



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

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

**Volume XLVIII—No. 01**

**January 2017**



### **President's Message**

*by Paul Brandes*



**W**elcome to 2017, HGMS Members! What a 2016 we have had. During the year, we managed to add exactly 200 new members to our Society. We also received several major donations through the year, which helped add money to our accounts to provide to you, the Members. In addition, we also handed out four scholarships to local students attending college. Our Trade Shows are expanding in scope and attendance, and our Main Show in November was one of the best yet. Indeed, HGMS has truly had a marvelous year, but our work has just begun. For 2017, we have several projects in store, including updates to the Web site, continued reorganization of the Library, improvements to the Trade Shows, making the Clubhouse safer and easier to access, and prepare for the 2017 Annual Show. It may seem a bit early to start thinking about the Annual Show, but with HGMS hosting the SCFMS Annual Meeting in November, we can never start too early.

By the time you read this, a select group of members will have attended a Hill Country mineral collecting field trip. More news on this will come in the February BBG, but this makes a great segue to

**Continued on page 4**

### **Upcoming General Meeting Program**

*by Sigrid Stewart, 1st Vice President*

**J**anuary 24—**California Jade:** Presented by Steve Blyskal and Sigrid Stewart

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*Permission to use material originating in this newsletter is given freely providing that credit is given to the author and the source.*

*Every article published in the BBG is edited for grammar and content. No flaming is allowed.*

**Articles now are due on the 15th day of the month before the date on the BBG issue.**

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*Copy is due for the February 2017 issue by Sunday, January 15, 2017.*

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### Purpose of HGMS

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

Membership dues are \$40 for an adult membership, \$60 for a couple, \$75 for a family (including all children aged 5-18), \$25 for a youth membership (ages 5-18), and \$500 for an adult life membership. 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 which is 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 Web site address is <http://www.hgms.org>.

## Continued from page 1

another item I want to mention. We as a Society need more field trips! I know we are in one of the more mineralogical challenged parts of the country, but that shouldn't limit us from enjoying the hobby we love. Let's put our heads together and see what we can come up with.

My last words for 2016 are **THANK YOU!** Thank you HGMS members for a very productive year, for the hard work of our volunteers during the Annual Show and at all Society activities, for everyone else that I know I've forgotten to thank in this President's Message, and most of

all, a big thank you for being a member of HGMS. Without you, we wouldn't have a Society to enjoy.

## 2017 SCFMS ANNUAL CONVENTION

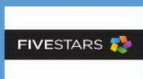
**NOVEMBER 10-12, 2017  
HUMBLE, TX  
HOUSTON G&MS  
HUMBLE CIVIC CENTER  
8233 WILL CLAYTON PKWY**



# Katy Rock Shop

Worldwide Inventory of  
Rocks, Minerals and Fossils

Fluorescent Room, Kid's Corner, Books,  
Rock Hounding Tools, Artisan Jewelry,  
Designer Showroom, Gemstone Decor



Sign up in-store or register at  
[www.fivestars.com](http://www.fivestars.com) to start earning points  
to get rewards – which means store credits!

**HGMS Members receive  
Double Points!**



535 Pin Oak Road

Katy, Texas 77494

One Block North of I-10

832-437-4733

Store Hours:  
Tuesday-Saturday 10:00-5:00

[Katyrockshop.com](http://Katyrockshop.com)



[facebook.com/KatyRockShop](https://facebook.com/KatyRockShop)

## The Great Meteorite Catastrophe in Siberia

by C. F. Meade

Related in "Chambers's Journal" April 1937

Article submitted by Fred Brueckner

I

**T**he mere magnitude of an event has a high news value nowadays, and it is therefore surprising that the biggest event of our century should have remained almost unnoticed for more than thirteen years after it happened.

Even now, comparatively few people have heard of the great meteorite which fell in the wilds of Siberia at eight o'clock in the morning of the thirtieth of June in 1908, and in England only scientific periodicals have paid serious attention to it. In fact, the district in which it came down was so remote and inaccessible that not until 1921 did the Russian government finally decide to send an expedition to investigate. And, even then, the expedition that was sent failed to reach the site.

It is indeed strange that this portent should have attracted so little attention. Barographs at Kirensk and Irkutsk had recorded a commotion at the time of the fall, and it was subsequently learned that English instruments had registered the effects of the passage of some immense projectile through space, and had reacted to the blast of air proceeding from a tremendous collision with the earth. At the same time darkness had failed over the whole of southern England, which remained as light as the north of Scotland throughout the night. Some observers also noticed clouds of dust that were carried high over north-west Europe by a wind travelling at two hundred miles an hour, and sun jets with abnormally brilliant coloring followed. It should have been evident that an astronomical phenomenon had occurred somewhere on a quite exceptional scale.

II

However, at the time, no one suspected what had happened, and only later did rumors reach civilization that in the heart of Siberia, on a hilly plateau, near a tributary of the River Yenesei, sixty degrees north and ninety degrees east, a great fireball had fallen in broad daylight. It was described as brighter than the sun.

The nearest settlement, Vanovara, was fifty miles away to the southeast. Even at that distance the concussion was terrific, windows were broken, and there was a violent panic. "All at once" as one of the spectators expressed it, "something seemed to burn my ear, and I seemed to be enveloped in flame." Another said: "After the flame disappeared, an explosion threw me off my feet for more than two yards.

"At great distances, too, at Tashkent, Tifia, Irkutsk, and Jena, earthquake shocks were reported. The passengers on the Trans-

Siberian railway, four hundred miles distant, were terror-stricken by a violent uproar, and the engine-driver stopped his train, believing that it had been derailed. The explosion was also heard at numerous points within a circle of two thousand miles diameter, the sound increasing in intensity for nearly five minutes, and a column of fire, twelve miles high, was seen from a distance of two hundred and eighty miles. At one place these signs and wonders made so deep an impression that they actually originated a new tribal religion.

