



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

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

**Volume XLIII - No. 12**

**December 2012**



## **President's Message**

*by Charlie Fredregill*

I am writing this, my final message, in the midst of our annual show. So far, the show seems to be going well. The dealers that I have talked to are making sales and are fairly happy. Without happy dealers, we will not have a show. And speaking of dealers, we have a largely forgotten hero among us—Richard (Rick) Rexroad, our Dealer Chairman. Without his hard work, we would not have had much of a show. Not only did he work with the dealers, he was in the thick of things all during the show setup. And for you Wednesday shop people, Rick has volunteered many times to come in and make sure that the club house is open for your use. The next time you see him, give him a special thanks for all the things he has done for the club.



Although club members working the show noticed a few rough edges, the dealers and the attendees did not seem to notice. Hospitality ran very smoothly and came in under budget. The lunch ticket system worked well—and I didn't hear any objections to the way it was handled. But this does bring up a point. The show needed more volunteers. With our membership approaching 600, it should have been easy to get more people involved.

Still, this was part of the rough edge that the club show volunteers noticed and was

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*Continued on page 4*

## **General Meeting Programs**

*by Bill Moore*

**N**ovember 27, 2012: **Steve Blyskal Presents**—He will speak about his trip to Calgary, the Rockies, and to Drumheller, home of the Tyrrell Museum of Paleontology.

**December 8, 2012: Christmas/Holiday Party:** Details to be e-mailed.

**December 25, 2012: Christmas Day** No General Meeting

Contents

President’s Message ..... 1

General Meeting Programs ..... 1

Purpose of HGMS ..... 3

Paddles Flying at the Show Committee October Auction ..... 4

The Old Geezer (Final Submission to BBG) ..... 6

Beading Section Learns Kumihimo Braiding ..... 14

Archaeology Section ..... 15

Day Light Section ..... 16

Show Hospitality Survived Thanks to Clyde McMeans ..... 16

Upcoming Mineral Section Programs ..... 16

General Meeting Minutes ..... 17

Cyanoacrylate (Super Glue) ..... 18

Board of Director’s Meeting Minutes ..... 19

Bench Tips ..... 21

Cabochon Polishing Problems ..... 22

Santa’s Surprise ..... 23

Dinosaur Feathers in Amber? ..... 24

The Iridescent Gem of the Quartz Family--Fire Agate ..... 25

Show Time 2012 - 2013 ..... 26

Calendars ..... 27

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

*Editor: Phyllis B. George  
22407 Park Point Drive  
Katy, TX 77450-5852  
Phone: (281) 395-3087  
Copy is due for the January 2013 issue by Wednesday, December 5, 2012.  
E-mail the Editor and Webmaster at  
pgeorge4@comcast.net*

## **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>.

## *President's Message continued from page 1*

not noticed by the dealers or attendees.

Speaking of volunteers, several years ago I trained a group to take over the casting demonstration. Well, it's time for me to train a new group.

Again, this is a call for volunteers. However, those lucky enough to take on this duty will get an in-depth training that we can't offer in a regular class. There will be some expense (and most definitely for the casting metal) but trainees will explore the art and science of casting that we just can't cover in a regular class. Let me know if you want to do this.

So, this is my farewell message as your president. It's been quite a trip for me. I have enjoyed being your president—even the headache parts of the job. And I will still look forward to seeing you on Saturdays and Wednesdays as usual.

### **Paddles Flying at the Show Committee October Auction**

*Article and Photos by Deidre D. Prince*

Paddles were flying high at the HGMS Show Committee's Auction at the clubhouse on Saturday, October 20. Starting at around 5:00 p.m., around 50 members and guests came by the clubhouse to enjoy salad, pizza, and desserts as well as to get a preview of what seemed to be hundreds of auction items ranging from polishing materials to pearl strands to pseudomorphs to paleontology games (yes, apparently they exist) and much more.

As 6 o'clock approached, attendees polished off their pizza, penned their lists of "bid-worthy" items, picked up their paddles, and pounced into action (or is that auction?).

At 6:00 p.m., Steve Blyskal, Sigrid Stewart, and Chris Peek became adept auctioneers, taking turns on the various sides of the room and lending their expertise to describing the items at hand. Several members helped to distribute items while Theresa Peek kept track of the winning bids.

The evening seemed to move quickly, despite the numerous items and some spirited bidding exchanges. Items sold for anywhere from \$1 to more than \$50.

The auction was successful in its mission to raise money to go to the show profits and help offset show expenses. While the Show Committee provided salad and pizza, many thanks go to the volunteers and to those who brought the delicious desserts. Kudos as well to the Lapidary Section which donated about half the items and split the proceeds with the show after the donor of many of the items is compensated.



Burton Dworsky is all smiles with his new acquisition.



Left: Chris Peek piques the interest of the group



Right: Neal Immega gives an auction item a close inspection.



Volunteers David Hawkins and Burton Dworsky at the HGMS booth at the Intergem show held at Reliant Park on October 26-28.



Rockhound sees no "paws" in the spirited auction activity



Left: Steve Blyskal, ably assisted by Sigrid Stewart, auctions off mineral rough.

## The Old Geezer

by John Emerson

*Editor's Note: The following is John Emerson's final submission to the BBG. John has been submitting monthly articles for the past three years, and he is ready to retire. The following several pages are from the Oyster Notebook that he and his wife assembled for publication prior to his wife's death.*



Carina. Prominent keel-like ridge.

Chomata. Collective term for small tooth-like projections along valve margins.

Commisure. Line of junction of two valves.



Commisural shelf. Outer shelf-like area adjoining commissure.



Convexity or Width. Degree of inflation.



Costa (pl. Costae) or Rib (ribs). Moderately broad and prominent elevation.

Fold. Broad undulation of surface that may be radial or follow along margin outline.



Imbricate. Overlapping, like roof shingles.



Keel. Projecting ridge.

Lamella (pl. lamellae). Thin plate.

Ligamental area. Growth track of ligament between umbo and ligament.

Resilifer. Attachment place of inner ligament layer and its growth track on ligamental area.

Ruga (pl. rugae). Irregular wrinkle, more pronounced than growth line.

Squame. Long, thin scaly imbrications parallel to growth lines.

Stria. (pl. striae). Narrow raised line on shell surface.



Sulcus. Radial depression.



