The BACKBENDER'S GAZETTE
The Newsletter of the
Houston Gem & Mineral Society
Houston, TX
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President's Message

by Matt Dillon
2007 HGMS President

It is hard for me to believe the first month of 2007 is almost over and so many things needing to be done are yet to be finished. I am constantly amazed by the hard work you all do and by how much time you devote to making our club a better experience for all, but I realize the ball must keep rolling. Therefore, I ask you to devote some of your attention to three matters: the re-keying of our outside door locks, the parking situation on the north side of our building, and shop use by adults during the Youth Section's scheduled two-hour time period on the first and third Saturdays of every month.

At the last meeting of the Board, I handed out several new keys to the Section representatives and to a couple of others whose responsibilities require them to have a key. If you are one of those, please be reminded the old keys will still work until the door lock is re-keyed on January 20, 2007. Please contact me if you have a valid reason for needing a key but have not received one.

Regarding use of the parking lot on the north side of our building, we are still looking into the rights granted to us in the deed when we purchased the property. In the mean-

Continued on page 4

January 23 & February 27 General Meeting Programs

by Matthew Phillips
HGMS 1st Vice-President

New HGMS member Rick Sanchez will give a talk on Moon Dust at the January meeting. The whole study started with the realization that when a base is installed on the moon, dust will be a main issue. It's on everything there! Dust is an abrasive and a fine power that can destroy air seals, equipment, and the lungs of the astronauts. What plan can be implemented as a long-term solution? Rick also will look into checking out some moon rock for display (but doubts getting permission). Remember—this is about the ultimate rock hunting trip (to the moon!), and the results

Continued on page 4

Contents

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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

time, please do not park in that lot until further advised by this office.

The last issue is a directive, and please pay close attention to it. During the 10:00 a.m.–12:00 noon hours on the first and third Saturdays of the month, please refrain from using the machines in the main shop area unless you have been given specific permission to use one by the Youth Section representatives—Beverly Mace, Elizabeth Guynn, or their designate. They can grant you permission to use any machine the Youth Section members are using at any given moment, but you have no right to barge in and assume you can do so. I have asked Beverly and her assistants to make note of any violations of this directive, and I assure you that appropriate action will be taken by the Board if it becomes necessary.

If you have any questions about this or any other matter, please don't hesitate to contact me. I can be reached at two telephone numbers—home 713-682-8043 or cell 713-412-3070—or you can simply e-mail me at dillon80043@sbcglobal.net.

Thank you in advance for your cooperation, and please continue to enjoy the benefits of our well-equipped shop and club facilities.

Program Information continued from page 1

will affect solutions in industry and our understanding about the environments on earth and themoon.

Before the January General Meeting begins, the new Beading Section formation meeting is at 5:30 p.m. They will decide on the day of the month for all future meetings and on the types of beading projects they will do.

February 27 Program is pending: A presentation about Toshiba electric motors in the mining industry; on-site pictures are being collected at this time.

Rubes (R) cartoon reprinted with permission. (C) 2006 Leigh Rubin.

A Treasurer's Dream

Author not given
from SCRIBE 10-12/2006

I fell asleep the other night
And while I had my snooze,
I dreamed each member stepped right up
And promptly paid his dues.
But when I found 'twas but a dream I
nearly threw a fit!
It's up to you to make it true,
Suggestion——PLEASE REMIT !!!

DUES ARE DUE

Building a Mineral Collection in Houston

Part 3: Texas Mineral Shops Outside of Houston

by Arthur Smith

Member of the Houston Gem & Mineral Society

Although Texas has probably never been known for its mineral shops, there have been quite a few through the years. Believe it or not, but in the late 1960s there were two good shops located on Bob White Boulevard in Oak Hill, just west of Austin. They were probably within three miles of each other on the same side of the road. One, the furthest west, was in a small shopping center and was a pretty standard shop with both mineral specimens and lapidary materials and supplies. As I remember they had a lot of Brazilian material, much of it in bins, but I have no doubt that if you went through it you would find some specimens of interest. Being newly married and not having that much money allocated for minerals, I remember only buying a couple of large terminated elbaite crystals. They looked like schorl (black) and were cheap, but when you held them up to the light you could see that they were actually a very deep green. I also purchased a golf ball-size complete dodecahedral garnet crystal. It seemed to be a dark brown or black.

The other shop, the Oak Hill mineral shop, was in a small stand-alone building. The owner was a retired mining engineer who had spent some time in Mexico. The shop was full of specimens that were mostly from Naica and Santa Eulalia in Chihuahua. In November of 1969 I attended a school at the Bureau of Economic Geology in Austin, and when the class got out early one afternoon, I convinced the two guys with me to drive out to the shop. It truly was a collectors' paradise, and I wished I had more money to spend. But I finally made a deal, and for $9 I got three Naica specimens. That was probably the most I had ever spent for specimens up to that time. The best was a 3x4x2 inch specimen of pristine white aragonite on calcite with some dark half-inch sphalerite crystals nestled in it. No damage, and I still have it today. The second is composed of bright irregular galena 1-inch galena crystals partly covered by calcite and a bit larger than the first. The third specimen was a 3- by 2-inch mass of small pyrite crystals with interspersed clear, pale green, less than 1 inch fluorite crystals. This specimen was not great and was a compromise. The fluorite specimens were his most expensive, and I wanted one but would have to use my entire ten bucks, all I had, to get it. So I took the lesser specimen with the other two good ones to get some variety. I believe they were probably the first Naica specimens I had ever seen, so I wanted a suite of them—well, as much of a suite as my money would allow.

It did not seem that these shops were there very long, and both seemed to close at the same time. A bit later there was another shop in Austin called the Capital City Rock Shop. I forget the name of the man who ran it, and I never went to his shop, but in the early 1970s he made several mineral shows in the Houston area. He did have some local Texas minerals but nothing spectacular. He also had a lot of Tsumeb cerussites, nice crystal shapes but not clear and a bit battered.

Closer to Houston, in Bryan, Texas there was a nice shop which made a Saturday afternoon trip there worthwhile. I bought a lot of nice things in a short period, and

soon the things on display were not of interest because I had seen them already and there was little turnover. Eventually I was allowed to go through their flats in a back closet. They had a lot of Mexican and Arizona specimens at fairly reasonable prices. So in a period of several years during the 1970s I made sever trips there.

Most of the other shops in Texas of which I was aware were here today and gone tomorrow. Not so with some others which have endured for years. Though the shop at the Woodward Ranch was mostly lapidary, there were some mineral specimens also, but the prices seemed way too high. There was also a shop in Terlingua that was truly a rock shop with lots of rocks and only a few that could be called specimens. I also visited a shop in Shafter which is north of Presidio. Shafter was an old silver mining town that closed down in the 1940s but has had some exploration since and continues to hold some interest because there is still silver ore there. However, the shop when I visited it had no Shafter specimens though the mines were right across the highway behind a fence. The Presidio and particularly the Ford mine in Shafter produced some native lead specimens in the 1950s. The big producer of ore was the Presidio mine.

The Texas Hill Country has had a few shops. Jim Chude, a former member of HGMS and active in the Mineral Section in the early 1970s, had a shop in Fredericksburg from the late 1980s through the 1990s, but I believe he closed it down. He had a few Texas minerals that he and Ray Stegemoler collected in Terlingua from the Perry pit at the Mariposa mine. Small curved gypsum crystals from thumbnail size to a little larger were available, and he had a lot of the mercury minerals, but he seldom had them on display. You had to know what they were to even consider buying them. Most of his minerals were what I call tourist imports like Brazilian amethyst, Mexican agates and specimens, etc. However, on one visit there I did buy a large pale blue mass of 3/4 inch fluorite crystals from China.