### III

A second attempt to organize an expedition was made in 1927, but the difficulties were formidable. From the railway station of Taishet, reindeer sledges had to be obtained from Tungus tribesmen. Moreover, the conditions had to be exactly right before a start could be made, for it was essential that there should be plenty of good, hard snow to support the weight of the reindeer and the sledges, while at the same time, the amount of snow must not be great enough to cover up the reindeer's grazing-grounds.

When the party started, the daily temperature averaged forty degrees below zero, but the explorers' greatest difficulties were due to the peculiar habits of their guides. It seems that the Tungus divide their attentions exclusively between two preoccupations: their tea and their reindeer. The unfortunate result was that it was never possible to make a start before ten o'clock in the morning, owing to the protracted tea-drinking that went on, and when the party eventually got under way, the grazing requirements of the reindeer were so exacting that a whole day's journey seldom exceeded four or five miles. Later, the snow began to melt, and it was only possible to continue the journey by employing boats for navigating the vast swamps and flooded rivers, in which masses of ice were now beginning to disintegrate.

However, in spite of the fact that it had to turn back, the expedition succeeded in discovering the whereabouts of the site of the great crash, and learned that immense forests had been razed to the ground by reason of the tremendous atmospheric pressure. A thousand domesticated reindeer had been destroyed, but, as there were fortunately no settlements in the neighborhood, very few human beings seem to have perished.

### IV

In 1928 another expedition set out, and was more successful. Yet, even today, after still further examination of the spot, the exact nature of this prodigious event remains doubtful. Craters were discovered, but were neither very numerous nor very deep. The investigators dug down into the soil, but found nothing of a meteoric nature.

What had happened to the meteorite? Two suppositions are

conceivable: one theory is that the substance of the meteorite was reduced to dust, or else was volatilized by the ferocious heat generated; while another view assumes that the meteorite hit the earth at a tangent, glanced off again, and was lost in infinite space. A still more startling idea is that the cause of the mischief may not have been a meteor at all, but may have been a comet which came to grief here by colliding with the earth.

It is generally believed that the incandescent cloud which is usually dispersed at a great altitude as a meteor begins to lose its velocity was in this instance retained until the moment of collision. The impact of this cloud with the ground was the cause of the air being driven out on all sides with such astonishing violence.

#### V

A 1929 expedition achieved even more gratifying success, and further discoveries were made. The area of devastation was thoroughly explored, and it was found that pine trees had been felled radially round the craters to a distance of thirty-seven miles in every direction. There was also a radius of burnt forest of seven or eight miles, and in the center of the disturbed area were the mysteriously inadequate craters, like shell holes, about twelve feet deep, and of all dimensions up to fifty yards in diameter. Approximately a thousand square miles of forest had been laid waste, but with occasional variations in the destruction wrought, for here and there belts of trees had unaccountably escaped. The investigators dug down to a depth of thirty feet in the craters without discovering any iron, although the natives declared that some had been found in the neighborhood.

Various estimates have been made of the size and speed of a projectile that could effect such appalling destruction. The velocity is supposed to have been unusually great, perhaps forty-five miles a second, and the weight of the projectile or projectiles has been calculated at between twelve and a hundred and thirty stone. It has been thought that the diameter of the deadly incandescent cloud was about a mile and a quarter. The craters, it is now believed, are not merely the dents or holes made by the impetus of the meteor, but are explosion craters due to the sudden vaporization of part of the material of the meteorite and of the earth.

#### VI

We may truthfully say that throughout the world's history, no greater astronomical catastrophe than this has ever been recorded by eye-witnesses. Only one other instance is known of a similar prodigy occurring within historical times, and that is the fall of a gigantic meteorite in Arizona. But no definite record of this particular visitation has survived. We only know that, although the Siberian affair was formidable enough, the fall of the Arizona meteor—was it an asteroid—must have been on an

enormously greater scale, for the crater in Arizona is 570 feet deep, three-quarters of a mile wide, and has an area of three hundred acres. Here it was, according to the Navajo Indians, that a god came down from heaven.

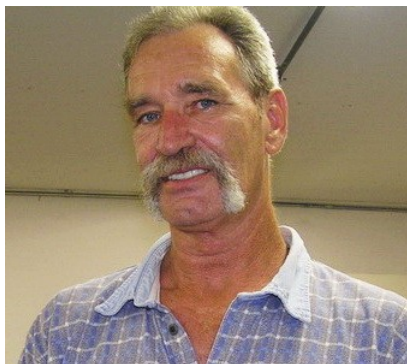
It is reassuring that such terrifying events into the sea somewhere beyond Bermuda occur rarely in the course of the world's history. If it had happened to fall on land, it yet it is a significant fact that as recently as would probably have been as destructive as in the month of February of the year 1913 the Siberian portent. At any rate, if either group of meteors similar in dimensions to that of these colossal thunder-bolts had fallen which fell in Siberia was observed travelling on London, the town would have been wiped across Canada.

### James Wark

*from Almeda News 06/2016*

*(James Wark is a long-time HGMS Member)*

James Wark is a long-time resident of Fresno/Arcola wearing many hats: Author, actor, real estate, and most intriguing was his story of survival after a stroke. His ordeal made him an international celebrity as the first person ever to be revived after being dead because he was "frozen" literally with a hypothermic blanket. When they were unplugging the last machine, an EKG, it jumped from 0 to 6, Wark said in an interview last week.



He also works with precious metals, and is a member of the Houston Gem & Mineral Society.

He told the captivating history of the property at Almeda (FM 521) and Hwy 6. The 3000 sq. ft. homestead of Arthur W. Eilers was pushed clear across Highway 521 to the other side of the railroad tracks by the flood in 1900. Mr. Eilers finally got the house pulled by horses, mules, and buggy back to its original location. Then he ingeniously planted five oak trees in a circle around his house to keep it from floating away again. The next storm tested and approved his work in 1935. Today these same oak trees are over a hundred years old and are magnificent to behold.