Umbo. Region surrounding maximum curvature of dorsal profile extending to beak. Many authors treat beak and umbo as synonymous.

Variable. A common term in oyster descriptions and is one of the most difficult to be applied. Oysters are renown for their variability, although certain features remain constant. Your good judgement is the solution.



Width or Convexity. Degree of inflation.



## Superfamily OSTREACEA

Tables 1 and 2 present comparisons of Gryphaedae and Ostreidae characteristics. They can be useful to focus the search for identification.

Table 1. Families Gryphaedae and Ostreidae Comparisons

Characteristics	Gryphaedae	Ostreidae
No pallial line	✓	✓
Larval shell, thin lamellae	✓	✓
LV cemented to substratum *	✓	✓
Inequivalve	✓	✓
Toothless	✓	✓
Shape highly equal to subequal	✓	✓
No chambers (Exogyra exception)	✓	✓
Prismatic shell layer present**	✓	✓
LV radial posterior groove (absent or deep to obscure)	✓	
LV radial posterior groove absent		✓
LV umbonal very shallow (Exogyra exception)	✓	
LV umbonal cavity is absent, shallow or deep		✓
Adductor muscle impression orbicular, closer to hinge than to opposite margin	✓	
Adductor muscle impression reniform or crescentic, nearly central or closer to opposite margin than to hinge		✓
<u>Most</u> genera never form true reefs	✓	
<u>Most</u> genera form true reefs		✓

\*Rare exceptions

\*\*Some exceptions

Table 2. Subfamily Characteristics in Subfamilies Pycnodontinae, Exogyrinae, Ostreinae and Lophinae Comparisons

Characteristics	Pycnodontinae	Exogyrinae	Ostreinae	Lophinae
Adductor muscle impression (orbicular or elliptical)	✓	✓		
Adductor muscle impression (reniform or crescentric)			✓	✓
Attachment scar (small to large. <i>Ilymatogyra arietina</i> exception)	✓	✓	✓	✓
Ligamental area has 3 well developed subdivisions			✓	✓
Ligamental area modified so that 1 of 3 subdivision is reduced or suppressed			✓	✓
Commissural shelf is wide		✓		
Commissural shelf is non-plicate			✓	
Commissural shelf is plicate				✓
Chomata is present	✓			
Chomata is present or absent		✓	✓	
Chomata is never present				✓

### Study Sheets

The beginning of our oyster notebook concentrated on the specimens in our collection. The more information we reviewed and studied the wider our interest became. Questions like, "what else is out there?, where is it?, what does it look like? keep coming up. As references and information accumulated, organization became necessary; a plan evolved. Each specimen's page 1 has identification photo, information, synonymy, references and descriptions. Descriptions are in an outline form covering outstanding characteristics.



FAMILY Gryphaeidae  
 SUBFAMILY Exogyrinae  
 GENUS *Exogyra* (*Exogyra*)  
 SPECIES *ponderosa*  
*erraticostata*

UPPER CRETACEOUS, GULF SERIES

GROUP: Austin

FORMATION: Austin Chalk

COUNTIES: Caldwell, Ellis,

Maverick, Travis

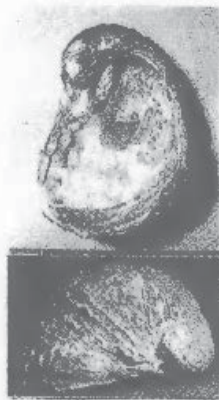
FORMATION: Brownstown marl

COUNTY: Lamar

GROUP: Taylor

FORMATION: Pecan Gap

COUNTY: Presidio



MM Scales

#### ATTRIBUTES

Size: Large.

Valve comparison: Inequivalve.

Outline (shape): Elongated oval; uppermost LV spirally coiled within margin.

Beak: Usually small; regular costae extend less than 1" then merge with irregular costae.

Attachment scar: Occurs close to beak and often distorts beak.

Umboal cavity: Deep.

Umbo: Convex; covered with small regularly arranged costae.

Width or convexity: Ratio of convexity to height is about 50%.

Adductor muscle impression: Orbicular.

Radial posterior groove: Absent.



#### *Exogyra* (*Exogyra*) *ponderosa* *erraticostata*

Stephenson, 1914

1914 *Exogyra ponderosa* var.  
*ponderosa* Stephenson

[Stephenson, L.W., 1914: p. 49,  
 pl. 15, fig. 4; pl. 16, figs. 1  
 and 2]

1963 *Exogyra ponderosa*  
*erraticostata* Stephenson  
 [Young, R., 1963: p. 129, pl. 77,  
 fig. 6; pl. 78, figs. 1 and 8; p.  
 79, fig. 4]

1996 *Exogyra* (*Exogyra*)  
*ponderosa erraticostata*  
 Stephenson  
 [Elder, W.P., 1996: p. 257, figs.  
 5.2, 5.5 and 5.11]

See Also: Adkins, W.S., 1928, p. 131. Stensel,  
 E.B., 1959, p. 17; 1971, p. W983, Fig. J24, J25  
 and J26.

Ligamental area: Hinge with deeply  
 impressed and broad groove.

Commissural shelf: Wide.

Chomata: Chomata occurs on some  
*Exogyra*.

LV Surface features: Radiating,  
 raised costae are more or less  
 well-defined costae and vary in  
 size, shape and distribution.  
 Costae extend 3" to 5" back from  
 beak weakening in direction of  
 margin. On larger specimens faint  
 or no costae in margin area. Great  
 variation occurs in *Exogyra*  
*ponderosa*; a suite of specimens may  
 determine species accurately.

Get last-minute news about club events by sending a note to Neal Immega at  
[n\\_immune@swbell.net](mailto:n_immune@swbell.net).

