking for seizure control. Low sodium causes confusion

and fatigue. We add lots of extra salt to her food and give her salt pills to keep her sodium levels within normal levels.

- Her seizure specialist is trying a new seizure control medication in addition to the one she has been taking. This change is causing her to be very weak, disoriented, and fatigued. Her doctor tells us that the side effects may diminish with time. I'm not always as patient as I should be.

Photo: Susan with my sister Sharon and one of the twin girls my niece delivered last month.

We intend to take Susan to the upcoming Gem & Mineral Show this weekend in Humble TX. She will be able to see some friends there and to enjoy one of her favorite hobbies.

Thank you for keeping us in your thoughts and prayers while we learn how to manage the side effects of her treatment.



Norm

Matt Dillon Notified That His Photo Is Selected

*You've been sent a Flickr Mail from Emma J. Williams:
:: Schmap Tucson Third Edition: Photo Inclusion*

Hi Matt,

I am delighted to let you know that your submitted photo has been selected for inclusion in the newly released third edition of our Schmap Tucson Guide:

Tucson Gem and Mineral Show

http://www.schmap.com/tucson/events_tradefairs/p=102295/i=102295_2.jpg

If you like the guide and have a website, blog or personal page, then please also check out our schmapplets - customizable widgetized versions of our Schmap Tucson Guide, complete with your published photo:

<http://www.schmap.com/schmapplets/p=97769244N00/c=SE20291849>

Thanks so much for letting us include your photo - please enjoy the guide!

Best regards, Emma Williams, Managing Editor, Schmap Guides

Man Who Came Back

by James Wark

HGMS Member

from Our News 8/2007

(Local newspaper for Alameda, Fresno, and Arcola, TX area)

This exciting, month-long adventure started when the production coordinator (Bea Rouse) called me about set construction for a western movie that Bowen Walker Cable Productions was filming. She told me that it would be filming two weeks in the Conroe area and two weeks at the Alamo village in Brackettville TX.

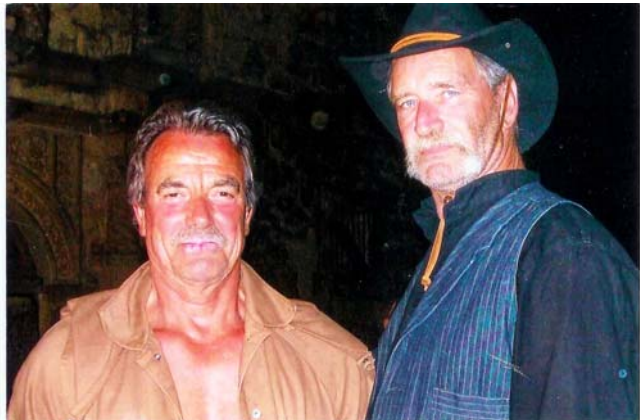
Do you want a yes or a YES.? We started working in what you call preproduction (business that has to be taken care of before the film can be shot) like Locations, Casting, Crew, Hotels, Plane Flights, Transportation, Wardrobe, Props. The list goes on. But the most important is Catering—free buffets for a month. Imagine that. Then they pay me on top of that. My job was to work in props and set construction.

The movie is set in the 1870s right after the Civil War. It's based on a true story that took place on a plantation in Louisiana. The main star is Eric Braddon (Victor on The Young and Restless) followed by Academy Award Winner George Kennedy, Billy Zane, Ken Norton, Sean Young, Peter Jason, and Armand Assante.

Our first location was Fern Land north of Conroe. It is located on 40 acres and has the original hunting cabin of Sam Houston plus a few more cabins built around 1830, even a blacksmith shop. There were many old tools there that had to look new. The trick was to oil them down with furniture oil. They looked brand new for the camera. We had to also make the cabins looked lived in. This fun and exciting job had now started!!

Then came the rain. The road soon became a mud pit. When filming roads in the 1870 time, you cannot have tire tracks. Dirt and leaves hid the tracks well. Horse-drawn wagons had to be loaded with period pieces of furniture. One wagon even had a steel jail placed on it. When filming, it made me feel that I went back in time. Those people back then had to be tough.