Mr. Wark bought the historic site which has the oldest building in Arcola, TX still operating as a tire shop. Walking through and seeing all the framework and old wooden beams gives a fascinating glimpse into the early years of Arcola.



James has agreed to contribute content for Almeda News, which promises to be as colorful and informative for Almeda News readers.

### Archaeology Section

by Nancy L. Engelhardt-Moore

**D**ecember 1, 2016: The Archaeology Section held a Holiday Party at the Clubhouse. There was a brief meeting to discuss upcoming 2017 programs and officers. Bob Moore will be the speaker for the January meeting, and he hopes to get a talk on underwater archaeology for February. It was decided that officers for next year will remain the same. Following the meeting, the group had a great time visiting, viewing artifacts, and of course eating all the delightful goodies. A great time was had by all!



The spread of delicious goodies for the party!

**January 5, 2017:** Bob Moore will give a talk entitled ***“Roman Emperor Diocletian: His Reign, Retirement, and Legacy.”*** Diocles was born of low status in Dalmatia, modern-day Croatia. He rose through the military ranks and became cavalry commander. After the death of the reigning emperor Numerian, he became Emperor in 284 AD. Diocletian set up the tetrarchy or “rule of four,” establishing two co-emperors and two junior co-emperors for the Western and Eastern Roman Empire. He was also the first Emperor to retire! Learn about his successes, failures, and legacy, and see photos of his magnificent sea-side palace!



**Late Period: Egyptian necklace & earrings.**

**First two photos by N. Engelhardt-Moore**



**Group photo of Party Participants by Aaron Clark**

**2016 HGMS Show Youth Section Cabochon Competition**

*by Beverly Mace  
Youth Section Chair*

The Houston Gem & Mineral Society Youth Section is very fortunate to have young members who really love to work in our shop. They produce some incredible cabochons, thanks to their instructor Libby Guynn. A few years ago, Libby decided that we needed a way to show off just how talented these kids are, and the best way to do that was to have a cabochon competition just like the Lapidary Section does at our annual show.

Each child's stone is judged individually, based on the Lapidary Section R.O.L.E. Program guidelines for judging. Over the years HGMS Lapidary Section members Steve Wilkerson, Edward Clay, and former member Wayne Barnett have served as judges for the competition. At the 2016 Annual Show, we had 14 youth members between the ages of six and 17 who participated in this year's competition. Their cabochons were displayed at the show and wowed everybody who viewed them. Eight entries received scores high enough to merit 1st Place ribbons, five received 2nd Place ribbons, and one received a Third Place ribbon.

Brooke Carr scored the highest. Along with her ribbon, she received a slab of Louisiana Opal. We're looking forward to seeing what she does with this slab. I suspect her proud grandmother (our own Nancy English) will be showing her how to make it into a pendant. We are very proud of Brooke and all the other participants who worked so hard to make their stones as perfect as they could. Listed below are all the competitors:

**FIRST PLACE WINNERS (in alphabetical order)**

Brooke Carr (highest score)  
Ewan Dossin  
Heather Hammen  
Patrick Kovar  
Stanley Krivik  
Aiden Moffitt  
Anika Patel  
Naomi Velasquez

**SECOND PLACE WINNERS (in alphabetical order)**

Andrew Davis  
Om Joshi  
Rocco Phillips  
Sufia Rahman  
Daniel Williams

**THIRD PLACE WINNER**

Grace Li

## HGMS Entries Submitted to the 2017 SCFMS Bulletin Editors' and Authors' Contest

by Phyllis George

HGMS Newsletter Editor

**R**ockhound newsletter editors throughout the U.S. are scouring through their 2016 newsletter issues, selecting articles and newsletters to submit to their regional 2017 Bulletin Editors and Authors Contest. The entries from HGMS are listed on the next page—page 13—along with their category. The top three SCFMS winners in each category will be forwarded to the AFMS (American Federation of Mineralogical Societies) judges. The AFMS contest results will be officially announced in Ventura, California June 11, 2017.

**This year, HGMS is hosting the SCFMS (South Central Federation of Mineral Societies) show at our 2017 show. The SCFMS contest results will be announced and certificates and plaques will be handed out during the Breakfast with the Editors and Webmasters in Humble, Texas on November 11, 2017. I'm hoping that many of the people named in the table on page 13 will attend the Breakfast to accept their certificates and possibly trophies in person. If you plan to attend, be sure to make a reservation for the breakfast and to pay for it in advance. When information about attending the breakfast is available, I'll post it in the BBG and on the Show Page on the Web site. A copy of the SCFMS ad publicizing the show can be found on page 4.**

The Breakfast starts at 8 a.m. And I'm told that Mark Nelson, Chair of the AFMS Bulletin Editors Contest, is planning to be there to personally award AFMS certificates and plaques that our members might win.

### Goldstone

*from Hill and Gully Paydirt 12/2015,*

*via The Whittier Rockhouser 01/2016, via The Tumbler 11/2016*

**G**oldstone is a type of glass made with copper or copper salts in the presence of a reducing flame. Under normal oxidative conditions, copper ions meld into the silica to produce transparent bluish-green glass; when the reduced Goldstone melt cools, the copper remains in atomic isolation and precipitates into small crystalline clusters.

The most common form of Goldstone gives the illusion of being reddish-brown, though in fact that color comes from the copper crystals—the glass itself is colorless. Some Goldstone variants have an intensely colored glass matrix... usually blue or violet, or more rarely—green.

The manufacturing process of Goldstone was discovered in the seventeenth century Venice by the Miotti family, which was granted an exclusive license by the Doge.