FAMILY Ostreidae  
 SUBFAMILY Lophinae  
 GENUS *Lopha*  
 SPECIES *subovata*

LOWER CRETACEOUS, COMANCHE SERIES

GROUP: Fredericksburg

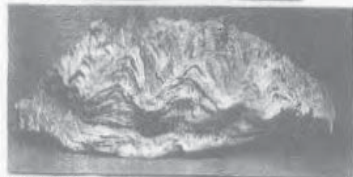
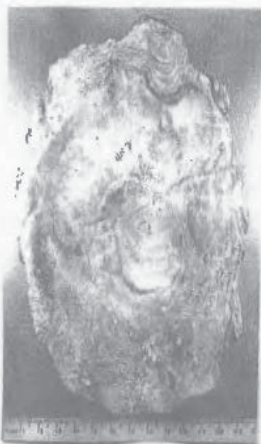
FORMATION: Goodland

COUNTIES: Cooke, Grayson,  
 Somerville, Tarrant

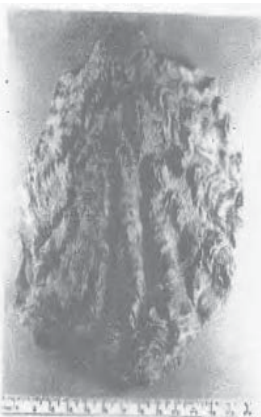
GROUP: Washita

FORMATION: Denison clay

COUNTY: Denison



14M Scales



*Lopha subovata*

Shumard, 1854

- 1854 *Ostrea subovata* Shumard  
 [in Stanton, T.W., 1947: p. 24, pl. 8, fig. 1; pl. 9, figs. 1 & 2]  
 1857 *Ostrea vellicata* Conrad  
 [Conrad, T.A., 1857: p. 156, pl. 11, figs. 2a and 2b]  
 1910 *Ostrea marcovi* Böse  
 [Böse, 1910: p. 103, pl. 15, fig. 15; pl. 17, fig. 11]  
 1928 *Alectryonia marcovi* (Böse), Adkins  
 [Adkins, W.S., 1928: p. 103]  
 1928 *Alectryonia subovata* (Shumard), Adkins  
 [Adkins, W.S., 1928: p. 103]  
 1947 *Ostrea (Lopha) subovata* Shumard, Stanton  
 [Stanton, T.W., 1947: p. 24, pl. 8, fig. 1; pl. 9, figs. 1 & 2]  
 1959 *Lopha subovata* (Shumard), Stenzel  
 [Stenzel, H.B., 1959: p. 34]

See Also: Oregan, F.W., 1893: p. 207. Harry, H.W., 1865: p. 135. Shiner, H.W. and R.R. Shrock, 1944: p. 395, pl. 153, fig. 20. White, C.A., 1894: p. 301.

ATTRIBUTES

Size: Large.

Valve comparison: Inequivalve.

Outline (shape): Varies from elongated oval to more rounded.

Beak: LV beak projects above RV beak; straight to recurved tip.

Attachment scar: Medium to large.

Umbonal cavity: Medium (?).

Umbo: Immediately umbo area may be smooth or covered with tubercles.

Width or convexity: Variable; W of both valves may be about 50mm.

Adductor muscle impression: Reniform shape; situated about midway between hinge and ventral.

Radial posterior groove: Absent.

Ligamental area: Prominent.

Commissural shelf: Wide; plicate.

Chomata: Not present.

LV Surface features: Radiating, strong prominent plications begin below umbonal area; vary in shape; number varies from 4 to 15, but 6 to 8 more usual. Plications increase by bifurcation and intercalation. Overlapping coarse plates may develop hood-like elevations, tubercles or spines on top of plications.

FAMILY Ostreidae  
 SUBFAMILY Ostreinae  
 GENUS *Pseudoperna*  
 SPECIES *congesta*

UPPER CRETACEOUS, GULF SERIES

GROUP: Eagle Ford

FORMATION: Eagle Ford

COUNTY: Grayson

GROUP: Austin

FORMATION: Austin Chalk

COUNTIES: Anderson, Collin,  
 Dallas, Ellis, Medina

FORMATION: Ector Tongue

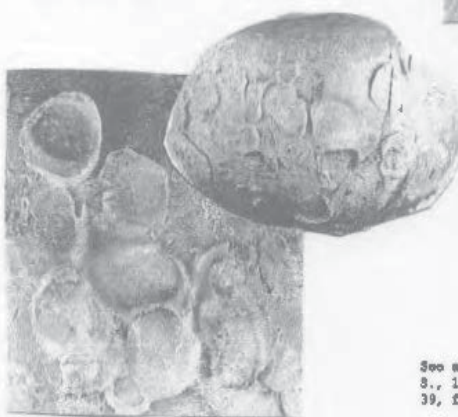
COUNTIES: Bonham, Fannin, Lamar

FORMATION: Blossom

COUNTIES: Fannin, Lamar

FORMATION: Neylandville

COUNTY: Delta



*Pseudoperna congesta*

(Conrad, 1843)

1843 *Ostrea congesta* Conrad

1893 *Ostrea congesta* Conrad,  
 Stanton

[Stanton, T.W., 1893: p. 55, pl.  
 2, figs. 2-4]

1941 *Ostrea congesta* Conrad,  
 Adkins, Stephenson

[Stephenson, L.W., 1941: p. 105,  
 pl. 13, figs. 6 and 7]

1971 *Pseudoperna congesta*

(Conrad), Stenzel

[Stenzel, H.B., 1971: p. 11131,  
 fig. 3103, 1a-a]

See also: Adkins, W.S., 1928: p. 100. Weller,  
 S., 1907: p. 435. White, C.A., 1884: p. 284, pl.  
 39, figs. 11-13.

ATTRIBUTES

Size: Small.

Valve comparison: Inequivalve.

Outline (shape): If open growing space occurs, shape tends to be ovate with the widest part near the ventral area. Growth habit usually is to grow close together, touching and distorting the shell outline.

Beak: Beak, with a small triangular area, is small and pointed and usually turned slightly to the left.

Attachment scar: Usually attached by its whole undersurface to firm substrata.

Umboal cavity: Deep.

Umbo: Prominent, obtusely pointed, truncated by attachment.

Width or Convexity: Not available on this specimen.

Adductor muscle impression:

Impressions reported as obscure.

Posterior groove: Not seen.

Ligamental area: Hinge plate is thin; resilifer is very shallow.

Commissural shelf: Flat.

Chomata: Numerous chomata are very small.

LV Surface features: Flattened area of LV is surrounded by upturned, more or less wavy free edges that grow vertically on posterior and anterior edges. On ventral margin growth is at slight angle. Surface may show indistinct growth lines or may be nearly smooth.

Vesicular shell structure: Present in Ostreinae; no information for this specimen.