Now we headed to Brackettville where they roomed everybody at the Fort Clark Hotel. We had about 60 rooms rented. They were full. Big bonus—there was the restaurant that opened their doors to us upon arrival. Eat and go.



Great food, and the price was right. You guessed it, compliments of the production company. They also catered to us on location. That was about 350 meals a day.

Alamo Village was built in 1959 for John Wayne in the movie *The Alamo* at a cost of two and a half million. We used the Alamo for Eric Braddon's prison scene. Another part of the Village was used as a jail, saloon, and chapel.

I was very lucky in that I was cast as a prison guard named Tall Guard. I even had speaking lines and worked at least one week acting in the movie. The way I landed that part was to ask Peter Jason, who was playing the prison Warden, if he needed any more big guards. "Sure do," he said. He told the casting director Yankee Grant, and the part was mine.

Look for the companion article "How the Movie Was Made" next month if space is available. The movie *The Man Who Came Back* will be released in December 2007. The photo on the right shows Eric Braddon and James Wark. The photo on the opposite page is of Eric Braddon (on the left) and me (on the right).

E-mail and HGMS

by Neal Immega

HGMS uses e-mail to send out timely notices of field trips, special shop days, and club information. If you are not getting at least one a week, send a note to n_immega@swbell.net and let me know.

There are lots of reasons your e-mail address can change, or if you are not getting the mail sent to the correct address, let me know. You Comcast users should inform us when you make the move to a new address. We also have typos—lots of typos.

Here is our current list of members with nonworking e-mail addresses. Let me know a correct address by e-mail so I know the spelling is correct.

Amos	Jeffery	Kevern	Phillip & Emily
Anderson	John	Lenssen	Charlotte
Barreto	Elizabeth	Maddigan	Pam
Bary	David & Susan	Menegaz	Sharon & Stephen
Clapp	David & Marsha	Nzewi	Temi
Clay	Ed	Oliver	Bridget
DeHart	Thomas	Perales	Ken & Amy
Feeney	Tara	Pote	Jerry
Grayson	Wanda	Prentice	Jordan & Jady
Gronemeyer	Amanda	Skubol	Gary & Robyn
Hausman	Greg & Amy	Whitton	Pam
Hoffman	Elizabeth	Wunderlick	Philip & Theresa
Kehinde	Carolyn	Young	Sharon & Don
		Zielinska	Barbara



Lapidary Section

by Kathy Konkel



Monday, November 19 is the scheduled date for our Lapidary meeting at 7:29 p.m. Election of a new chairperson (no, I am not an option) is required for this meeting as it is the last meeting prior to year end. The meeting presentation will be given by Wayne Barnett who will be discussing gold recovery from scrap and gold-filled wire and sheet. Kids—do not try this at home! The shop will continue to be available for your use prior to the Lapidary Section meetings beginning at 5:00 p.m. until we close it at 7:15 p.m. The usual shop fees apply.

Thank you to all who assisted in our annual Lapidary Section auction October 27. This includes all who volunteered *and* all of you who purchased items.



Paleontology Section Annual Party and Auction

Everyone Please Come

by Terry Brawner



The Paleontology Section will have its Annual Party (everyone is invited) on Tuesday, November 20, at 6:30 p.m. for dinner. **Note earlier time!** The auction will begin after dinner. Please join us for a good time, and start your Christmas shopping at the auction. Please bring items to donate, and if possible, please donate items that would make nice gifts. Everyone is encouraged to bring either a side dish or dessert to complement the meat (brisket and ham). Bring money for bidding and have fun.



Day Light Section

September 10, 2007

by Frances Arrighi



Eighteen members attended the 10 September, 2007, meeting of the Day Light Section. Our program was a repeat of one of our earlier programs, i.e., broom casting. A repeat of the program was requested by the members of the Section. Some members used broom straw. Others used pine needles or rock salt. We used over 16 ounces of silver. Everyone made at least one casting, and everyone seemed to enjoy the program even though it was a repeat of an earlier program.