The Llano Uplift Rock Shop in the square in Llano has been a fixture there for many years. In the early 1970s I bought a few small specimens there. I have a story about this shop that I may have written about here before, so if you have already heard it I apologize for repeating it. In my early 1970s visit I asked the bearded man behind the counter if he had any other Texas minerals. He reached behind the counter and proudly showed me about a 12 x 4-inch black crystal of gadolinite. It is a radioactive mineral from the local pegmatites, particularly Baringer Hill to the east, now flooded by Lake Buchanan since the mid 1930s. I believe he told me that this specimen was not from Baringer Hill. The glassy nature of the specimen showed that it is metamic, a condition that occurs when the radioactivity destroys the crystal structure and it becomes like a glass with no crystal structure. I admired the specimen and asked if it was for sale even though it would probably be way more than my wallet was holding. No, was the answer anyway so I bought a couple of dollar specimens and left. I did not stop in this shop again until over 20 years later in the mid 1990s. At that time the shop even had less to offer and all that was present was some cheap jewelry and a few rocks, but the bearded man was behind the counter. I again asked if he had any local Texas minerals but knew the answer was probably no before I asked. The man came from behind the desk and reached to a high shelf and from it and out of sight he removed the

same gadolinite crystal and again I admired it and handing it back to him remarked: "You showed me this same crystal back in about 1973 but it was not for sale. Is it now?" The reply was, "No it isn't, but that was not me, it was my dad." Time goes by, some things never seem to change but, I guess they do.

There is another small shop that I believe is still there today, but I don't know if the same person is running it. It was in a small house in a subdivision just east of the Buchanan dam in Burnet County. I picked up a few interesting things in the past but have not visited it for more than 16 years because it has been closed when I have stopped. I think most of the things of interest I got here were obtained by trades or purchases from collectors passing through. Like many Texas shops, it is a hit-or-miss situation. Sometimes a hit but mostly misses. I wish I had paid more attention to Texas agates in the early days because I passed up some outstanding pieces, but my wallet was already thin enough from buying the minerals I could find and afford.

Most of the other Texas shops I was only in once or passed by when they were closed, but in most cases they are not worth mentioning for their mineral specimens. Good Texas specimens were hard to find in the 1960s and 1970s, and they are even harder to find now. I have several dealers looking out for them for me but if they are nice, it seems that their location has some doubt.

In Our Library

by Art Smith
HGMS Librarian

The holidays are over, and a new year is in. It is probably at this time that you are thinking about summer vacation or collecting time. It is never too early to come in and do some research on where you want to collect or where your vacation will be and to discover what there is to collect in the area. Believe me, coming in a few days before you leave does not cut it, and you will not have enough time to retrieve and organize the data you will need to access the area, let alone be successful collecting. No sense going to an area with a teaspoon if you really need an eight-pound sledge to collect, and of course the reverse is also true.

Library Finances for 2006

Income:	$1040.79	from soda sales in the refrigerator
	403.32	from book sales
	282.50	from show split with Mineral Section
	$1726.50	Total income
Expenses:	$732.00	The Bindery for books bound
	360.59	Books purchased
	20.13	Videos purchased
	224.05	Back issues and new subscriptions
	73.04	Supplies, stickers, etc
	$1409.81	total expenses

We have $316.69 cash on hand with a binding obligation estimate of ($275.00).

So all in all, the library has had a good year. Space constraints continue to be a problem, but so far we are doing fine, and we have to be selective on what books and journals take up shelf space. One solution that I have already used is to put some of the seldom used books in boxes in the loft, and if they go for awhile without being used, to dispose of them. So far we have not had to do that. There are several new jewelry magazines that came out in 2006, and we have subscriptions to most. If there are others that we should be getting and are not, I would be glad to hear about them and will consider them.

One of the new books I ordered is on the Minerals of China. It is well done and has numerous pictures and maps. It is a great resource on Chinese minerals and will help you get the exact location of some of those Chinese minerals you bought a few years ago that had no locality data. It should be in the library and on the shelf by the time you read this.

How Does a Diamond Saw Work?

by Carolyn Weinberger
from Gem Cutters News 1/97
via Glacial Drifter and The Roadrunner 12/2006

One of the fastest ways to grab someone's attention when demonstrating cabochon cutting is to put your finger against the running diamond blade. "Be careful," the viewer always yells. "You'll cut your finger." When the worst does not happen, the viewer stands there, mouth agape.

So, why don't you get hurt when you stick your finger against that diamond blade? The answer is quite simple, you aren't really using a saw!

The diamond blade we use to slab our rocks or trim our cabs isn't really a saw. It's a very narrow grinding wheel. Small diamonds are bonded into the rim of the blade and become exposed when we push a rock against it.

While the blade rotates and a stone is pushed against the blade, grinding takes place. Exposed surface diamonds grind the stone into a fine powder. The embedded diamonds remain attached to the rim of the blade via the bonding process, but do break down due to wear. Cutting harder stones or using extreme pressure when sawing wears away those diamonds faster than does cutting softer stones or using a lighter amount of pressure.

Remember to always use a coolant when operating the diamond saw. Coolants not only carry away the fine particles of ground rock, they also keep the blade and the rock from overheating.

A caution from The Roadrunner Editor: A note we might add here to both new and old members....NEVER FORCE THE ROCK HARD INTO THE BLADE. LET THE DIAMONDS DO THEIR GRINDING WORK (especially when using the trim saw). It is true the blade will not CUT you, but it will do a number on your nails and fingertips, so if you demonstrate this, do it very briefly or you'll wind up with no skin.

Day Light Section

by Frances Arrighi

The Day Light Section did not meet in December.

Eighteen members and four guests attended the 8 January, 2007 meeting of the Day Light Section. The program was a travelogue by Jim and Pat Johnson about their trip to New Zealand and Australia. It was a most interesting program. They collected some rocks which they brought for us to see and a piece of wood—kaori wood—and some green jade. They showed a museum staircase made of this beautiful wood. The trees are now on the endangered list, therefore usage is curtailed. We thank the Johnsons very much for an interesting presentation.

I believe arrangements are completed for our February and March meetings. We will be working with glass—the fusion of different glasses of the same coefficient of expansion. Kelly Adams will be giving the programs.

Mineral Section

by Steve Blyskal, Chairperson & Dean Lagerwall, Assistant Chairperson

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

Upcoming Meeting Topics

February 7: Meeting moved to February 14

February 14: Special Meeting—Australian and New Zealand Agates, presented by Sir Paul Howard. The theme of this year's Tucson Gem & Mineral Show is "Minerals from Down Under." Because Sir Paul Howard has written the only book in the world on Australian agate, he was invited to display a showcase of Queensland agate. As he returns from Tucson, Matt Dillon has arranged for Sir Paul Howard to spend some time in Houston and show us this wonderful agate. Refreshments will be provided. (For more information about Sir Paul Howard, see the short article following.)

February 21: Tucson Show & Tell. For those lucky enough to attend the most famous mineral gathering in the world, bring in your recent acquisitions from the many Tucson Shows and give us your impressions of "Tucson 2007." Regale us with your experiences. For those who could not make it, come and see what you are missing. Refreshments will be provided.

March 7: Clear Lake Show & Tell. Bring in your recent acquisitions from the Clear Lake Show (February 24–25). Let us drool over your acquisitions. Refreshments will be provided.

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.

Mineral Section Order

by David Gardner

The Mineral Section is putting together an order to David Shannon Minerals in Mesa, AZ for various supplies. On our club Web site, look just below the auction gavel for a link to Shannon's catalogue.

A key item of interest for some of the mineral folks is the white fold-up boxes. If we can accumulate an order of 1000 or more boxes (mixed sizes are okay - i.e. 500 2x2, 400 2x3, 300 3x4, etc.), then we can get the reduced price under the "1000 up for 100" column on the price list and save everyone some money. To get the case price, we would have to order the case quantity for a specific size to get the best discount for that size (i.e. 3600 2x2, or 3000 2x3, or 7000 1x1). This is a slight departure from their previous practices.

But don't stop looking there. The same case price routine holds for the plastic display cases, display stands, and corrugated stock flats too.

All of these things can be used to display/store other items besides minerals such as fossils, carvings, shells, whatever.

Please send all orders to me by March 15 at dgardner@chevron.com or call me at 713-432-2632 (office) or 281-353-0735 (home). I will put together the final order and forward it to Art Smith who has agreed to handle the money. E-mail me or call me with any questions. Thanks.

Inaugural Session of the Proposed Beading Section

by Patricia Gannon-Hildbold

Yes, folks, it's finally going to happen! We're going to start the New Year right and hold an impromptu meeting at 5:30 p.m. on January 23, the night of the January General Meeting. (Because of the time, we may want to brown-bag it, make a Micky D run, Pappa John's, whatever the on-the-run food of choice is.)