FAMILY Gryphaeidae  
 SUBFAMILY Pycnodotinae  
 GENUS *Texigryphaea*  
 SPECIES *navia*

LOWER CRETACEOUS, COMANCHE SERIES

GROUP: Fredericksburg  
 FORMATION: Kiamichi  
 COUNTY: Grayson; Trans-Pecos  
 GROUP: Washita  
 FORMATION: Duck Creek  
 COUNTY: ?



MM Scales

ATTRIBUTES

Size: Medium to large.

Valve comparison: Inequivalve.

Outline (shape): Elongated, almost triangular; upper posterior margin somewhat concave; lower posterior margin somewhat convex; extended posterior flange; right valve rather flat.

Beak: Strongly incurved; turns to side; twisted beaks in older adults; usually overhangs posterior side.

Attachment scar: May vary from small to medium on posterior side and may be flat to depressed; large scars are not very common and may distort beak and umbo shape.

Umboal cavity: Shallow.

Umbo: Strongly inclined to anterior.



*Texigryphaea navia*

(Hall, 1856)

1856 *Gryphaea pitcheri* var. *navia* Hall

[Hall, J., 1856: III, pt. IV, p. 100, pl. 1, figs. 7-10]

1898 *Gryphaea navia* Hall, Mill and Vaughan

[Hall, R.T. and T.W. Vaughan, 1898: p. 57, pls. 71 and 18]

1947 *Gryphaea navia* Hall, Stanton

[Stanton, T.W., 1947: p. 27, pl. 29, figs. 1 and 1]

1959 *Gryphaea (Texigryphaea) navia* Hall, Stenzel

[Stenzel, H.B., 1959: pp. 22, 28]

1971 *Texigryphaea navia*

(Hall), Stenzel  
 [Stenzel, H.B., 1971: p. M1070]

1989 *Texigryphaea navia*

(Hall), Kues  
 [Kues, B.E., 1989: p. 442, Fig. 5]

Width or convexity: Pictured specimen measured 25mm.

Adductor muscle impression: Orbicular.

Radial posterior groove: Deep.

Ligamental area: Adjusts to shape of valve.

Commissural shelf: Well-defined; shelf or "curb" develops.

Chomata: Present; straight.

LV Surface features: Thick shell; pronounced growth lines; roughened thin plates tend to develop spines or knobs along carina and/or along posterior lobe; pronounced carina from beak to ventral margin;

Vesicular shell structure: Present.

## Selected References

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- \_\_\_\_\_, 1952. Larger Invertebrate Fossils Of The Woodbine Formation (Cenomanian) Of Texas: United States Geological Survey Professional Paper 242, 226 p., pls. 8-59.

John and Barbara Emerson wrote Middle Eocene, Claiborne Group, Invertebrate Fossils, 2001, and were co-authors with Tom and Rosemary Akers for Texas Cretaceous Ammonites and Nautiloids, 1994. John is retired from Bechtel Corp. and Barbara is a non-retired housewife. Both share a twenty-two year long interest in fossils, especially those self-collected in Texas.

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## Beading Section Learns Kumihimo Braiding

*by Nancy Fischer*

*Photos by Nancy Fischer and Karen Bell*

**T**he Beading Section had another great meeting on October 20, 2012. Several of us met at the Luby's on Airport and Murphy Rd. and ate too much for breakfast. They have a very reasonably priced breakfast buffet with lots of yummy choices. Then we went to the Bead Market Show at the Stafford Center. It was a somewhat smaller show than in the past. We met up with other members of the group and assorted friends. We each found treasure.



We then reconvened at the clubhouse for our regular meeting. Jillynn Hailes got us the special looms needed for Kumihimo which is a Japanese braiding technique. Each project turned out differently depending on the material used. We started with a simple 4-strand pattern just to learn how to do it. There are a lot of patterns, and of course the material choice is endless.

We will be beading Christmas ornaments for our November meeting. The pattern is available online. The December meeting will be on December 1—the FIRST Saturday in December. It will be a combination Christmas party (bring snacks or desserts to share) and a planning session to decide on our projects for 2013.

## Archaeology Section

November 1, 2012

by Burton Dworsky

The Archaeology Section held its monthly meeting on November 1, 2012 at the HGMS clubhouse with 10 present. The meeting was called to order by Garth Clark at 7:40.

### Old Business

Members were reminded of the trip to the Whiskey Bridge site on November 17.

Members also were encouraged to consider bringing donations for an auction to benefit the Section.

### New Business

Terry Proctor brought some “Rockhound” lapel pins, bags, and earrings that will be for sale at the show.

Members were encouraged to fill out and return to Terry Proctor the Member Information document he e-mailed to members of the Section on October 27. Terry informed the group that the Section would have two cases for the show.

The Section voted on officers for the 2013 year with the following results:

**Chairman** ..... Dr. Garth Clark  
**Vice Chairman** ..... Dr. Terry Proctor  
**Treasurer** ..... Bob Moore  
**Secretary** ..... Burton Dworsky  
**Board Representative** ..... Dr. Terry Proctor

**Presentation:** Dr. Clark showed part of his collection of political “coins” that ranged from a William Henry Harrison coin from the 1840s to the present, and he gave the background on several.

**Show and Tell:** Show and tell started with reviews of the Crisner’s Ranch trip by those who attended and presentation of their finds. Garth Clark found an ammonite, snail shells, and flint chips.

Tom and Lisa Schwartz went to Crisner’s Ranch the following weekend and found one Native American projectile point, some ammonites, shells, and oysters.

Jon Hart brought a case of Native American projectile points and a Caddoan vessel.

Bob and Nancy Engelhardt-Moore shared some anecdotes from their recent trip to China. Along with their tales, they also brought a bronze Han Dynasty spear point and a Tang Dynasty “terracotta” type sculpture of a lady’s head.

Finally, a reminder that the Archaeology Section meets the first Thursday of each month at 7:30 p.m. in the HGMS Clubhouse, and the next meeting will be December 6, 2012. So, if you have an interest in archaeology, would like to give a presentation, or have some artifacts to show, please come out, join us, and have fun.

## Day Light Section

*by Karen Burns*

**A**bout a dozen Day Light Section members enjoyed a holiday lunch at Los Gallitos Mexican Cafe in Stafford on the Monday following the show. Then they met at the clubhouse to discuss the direction of the Section in 2013.

Karen Burns was elected Chairperson, and Mary Ann Mitscherling was elected Board Representative for 2013.