Our yearly luncheon is on November 12, at **12 O'CLOCK NOON**. Everyone bring what you brought last year. I will bring the ham.



Mineral Section

by Steve Blyskal, Chairperson & Dean Lagerwall, Assistant Chairperson



The Mineral Section meets in the clubhouse at 7:30 on the 1st and 3rd Wednesdays of each month. All are welcome.

Upcoming Meeting Topics

November 7th: Mapimi, Mexico: Art Smith will be the presenter. Mapimi, Durango,

Mexico produced from a thick oxidized zone many colorful minerals that flooded the Houston flea markets in the 1960s and 1970s. Mining ceased in the deeper levels in the mid 1980s because they were in the sulfide zone with no crystals. The loss of access to the mine sharply curtailed the specimens coming out. In recent years Mike New, a Tucson dealer, has been working the shallow levels, and the colorful crystal specimens are again coming out—but not in the quantities previously seen. Refreshments will be served.

November 21st: No Meeting: Due to Thanksgiving, this meeting has been canceled.

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.

HGMS General Meeting Minutes

September 25, 2007

by Denise Bicknell, HGMS Secretary

The meeting was called to order at 7:30 p.m. by Matt Dillon, President.

Announcements and Introductions: Work is continuing on the new room. The door is being fitted with a window, and we are awaiting the finishing touches on the walls so the electricity can be installed.

We welcomed visitors Kelly Howell whose main interests are paleontology and minerals. We also welcomed Dave and Laurie Tieman. They recently moved to Houston from New Orleans.

New members Ed Roane whose interest is paleontology and Troy Bell whose interest is “all rocks” were also in attendance.

Show Committee: Sigrid Stewart reported that the Show Committee received good reports from this year’s show vendors. Preliminary numbers from the show include 2,419 adults; 1059 students, seniors, and teachers; 75 comp tickets; and 885 youth ages 12 and under. The youth numbers are not accurate because of a mix-up in getting tickets for those students to the show. Total number tickets: 4,438.

Sigrid also reported that show income was up, but so were the show expenses.

Faceting: The Faceting Section had a workshop on identifying faceted stones at their last meeting.

Lapidary Section: The annual Lapidary Auction and Spaghetti Lunch will be October 27. It will include a silent auction, spaghetti lunch, and a live action at 2 p.m. with Wayne Barnett as auctioneer.

Mineral Section: The next meeting (October 3) will be an HGMS Show review. The October 17 meeting will feature a review of the Denver Show and a talk on the Rat’s Nest Claim in Idaho by Sam Norwood.

Paleontology Section: The October 16 meeting will be a speaker from Sam Houston

University presenting a program on Tertiary vertebrates. November 20 will be the Paleontology Annual Party and Auction. Wayne Barnett will be auctioneer.

Youth Section: The Youth Section had 15 kids who entered competition stones in the show.

Membership: We gained 34 new members at this year's show!!

Newsletter and Web Site: Phyllis George brought some carefully made graphs that portrayed the number of hits various pages of the Web site received just prior to and during the show. There were 8–10 times more hits during that time than usual.

Door Prize: James Wark won a nice hunk of Arizona Chrysocolla.

Program: Neal Immega presented the evening's program entitled "Lucy in Texas: Ethiopia Traveling Show at HMNS." The program featured Lucy, the oldest nearly complete skeleton of a hominid showing human characteristics. Neal told of her various attributes (walking upright is one) that put her in the "humanoid" classification. Neal and Inda Immega will be leading a special tour of the Lucy exhibit at the Houston Museum of Natural Science at noon on Sunday, October 14. Members and their guests can go on the tour for \$10 each (an HMNS special reduced rate).

HGMS Board Meeting Minutes

October 2, 2007

by Denise Bicknell, Secretary

X	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
X	Treasurer	Rodney Linehan	X	Paleontology Rep.	Terry Brawner
X	Secretary	Denise Bicknell	X	Day Light Rep.	Sunday Bennett
X	Past President	Scott Singleton			

The meeting was called to order at 7:30 p.m. by Matt Dillon, President.
Approval of September Minutes was done via e-mail.