HGMS Entries in the 2017 SCFMS Editors and Authors Contest		
Name	Title	Month, 2016
<b>Large Bulletin</b>		
Phyllis George	The Backbender's Gazette	November & December
<b>Advanced Adult Article</b>		
John Anderson	Hazards of Mining	November
Neal Immega	A Surprise—Fluorescent Jewelry—Sodalite/Hackmanite	January
Terrell Wm. "Terry" Proctor, J.D	New Mineral Was a Blast!!!	December
Scott Singleton	Field Trip to the Miocene Fleming Formation of Jasper County, East Texas	July
<b>Adult Article</b>		
Karen Burns	You've Polished the Rock, Now What?	March
Chase Jennings	Luminescence in Fossils	December
<b>Adult Poetry</b>		
Edward Clay	Value	August
Terrell William Proctor, J.D.	Rockhounding—The Perfect Hobby	December
<b>Feature</b>		
Stephen Blyskal	Mineral Section Sponsors Mineral/Rock ID Workshop	August
Nancy Engelhardt-Moore	Archaeology Section Minutes—February 4, 2016	March
Nancy Fischer	MOHS Scale Field Testing Class at the Day Light Section	December
Neal Immega	Rock Art—Or the Joy of Watching Ice Melt	March
Michael Sommers	Why You Should Have Muscovite Mica in your Mineral Collection	July

## Buckets

*from Beehive Buzzer 03/2015, via The Tumbler 11/2016*

If you just want a couple pieces of each type of rock, those small ice-cream buckets are good and fun for the kids. But you may want something bigger for bigger things. A 5-gallon bucket is easy to fill. Or two or three. But for the smaller rocks, smaller buckets work well. Also the 1-gallon-sized baggies. A regular-sized Ziploc baggie will be plenty for the Topaz crystals. So, don't be afraid that you might bring too many.

## Board of Director's Meeting Minutes

December 6, 2016

by Nancy English

X	President—Paul Brandes		Archeology Rep—Garth Clark
X	1st Vice President—Sigrid Stewart	X	Beading Rep—Diane Sisson
X	2nd Vice President—Beverly Mace	X	Day Light Rep—Fred Brueckner
	Treasurer—Rodney Linehan	X	Faceting Rep—Gary Tober
X	Secretary—Nancy English	X	Lapidary Rep—Phyllis George
	Former President—Ray Kizer	X	Mineral Rep—Mike Sommers
			Paleontology Rep—Mike Dawkins

**P**resident Paul Brandes called the meeting to order at 7:35 p.m. A quorum was present. Non-voting members also attended: Chase Jennings—Trade Show, and Scott Singleton—Show Chair.

**President's Comments:** Everyone come to the Holiday Party.

Approval of Previous Month's Board Minutes: Phyllis George moved to accept the minutes of the November 1, 2016 BOD meeting. Sigrid Stewart seconded the motion, and it passed.

Treasurer's Report: Rodney Linehan emailed financials to all Board members in advance of the meeting.

### Office, Committee, and Section Reports

**Archeology Section:** On Thursday, December 1, 2016 the Archeology Section celebrated the Holidays with a party. The next meeting is Thursday January 5, 2017 at 7:30, program to be announced.

**Beading Section:** Saturday, meet on December 10, 2016 at 1:30 p.m., the second Saturday instead of the third Saturday of the month. Members will make little Christmas trees and finish other projects. After the meeting, the members will assist in getting the hall ready for the Holiday Party that evening. The next meeting will be January 21, 2017.

**Day Light Section:** Wednesday, December 7, 2016 at 1:00 p.m. will be the **Holiday Luncheon**: Turkey and ham will be provided by the Daylight Section, and appetizers, salads, side dishes, and desserts will be provided by the diners. Food may be brought at noon, but only appetizers will be served before 1:00. The next meeting will be January 4, 2017 at 1:00 p.m.

**Education Committee:** We are on the lookout for anyone interested in volunteering in the role as Education Chair for the HGMS. Please contact [president@hgms.org](mailto:president@hgms.org) or [publicity@hgms.org](mailto:publicity@hgms.org)

expressing your interest and a short summary of why you would like this role. In the meantime, Chase Jennings will assume some of the duties.

**Gemstones & Faceting Section:** Wednesday, December 14 at 6:30–8:30 p.m. will be the Section's Holiday Party at Xin Jiang BBQ. Everyone is welcome. The next meeting will be January 11, 2017.

**Library Committee:** Our Librarian will be coming to work on the library on Wednesdays over the holiday school break. She plans to come twice per month in the new year.

**Lapidary and Silversmithing:** Monday, December 19, no meeting. Happy Holidays. The next meeting will be on January 16, 2017 at 7:30. Program to be announced.

**Mineral Section:** Wednesday, December 7 at 7:30 p.m. Program to be announced. On December 17, there will be an offsite holiday party by invitation only.

**Paleo Section:** Tuesday, December 20, 2016. Program will be How to identify Ammonites using the Paleo Publication on Ammonites. If you have an unknown specimen, bring it. Next meeting is on January 17, 2017.

**Publicity Committee:** Chase Jennings presented results of his Dealer Survey from the 2016 Annual Show. Overall the dealers are very happy with their sales. The initial publicity about the next Trade Show resulted in 200 people declaring that they are coming.

**Shop Report:** Science Olympiad – Neal Immega gave his second class on rocks and minerals for students on December 3 from 1:00 to 4:00. Everyone enjoyed the class.

**Youth Section:** The last meeting of 2016 was on December 3. Awards were given for the cabochon entries at the Annual Show. Pizza, salad, and desserts were served. All the children received goody bags with candy and rocks. There will not be a meeting on December 17. The next meetings are on January 7, 2017 and January 21, 2017

**BBG Editor and Webmaster:** Phyllis George has received photos of the Show and will post them on the Web site. It is time to choose articles for the 2017 SCFMS annual contest, so she will be selecting articles from the 2016 BBGs. The deadline to send in articles and other pertinent information for inclusion in the January 2017 BBG is December 15, 2016. President Brandes reminded Board members to have Section Chairmen send program information to Phyllis George a month prior to the meeting and reminders to Jim Kendall for the weekly e-blast.