The Section will meet again December 10 at 1 p.m. when Neal Immega will present his program on Simple Soldering. (This is a change from past years when no December meeting was held.)

Hands-on programs will continue to be the focus of meetings in 2013, and a list of programs will be formulated during the December meeting. Anyone who has an idea for a program or who wishes to present a program should contact Karen at karen\_b\_75@yahoo.com.

## Show Hospitality Survived Thanks to Clyde McMeans

*by Michele Marsel*

**T**he HGMS Board and the Show Committee extend their appreciation and thanks to Clyde McMeans who stepped up and agreed to manage the Hospitality area at this year's Show. He fit in planning and organizing hospitality services in between his own travel and other personal commitments. Both our dealers and our hard-working volunteers were able to enjoy meals, beverages, and a place to relax thanks to Clyde's commitment to the Club. Please thank Clyde personally next time you see him at the Club!

## Upcoming Mineral Section Programs

*by Paul Brandes*

**November 21, 2012:** No Meeting (Happy Thanksgiving!)

**December 5, 2012: Gem and Mineral Show Wrap-up:** This is our opportunity to review the show while it is still somewhat fresh in our minds. Bring your comments on what we did right and where we can improve. Also, bring in your show purchases and be prepared to tell us why you purchased what you did. We will also discuss any specific topics that members would like to have presented for 2013. Refreshments will be provided.

**December 19, 2012:** No "official" meeting (The Mineral Section Christmas Party will take the place of this meeting; details TBD).

## General Meeting Minutes

*October 23, 2012*

*by Sarah Metsa*

*HGMS Secretary*

**T**he meeting was called to order at 7:30 p.m.

**Visitors and New Members:** Visitor Zach Bennack was in attendance. He has taken geology courses in college and has always been interested in fossils and rocks. He is interested in all that HGMS has to offer.

**Prior Month General Meeting Minutes:** Karen Burns moved that the September General Meeting minutes be approved as published in the October BBG. Neal Immega seconded the motion, and it passed unanimously.

**Drawing:** John Mitscherling won the door prize which was a large quartz specimen.

**Show & Tell:** John Cooper went on the fieldtrip to the TXI Midlothian Quarry. He came back with sharks teeth, pyrite, fossilized oyster shells, and others. He also brought in a large grocery bag filled with collecting vials—aka pill bottles. He offered them to anyone who wants to take some.

**Program:** Bill Moore was not able to be at the meeting, so Steve Blyskal introduced Dr. Nathalie Brandes, the evening's speaker. She is a professor of physical and environmental geology at Lone Star College. Nathalie presented a Photographic Tour of Scandinavia. Nathalie has family roots in this area, and her presentation was wonderful as always. She shared the many photographs taken on her summer excursion from Stockholm, Sweden, through Norway to Nordkapp, the northernmost point of Europe, and back again. The presentation featured many areas and attractions of Scandinavia including climbing a glacier, experiencing the midnight sun on the Arctic Ocean, visiting famous mining localities, and historic Viking sites. And of course, Nathalie discussed the geology of the region and how it is related to the Appalachians of Eastern North America. This was an enjoyable and informative presentation.

The program for the November General Meeting will be given by Steve Blyskal, and it will be about his trip to Calgary, the Rockies, and to Drumheller, home of the Tyrrell Museum of Paleontology.

## Officer, Committees, and Section Reports

**Show Committee:** On October 28 Lexy Bieniek will need help with mixing the concrete for the Dino Dig flats. She is in Cut and Shoot, TX, and we also need volunteers to pick up the flats and bring them to the show. At the show itself, Clyde McMeans is handling hospitality, and all volunteers will have lunch available--but you must have a ticket for the lunch. Tickets are given to volunteers on the day they volunteer and are only good for that day's lunch. Beverly Mace advised that Tom Lammers will have a couple of people at the show who can instruct us in setting up the florescent display so that we can do it in future years.

Also, Intergem is next weekend, and volunteers are needed for our information table.

**2013 Board of Directors Nominees:** Per the Bylaws, the slate of nominees for next year’s Board of Directors was presented.

- President** ..... John Caldine
- First Vice President** ..... Bill Moore
- Second Vice President** ..... Beverly Mace
- Secretary** ..... Michele Marsel
- Treasurer** ..... Rodney Linehan

There were no further nominations made from the floor. Voting on these positions will be held during the November General Meeting.

**Adjourn:** John Mitscherling moved and Phyllis George seconded that the meeting be adjourned. The motion passed unanimously. The meeting adjourned at 9:15 p.m.

**Cyanoacrylate (Super Glue)**

*by Chip Burnette, Editor of Tri-City Gem & Mineral Society newsletter  
from The Rock Prattle 8/2012*

Cyanoacrylate adhesives are available from many suppliers in a wide range of viscosity (from thin—watery, to thick—almost a paste). The drying time also varies quite a bit, so spend some time to compare brands and types to get what you need.

If you only want to fill in a hole on the surface of your stone, a high viscosity (thick) cyanoacrylate adhesive can be used by building up layers. If you have fractures in your fragile stone, a very thin CA will fill the cracks and hold the stone together while the thicker CA fills the chipped area. The cured CA is hard enough to take a good polish with the stone.

I use Star Bond cyanoacrylate for sealing porous stones (boulder opal, etc) and for filling cracks and voids in other types of stones. It dries clear and apparently does not yellow as much (if any) as cheaper CAs that I’ve bought in hobby shops. Many shops now carry it, and you can order it online. Do a Google search for Star Bond adhesive for more information.

NOTE: All cyanoacrylate adhesives have a shelf life—they degrade over time, even in a container which is unopened. For this reason, I do not recommend buying the small tubes from a drugstore or local shop. Buy from a reputable dealer or online so you get a fresh product, and don’t plan on keeping it more than a year at most. Fresh is best!