Treasurer's Report: Rodney Linehan presented the treasurer's report.

Rodney reported that HGMS had received a Community Grant from Schlumberger in the amount of \$250.00. HGMS member Elsa Kapitan-White requested the grant in our behalf.

Matt Dillon presented expenses from his Arlington trip.

Committee and Section Reports:

➤ **Faceting:** The Faceting Section program was on GIA procedures for gem iden-

tification.

- **Lapidary:** The Lapidary meeting was presented by Steve Wilkerson. The topic was gemstone shaping and polishing procedures in use before the advent of electricity. Steve made the presentation dressed in Renaissance attire.
 - **Paleontology:** The next program will be presented by a speaker from Sam Houston University. The topic is Tertiary Vertebrates.
 - **Mineral Section:** The Mineral Section's next meeting will be a Show and Tell and post-show discussion. The following meeting will be a Denver Show report and Rat's Nest Claim by Sam Norwood. Bring your Rat's Nest specimens.
 - **Daylight:** The Daylight Section requested that the Board discuss a Building Fund for the future due to the club's continued growth and our cramped space and scheduling conflicts. They also reported that the parking blocks were being moved around on the parking lot and stated concern for safety. Matt Dillon and Matt Phillips will investigate and possibly drill and reset the blocks.
 - **Programs:** The October General Meeting topic will be on Recycling Precious Metals as presented by Davis Gilbert. The November meeting program will be the postponed September program—"A World of Discovery on a Calcite Surface" presented by Kevin Davis.
 - **Youth:** The youth will be presented with their awards from their Show stones at their next meeting.
 - **Newsletter/Web site:** Phyllis George handed out SCFMS awards to Board members who were not at the September General meeting (Art Smith and Scott Singleton) and gave the remaining undelivered awards to Section Representatives to present during their next meetings.
 - **Membership:** Beverly Mace reported that the club gained 34 new members at the show. Our membership is nearing a record 600 adult members.
 - **Show:** Sigrid Stewart reported that preliminary numbers are in. She reported that advertising prices have risen considerably. She also reported good comments from vendors and read a letter from Bill and Lois Pattillo and from Jim and Marjorie Ferguson. The Fergusons reported that our show was their "best ever."
- Sigird Stewart, Matt Dillon, and Steve Blyskal will meet with this year's Grand Prize winner on Monday, October 8, to present her with the prize.
- The Show Committee is planning a Field Trip to Bryan/College Station to collect fossil wood.
- **Education:** Karen reported that she is still getting names from the HGMS Demonstration table at the museum for the Education committee classes.

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

Old and New Business:

1. New room: Work is progressing on the new room and nearing completion.
2. Karen Burns moved that HGMS purchase a new stovetop for the clubhouse kitchen after it was reported that the wiring on the used one is faulty. Phyllis George seconded the motion and it passed. Matt Philips will get prices and send them out to the Board via e-mail.
3. Karen Burns moved that the discussion about the Irene Offeman collection be tabled until Matt Dillon and Scott Singleton can discuss it with her. Art Smith seconded it, the motion passed.
4. Karen Burns brought up the topic of body mikes to be used at the show and other new equipment a growing club might need.
5. Karen Burns requested the club look into purchasing a defibrillator for the clubhouse. Sunday Bennett reported that Rusty is working on getting one at little or no cost.
6. Matt Dillon reported that it is once again time to form a nominating committee. Per the Bylaws it is made up of five senior members representing all areas of the club. Members are Terry Brawner, Paleontology; Phyllis George, Faceting; Steve Blyskal, Mineral; Sunday Bennett, Daylight; and Joan Riley, Lapidary.

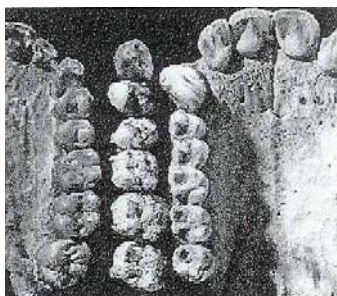
The meeting was adjourned at 9:25 p.m.