## Old Business

### 1. Show Committee 2016:

- a. Scott Singleton reported on the high points of the Show.

Attendance from paying patrons through the front door totaled 3,137. This is consistent with records going back to 2012. Additionally, 1650 children and 620 adults came on Friday for the School Daze projects. So, over 5000 people attended during the three days of the Show.

The Rolling Rock Club raised \$475.00 at their Sunday morning auction. They donated the money to the HGMS Scholarship Fund. Melanie Boarer won the Grand Door Prize Montana Sapphire Pendant and Earrings valued at \$1200, donated by SapphiresOfMontana.com.

- b. The final Show budget and actual expenses will be available for the January 3, 2017 Board meeting.
  - c. **Nancy English** reported that the Volunteers were highly complimented on their performance during the Show. On November 19, thirty-three Volunteers enjoyed the Thank-you party at Nancy English's home.
2. **Show Committee 2017:** Scott Singleton will be the Show Chair, and Sigrid Stewart and Clyde McMeans will be Co-Chairs. Shiara Trumble will be the SCFMS/HGMS Liaison for the combined show.
  - a. The second weekend in November has been reserved at the Humble Civic Center for the HGMS Show for the next two years.
  - b. All the committees that need to be in operation are ready to go.
3. **Scholarship Committee:** Mike Sommers agreed to be on the Scholarship Committee. With volunteers Kathrine Kelly and Mary Ann Mitscherling, the committee is complete. Nancy English sent all of them the notes on the Scholarship program and the contact lists on December 6, 2016.
4. **HGMS Annual Holiday Party and Auction:** Saturday, December 10, 2016. Dinner will start at 6:00 p.m., so plan to bring food around 5:30-ish. Diane Sisson will cook the turkeys. Beverly Mace will bring the ham. Neal Immega will bring the brisket. The Auction starts at 7:00 p.m. Because of the generous Auction donations received this year, we do not need more for the Holiday Auction.
5. **Building Safety:** No report was available
6. **Hill Country Field Trip:** Rescheduled to January 14 and 15, 2017, Martin Luther King weekend. Details will be in the weekly e-blast on Sunday December 11, 2016. On Saturday, rock hounds will go to Emerald Ridge, on Sunday to Cole Creek.



7. **Code of Conduct:** Fred Brueckner presented his first draft of the code of conduct. The Board discussed it. Mike Sommers agreed to make some changes and additions that the BOD wants and email those to the BOD members.
8. **Future Trade Shows:** The Trade Show Committee met Monday December 5, 2016. Fred Brueckner presented the new floor plan and asked the BOD to agree to registering dealers for the January 28, 2017 Trade Show. The BOD agreed.
9. **Recording General Meeting Programs:** John Mitscherling suggested that recordings of the General Meeting programs be posted on U-Tube. Phyllis George recommended that Chase Jennings conduct those recordings and postings. The Board will revisit these ideas in January.

### New Business

1. **New Web site Committee:** Scott Singleton requested that a new committee be formed to create a more functional and flexible Web site. Gary Tober moved that a Web site committee be formed. Mike Sommers seconded the motion and it passed. The committee original members will be Scott Singleton, Chase Jennings, and Phyllis George. Phyllis will post a request for more members of the committee in the Kendall weekly e-blast. They will need to be knowledgeable in Web design.
2. **Next Board of Director's meeting:** January 3, 2017, 7:30 p.m.
3. **Next General Meeting:** January 24, 2017 at 7:30 p.m.

**Adjourn:** Sigrid Stewart moved to adjourn. Diane Sisson seconded, and the motion passed. The meeting adjourned at 9:45 p.m.

### How Do You Become a Rockhound?

*from The Slate, 12/2016*

**B**uy a large bag of marbles and carry it with you whenever you go looking for rocks. Every time you pick up a rock and put it in your pocket, take out one of the marbles from the bag and throw it over your left shoulder.

Any time you see one of your marbles, pick it up along with the rock nearest to it—the rock goes in your pocket, the marble into the marble bag.

When you have finally lost all of your marbles, you are a rockhound!

## Bench Tips

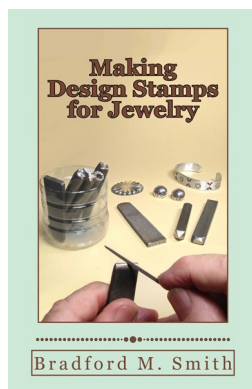
by Brad Smith

See all Brad's jewelry books at [Amazon.com/author/BradfordSmith](http://Amazon.com/author/BradfordSmith)  
[www.BradSmithJewelry.com](http://www.BradSmithJewelry.com)



nnouncing Brad's latest jewelry techniques book for those who like Southwest-style stamped jewelry:

**"Making Design Stamps for Jewelry"** covers the step-by-step process of selecting best steels, carving the design, hardening the steel, and tempering the completed stamp to ensure a long service life. It describes the tools to use, gives examples of how to make several design stamps, and 78 close-up photos illustrate the important details. Both Kindle and paperback editions are on Amazon at <http://amzn.to/2fvf58T>



## LOOSE HEADS

Flying off the handle is never good, particularly if it's a hammer head. The traditional way to tighten a loose hammer head is a bit of work with wedges, but if the head is basically secure, there's a fast and easy way to tighten a loose head for about 50 cents—superglue.

Simply put a couple drops in from the handle side, let it set up, and then a few drops from the top side.

Be sure to get the thin super glue, not gel. It penetrates better. Packages of two superglues are usually available at the 99 cent store.

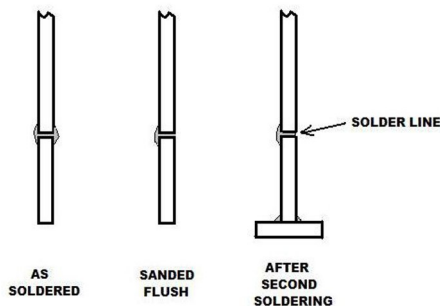


Note that this is only a safe practice if the hammer head is just a little loose but is basically secured onto the handle. Gluing is not a fix for a hammer head that has come off the handle or is at risk of coming off.