It's time to make plans for those beads you've been making in lapidary, been carving, or been buying at beading stores, rummage sales, or thrift shops.

There is no project planned. This will be a brainstorming session, so bring your ideas! What would you like to do, see, learn, have demonstrated, or talked about? Would you like to volunteer to coordinate?

We need your ideas on when to hold the meetings—a weeknight? Saturday afternoon? Sunday afternoon? How about where—is the main meeting room at the clubhouse okay? Would you rather schedule one of the other rooms?

We already have a subscription to one beading magazine, but do you think there's a better one out there?

We have 12 months to plan for, so bring lots of ideas, pictures, and diagrams.

If we do become a viable group and if enough members show up for every meeting, we will petition the HGMS Board to authorize us as an official section.

If you can't attend this first meeting but want to be part of the proposed new Beading Section, get word via e-mail to Sunday Bennett, Karen Burns, or Phyllis George. Hope to see you there!

Lapidary Section

by Kathy Konkel

The New Year started off with a bang on January 15 with a demonstration by David Hawkins on making no-solder bezel settings. Ask him to show you examples of his incredible work. This technique produces unique and very attractive settings for stones of all shapes.

Please join us on Monday, February 19 at 7:30 p.m. when Wayne Barnett will bring his bead mill. He'll detail the step-by-step process necessary to make beads with such a machine.

Lapidary Auction in March!

Kathy Konkel

Mark your calendars for Saturday, March 24 for an auction and spaghetti lunch. Items include tools, bookends, mineral specimens, faceting rough, and finished and rough lapidary material. This material comes from the late James Valigura. He owned a rock shop a number of years ago and he and his wife were HGMS members in the 1960s. His wife, Glenna, has generously donated the remaining material from their business to the Lapidary and Faceting Sections of HGMS for this auction. The proceeds from the auction will be split between Glenna Valigura and the specified sections.

We'll supply the spaghetti with meat sauce and bread, and we ask that attendees supply salad and dessert. Lunch will begin at 1:00 p.m., and the auction will commence at 2:00 p.m. Wayne Barnett, our auctioneer, will keep things lively as always. Bring your curiosity and lots of cash (or a check will be fine).

Scott Singleton—Thank You!

Joan Riley spotted Scott Singleton atop a tall ladder that was leaning against the roof of the clubhouse. Using blazing orange paint, he was single-handedly painting the individual HGMS letters on the outside of our building. They had become quite dingy and faded over time. And to top it off, inside the building his daughter Lorraine and one of her friends were using rollers to paint a wall by the stairs to the attic. They all did a wonderful job. THANK YOU!

E-mail to HGMS Members About AOL

by Neal Immega

Doubtless you are receiving vastly more SPAM e-mail than ever before, and your ISP is trying to counter it. Sending out 350 copies on the BCC line of a message was convenient but triggered too many filters. The method I am using to get around this problem is to use a shareware SPAM mailer called TurboMailer. It automates the sending of messages, one at a time with personalized Subject and content lines to make it more difficult for filters to discover that all the messages are identical. This $10 program works quite well except with AOL. The AOL Web site says that one of their members is marking my messages as SPAM, and that is causing their filter to reject them all.

I have removed the AOL members from my mailing list and had them sent a message that they need to contact me if they wish to be reinstated on my list. If you can think of a better way, let me know.

State of Paleontology Book Sales

by Neal Immega

We sold many more books in 2006, about $2700 worth. Amazingly, our out-of-state sales were nearly $1000.

Since I started keeping records in December 2003, we have sold:

- *Texas Cretaceous Echinoids* 43
- *Cretaceous Ammonites* 64
- *Cretaceous Gastropods* 45
- *Cretaceous Bivalves* 55
- *Pennsylvanian Brachiopods* 55
- *Petrified Wood* 101
- *Trilobites* 3

The *Texas Cretaceous Echinoids* and *Petrified Wood* are both printed on CD, and though they only cost $10 each, they are more profitable than any of our other books because they are not printed in advance. Thanks to Terry Brawner, we have an inventory of our unsold books, and you will doubtless be relieved to know that the smallest children in HGMS will be able to buy all the books they need. If you have a bright idea on how to advertise our books, please contact me.

Left: Lichid trilobite--Russia
Right: Kayserops trilobite
Photos from SCRIBE 2006 CD

New HGMS Classes Proposed for Saturdays— But Only If Enough People Sign Up!

by David Hawkins
Education Chair

January starts a new year at HGMS, and the Education Committee is thinking about starting **New Saturday Classes**.

The first Saturday Class will be a **Beginning Jewelry Fabrication class**. This is a 5-week class that meets a total of 25 hours (5 hours each Saturday for five weeks). If you do not currently have basic jewelry making skills, this class will teach you what you need to know. The skills learned in this class will prepare you for participation in the Intermediate Classes which require an understanding of basic jewelry making.

We will have Intermediate Classes on the following skills:

- Bracelet making
- Chain making
- Inlay making
- Four different stone setting classes
- Precious Metal Clay (PMC) ring making class
- Three different PMC classes ranging from 5 to 8 hours in duration, each one a single session
- Wire wrapping a ring
- Silver ring fabrication
- Tool making
- Soldering

These are not the same classes already offered by HGMS. They cover completely new material, and MANY WILL BE OFFERED ONLY ONCE.

Interested? Great! Sign up right away by mailing me a $25 deposit for EACH class you want to take to hold your place in the class(or classes) of your choice. Be sure to include the name of the class you wish to attend, your name, address, phone, and e-mail address. Mail it to David Hawkins, Education Chair, Houston Gem & Mineral Society, 10805 Brooklet, Houston, TX 77099. Also send me an e-mail at classes@hgms.org to give me early notice of your intent to take the class(es), being sure to include all the information requested above. These classes will be offered only if there is sufficient interest.

These classes (except for the PMC classes) will be scheduled only after I receive at least five checks reserving places in a particular class. Each class requires a minimum of five people and will accept a maximum of eight.

The PMC classes will be taught by Cheryl Lucas, and she will decide after the first of the year when she will be able to teach her classes. Her classes will have official starting dates. The other classes will be scheduled for the month following the receipt of at least five deposit checks for that class.

If you want these classes, decide NOW and get the information (and checks) to me right away.

Susan Lenz Update

January 7, 2007
by Norm Lenz

Dear HGMS Friends,

We passed the one year anniversary of Susan's diagnosis on December 30th. While it's not pleasant to remember that stressful time and all the difficulties of Year 2006, we are thankful to have it behind us and that her condition is stabilizing. Susan's condition has not changed significantly since my last update on December 10th. She has good days and days when she is very weak. We are not sure what makes the difference. It may be related to the effects of her chemotherapy drugs. The detrimental side effects occur three weeks after her five days of chemotherapy each month. Susan's last MRI was taken on December 18 and was good again.

Susan was surprised to receive a debit MasterCard from ExxonMobil for Christmas. We took the card with us to Indiana. Susan and her mother were escorted on a wheel chair shopping extravaganza by Tanya and two of Susan's sisters the Friday after Christmas. There were sufficient new purchases and Christmas gifts that we exceeded the maximum weight limit allowed by Continental Airlines and had to ship two boxes of items back by Federal Express.

Positives:

- Our home health aids are continuing. They come for 8 hours per day Monday through Friday.
- Tanya loves her new job as Assistant Personnel Manager for Sheltering Arms
- I have now retired and have no plans to return to work
- We had a good 10 day visit with Susan's family in Indiana for Christmas
- Susan is feeding herself most of what she eats
- She eats well and sleeps well
- She is communicating well but is not inclined to carry on lengthily conversations.
- Her blood test counts are still not as good as normal but are in the safe range.
- The tremors are tolerable but still a nuisance. She is taking two tremor control medications.
- We were able to attend church services today for the first time in several weeks

Negatives:

- Susan's had seizures about every two weeks lately. They leave her weak for about two days following each seizure.
- Susan still needs assistance getting up, walking, sitting down, eating, etc.
- Susan's short-term memory is about 80%, and her long-term memory is at about 90% of normal.

Have a happy and HEALTHY New Year!

Photos: Susan with Tanya at Christmas dinner; Susan with her high school friend Carmen.