Early Australopithecine Relatives of Lucy Found

White et al in Nature Vol. 440 April 13

via The Earth Science News 7-8/2006

Who were Lucy's ancestors? Now fossils from Ethiopia's Middle Awash valley of a 4.1 MY old ancestor help tell the story. 31 fossils of *Australopithecus anamensis* have been found consisting of at least 8 individuals with jaws, teeth, feet, hands and much of an upper right leg bone. Based on these fossils, which were found directly below a younger rock layer containing *A. afarensis* fossils (which include those of "Lucy"), they lived before *A. afarensis*. The thigh-bone was like that of "Lucy" indicating upright walking, although the teeth and jaws were more primitive. The new 4.1 MY old *Au. anamensis* (center) teeth are compared to the 3.3 MY old *Au. afarensis* on the left and a modern chimp on the right in the photo above. In addition, a jawbone of *A. anamensis* was found just 80 meters above a 4.4 MY old layer with fossils of *Ardipithecus ramidus*.



The authors suggest a relatively rapid shift from *Ardipithecus* to *Australopithecus*, but this link requires more fossils. There are more fossils currently under study that may help here.

A Thanksgiving Poem

Author unknown

from EFMLS News 11/2003, via others, via The Roadrunner 11/2006

'Twas the night of Thanksgiving
 But I just couldn't sleep;
I tried counting backwards,
 I tried counting sheep.
The leftover beckoned
 The dark and the white
But I fought the temptation
 With all of my might.
Tossing and turning with anticipation
 The thoughts of a snack became infatuation.
So, I raced to the kitchen
 Flung open the door,
And gazed at the fridge,
 Full of goodies galore.
Gobbled. up the turkey and buttered potatoes,
 Pickles and carrots, beans and tomatoes.
I felt myself swelling so plump and so round,
 Till all of a sudden, I rose off the ground.
I crashed through the ceiling,
 Floating into the sky
With a mouthful of pudding
 And a handful of pie.
But I managed to tell as I soared
 Past the trees...
Happy eating to all....
 Pass the cranberries, please.
May your stuffing be tasty,
 May your turkey be plump.
May your potatoes 'n gravy
 Have nary a lump.
May your yams be delicious,
 May your pies take the prize,
May your Thanksgiving dinner
 Stay off of your thighs.

The **AUSTIN GEM & MINERAL SOCIETY**
 in Conjunction with
 the **SOUTH CENTRAL FEDERATION of MINERALOGICAL SOCIETIES**
 will Host a

EXHIBITORS AND JUDGES SEMINAR



Topics Include

Preparing a display for exhibiting
 AFMS Uniform Rules regarding exhibiting
 How exhibits are judged
 What makes a good display



WHO: EVERY MEMBER of American Federation of Mineral Societies
WHEN: March 8 & 9, 2008 Saturday & Sunday
WHERE: Austin, Texas 6719 Burnet Lane 78757
TIME: Begin Promptly at 8:30am
COST: \$15 Covers refreshments and printing costs

For additional information or copies of this announcement and application forms, contact the Austin Gem & Mineral Society at:

Web site: www.austingemandmineral.org

Telephone: (512) 458-9546

EXHIBITORS AND JUDGES SEMINAR APPLICATION

March 8 & 9, 2008 in Austin, Texas

Name _____

(As you want it to appear on your certificate)

Address _____

City _____ State _____ ZIP _____

Phone Number: _____ E Mail _____

I am interested in (circle one): Exhibiting Learning to Judge

Primary Area of Interest: MINERALS FOSSILS JEWELRY LAPIDARY _____
 OTHER

Please submit one application per person with fees attached. Multiple applications may be mailed together.
 Mail applications to: AGMS, Attn of Exhibitors & Judges Seminar, 6719 Burnet Lane, Austin, TX 78757

THIS FORM MAY BE COPIED

AFMS Safety*Be Safe—Be Well**by Don Monroe, AFMS Safety Chair**from AFMS Newsletter 04/2007***“Sticks and Stones May Break Your Bones
but Splinters and Stickers Can Hurt You”**

It seems obvious that splinters and stickers do indeed hurt, but it may be that the damage is more serious than we recognize.