Board of Director's Meeting Minutes  
November 6, 2012  
by Michele Marsel  
(Nominated as 2013 HGMS Secretary)

X	President – Charlie Fredregill	X	Beading Rep – Jillynn Hailes
	1 <sup>st</sup> Vice President – Bill Moore	X	Faceting Rep – Gary Tober
X	2 <sup>nd</sup> Vice President – Beverly Mace	X	Lapidary Rep – Phyllis George
X	Treasurer – Rodney Linehan	X	Mineral Rep – Sigrid Stewart
	Secretary – Sarah Metsa	X	Paleontology Rep – Mike Dawkins
X	Past President – Steve Blyskal	X	Day Light Rep – Nancy Fischer
		X	Archeology Rep – Terry Proctor

**The meeting was called to order** at 7:35 p.m. with a quorum of nine members present.

**Previous Month Board Minutes:** Terry Proctor moved to approve the minutes of the October Board meeting as published in the November 2012 BBG. Seconded by Nancy Fischer, and approved unanimously.

**Treasurer's Report:** Rodney Linehan reported the club's current balances and noted that the Club's annual Non-Profit IRS Form 990 had been filed. He requested clarification on the amounts that should be paid to the Lapidary Section and to the donor of the estate from the show auction. Cash advance needs for the Show were confirmed by Sigrid Stewart and Steve Blyskal, and Rodney will arrange funds as requested. Rodney reported that the Club now owns the titles to the trailers donated by Paul McGarry. The trailers contain the fluorescent mineral display booth.

#### Office, Committee, and Section Reports

**Archaeology Section:** The field trip to Chrisner's Ranch was attended by 15 to 20 members. The next trip to Whiskey Bridge is the week after the Show, and a high point at the end of the field trip will be the traditional BBQ chicken at Terry Stiles' ranch.

**Beading Section:** Kumihimo (Japanese braiding) was featured at the last meeting, and it was well received. Beaded ornaments are the next meeting project. *The December meeting is changed from the third Saturday to the first Saturday—December 1.* That meeting will be a holiday party and planning the beading projects for 2013.

**Daylight Section:** Next meeting will be the holiday party at Los Gallitos restaurant on FM 1092 (Murphy Road).

**Education Committee:** No report.

**Faceting Section:** Primitive flint stone faceting was demonstrated at the last meeting. The December meeting will be a holiday party and gift exchange.

**Lapidary Section:** Ed Clay demonstrated a technique using pulverized stone mixed with super glue to fill small gaps/flaws in stones. The pulverized stone was an exact color match to the stone being repaired, making the flaw invisible.

**Mineral Section:** The last meeting was spent preparing for the Show. There will be no meeting Thanksgiving week. The December 16 meeting will be the holiday party and gift exchange.

**Outreach Committee:** No recent engagements. The Committee is working on photos and letters with Neal Immega. Terry Proctor was contacted by a local Montessori school that will bring a group of 11 to the Show. Sigrid Stewart noted a great article in a recent *Rock and Gem Magazine* about partnering with high schools and requested that Outreach look into this idea for both future club shows and other activities.

**Paleo Section:** The October 20 field trip to Midlothian TXI quarry yielded pyrite and sharks' teeth. Attendance was lower than last year, and included two guests from Italy. The Section will not hold their usual November meeting or holiday dinner this year.

**Show Committee:** A discussion was held regarding open shop during the Show weekend. Terry Proctor moved and Mike Dawkins seconded that the Club be closed during Show weekend as we are very short on volunteers and to encourage members to attend the Show. The motion passed unanimously.

- Stickers, lapel pins, earrings, and drawstring sample bags will be sold at the Info Booth in addition to some dino models. Additional dino models and related items will be available at the Paleo booth.
- Posters for 2011 and 2012 will be available at the Info Booth along with reprints of the very popular 2007 "chicken beak" spinel.
- Concern was expressed about low volunteer commitments this year and also about needing a leader to manage Dino Dig in Lexy Bieniek's absence.
- Space will be provided for representatives from the Houston Fine Mineral Show—this was a late request and will be honored as they always provide us a table at their show.
- Tickets will be required for dealers and volunteers to receive lunch in the Hospitality area. Karen Burns will ensure that tickets are distributed at check in.
- Steve Blyskal reported plans to document instructions with photos for assembly of the fluorescent booth during setup this year.

**Youth Section:** The Youth Section will have three display cases at the Show this year.

**BBG Editor and Web site:** Articles for the December BBG are due November 9. The club Web site is up-to-date. Terry Proctor suggested a new BBG question/advice column similar to one found in *Rock and Gem* magazine might be a good addition to

the BBG. The suggestion will be considered. The final installment of John Emerson's Old Geezer Reports will appear in the December issue of the BBG.

### Old Business

A discussion was held on Tom Wright's request to move the lockers located in the main classroom because they block his use of a walker (or wheelchair). Terry Proctor moved and Jillynn Hailes seconded that the Board study alternate locations for the lockers. The motion passed unanimously.

### New Business

Terry Proctor moved and Phyllis George seconded that the Board send a thank you note to Paul McGarry for his generous donation of the trailers. The motion passed unanimously. The Board Secretary will draft the note.

**Adjourn:** Terry Proctor moved and Phyllis George seconded adjournment at 8:50 p.m. The motion passed unanimously.

### Bench Tips

by Brad Smith

*More Bench Tips by Brad Smith are at [facebook.com/BenchTips/](https://facebook.com/BenchTips/) or [yahoogroups.com/group/BenchTips/](https://yahoogroups.com/group/BenchTips/)*

#### Ochre Applicator

**Y**ellow ochre is used when you want to be sure the solder will not flow onto an area of your piece while you're soldering on another area.



The only problem with ochre is coming up with a good way to store and apply it. I like recycled nail polish bottles. They seal well and have a built-in brush. Just clean them out with a little acetone or nail polish remover, and they're ready to go.

#### 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.

“*Bench Tips for Jewelry Making*” is now available as an e-book for Kindle and Nook readers. Free apps allow it to be read on most phones, tablets, and home computers.

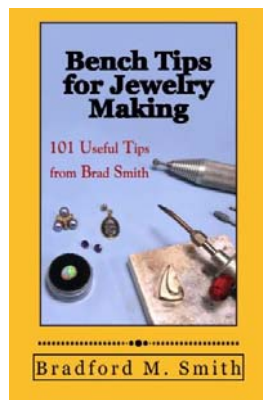
The book can be found at several locations:

**Kindle edition....** [www.amazon.com/dp/B00A5ELDRU](http://www.amazon.com/dp/B00A5ELDRU)

**Nook edition .....** [www.bn.com/w/?ean=2940015848915](http://www.bn.com/w/?ean=2940015848915)

**Print edition .....** [www.createpace.com/3976439](http://www.createpace.com/3976439)

Makes a good holiday present for friends who do jewelry.