Robert Cross Update

by Ruth Cross

I wanted to send HGMS this picture of my dad, Robert Cross, taken last week at the nursing home. He has been in the Brighton Gardens nursing home in Bellaire for a year now, and although there are occasional frustrations, he seems to be enjoying it there most of the time. He has the happy gift of living in the present and always finding the bright side of events. Aside from the occasional infection and some mild bouts of heart failure, he is in pretty good shape for his age (87). I'd like to thank the club, particularly Neal Immega, for the help in sorting out Dad's fossil collection, and I hope to get help soon with his minerals.

Electric Park Learning Center

by Hans Durstling
Moncton, Canada
from e-mail sent by Mr. Durstling to numerous recipients

Hi all,

If you're going to Tucson, let me introduce you to the Electric Park Learning Center: www.electricparklearningcenter.com

It's a first for Tucson—a brand new stand-alone show-and-tell tent at the Tucson Electric Park Show where there will be free scheduled demonstrations, lectures, and

show-and-tell three times a day every day of the show. If you're into carving, Eddie Davenport is giving a demonstration including use of the air chisel and many of the other tools. If you're into carving in smaller size, in gem materials such as jade, high-energy Mark Zirinsky's presentation will likely be an event to remember. If you're a lapidary, check the "Lapidary Problem Hour."

There's a whole day of hands-on faceting. Also sessions for jewelry-makers too. There's nothing quite like it in Tucson.

There are still gaps in the schedule (if anyone has an interesting demo they'd like to do, by all means e-mail me), and the presenters' biographies are not yet all there, but the meat of it is up online. Do check it out, and if you like the sound of it, tell your friends, relatives, associates and comprehensively everyone! In short, PLEASE! pass it on!

Cheers, & see you at the Learning Center.

HGMS Board Meeting

January 02, 2007
by Denise Bicknell
HGMS Secretary

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

Meeting Called to Order at 7:30 by Matt Dillon, President.

Approval of December Minutes: Done via e-mail

Treasurer's Report: Lowell Stouder was absent, so there was no Treasurer's report. Scott Singleton obtained a copy of our roof repair invoice. A copy will be sent to Central Management, and another copy will be filed with the minutes.

Committee and Section Reports:

Programs: Matt Phillips reported that the January General Meeting program will be on moon dust and that the February program is tentatively scheduled to be on electric motors in on-site mining usage.

Education: Dave Hawkins asked to use part of his Education materials budget surplus to take out an ad in Nickel Saver that will run for 26 weeks. It was concluded that he could and that he should charge it to his materials budget.

Library: Art Smith reported that Neal Immega approached him about using Irene Offeman auction proceeds to purchase steel cabinets for storing a set of Texas

fossils donated by Irene. The fossils would be used to illustrate a potential Texas fossil book. The Board needs to see a written plan before a decision can be made. Matt Dillon will approach Neal for more information.

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

Old and New Business:

1. Matt Dillon transferred the north side parking issue investigation to Carol Thompson. No new information is yet available. Section representatives will inform sections that no one should park in the north side lot.
2. Rekeying of main door locks:
   a. Keys for the new outside door locks were handed out to the Board. Section representatives will distribute the keys requested by each Section. A list of keys will be maintained by the President.
   b. Locks will be changed on January 20, 2007.
3. A wire-wrapped plume agate pendant was purchased for Susan Lenz with the funds remaining from the money collected from 2006 Board members. More money than needed was collected to purchase a plant for Susan shortly after she became ill. The pendant was presented to Susan in December. Phyllis George read a thank you note e-mailed from Norm and Susan.
4. Scott Singleton reported that the wall and sign are now painted. Matt Phillips is still working on getting a quote for a matching sign (individual letters) for the front of the building. Matt will get a match for the building paint and will paint the spot where the old sign was removed.
5. Building over-crowding and building usage was discussed. Matt Dillon read a report from Tom Wright outlining Tom's ideas for adding a new classroom next to classroom number two where the stairs are. The stairs would be relocated. A detailed plan outlining material cost and room usage is needed.
6. Scott Singleton will store all club historical materials in a file cabinet in the office.
7. Sunday Bennett reported that a group will meet at 5:30 p.m. before the January General meeting to discuss formation of a new Bead Section.
8. In 2008 Central Management (the management organization that oversees the building complex in which our clubhouse is located) will provide paint for the area above the pea gravel on the outside of the building. HGMS will do the painting.

Meeting adjourned at 8:45 p.m.

Left: Corundum

Right: Fluorite

AFMS President's Message

The Presidents' Perspective
by Dr. Robert Carlson
AFMS President
from AFMS Newsletter 12/2006

I wish to thank you all for sending me your club bulletins; I read them and look for particular articles. I am encouraged when AFMS articles are included. It indicates that you know that we exist and that there are some important messages that need to be communicated to all persons in the AFMS, and to your club in particular.

I also read the club roster, and I am dismayed when I read the same names in a variety of positions in the club. This means that the club is not in good health. It means that a very few individuals are keeping the club alive, and when they can no longer function in all of those positions (health, burn-out, change of address, whatever) the club has some severe gaps in its leadership. Wayne Sukow, President of the EFMLS, said it best when he talked about the officers of the club and how they labor without much recognition; and how the members of the club are important in carrying out the many duties that allow a club to function—especially during a local show. But members need to become officers. It is the only way that a club can grow and survive.

I am reminded of a parable that I read in the CFMS Newsletter about a magic club—one where when members came to the club meeting, everything had magically been prepared. The seating arrangements and the refreshments were ready. The agenda, program, and door prizes were arranged as if by magic. And, if the members didn't attend the meeting, a Newsletter would magically appear in their mailboxes, telling them all about the meeting. And, at the meeting, when a call was made for volunteers, the members would stare at the ceiling or floor until some already overworked officer would magically say: "I volunteer." Is your club a magic club? I hope so. Things are getting done, even if apparently by magic; but it cannot stay magic forever. Those magicians (read Club Officers) performing that magic need your help.

So, you members out there who are reading this message, please assess your skills and volunteer for a position in your club that might interest you. Become an officer; and who knows—someday you might be writing this message. I hope so.

On another note, I plan to attend all of the Regional Federation Shows and Conventions during the 2007 Fiscal Year, which starts November 1, 2006. If you see me in my green Aussie hat, introduce yourself and tell me how things could be improved. I represent you.

AFMS Safety Message

Be Safe—Be Well
by Don Monroe
AFMS Safety Chair
from AFMS Newsletter 9/2006

Protection—You May Need an Umbrella Liability Insurance Policy!

Do not get excited when you read the title of this article. It will be suitable for young readers and will not venture into forbidden or questionable areas. As a matter of fact, it will not cover any of the following subjects:

- Burglar alarms, the mafia or other "protection agencies"
- Snake boots, chaps, or briar-proof pants
- Sunscreen or insect repellent
- Goggles or safety glasses
- Welding gloves or welding goggles
- Bulletproof vests or mosquito nets

I want to talk to you about umbrella liability insurance. This is not a commercial message or even an infomercial. I have absolutely nothing to do with insurance except as a consumer, but I have been increasingly concerned about my fellow rockhounds and lapidarists and exposure that they may not be aware of.

Ann and I are pretty much retired, and we live on retirement income and the little bit that we have put away for a rainy day. Much of our enjoyment is derived from pro-bono teaching (that means free), and we have become concerned that if someone in class or elsewhere is injured, we could be held liable even if we did nothing wrong. A little note in our auto club magazine pointed out dangers or situations that we had never thought of. Upon investigating, we learned that umbrella liability coverage is quite inexpensive, covers many situations, and can really add to one's peace of mind.

I have discussed this with several friends and relatives and have found two schools of thought (should we be surprised that any issue has two sides?). One school of thought was that the people I talked with were also unaware of the potential situation. They know that I do these articles, and they strongly suggested that the subject should be shared. The other school of thought was that when or if it becomes known that you have this coverage, you will be targeted for nuisance lawsuits.

I would really like some feedback on this situation.

Keep It Sharp

As many of you know, I was raised on a farm. My father was my teacher in many areas, and we were set up to make or repair almost everything that we needed in order to produce our crops and raise our livestock. We had our own blacksmith shop and all

of the other tools we needed to do most any type of wood or metal work. Since we lived about five miles out of the nearest small town, I was Dad's helper and go-for.