Most years I spend a couple of weeks assisting a deer hunting group in the Big Bend region of Texas. The ranch we have access to is about 15,000 acres and it is wild country. The most sobering aspect of this area is the fact that everything, and I do mean everything, sticks. In addition to the ever-present cactus in an impressive variety of sizes and colors, almost all other plants stick. Now I don't mean little stickers, but I mean thorns of a size and ferocity that you do not see many places. Once you have allowed one of these thorns to deeply penetrate, you have a wound that needs attention. Since we hunt in a really remote area, both guides and hunters often have to take care of their own medical problems. To see one of your friends digging in his leg with a sharp knife and tweezers to pull out the offending sticker is not a pretty sight. Applying a strong antiseptic is necessary but can make a strong man cry.

You are now thinking “what can a person do”? I do not have all of the answers. As a matter of fact I do not have many answers, but I will tell you what I do. First, I acquired some snake-proof boots and snake-proof pants. I put snakes in the same category as nasty stickers, and snake-proof outerwear will take care of almost all types of stickers. Then I put together a little first aid kit just to handle cuts, punctures, and abrasions. Finally I wear gloves. I don't just wear any old gloves, but I wear leather gloves that will repel thorns and the like. The last thing I do is try to be alert. Watch where you step and where you sit and try not to fall down. Vigilance can really pay big dividends.

Do not get the idea that you must “go west” to encounter stickers. Our yard in north Georgia has been left in the “natural state” because that is the way we like it. Most of the trees and bushes are wild crab apple, and they will attack you with a vengeance. Add briars, blackberry bushes, and other unfriendly varieties, and you get the picture. On our farm we had Osage orange and black locust, both of which have well-deserved bad reputations. Is there any part of our great country that does not have stickers?

I haven't forgotten about the splinters. There are a great number of splinters that we encounter in daily life, and we really should be a lot more concerned about them because any skin penetration can provide an access path for germs.

Splinters can be soft wood, hard wood, metal, glass, plastic, paint, and many other materials. Splinters can be insidious and really quite dangerous. Obviously a splinter in the eye is a serious hazard, but have you enjoyed a splinter under a fingernail?

When we were much younger, a friend got a small splinter in his foot and could not locate it so he ignored it. Have you ever heard of phlebitis? He hadn't either until the doctor at the hospital explained why his leg was so severely swollen. Keep a magnifying glass and good tweezers handy and search out those pesky splinters.

The last splinter I want to warn you about is unusual, and many have not encountered it. It is the common cat hair. No, not dog hair or any other type of hair, just cat hair. Now cat hair is fine, but a bit stiff and has a very sharp tip. If you get cat hair in your shoe it may take awhile, but it can get lined up so that the sharp tip comes up against the bottom of your foot. This most often occurs on the heel or ball of the foot. This little sharp spike will work its way between the layers of the "print" of the foot and work its way into your foot. You slowly begin to feel a little pain and you cannot see the source. The pain continues and finally you get serious about finding the source. When you find that little hair it will appear that it is growing out of your skin. When you pull it out, the relief will be instantaneous. I know this is hard to believe, but it does happen. Ask around, and I bet you will find someone who has experienced this unusual "splinter."

Do you have a topic that you would like Don Monroe to discuss in an upcoming safety message? Contact me with your idea at <donmonroe@windstream.net>.

Collection Safety

by Bill Klose,

via *The Collecting Bag* 2/2005, *EFMLS* 1/2005, and *Breccia* 10/2007

As we form our mineral, fossil, and rock collections, we pride ourselves with knowing what everything is, where it came from, how fragile or sharp it is, and, hopefully, if any hazards are associated with any of the specimens in it. If you follow the auctions on the Internet, you see many wonderful specimens from locations that have long ago played out or are closed. Many of the descriptions for these specimens declare "from an old" or "estate" collection or do not provide any other data because of the lack or loss of a label. Occasionally these specimens are so classic that there is little doubt as to what they are and where they came from and if any hazards are associated with them. Most probably these items are being disposed of by relatives of the original collector who have no knowledge of or interest in them. Many times collections and materials used to prepare them, such as grits and chemicals, just end up as landfill to get rid of them.