## AVOIDING SOLDER LINES

After finishing a soldered joint on, say, a bezel, have you ever seen it reappear after you've soldered the bezel to a base plate? What's happening is that every time you heat a soldered piece to the temperature where solder flows, the liquid solder seeps a little more into the surrounding metal. This leaves a small furrow where

Get last-minute news about club events by sending a note to Jim Kendall at [kendal\\_ja@yahoo.com](mailto:kendal_ja@yahoo.com)



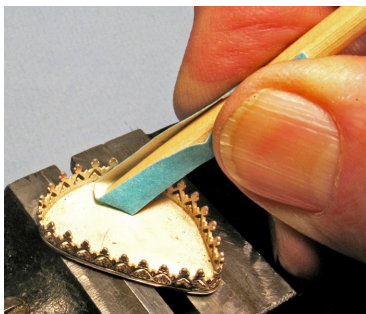
the solder had been sanded off flush at the joint. To get rid of the furrow, you have to re-sand the joint area down to the bottom of the furrow.

To avoid this when I have another soldering operation to follow, I try to leave a little extra solder on my joints. For instance, when trimming off excess base plate from around a bezel, I leave a paper thickness of excess plate material whenever possible until I'm done with all soldering.

Of course, this isn't always possible when a soldering operation will prevent you from gaining access to an area for that final sanding and polishing. Coating the finished solder joint with ochre seems to help a bit but is not a complete solution.

### SANDING/POLISHING IN TIGHT PLACES

Often you'll need to sand or polish an area that's impossible to reach with even a small wheel on a flexshaft. Other times it might be the bottom of a pocket or inside bottom corner of a box that needs to be finished. One trick for these nit-picky jobs may be left over from your last Chinese dinner—a chopstick.



I've found quite a few uses for these in the shop. Prepare the tip by simply sawing it off at a 45-degree angle. Then apply whatever abrasive grit you will need for the job or hold a strip of sandpaper around the end. Loose grit can be held onto the tip with a bit of Vaseline or oil. Tripoli or rouge can be just rubbed onto the end of the chopstick.

### OCHRE APPLICATOR

Yellow ochre is used when you want to be sure the solder won't

flow on an area of your piece while you're soldering another area. The only problem with ochre is coming up with a good way to store and apply it.

I use recycled nail polish bottles. They seal well and have a built-in brush applicator. Just clean them out with a little acetone or nail polish remover, and they're ready to go.



### How Do They Get That Color?

*from The Michigan Mineralogical Society via Stonechipper 12/2016*

**A**ccording to artist David Patchen, "Multiple colors within a single object increase the difficulty of production, as glasses of different colors have different chemical and physical properties when molten."

Color is a striking property of a glass object. It can also be one of the most interesting and beautiful properties. Color sometimes defines the usefulness of a glass object, but it almost defines its desirability. The earliest people who worked with glass had no control over its color. Only through accident and experimentation did glassmakers learn that adding certain substances to the glass melt would produce spectacular colors in the finished product when it cooled. Other substances were discovered that, when added to the melt, would remove color from the finished project.



**Photo by David Patchen,  
CC BY-SA 3.0**

The Egyptians and Mesopotamians both became expert at the production of colored glass. In the eighth century, a Persian chemist, Abu Musa Jabir ibn Hayan, often known simply as "Geber," recorded dozens of formulas for the production of glass in specific colors. Geber is often known as the "father of chemistry." He realized that the oxides of metals were the key ingredients for coloring glass.

The recipe for producing colored glass usually involves the addition

of a metal to the glass. This is often accomplished by adding some powdered oxide, sulfide, or other compound of that metal to the glass while it is molten. The table below lists some of the coloring agents of glass and the colors they produce. Manganese dioxide and sodium nitrate are also listed. They are decoloring agents—materials that neutralize the impact of impurities in the glass.

### Widely Known Glass Colors—

Some colors of glass are widely known. Perhaps the (best) example of this is “cobalt blue” that is produced by adding cobalt oxide to the glass melt. “Vaseline glass” is a fluorescent yellow-green glass that contains small amounts of uranium oxide.

“Ruby gold” and “cranberry glass” are red glasses produced by the addition of gold. “Selenium ruby” is a red color caused by the addition of selenium oxide, and “Egyptian blue” is produced by the addition of copper. Many of the elements used to produce the colors in glass can also be found in nature, creating the colors of different minerals and their distinctive properties.

### Metals Used to Impart Color to Glass--

Cadmium Sulfide .....	Yellow
Gold Chloride.....	Red
Cobalt Oxide .....	Blue-Violet
Manganese Dioxide .....	Purple
Nickel Oxide .....	Violet
Sulfur .....	Yellow-Amber
Chromic Oxide .....	Emerald Green
Uranium Oxide.....	Fluorescent Yellow, Green
Iron Oxide .....	Greens and Browns
Selenium Oxide .....	Reds
Carbon Oxides .....	Amber Brown
Antimony Oxides .....	White
Copper Compounds .....	Blue, Green, Red
Tin Compounds .....	White
Lead Compounds .....	Yellow
Manganese Dioxide .....	A decoloring agent
Sodium Nitrate .....	A decoloring agent

**Vintage cranberry glass bowl.** Gold in concentrations smaller than .001% produces a less intense red than “ruby gold.” It is often marketed as cranberry glass.

from Wikipedia

Photo by Flickr user Petit Poulailler



# Turquoise

by John Bennett  
from Gritty Greetings 11/2016

**A**round 2000 years ago, the Persians (today they are known as Iranians) named turquoise "*pirouzeh*" which means "victory." In the mid-17<sup>th</sup> century, the word turquoise was derived from the French word "*turques*" for "Turks" because, when the mineral was first brought to Europe, it was brought by traders that passed through Turkey.