Dad taught many lessons dealing with all aspects of life, and I often heard the same story several times since he believed that repetition was an effective teaching method. The lesson that I heard the most dealt with cutting tools such as knives, axes, adzes, saws, chisels, and the like. He always said that the most dangerous tool was a dull tool. He would say, "Sure, you can cut yourself with a sharp tool, but you are far more likely to injure yourself with a dull tool because you must apply much more force to do the job, and slipping is more likely."

This adage has been a way of life for me, and I see so many lapidarists who have problems due to dull tools. I think this issue can be most effectively demonstrated in the case of the graver. If a graver is not appropriately sharpened, the tool will skid across the work causing several problems such as a long, unwanted cut or scratch in the work, or even worse, an unwanted cut in your hand or fingers. When tested, a sharp graver will make a smooth cut across the top surface of your thumbnail without any slipping or gouging. This sharp cutting edge can be best obtained using fine stones such as hard India stones or a fine synthetic ruby sharpening stone. Various stones require their own special lubricant such as fine oil or water. Do read the directions! I selected the graver as a subject because all of us can profit from the use of a graver at one time or another, but we do not use it enough to become proficient. Either take a course or read a good book to learn about using the graver.

A knife is a far more complex tool than we often realize. A knife edge can be ground or honed to many different angles, or "grinds" as the knife makers say, and the purpose of the knife should influence how it is sharpened. The included angle made by the two surfaces of the edge can vary from about 15 degrees to about 35 degrees. The so-called sharper edge is great for slicing food and tasks of that sort, but the less steep edge is necessary for chopping tasks to avoid chipping the edge of the blade.

Axes and most chisels work best with a more blunt edge, but all edges are best when honed to a smooth finish unless you prefer the so-called "wire edge" for cutting meat. Wire edges are often the choice of the professional butcher, but every butcher that l know well has his own ideas about the best edge for his work. This typifies a professional's attitude about his tools, and all of us should be just as demanding about our tools. We all take pride in our work, and if we are not professionals, we certainly are craftsmen of note.

AFMS—Having Fun—Junior Activities

Spreading the Word & Improving the FRA Badge Program
by Jim Brace-Thompson, AFMS Junior Activities Chair
from AFMS Newsletter 12/2006

As we conclude the old year and ring in the new, I'd like to solicit everyone's aid in spreading the word about the Future Rockhounds of America (FRA) badge program and in improving it.

Please help the effort to engage our kids in our hobby and to grow the next generation

of rock hounds by spreading the word throughout each regional federation. To everyone reading this column: please have folks contact me directly to get info (phone 805-659-3577; e-mail <jbraceth@adelphia.net> or encourage them to download info from the AFMS Web site at <www.amfed.org/fra/meritbadge.htm> If you haven't done so already, please write an article in your regional federation and local club newsletters conveying info about the FRA program. I ask everyone's good will and help in spreading the word to get these activities into the hands of as many kids as possible within our local clubs and societies.

In addition to getting more clubs and kids involved with the program, I've been working on a goal of developing still more activities. These include individual activities that could be incorporated into our current set of nine FRA badges as well as entire sets of activities for which we might create whole new badges for kids to earn. I've included thoughts toward some new badges in recent columns, and I'm interested in hearing back from clubs and societies now using the program. How are you utilizing it? What sorts of adaptations have you made to the current activities to improve them or to make them better suited to your particular group of kids and circumstances? What new activities and badges would you like to see developed? How can we make the individual activities and the program as a whole work even better in helping our kids learn the science and craft of our hobby?

I'll continue sharing ideas for new activities over the course of the coming months in the pages of this column. Also, as the New Year starts, I hope to contact current youth leaders using the FRA program to solicit ideas, and I plan to contact the Juniors Chairs of each regional federation to solicit help in spreading the word about the program. But please don't wait for me to write or e-mail! Starting today, let's all set a New Year's resolution to expand the universe of clubs using the FRA program and to expand and improve the resources to reach kids within that universe. To all youth leaders who already have generously devoted time, effort, and heart to working with kids, my sincere thanks for the good work you've extended to teach our kids while—as always—having fun!

The SCFMS Prez Sez

by Chuck Shuler
2007 SCFMS President
from The SCFMS Newsletter 11-12/2006

As I take over the reins of the SCFMS, my first action is to recognize two areas of service to our federation. Bill Medford, the exiting President, is deserving of our sincere appreciation. For those of you who don't know, Bill stepped directly into the President's role without the benefit of learning the ropes as a VP. Thank you, Bill, for your willingness to jump right into the fray. Your efforts to make the SCFMS a great organization are truly appreciated. I'd also like to thank the club at Bossier City/Shreveport. They deserve kudos for the wonderful job they did this year hosting our meeting. Thanks, guys!! Without the help of individual clubs like the Ark-La-Tex club, it would be hard to have a successful Federation.

Arlington and Houston have stepped up to the plate to host our show in 2007 and

2008. Their enthusiasm and spirit of volunteerism helps to keep our organization strong and effective. Thanks in advance for your extra effort to maintain the health of the SCFMS.

Speaking of Federations, the American Federation will meet in Roswell, New Mexico in June of 2007. They have produced a CD with show information on it, and you can contact me for a copy or contact the Roswell club directly. If you haven't made it out to a Roswell show, this would be a great year to attend. The club always sponsors fun-filled field trips (Pecos Diamonds, anyone?). And the member's shenanigans make the Rolling Rock Club a hoot to attend.

This year I would like to challenge all our clubs to invest their time and efforts in establishing an active youth program. Many of you realize that our schools have cut budgets, and earth science seems to be an area that is affected. We need to capture the imaginations of our kids and encourage them in our hobby. They are the future of our clubs and the Federation.

Two quick ideas that have been around for a long time that help reach kids are school visits, talking about mineralogy or fossils, and working with the Scouts to help them achieve their geology requirements. The Clear Lake and Houston clubs are very successful in the Scout area during their shows, thanks to the dedication of Mike Reeves. Mike is a wonderful example of how the efforts of one individual CAN make a difference. He is actively achieving the goal of reaching our youth by manning the Scout area where kids learn, get excited, and achieve their badge requirements. And by concentrating his efforts during the club show, he personally contributes to increased attendance at the shows by the number of scouts who come to his area and the extended families that come along for the fun.

I will be calling on clubs with successful youth programs to share what they have learned. Those of us just starting to organize youth programs need all the help we can find, and there is no better help than the voice of experience. Hopefully by involving young folks in our individual clubs on a regular basis, we can re-energize our existing membership and encourage new blood.

Thanks for reading my ramblings. As I take over the reins of leadership, I look forward to our next two years together.

Welcome "New" Club

from the SCFMS Newsletter 11-12/2006

A warm welcome to the "New" Paleontological Society. A new club? Well, sorta. The Austin and Central Texas Paleontological Societies have disbanded in order to form one new club. The "new" club will be known as the Paleontological Society of Austin (PSA). The PSA will meet on the third Tuesday of each month, 7:00 p.m., at the Austin Gem and Mineral Society's clubhouse, 6719 Burnet Lane, Austin, TX. For more information, go to their Web page: http://www.texaspaleo.com/ctps/

Report of the AFMS Uniform Rules Meeting, August 14, 2006

by Bill Pattillo
SCFMS Uniform Rules Chair
619 Wright, Robstown, TX 78380-3815
Phone: 361-387-5190; E-mail: bill@rockfoodtable.com
from the SCFMS Newsletter 11-12/2006

The Uniform Rules committee met at the Preston Hotel, Nashville, TN at 8 a.m. during the AFMS Convention.

There were several items on the agenda, and the committee expected to be in a long meeting, but as it turned out, the meeting was short and to the point.

There were five changes to the rules submitted, and they all were approved. These changes were minor, but needed to be updated.

A discussion on Fused Glass was held, and several items were brought up and talked about. There was no action taken on this item.

A discussion on whether the Uniform Rules Committee should meet every year was held. It was decided that the Rules Committee needs to meet every year.

A discussion was held on the AFMS Judges Training that has been held at Wildacres. Everyone was in agreement that the program is beneficial and should be continued. Each Federation needs to notify Dee Holland about attendees to this school, which is a very worthy school.

The following discussion on a new division, Division N (Division for beads and beading), was handed out. This proposal was presented by Jim Hurlbut, who has done a very good job on setting up the Rules on the different categories.