We are now aware of the hazards of disposing of household and industrial cleansers and chemicals because of strict labeling and disposal laws and education. But what about those rocks and minerals that have been dumped in back yards and landfills that may contain or break down into hazardous chemicals?

And what about the specimen that may represent one of the finest examples of its "species" or the fossil that is the original specimen ("type") of a species new to science, to which all other specimens of that species are compared? Many scientists describe new species from specimens found in private collections. Even if unlabeled specimens find their way into another collector's holdings, not knowing what it is

may lead to its destruction or create a hazard to the new owner's health. Many minerals, such as sulfates and salts, will absorb moisture from the air and with time will break down. Unstable pyrite and marcasite will break down into sulfuric acid, which will destroy specimens, labels, specimen boxes, and storage units. I have seen entire cabinets filled with white powder where fine pyritized specimens from Alden, New York, France, and other locations were once stored, because the specimens were not properly stabilized.

Some minerals are affected by sunlight or even indoor light and will alter into other chemicals (i.e. Eglestonite) or lose their color with prolonged exposure (i.e. Kunzite). Rocks that are poisonous can enter the water table or body tissues if not properly identified, labeled, handled, and stored. Some highly toxic or radioactive minerals are quite pretty or very plain and give no hint that they are dangerous and can enter the body if licked or if the dust given off by them is inhaled. Cutting and polishing fluids used to polish hazardous rocks and minerals can also constitute serious health hazards.

The key to avoiding these problems is to properly label everything with name, location, geologic age, and formation when available or if a fossil, and any special handling instructions or hazards. The labels should be tied to a catalog and specimen by a permanent catalog number. If the specimen is valuable, have a price and date of purchase on the label and clearly identify as rare. This information may also help appraise a collection for donation or sale. "Type" specimens of fossils should also be clearly identified on the specimen and label, with the original reference describing the new species cited on the label and in the catalog. It may be prudent to donate "type" specimens to a museum that provides specialized storage for such materials. Bear in mind that there is only one specimen of each species, the "type," and as such it is priceless and irreplaceable. Label all grits, chemicals, and cutting fluids used in specimen and jewelry preparation, identifying any. Proper storage of specimens is very important.

Make sure that the containers and paper you place or wrap specimens in is suitable for long-term storage and is free from acids and other chemicals that in time could damage the specimens. Do not wrap specimens in newspaper or place in colored specimen boxes (even black) that give off chemicals or attract fungus and mold. Consider the weight of specimens that are to be placed on shelves and in storage units. Also consider the floor weight limit. Keep collections in areas that are not too cold or hot, are dry, dust free, insect free, and away from areas that tend to flood. Keep small sharp, heavy, and hazardous specimens away from small children. As a good indoor winter project, label and properly store your collections and associated materials so they can be safely enjoyed for years to come.

Is Our Equipment Different?

from The Calgary Journal, others, via The Roadrunner 9/2007

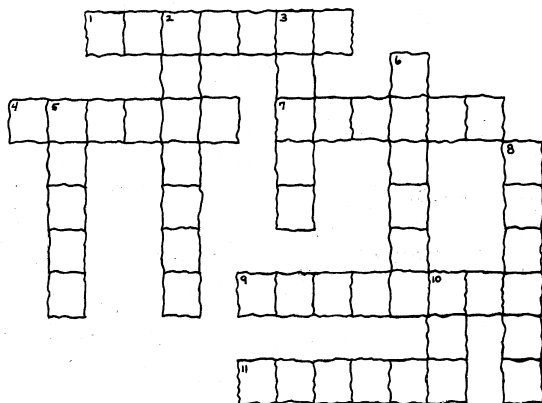
The lucky user of club workshop equipment is much better off than the normal private owner. Close study of club equipment and facilities appears to indicate a number of vastly superior features that rarely are found in private equipment. The study leads to the following conclusions:

- The club grinding wheels can be used in the center only.
- The club sanding disc can be torn and not replaced.
- The club polishing pads need not be used over their entire surface, and contamination does not hurt them.
- Unusual and alarming sounds coming from one machine can easily be resolved by using another machine.
- The club dopping lamps never need cleaning. They burn better when coated with wax.
- Club floor design hides the dust and spills.
- Tables and sinks never get marked by anything, so they never need wiping off.
- Polishing pads left on machines never get contaminated with dust and dirt like they do at home.
- Best of all no care is needed, and since the electricity is free, the lights and machines can be left on all night.

Somehow club equipment is different....OR IS IT??? We don't have any of these problems, do we?

Editor's Note: If you think we have none of these problems, perhaps you should talk to Neal Immega or Tom Wright and ask what they think.

Mineral Crossword Puzzle



Across

1. A blue mineral named after a word which means *blue*.
4. A red variety of the mineral *quartz*. It can sometimes be yellow, too.
7. Also known as "Fool's Gold."
9. This mineral contains the element *fluorine*. It comes in many colors.
11. The mineral name for *salt*.

Down

2. Also called "Television Stone."
3. This mineral can form crystals weighing hundreds of pounds.
5. A variety of *quartz* with many colors and patterns.
6. This mineral is used in photography and chemistry. It can form long wires.
8. A very heavy mineral with metallic luster. It is an ore of lead.
10. This mineral melts above 32 degrees Fahrenheit.

Editor's Note: I subscribe to the *Mini Miners Monthly* magazine and have received permission to include a few pages each month in the BBG and also on our Web site at www.hgms.org. This page is from the July 2007 issue.

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ShowTime 2007

October 20-21	Amarillo, TX	Golden Spread Gem & Mineral Society Amarillo Civic Center, downtown Dee Hawkings 806-372-3949
October 26-28	Glen Rose, TX	Fossilmania Paleo Society of Austin; Dallas Paleo Society Somervell County Expo Center, Hwy 67 Bill Morgan 210-492-9163 (after 8 p.m.) morgan@uthscsa.edu
October 26-28	Live Oak, TX	San Antonio Bead Renaissance Show Live Oak Civic Center, 8101 Pat Booker Rd info@beadshow.com , www.beadshow.com
November 2-4	Round Rock, TX	Fossil Fest 2007 Paleontological Society of Austin; Old Settler's Park, Hwy. 79, next to the Dell Diamond Linda J. McCall (512) 422-2322 Web site: www.texaspaleo.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
Nov. 30- Dec. 2	Austin, TX	Austin Gem & Mineral Society Palmer Events Center, 900 Barton Springs Rd. Susan Postlethwait (512) 458-9546 gemcapers@austin.rr.com www.austingemandmineral.org

ShowTime 2008

January 23-27	Quartzsite, AZ	42nd annual show, "QIA Pow Wow" Quartzsite Improvement Association 235 E. Ironwood Dr., Diane Abbott (928) 927-6325; powwow@qiaaz.org Web site: www.qiaaz.org .
September 26-28	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; Scott Singleton fossilwood@comcast.net ; www.hgms.org

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

2007 DECEMBER 2007						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 10-12 Youth Section 10-5 Shop Open
2	3	4 7:30 Board Meeting	5 7:30 Mineral Section	6	7	8 10-5 Shop Open Christmas Party 6:00 p.m.
9	10 Day Light Section No meeting	11 7:30 Show Committee	12 7:30 Faceting Section	13	14	15 10-12 Youth Section 10-5 Shop Open
16	17 5:00-7:15 Shop Open 7:30 Lapidary Section	18 7:30 Paleo Section Party & Auction	19 Mineral Section No meeting	20	21	22 10-5 Shop Open
23 30	24 31	25 Christmas Day	26 Beading Group No meeting	27	28	29

The BACKBENDER'S GAZETTE

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

10805 BROOKLET

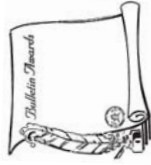
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