**Waxed Turquoise Nodule**

Turquoise, as the name implies, is normally a bluish color but specimens can range from various shades of blue through yellowish-green or even a bleached white. Its blue color is due to its copper content. The more copper in the turquoise, the darker the blue will be. Green colored turquoise is generally due to either iron impurities or dehydration. Turquoise, with its hardness of 5 to 6, is a stone that is durable enough for use in jewelry, while also being soft enough for intricate carving. It has a waxy to sub-vitreous luster so a freshly-excavated specimen could easily look and feel polished. Most turquoise is opaque, but very thin slices can be semi-translucent. Turquoise will occasionally fluoresce green, yellow, or blue under a long-wave



**Turquoise Nodule with Copper**

ultraviolet light. Short-wave UV light and X-rays have no visible effect on it. Turquoise will leave a bluish-white streak so it is best seen on a dark streak plate. Turquoise samples might also contain tiny flecks of pyrite or dark veins of limonite. There are even reports of turquoise stalactites. Turquoise will sometimes change color as a reaction to direct sunlight (or even ultra-violet lights), or as a



reaction with cologne and natural skin oil combinations. Although it could take quite a while for the stone to whiten noticeably, taking proper care of your turquoise jewelry will extend the life of its color.

Turquoise has been used as an ornamental stone for many thousands of years. It was one of the first gems to actually be mined. China has been producing turquoise for over 3,000 years. The explorer Marco Polo noted having found turquoise in what is now Sichuan. Iran has been a major supplier of turquoise for at least 2,000 years. Vibrant blue turquoise was used on the domes of Persian palaces because it represented heaven on earth. The finest turquoise in the world came from Persia. You will still occasionally hear mineral dealers refer to their better pieces of turquoise as "*Persian Turquoise*." The majority of the world's quality turquoise comes from the United States now.

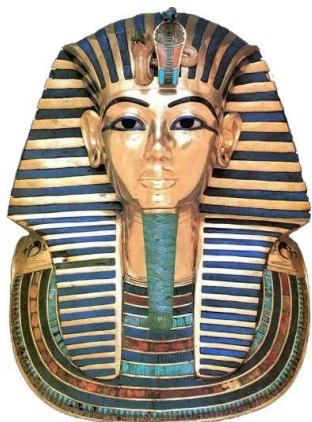
Several mines that still produce turquoise are in the state of Arizona, the Kingman Mine being the best known. Modern day miners are finding pre-Colombian Native American mining tools in mines in California. Although most of the commercial mining of turquoise was in New Mexico in the 1920s, there is still a lot of turquoise to be found. Nevada became the major producer of turquoise in the 1930s, and they are still producing some of the finest quality turquoise.

The cost to buy turquoise has recently gone down. This is mainly due to the relative ease of creating imitation turquoise. The Ancient Egyptians were probably the first to make fake turquoise. They had glazed earthenware items that they passed off as turquoise. Today you are more likely to encounter dyed howlite or magnesite. Reconstituted or block turquoise, where small bits of turquoise are mixed with chemical bonding agents and pressed into blocks, is also very common.

## Turquoise in History

Turquoise has been prized for thousands of years for its use as a holy stone and a stone of fortune and luck. In Egypt, French archaeologists discovered funerary items with turquoise inlays that have been dated to over 5000 years old. The French excavated Egypt from the mid-19<sup>th</sup> century through the early 20<sup>th</sup> century. These excavations included King Tutankhamun's tomb where they found the Pharaoh's burial mask with its multitudinous turquoise inlays.

The Persians have used turquoise as decoration many thousands of years. From a small stone in a ring to the inlaid walls of a mosque, the Persians used turquoise of the finest



**Burial Mask of King  
Tutankhamun**

quality, worked by the most skilled craftsmen. The term, "*Persian Turquoise*" is still used to refer to the most prized specimens. The Persian style of working turquoise was eventually introduced to India. The Indians added turquoise to their high gold content jewelry. They even used it in the construction of the Taj Mahal.

Turquoise has long been sacred to the Zuni and Pueblo tribes of the Southwestern United States. The Zuni believed that turquoise would protect them from demons. The early Aztec and Maya considered turquoise to be

an important stone.

The Aztecs used inlaid turquoise, coral, gold, jet, malachite, quartz, and shells in mosaic items such as knives, masks, and shields. The Apaches believed that if a man went to the end of the rainbow, he could find a bit of turquoise that he could affix to his bow. If an arrow were fired from a bow adorned this way, it would streak from the bow straight to its mark. Navajo Shamans would throw turquoise into a river while praying to the rain god in order to bring the seasonal rains. In the middle of the 19<sup>th</sup> century, the American West saw a rise in the popularity of turquoise jewelry. American cowboys had to have their silver buckle with inset turquoise stone. Turquoise became a popular item of trade.



**Rough Turquoise Slab (Bisbee, AZ)**

## Mystical Properties of Turquoise

Many cultures have identified turquoise as a stone of protection. It is especially good for those involved in law enforcement. When you are travelling, turquoise will protect you and your possessions from thieves and attacks. It helps to prevent accidents, especially falls. Turquoise has been recognized as having the power to protect horse riders from



injury due to falls. Turquoise was worn as amulets by Turkish soldiers for protection against falls of any kind.

Turquoise can be worn as a talisman for luck. It also aids in creativity. Turquoise uses the energy of stillness, quiet strength, and purification. It is said to embody your unrealized potential. It brings hope, discovery, and balance.



**Reconstituted Turquoise  
Cabochon**

Having a piece of turquoise in your pocket is supposed to be good for exhaustion, depression, and panic attacks. It also helps to stabilize mood swings. Turquoise will also enhance your immune system. It aids digestion and helps to prevent viral infections. It reduces swelling and alleviates impurities in your circulatory system. Turquoise can help relieve gout and rheumatism. Turquoise helps with problems of the brain, ears, eyes, and throat. It is especially helpful for cataracts and migraine headaches. Turquoise is also useful in healing lung disorders and reducing the effects of allergies.