After some discussion, it was decided that there needs to be more input to this new category, so each Federation was asked to get someone to work with Jim Hurlbut and work out the final plan. There are many aspects to the Beading, and many of us did not know what to suggest.

I am asking that any Club in the South Central Federation that has someone who works with beads, please step forward and work with this committee to establish the Rules for this category. Please contact me so I can point the committee in the right direction for getting to work on the project.

Gems of Enchantment—AFMS 60th Anniversary

by Diane Weir, President, Chaparral Rockhounds
from the SCFMS Newsletter 11-12/2006

As President of the Chaparral Rockhounds, I wish to extend an invitation to every rockhound in these grand United States to come and join us for the AFMS Convention and our "Gems of Enchantment" 2007 Gem and Mineral Show. It is going to be a four-day fun-filled extravaganza with a great three-day field trip scheduled after the show. This Show is not something you're going to want to

miss! Not to mention the chance for hobnobbing with old friends and the opportunity for gathering up new ones! Among the many "special" events planned will be the celebration of the AFMS 60th Anniversary.

For complete information, including motel and exhibitor forms, go to the www.amfed.org/show2007.htm.

We can't promise to keep the Genies and Aliens roped in, but we'll try. Come one, come all—we expect you'll have a ball!

Mozambique Tourmaline Hits the Market

by Robert Genis
From Preciousgemstones.com via Cedar Valley Gems 12/2006

Recently discovered in Mozambique, Africa, a brand new tourmaline was found which may rival the colors of tourmaline from Paraiba, Brazil. Rumors of this new material have been rampant since the 2006 Tucson Gem Show where a few large pieces were seen. The Paraiba market has really been in search of a new product since the Brazilian Paraiba has dwindled in size and availability. The market is ecstatic about these new goods, but the new find is already mired in controversial nomenclature wars.

Until the 1990s, the most expensive tourmalines on the market were the chrome tourmaline and Ouro Fino, Brazilian rubellite. Dealers were shocked when Brazil's Paraiba (neon Windex® blue and florescent green tourmaline) hit the market at the Tucson Gem Show in 1990. At that time, two- or three-carat sized Paraibas could be purchased for $1000 per carat. Many dealers were overheard saying they would never pay that much for a tourmaline, or the material must be irradiated because it looked too good to be true. Today, gem dealers longingly tell stories of the material they could have or should have bought in the early days. After the labs decided the material was heated, but not irradiated, the goods took off. In the current market, $45,000 per carat is a common wholesale asking price for an unheated large, neon blue Paraiba gemstone. A gem dealer once commented on the steep prices charged for this material, "The high price of these stones is justified because nothing quite compares to these electric colors in nature."

Today there are three mining areas in Brazil that produce small amounts of this material, usually in sizes under a carat. The material tends to end up in Japan. The second round of these stones was from Nigeria a few years ago. Production of this material is sporadic, and the colors tend not to be as vivid as the Brazilian material. However, these stones are coveted by collectors.

The mining of tourmaline has been going on for 200 years. If this neon looking tourmaline were abundant, they would have found it a long time ago. The fact that they only recently found small amounts in three different locations means this quality is rare. Further, it was rumored that large quantities of this material were discovered in the jungle of Alto Ligonha plateau in Mozambique. This is not true. According to my sources in Bangkok, out of every 20 parcels you see, only one stone is of high enough

quality to even facet.

Tourmaline is an interesting group encompassing several minerals with similar chemical compositions and atomic structures. Tourmaline shows the greatest color variation of any gemstone—even of those gemstones that are bicolored and tricolored. Tourmalines are known for their complex crystal structure and chemistry. All tourmaline crystals begin as colorless. The colors are created later by a myriad of trace elements including iron, manganese, chromium, and vanadium, but Paraiba or Paraiba-type tourmaline owes its spectacular colors to small amounts of copper and manganese. Tourmaline is 7-7 1/2 in hardness.

Not treated, the colors of the Madagascar material are much more varied than the colors from the other deposits. They range from lilac to violet to purple, light to medium to dark blue, light to medium to dark green. The stones can also be bicolored. For example, some display green to purple. These rare and unusual colors may become desirable and sought after by collectors. The unheated goods are attractive but not eye-popping.

Ideally, the top colors range from neon blue to neon green with a turquoise blue or robin egg blue also being desirable. It is estimated that 80-85% of the production of Brazilian tourmaline with bright blue to greenish blue "Paraiba" colors has undergone heat treatment. The Nigerian material is also heated. Some of the new Mozambique tourmaline is turning more electric with proper heat treatment.

Dealers who own this material are presently experimenting with heat treatment. One owner said, "You would be surprised at the advice we were given regarding heating this material. Some recommended heating the stones to a low 300-400° Celsius. Others say heat the goods to 700-780° Celsius. We need to experiment to learn which colors will change to an advantage at what temperature."

So far, the largest stone cut is a 76 carat bicolored green/blue. The stones will come in all sizes and shapes from 3 mm rounds to 20–30 carat stones. Probably the 1–5 carat stones are the best sellers because the 20 carats stones will wholesale for over $100,000. Interestingly, the larger the stone, the better the saturation of color. The stones are also clean.

Any new stone is a marketer's delight. These goods will be sought after by other dealers, retailers, and even manufacturers. Expect the collector market to jump on these goods.

Here is where the controversy begins with the new material. What is in a name? Well, to the marketers of gemstones, a name can be everything. It appears the sellers of these gemstones want to label any stone from all three major tourmaline-producing locations as "Paraiba." Certain dealers want to make their goods more marketable by cashing in on the Paraiba name. They argue Paraiba is a trade name rather than a location. The dealer community is split on this issue. Other dealers say, for example, you cannot make Burma a brand name and apply it to any red ruby that looks Burma, even if they are from Thailand or Africa.

Many of the world's foremost laboratories got together in Switzerland and at the 2006 Tucson Gem Show and decided that the material should be described on a gem report as follows:

Variety: Paraiba tourmaline
Comment: The name Paraiba tourmaline is derived from the locality where it was first mined in Brazil.
Origin: Origin determination is optional.

In other words, you could get a report from a lab stating a stone was Paraiba without even mentioning it was from Mozambique. Would this be a fair and accurate description to the final consumer? Of course not. A more honest and accurate description would be Paraiba-type or Paraiba-like, origin Mozambique, or Nigeria, or Brazil. In most cases, laboratories should be able to discern the difference between these locations. Despite what the labs state on their reports, each stone will find its own price level based upon its appearance. A fine neon Windex blue stone will sell for considerable money, whether it is from Brazil, Nigeria, or Mozambique.

Summary

Presently, low heat has created some light Windex blue and light Scope® green colors in this new material. Remember, Paraiba or Paraiba-like gemstones are an exception because these heated gems are considered acceptable by collectors.

The colors of the material are not as neon as Paraiba, but they still are very beautiful and electric. The best colors of the new Mozambique material are approximately 80% of the best Brazilian Paraiba colors.

Every serious collector should have some of these goods in their portfolios while they are available and relatively inexpensive. Based upon past mining strikes, it is always financially prudent to purchase this material when it first hits the market. These exciting new colors are more vibrant than most gemstones presently on the market. Many in the industry believe this material will be the next Paraiba.

Tips and Hints
How to Cut Obsidian

from Quarry Quips, May, 2004, via Golden Spike News, 9/2006, and SCFMS Newsletter 11-12/2006

Gold Sheen: To get the most out of mahogany gold sheen obsidian, saw with the bands, as if they were a stack of plates, and you wish to unstick them. Watch for "fire spots" in gold sheen. It is not plentiful, but opal-like colors do sometimes occur in mahogany gold sheen. The photo on the next page to the left might be mahogany obsidian.

Iridescent: There are two types of iridescent obsidian. In cutting both correctly, the orientation of the color is most important. One type of obsidian is banded, and the color lies in the bands. On the unbanded types of obsidian, the surface has to be chipped to find the color. The banded type will have several colors or shades while the unbanded will have only one. Cut the banded type parallel to the bands to get the

effect. To get a rainbow effect, cut the stone at an approximately 15 degree angle across the bands.