## Cabochon Polishing Problems

by Mike DeMeritt

*from Old Pueblo Lapidary Club Newsletter Cutting Remarks 4/2012*

*(Tips provided, 2012)*

Polishing problems tend to be the norm for beginners, and can often lead to much frustration—even the decision to abandon the hobby altogether! When cabbing, many neophytes don’t spend enough time in the sanding and pre-polishing stages, leaving scratches that refuse to go away. I recommend paying close attention to material in its *dry* state (when wet, scratches are nearly impossible to see). Dry your material after each stage, and observe in reflected light (light behind you). Observe the texture and color changes of your material as you move from one wheel to the next—the texture should progressively get smoother (scratches will be smaller and homogenous), and the color will improve (deepen) with each stage.

A good way to observe this is to start with a cab that you are certain is finished in a given stage (ask a good cab-cutter if you are uncertain—there are many in our club!) Take your cab to the next stage, *but only finish half of it on that stage—don’t work the other half*. Dry your cab and carefully observe the difference between the two sides. It is best to do this both with and without a loupe so you will be familiar with both eye- and magnified-observation. Do this for every stage, and you will be more familiar with the “look” of each given stage, and therefore much more likely to notice when you are leaving scratches before you get much farther. Bear in mind that materials of different hardness may look different for the same stage, so don’t be unwilling to go through this process again for a different material. You will spend some extra time here, but the knowledge you gain will be well worthwhile as you progress! It won’t be long before you know the “look” of any given material at any given stage—and therefore be able to quickly resolve any polishing problems!



## Santa's Surprise

by Sandy Lynn

from *Cobb-L-Stones*, December 1992,

via *AFMS Newsletter* 12/2010–01/2011

**T**was a cold Christmas Eve and Santa came calling.  
The stars were all twinkling, the snow had stopped falling.  
Next house on his list didn't run normally—  
Rockhounds lived here, (they lived quite informally).

First thing he did as he came in the den, was  
trip over a tumbler—he took quite a spin.  
On to the kitchen for cake and a coke—  
What he saw in the window almost made him choke.

Lining the window sills—strange little rocks—  
He let out an “OUCH” (he had one in his socks).  
Went to the living room—sat in a chair—  
But he was up like a bullet—more rocks down there.

Cars in the driveway, covered with snow.  
The garage? Full of rocks (wouldn't you know).  
Mom and Pop's room was the strangest by far...  
Big rocks, little rocks, rocks in a jar!

The rocks on the dresser someone had marked “Super.”  
Santa stared for awhile, then left in a stupor.  
He went to the john and turned rather pale—  
No one would believe this incredible tale!

He looked around warily, scratched his white beard -  
No doubt about it, these people were weird.  
Rocks in the sink, rocks on the floor—  
But in the bathtub, THE BATHTUB? He couldn't stand more.

He looked rather shaken, he stopped by the tree—  
A doll for sweet Susie, a guitar for Lee.  
For Mom and for Pop, he just left a short note,  
Put it under a rock—this he hurriedly wrote:

“I'm sure you're not bad folks, just hopeless,” it said,  
“I honestly think, you've got rocks in your head!”



## Dinosaur Feathers in Amber?

*via Quarry Quips, via Moroks Newsletter, 6/2012, via Breccia 10/2012*

**F**eathers believed to be from dinosaurs have been found beautifully preserved in Alberta amber. The primitive, hair-like feathers known as protofeathers likely belonged to theropod dinosaurs similar to tiny *Tyrannosaurus rexes* that roamed the swampy forest of Alberta 70 million years ago, said Alexander P. Wolfe, a University of Alberta earth sciences professor who co-authored the research published Thursday in *Science*.

“Protofeathers aren’t known from any modern, existing groups of birds, and therefore the most obvious interpretation is that they belong to dinosaurs!” he said. Theropods, which are thought to be closely related to modern birds, were already known to have feathers, based on features surrounding fossils found in China. But a lot of details were lost in the fossilization process. “The feathers get altered. They get substituted by minerals, and you can’t see any of the details!” Wolfe said. The protofeathers may look very hair-like, but the researchers confirmed they were feathers by looking at them under a microscope. Hair, found on mammals, has microscopic scales. Feathers, found in birds and dinosaurs, have features called nodes and internodes instead.

With amber, it’s different. We actually have the actual object. For the first time, we actually have this protofeather in the flesh. “The feathers are preserved down to the pigments that show what color they are and microscopic details of their structure.” Based on the fact that the protofeathers were just single filaments or clumps of filaments, just two centimeters long, the researchers concluded “these had nothing to do with flight,” Wolfe said. Instead, he believes they were used to keep the dinosaurs warm.

The protofeathers were among a wide range of feathers found in Alberta amber specimens by Ryan McKellar, a researcher who recently completed his PhD under Wolfe’s supervision. McKellar research was initially interested in insects, but they stumbled upon some very bird-like feathers in the process of sorting through amber from Royal Tyrell Museum and the University of Alberta’s collection. He decided to keep an eye out for other feathers. After sorting through 4,000 chunks of amber, each less than two centimeters in diameter, he had collected a wide range from the protofeathers to more complex feathers—also from the same time period—that were most certainly from birds. Some were downy “like the kind you have in your pillow,” Wolfe said. Others look like modern flight feathers. Some also had special features found in diving birds such as grebes.

Wolfe, an expert in amber chemistry, said such birds likely shared the same ecosystem as the dinosaurs—a steamy, “very buggy” coastal forest similar to Florida’s Everglades, dominated by cypress and cedar-like trees. The remains of the forest were compressed into coal deposits in Alberta where the amber samples were found. Wolfe said now that the new research, including photographs, has been published, he hopes researchers in other parts of the world where feather dinosaur fossils have been found will start keeping an eye out for dinosaur feathers in amber. He also hopes to do a biochemical analysis on the proteins in the feathers.

## The Iridescent Gem of the Quartz Family--Fire Agate

by Joan Reinhold

via *The Coral Geode* 7/2011, *The Lodestone* 7/2011, and *Breccia* 6/2012

**F**ire agate is a rare iridescent gem in the quartz family, a variant of chalcedony. It can be found in the southwestern area of North America and in Mexico, and it is collected by mineral enthusiasts and used in jewelry.