Turquoise dispels negative energy. It heals and cleanses your energy centers and physical body. Turquoise is a stone of "earth-grounding" and prevents you from losing contact with your conscious mind during meditation. It boosts your strength and protects you during astral travel.

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## Show Time 2017

- January 21-22 Fredericksburg, TX Fredericksburg Rockhounds  
Lady Bird Johnson Park; The Pavilion  
[gedeonjim1@gmail.com](mailto:gedeonjim1@gmail.com)  
[tgabrish@gmail.com](mailto:tgabrish@gmail.com); [www.OMGS.org](http://www.OMGS.org)
- January 27-29 Tyler, TX East Texas Gem & Mineral Society  
Rose Garden Center; 420 Rose Park Dr.  
[keithharmon19@yahoo.com](mailto:keithharmon19@yahoo.com); [etgms.com](http://etgms.com)
- Jan. 28-Feb. 12 Tucson, AZ Tucson Gem & Mineral Shows  
Composed of over 40 shows at dozens of locations around town  
Tucson Gem & Mineral Society has their own show. [tgms@tgms.org](mailto:tgms@tgms.org); [www.tgms.org](http://www.tgms.org)
- February 18-19 Georgetown, TX Williamson County Gem & Mineral Society  
San Gabriel Park
- February 25-26 Pasadena, TX Clear Lake Gem & Mineral Society  
Pasadena Convention Center  
7902 Fairmont Parkway  
[temp3@mflan.com](mailto:temp3@mflan.com); [www.clgms.org](http://www.clgms.org)
- February 25-26 Plainview, TX Hi-Plains Gem & Mineral Society  
Ollie Liner Center
- March 4-5 Big Spring, TX Big Spring Prospectors Club  
Howard County fair Barn; Rodeo Grounds  
[lolabellelamb@yahoo.com](mailto:lolabellelamb@yahoo.com)
- March 4-5 Robstown, TX Gulf Coast Gem & Mineral Society  
Regional Fairgrounds
- March 11-12 San Antonio, TX Southwest Gem & Mineral Society  
San Antonio Event Center, 811 Meadow Leaf Dr.  
[krbotx@gvtc.com](mailto:krbotx@gvtc.com); [swgemandmineral.org](http://swgemandmineral.org)
- April 8-9 Abilene, TX Central Texas Gem & Mineral Society  
Abilene Civic Center; 1100 N. 6th St.  
[kmcdaniel23@suddenlink.net](mailto:kmcdaniel23@suddenlink.net)  
<http://www.new.calichetimes.com>
- April 15-16 Alpine, TX Chihuahua Gem & Mineral Society  
Alpine Civic Center
- May 6-7 Lubbock, TX Lubbock Gem & Mineral Society  
Lubbock Memorial Civic Center  
1501 Mac Davis Lane  
[walt@lubbockgemandmineral.org](mailto:walt@lubbockgemandmineral.org)  
[www.lubbockgemandmineral.org](http://www.lubbockgemandmineral.org)
- October 13-15 Mount Ida, AR Mount Ida Area Chamber of Commerce  
30th Annual Quartz, Quiltz, and Craftz Festival  
Montgomery County Fairgrounds  
Fairgrounds Rd.  
[director@mtidachamber.com](mailto:director@mtidachamber.com)  
[www.mtidachamber.com](http://www.mtidachamber.com)
- Nov. 10-12 Humble, TX Houston G&MS hosting SCFMS Annual Show  
Humble Civic Center, 8233 Will Clayton Pkwy.  
5 miles east of Bush Intercontinental Airport  
1 mile east of Hwy. 59  
[www.hgms.org](http://www.hgms.org); [showchair@hgms.org](mailto:showchair@hgms.org)

2017		January				2017	
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1 New Year's Day	2	3 7:30 Board Meeting	4 10-3 Shop Open 1:00-3:00 Day Light Section 7:30-Mineral Section	5 7:30 Archeology Section	6	7 10-5 Shop Open 10-Noon Youth Section	
8 10-4 Shop Open	9	10 NO Show Committee	11 10-3 Shop Open 6:30 Gemstones & Faceting Section	12	13	14 10-5 Shop Open	
15 10-4 Shop Open	16 7:30 Lapidary Section Martin Luther King Day	17 7:30 Paleo Section	18 10-3 Shop Open 7:30-Mineral Section	19	20	21 10-5 Shop Open 10-Noon Youth Section 1:30 Beading Section	
22 10-4 Shop Open	23	24 7:30 General Meeting	25 10-3 Shop Open	26	27	28 10-5 Shop Open	
29 10-4 Shop Open	30	31					

2017		February				2017	
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
			1 10-3 Shop Open 1:00-3:00 Day Light Section 7:30-Mineral Section	2 7:30 Archeology Section	3	4 10-5 Shop Open 10-Noon Youth Section	
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26 10-4 Shop Open	27	28 7:30 General Meeting					

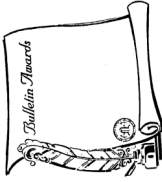
# The BACKBENDER'S GAZETTE

The Newsletter of the  
Houston Gem & Mineral Society

10805 Brooklet

Houston, Texas 77099

(281) 530-0942



## SCFMS

1998 - 1st (Large)  
2000 - 1st (Large)  
2003 - 1st (Large)  
2005 - 1st (Large)  
2006-2012 - 1st (Large)  
2013 - 1st (Large)  
2014 - 1st (Large)  
2015 - 1st (Large)  
2016 - 1st (Large)

## AFMS

1998 - 2nd (Large)  
2004 - 3rd (Large)  
2007 - 1st (Large)  
2010 - 2nd (Large)  
2012 - 3rd (Large)  
2013 - 3rd (Large)



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