Midnight Lace: Lace patterned obsidian should be cut across the surface pattern that you desire to reproduce. Though obsidian is comparatively soft, it is still very important to sand away all scratches before going to polish. Some advise that wet sanding be done, since obsidian is heat sensitive and very brittle. For final polish, felt with cerium oxide is the choice. Should you be faceting some particularly gemmy obsidian, try cerium oxide on Lucite—but keep it wet.

Rainbow: Cut parallel to flow layers. These can be seen by examining fractured surfaces using an overhead single lamp bulb. These are not always straight; it may be necessary to turn the stone slightly in the saw. Examine each slab set with either water or saw oil to see if the correct angle has been obtained.

Grinding Obsidian Cabs: Approach your grinding wheel with the material at a slight horizontal angle. If brought straight in, it may be a "shattering" experience as obsidian fractures conchoidally, and this is a sure way to do it.

Polish on Obsidian: Keep the polishing wheel wet. A dry polish will result in blisters and scratches. After obsidian is sawed, be sure to bevel the edges on your fine grinding wheel to keep them from flaking and chipping. Wear goggles or glasses at all times. If a small chip of obsidian gets into your eye, it can be very hard to remove as it is transparent and hard to see even with a powerful magnifying glass, and the edges may cut your eye to a great extent before it can be removed.

Meteoroids, Meteors and Meteorites -Part 1

by Zeb William Rike III
Pine Country Gem & Mineral Society
from The Pineywoods Rooter 11/2006

Since meteorites are rare rocks and we are rock collectors, we need to be aware of what they are so we can recognize them. How common are they? On various Web sites you will read estimates from "you will never find one" to "anyone can find one." Calculations (a) suggest that each year in Texas one meteorite will fall weighing more than 22 pounds, 4–6 weighing more than 2.2 pounds and 39 weighing more than 3.5 ounces. Estimates are that 40,000 tons of cast-off asteroid and comet material enters the earth's atmosphere every year, with only about 1% reaching the surface other than as dust (b); other estimates suggest 100–1000 tons/day (c).

Meteorites are rocks that have fallen from the sky—that is rocks that originated on one celestial body and fell onto the surface of another. Most are remnants of asteroids which were violently broken up by collisions in the early years of our solar system (d), though a few are from the moon or Mars (e), having been hurled into space by violent impacts. These rocks have wandered in space for perhaps billions of years, each in its own orbit until their path crossed ours.

A rock moving silently through space at hypervelocity is called a meteoroid. If it enters our atmosphere, the streak of fire is called a meteor ("shooting star"), most of which burn up in the atmosphere and reach the ground as slowly settling fine dust. If the rock in space was large enough for some remnant to reach the ground, this will be called a meteorite.

Most meteorites are "rocks," though some are iron and a lesser number are stony-iron. Chondrites or achondrites (stony meteorites) make up ca. 93%, irons make up around 6%, and pallasites and mesosiderites (stony-iron) make up about 1% of the meteorites that have fallen to the earth. (f) A chondritic meteorite may superficially resemble sandstone.

How can we identify a rock as probably being a meteorite? First, look at as many pictures of meteorites as you can find to see what they look like. Then when you have a suspect in hand, there are several positive indications which may identify a rock as a probable meteorite, and several which almost certainly rule out the possibility. I have summarized these from several sources to which I refer you to for more detail. (g, h, i, j)

1. *Is it different from other rocks in the area?* Something clearly out of place warrants further study.
2. *Is it noticeably heavier than ordinary rocks?* Iron-nickel meteorites will be about three times denser than most rocks and have a characteristic surface. Some predominantly stony meteorites will have up to 20% free metal and will be heavier than expected. (However, many metal ores are also heavy.)
3. *Is it magnetic? Is a powerful magnet hanging on a string attracted to it?* All the iron meteorites as well as many stony meteorites with free metal are magnetic. (However, some metal ores are magnetic.)
4. *Does it have a thin fusion crust?* High-speed passage through the air will melt and blow away the surface, leaving a thin (less than 1 mm) fusion crust, usually black or brown. (If it has a thick crust or rind, it is almost certainly not a meteorite.)
5. *Does it have an aerodynamic shape?* High-speed passage through the air will result in blowing away of the molten surface, leaving a stream-lined, "nose cone" shape, perhaps with flow lines.
6. *Does it have dime-sized "thumbprint" indentations?* These "regmaglypts" are also formed by high-speed air blowing away molten material.
7. *Does it contain nickel?* No common rocks contain nickel, while all meteorites with free metal do. Some simple chemical spot tests can detect nickel; I would suggest contacting the Chemistry Department at a University.

8. *If a corner is ground slightly or chipped off, does the interior show silvery metal?* If so and the sample is attracted to a magnet, this is a good indication.
9. *Are there conspicuous bubbles?* Too bad. Conspicuous bubbles indicate lava.
10. *Does it show large, conspicuous crystals or fossils?* Crystals in meteorites are neither large nor showy and no meteorites have ever been found with obvious fossils.
11. *Does it give a "streak" on an unglazed porcelain streak plate?* This is not typical of meteorites and would likely indicate hematite or some such mineral The underside of a toilet tank lid is unglazed porcelain and can be used for this test. (It should be noted that rust from an iron meteorite would give a "streak")
12. If it has quartz, it is not a meteorite.
13. If it will scratch window glass, it is not a meteorite.
14. If it has veins, swirls, foliation, radiating features, tubes, layering or any kind of linear or planar features, it is not a meteorite. No meteorite is a sedimentary rock. (Some stony meteorites do have veins of iron.)
15. If it is spherical or has a botryoidal surface, it is not a meteorite.
16. If "the ground is covered with it," it is probably not a meteorite.
17. If it is reddish on the inside or whitish, it is probably not a meteorite.
18. If you picked it up along a road or railroad, it is likely not a meteorite.
19. If it is radioactive, it is not a meteorite.
20. If it consists of hematite or magnetite, it is not a meteorite.

The Planetarium in Hermann Park in Houston, TX has several meteorites on display. I would recommend a visit to such a collection to see in person what a meteorite looks like—or rather the variety of types there are. A superb collection is the Monnig Meteorite Gallery at TCU in Fort Worth, TX (k). This is a little far for a club field trip, though I will see it as we go to Fort Worth several times a year. They have about 3000 meteorites including the only known specimen of the Kirbyville meteorite, for example.

The best meteorite pictures I have seen in print are those in the "Robert Haag Collection" book (I) and in the August 2006 *ASTRONOMY* magazine (m). Haag is located in Tucson, Arizona and has exhibits at the Tucson show. In addition, there are numerous fine Web sites with meteorite pictures that will give you as much information as you might want. (n, o, p, q) As with most Internet sites, all of these have highlighted links to take you to further information.

We have seen that meteorites are "rocks," but just from a different celestial body. Most originated in the asteroid belt between Mars and Jupiter. The bodies orbiting there vary in size from pebbles to Ceres, the largest, with a diameter about one quarter that of our moon. The largest asteroids are spherical, but most of them are irregular in shape as a result of collisions. Some are solid, some are "rubble piles" held together by mutual gravitational attraction. (r, s, t) All have a "geological history" with their present structure being a result of billions of years of accretion, melting, collisions, and alterations.

In the early universe, all was hydrogen and traces of helium. All the heavier elements

were synthesized by thermonuclear fusion in the cores of stars (u) and were dispersed into space by a variety of mechanisms, the most spectacular of which is the explosion of a massive star as a "supernova." The shock waves from the supernovas collide with and compress other gas clouds, causing them to begin collapsing to form stars. With time, the super-heated vapors cooled and solids began to form—graphite, diamonds, refractory mineral grains ("stardust"), chondrules, grains of free metal, etc. In addition, many chondrules were the result of flash heating that melted mineral grains that then cooled and resolidified. With further cooling, organic materials and water condensed onto the grains.

Subsequently the dust clouds condensed to give small solid bodies that increased in mass with the accumulation of more dust. These were continually colliding with each other, sometimes fragmenting to give (eventual) meteorites, sometimes merging to give yet larger bodies. The most primitive meteorites are the "carbonaceous chondrites" which retain the volatile materials. They are dark gray to black and contain light-colored mineral grains and millimeter sized chondrules.