Fire agate is a gem made from concentric layers of colored silica and iron oxide, and before being cut, it also has a covering of chalcedony. The layers of silica and iron oxide allow light to pass through them in such a way as to display a metallic luster, called schiller. The appearance of this mineral is similar to opal.

In the gem world, a mineral's hardness is rated using the Moh's scale, a relative scale for testing hardness wherein a diamond receives a 10. On this scale fire agate receives a 7, meaning it is a hard gem. Another important aspect of gems is how they break, which is called cleavage. Some gems break in symmetrical shapes, while others fragment, and these different ways are given labels. Other gems, such as fire agate, are labeled as having no cleavage as they do not form a crystal lattice.

**Composition:** The chemical formula for fire agate is  $\text{SiO}_2$ , meaning that it is made up of silicon and oxygen molecules. This chemical formula is shared by the whole quartz family. Metallic impurities in the silica result in the rainbow of colors in fire agate.

**Formation:** The most current understanding of how fire agate forms involves hydro-thermal environments. Extremely hot water super-saturated with iron oxide and silica flows into subterranean spaces and is stopped, where it cools down. Then, chalcedony begins to form from iron oxide, lining the surrounding rock. Within this layer of chalcedony, concentric layers of iron oxide and silica form on top of each other. Limonite also forms, coating these inner layers. This coating of limonite causes the colors of the fire agate to flash like a diamond.

**Sources:** Fire agate has only been found in the southwestern United State and parts of Mexico. Within the U.S., fire agate has been discovered in the area between Needles, California, and Kingman, Arizona. It has also been found in the vicinity of the Colorado River. In Mexico, fire agate has been found in two states, Aguascalientes and San Luis Potosi.

**Significance:** Gem quality fire agate is rare. It is so scarce that the most sought-after gems, including ruby, emerald, and diamond, are less rare by comparison.

(Editor's Comment: Fire Agate is often called fire opal; however, unlike opal, the play of color in fire agate does not come from refracted light through water-filled, close-packed lattices of silicon spheres. This article is in the public domain at [www.ehow.com/](http://www.ehow.com/)

**Show Time 2012 - 2013**


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Nov. 30-Dec. 2	El Paso, TX	El Paso Mineral & Gem Society El Maida Shrine Auditorium, 6331 Alabama gemcenter@aol.com
December 1-2	Round Rock, TX	Paleo Society of Austin Old Settlers Park, Highway 79 3 miles east of IH-35, next to Dell Diamond <a href="http://www.austinpaleo.org">http://www.austinpaleo.org</a>
December 8-9	DeRidder, TX	DeRidder Gem & Mineral Society Beauregard Fair Grounds Bldg., 610 West Dr.; Adam Valin, 337-585-3693

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January 1- 31	Quartzsite, AZ	Wholesale and retail shows, one of many Desert Gardens RV Park <a href="mailto:info@desertgardensrvpark.net">info@desertgardensrvpark.net</a> <a href="http://www.desertgardensrvpark.net">www.desertgardensrvpark.net</a>
January 19-20	Fredericksburg, TX	Fredericksburg Rockhounds Lady Bird Johnson Municipal Park <a href="http://www.fredericksburgrockhounds.org">www.fredericksburgrockhounds.org</a>
January 25-27	Tyler, TX	East Texas Gem & Mineral Society Tyler Rose Garden Center; Keith Harmon <a href="mailto:keithharmon19@yahoo.com">keithharmon19@yahoo.com</a>
Jan. 31-Feb. 17	Tucson, AZ	Wholesale and retail shows.
February 1-28	Quartzite, AZ	Wholesale and retail shows.
February 2-3	Panama City, FL	Panama City Gem & Mineral Society Bay County Fairgrounds, Am. Legion Bldg. Joseph Schings, <a href="mailto:mojo3002@comcast.net">mojo3002@comcast.net</a>
February 16-17	Plainview, TX	Hi Plains Gem & Mineral Society Ollie Liner Cntr, 2000 S. Columbia Josephine Macha, <a href="mailto:josefcmacha@aol.com">josefcmacha@aol.com</a>
February 16-17	Georgetown, TX	Williams County Gem & Mineral Society Community Center, San Gabriel Park <a href="mailto:dragon.reynolds@hotmail.com">dragon.reynolds@hotmail.com</a> ; <a href="http://www.wcgms.org">www.wcgms.org</a>
February 23-24	Pasadena, TX	Clear Lake Gem & Mineral Society Pasadena Convention Center 7902 Fairmont Parkway; Al Pennington <a href="mailto:gapenning@earthlink.net">gapenning@earthlink.net</a> <a href="http://www.clgms.org">http://www.clgms.org</a>

2012		December					2012
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
						1 10-5 Shop Open 10-12 Youth Section 1:30 Beading Section	
2	3	4 7:30 Board Meeting	5 7:30 Mineral Section	6 7:30 Archaeology Group	7	8 10-5 Shop Open Holiday Party	
9	10 1:00 Day Light Section	11 NO Show Committee	12 7:00 Faceting Section Party 10-3 Shop Open	13	14	15 10-5 Shop Open NO Youth Section NO Beading Section	
16	17 NO Lapidary Section	18 NO Paleo Section	19 NO Mineral Section 10-3 Shop Open	20	21	22 10-5 Shop Open	
23 30	24 31	25 NO General Meeting Christmas Day	26 10-3 Shop CLOSED	27	28	29 10-5 Shop Open	

2013		January					2013
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
		1 New Year's Day	2 7:30 Mineral Section	3 7:30 Archaeology Group	4	5 10-5 Shop Open 10-12 Youth Section	
6	7	8 7:30 Board Meeting	9 7:30 Faceting Section 10-3 Shop Open	10	11	12 10-5 Shop Open	
13	14 1:00 Day Light Section	15 7:30 Paleo Section	16 7:30 Mineral Section 10-3 Shop Open	17	18	19 10-5 Shop Open 10-12 Youth Section 1:30 Beading Section	
20	21 7:30 Lapidary Section	22 7:30 General Meeting	23 10-3 Shop open	24	25	26 10-5 Shop Open	
27	28	29	30	31			

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

The Newsletter of the  
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- 2009 - 1st (Large)
- 2010 - 1st (Large)
- 2011 - 1st (Large)
- 2012 - 1st (Large)



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