As the "planetesimals" grew in size, heat from the decay of radioactive isotopes was trapped and the volatiles were baked out into the vacuum of space, leaving the mineral matter as the source of "ordinary chondrites." (Or they formed in hotter parts of the solar nebula and never had the volatiles.) If the body became large enough, internally generated heat caused the mineral grains to soften and stick together, the source of the "achondrites" (without chondrules) meteorites. If the body became large enough to completely melt, the metallic iron and nickel sank to the core (source of the iron/nickel meteorites), and the silicates became a mantle and crust, source of another group of meteorites. Finally, the stony-iron meteorites had their origin at the boundary between the core and mantle where complete separation had not taken place.

After most of the planetary bodies were in close to their present form, a period of heavy bombardment took place. This caused some rocks to be blasted into space from the surface of the moon and Mars, a few of which made it to the surface of the earth as meteorites. (v) At least one of the parent bodies from which the meteorites originated became large enough to hold liquid water, as salt crystals were found in a meteorite that was picked up immediately after impact and before being wet by rain. (w)

FOOTNOTES:

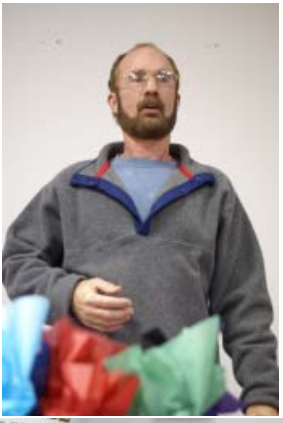
(a) Estimates for the state of Arizona: http:/meteorites.lpl.arizona.edu/falls.html and Quick Facts on area of Texas and Arizona from US Census Bureau, from //quickfacts.census.gov/qfd/states/48000.html
(b) "How to Start Your Meteorite Collection," ASTRONOMY, VOL. 34 #8, August 2006, p. 71
(c) "Party with the Perseids", ASTRONOMY, VOL. 34, #8, August 2006, p. 77
(d) http://www.meteorite.fr/en/basics/origins.htm
(e) "The Great Interplanetary Rock Swap", ASTRONOMY, VOL. 34, #8, August 2006, pp. 64–67.
(f) ASTRONOMY, VOL. 34, #8, August 2006, pp. 68, 74; also http://meteorites/lpl.arizona.edu/falls.html

(g) "Ask Astro: how can I recognize meteorites among other stones?", ASTRONOMY, VOL. 34, #8, August, 2006.00
(h) http://www.meteoritearticles.com/foundmeteorite.html
(i) http://meteorites.lpl.arizona.edu/tests.htm I
(j) http://epsc.wustl.edu/admin/resources/meteorites/realities.htm
(k) http://www.monnigmuseum.tcu.edu/news.htm
(1) **The Robert Haag** COLLECTION OF METEORITES, Private Collection Edition, Copyright 2003, Published by Robert Haag Meteorites, Tucson, Arizona
(m) ASTRONOMY, VOL. 34, #8, August 2006
(n) http://www.meteoriteman.com/
(o) http://www.meteoritehunter.com/
(p) http://epsc.wustl.edu/admin/resources/meteorites/meteorwrongs/meteorwromgs.htm
(q) http://www.seds.org/nineplanets/nine planets/meteorites.htms
(r) "Journey to an Asteroid," ASTRONOMY VOL, 34, #3, March 2006, pp. 32–35
(s) http://www.meteorite.fr/en/basics.origins.htm
(t) http://www.daviddarling.info/encyclopedia/A/asteroid.html
(u) http://www.site.uottawa.ca:432I /astronomy/ index.html
(v) "Unlocking the Solar System's Past", ASTRONOMY, VOL. 34, #8, August 2006, pp. 32-37
(w) http://www.psrd.hawaii.edu/Nov99/PurpleSalt.html for discussion of the Monahans meteorite

Photos Taken at the December 9, 2006 Christmas Party

I wasn't able to put in very many photos in the January 2007 issue due to space limitations, and I didn't have John Mitscherling's photos at that time. I now have everyone's photos, and the following photos were taken by either Matthew Phillips or John Mitscherling. The photo below is of John Mitcherling, taken by Matt Phillips.

Tony Ma, Matt Phillips with cameras, and Kathy Konkel. Photo by John Mitscherling



Right: Scott Singleton and Karen Burns

Left: Scott Singleton handing out awards to people who helped him during his presidency

Left:Social hour before the dinner. Art Smith and wife near front, Scott Singleton (standing) talking to Denise and Tim Bicknell.

Checking out the auction items before the close of the auction

Food line: Dave Hawkins, ???, Sigrid Stewart, Carole Thompson, James Wark

More food line: Steve Blyskal, Lilli Arnoni, Denise Bicknell, Scott Singleton

Beverly Mace left, ???, ???, and Karen Burns front

Margaret Hardman-Muye, Beverly Mace, ???, ???, and Dean Lagerwall

Still more food line

Let the banquet begin!

Finishing up a great banquet! Charlie Fredregill on left and Rusty and Sunday Bennett on right.

Charlie and Caroline Fredregill, and to their left is John Caldyne

Bottom: Karen Burns, Lilli Arnoni and Matt Dillon in the foreground

Above and right: Scott Singleton starting his recognition of those who helped him in his presidency. In the right-hand photo, Tom Wright and Margaret Hardman-Muye are in the foreground.

Scott Singleton presented peices of petrified wood, agate, and jasper that he polished to those whom he felt had helped him most during his presidency. From left to right: Beverly Mace, Kathy Konkel, Matt Dillon, Scott Singleton, Margaret Hardman-Muye, Steve Blyskal, Sunday Bennett (seated), Sigrid Stewart, Carole Thompson, Tom Wright, Matt Phillips, Art Smith (partially hidden), and Phyllis George

ShowTime 2007

January 24-25	Tyler, TX	East Texas Gem & Mineral Society Rose Garden Center, 420 Rose Park Dr. at Front St. (Hwy. 31) Keith Harmon, (903) 581-4068 e-mail: keithharmon@earthlink.net.
January 24-28	Quartzsite, AZ	Quartzsite Improvement Association 235 E. Ironwood Dr., Diane Abbott, (928) 927-6325; e-mail: gia@rraz.net www.quartzsiteimprovementassoc.com
February 3-4	Panama City, FL	Panama City Gem & Mineral Society American Legion Bldg, Bay Cnty. Fairgrnds 15th St. (Hwy. 98) and Sherman Ave. Al Zar, (850) 763-0109 E-mail: Aquezpie@bellsouth.net
February 8-11	Tucson, AZ	Tucson Gem & Mineral Society Tucson Convention Center, 260 S. Church Ave. (520) 818-3105; www.tgms.org
February 17-18	Plainview, TX	Hi Plains Gem & Mineral; Ollie Liner Center; Mildred Matlock, jmatlock@Texasonline.net
February 24-25	Pasadena, TX	Clear Lake Gem & Mineral Society Pasadena Convention Center 7902 Fairmont Pkwy. Al Pennington, 281-481-1591 www.ghg.net/gpenning/annual.htm
February 24-25	Jackson, MS	Mississippi Gem & Mineral Society Trade Mart Bldg., State Fairground I-55 and High Street; Betty James (601) 914-6747; mineralid@jam.rr.com
March 3-4	Corpus Christi, TX	Gulf Coast Gem & Mineral Society Al Amin Shrine Center, 2001 Suntide Rd. Jerrold Simpson (361) 851-8788 jsimpson!@stx.rr.com
March 30-April1	Macomb, IL	Mid-America Paleontology Society (MAPS) Western Hall, Western Illinois University call Gilbert 309-786-6505; Karl 319-837-6690 gilnorris@mchsi.com karstuek@iowatelecom.net
April 20-22	Marfa, TX	Chihuahuan Desert Gem & Mineral Club Am Vets Building Paul Graybeal (432) 729-4526 paulgraybeal@moonlightgemstones.com

2007		FEBRUARY				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 **Mineral Section meets on 14th**	8	9	10 **10–5 Shop Open**
11	12 **1:00 Day Light Section**	13 **7:30 Show Comm**	14 **7:30 Faceting/Mineral Sections**	15	16	17 **10–12 Youth Section 10–5 Shop Open**
18	19 **7:30 Lapidary Section**	20 **7:30 Paleo Section**	21 **7:30 Mineral Section**	22	23	24 **10–5 Shop Open**
25	26	27 **7:30 General Meeting**	28			

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

The Newsletter of the Houston Gem & Mineral Society

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