

The Stone Chipper

Each one teach one



Presidential Message

Hi Folks,

So by now all and everyone have recovered from our Show. We are moving on and looking forward to the next slate of officers. Les and I will be returning officers and, well, others are not. Hope you get to attend the General Meeting on the 20th (THIS IS THE 3RD THURSDAY).

Everything is going okay for our building, and Craig and I have definitely been kept busy.

Be careful out and about with the traffic for all these busy weekend shows, plus the Paleo Show, i.e., Fossil Fest, this weekend in Round Rock near Old Settlers Park.

The Mineral Special Interest Group will meet Tuesday, the 11th, and Thursday is the Show Committee meeting; maybe one of these other activities will interest you folks.

December sees us with a Christmas party with gift exchange. If you're a lady, give a ladies gift, if you're a gentleman, follow through with a male-oriented gift--all rock-, gem-, lapidary- or earth science- related. Plus, make sure to purchase your dinner ticket (\$ 12.00) for this great time. Dinner will be catered by Pokee Joe's.

Sincerely,

Josie Middleton, President of the AGMS

THE AUSTIN GEM AND MINERAL SOCIETY, INC. (AGMS) is a member in good standing of the South Central Federation of Mineral Societies and the American Federation of Mineral Societies. Its editors are also members of SCRIBE. The club address is 6719 Burnet Lane, Austin, Texas 78757, and phone (512) 458-9546. The AGMS is a 501(c)(3) nonprofit organization. Visit our website at www.austingemandmineral.org Contact our webmaster for website updates at DiannH@austingemandmineral.org.

PURPOSE

The purpose of the AGMS is to promote interest and education in the various Earth Sciences and other related subjects.

MEETINGS

The society meets at 7:00 p.m. the fourth Thursday of every month except October, which is show set up day. The November meeting will be held on the THIRD Thursday. December is the Officers' Induction Banquet held on a date to be determined. Board meetings are held the first Tuesday of every month. Show committee meetings are held on the third Thursday of each month. All meetings are open to anyone. Society officers are listed on the second page of this publication. Please feel free to contact any of them for information

Dues for 2014

Annual membership dues are:

Adult-\$30.00 Couple-\$40.00 Junior--\$4.00

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Display Cases - Jackie Fisher

Federation/Conservation - Josie Middleton

Historian - Vacant

Hospitality - Sunny Sturgeon

Membership -Jackie Fisher

Scholarship - Stretch Young

School Programs - Wing Evans

Sergeant-at-Arms - Jackie Fisher

Sunshine - Fran Ellis

Newsletter Editor - Carolyn Perkins
stonechipper@austingemandmineral.org

Show Committee Meeting Minutes October 16, 2014

Minutes: Minutes are submitted with one correction to the Treasurer's report last month.

Treasurer: Brian submitted the treasurer's report.

Susan read a letter from a customer about the show date and the problems about other events going on, the constructions and the traffic. Our show next year will be back at the regular weekend, so it will not be at the same time as ACL but there is always something going on in Austin and we cannot do anything about construction.

The committee did a round table to discuss what worked and what did not work at the show.

Josie went around to the dealers and thanked them for being in our show with the date change,

Susan said that Gulf Coast and San Antonio Clubs came up to see how our show works. She talked to them quite a bit.

Stretch advised that we might have to have a committee assigned to find large specimens to put in our nice large cases. Also assign someone

that rotates around relieving some of the dealers that are the only one in their booth. Also he would like to see about talking to Palmer to change the concession vendor. There has got to be a way to get a better vendor. Susan will talk to Palmer, as there is a list of vendors that they have but she will have to see how we can get someone different.

Several people made comments about not having enough volunteers to relieve people. Several people had to work double shifts without breaks.

Chip advised that Victoria Club is having their last show, as they are not able to get enough volunteers.

Future Show dates and themes:

Competition Cab:

October 23-25, 2015 – Pegmatite

Cabber's choice

AFMS & SCFMS – National Show

submitted by Dee Fly

“Each One Teach One”

At AGMS we strive for connection by following the directive of our motto – Each one, teach one. We have to ask, “How do we do this in truth?” ... We teach each other of course, via classes, talks, demonstrations and personal conversations, but we also aspire to engage the general public. It is altruistic, but not entirely selfless because the more people who are advocating for preservation of the wild and keeping public lands open, the louder the voice.

We reach the public by demonstrations at schools and other institutions, by answering queries for mineral identification, by providing interesting talks at open meetings, etc. But our most effective, widest dissemination is through our annual show, **Gem Capers**.

Of course, Gem Capers serves another important purpose, *financing our club*. It is how we are able to maintain a building with a well-supplied

workshop, a library, and room for swap meets and auctions. It also provides stipends to students in the field of geology, which helps ensure the deepening and broadening of the pursuit and hopefully greater respect and concern for the Land and its uses. It helps support our parent organizations, SCFMS and AFMS, which serve as a link to other clubs and as a means for further outreach in the earth sciences.

So Gem Capers is a financial necessity, but it is also an upbeat event. Why then were there so many volunteers with exhausted looks on their faces by Sunday afternoon? The fact is, a small number of club members are finding it necessary to take up the slack for those of us who do not participate. There were several people who spent all day Friday, Saturday, and Sunday working the show because that was the only way to keep all the booths open. I want you folks to know that a few people worked so hard that they ended up ill. One ended up with pneumonia and we had no replacements. Some signed up and could not work because of their job hours. Some of you let me know that you would not be in town this time to help. We just didn't have enough help.

Most people join gem and mineral societies to attend rock hunts, hear interesting talks on geology, and meet other folks of like mind, among other reasons. They don't join clubs with the idea of becoming more obligated. They don't join to have the club become an all-consuming part of their lives. That's where the good news comes in. Doing your basic share at the once-yearly principal club fund raiser would only require *four hours* of your time. Four hours a year! If everyone gave just 4 hours no one would have to camp out at the Palmer Event Center for the length of the show to make sure all booths were manned, all functions covered. If you are afraid of missing a ballgame, volunteer for a Friday or to help load and set up on Thursday night or pack up and unload on Sunday night. If Saturday is for shopping and Sunday morning is for church, sign up for Sunday afternoon. Here's the unexpectedly upbeat part: working the show if you are not required to put in 8 hours x 3 is fun! You can

express your expertise through doing a faceting or cabochon-making demo. You can help kids make good use of their gem mine gleanings by working the jewelry-making booth. You can express your Pat Sajak self via the Wheel of Fortune. And there are lots of possibilities for those of us who prefer to help without starring, such as the Gem Mine or the Silent Auction.

I encourage you to join the Show Committee, then listen and learn. It will make you appreciate what can be done by all of us for our club. If you sat at home and even thought, "Oh poor, club volunteers, stuck in ACL traffic with all its woes." No – you're wrong, that is not the case. It is poor you! You missed the joy of a little one's face lighting up in the fluorescent room; and, when I overheard a little girl tease her friend that she found the better rock in the gem mine; or the wonderful comments and thank yous received from grateful parents. Then there was the man from Germany who comes to ACL each year, but stopped in to see us, on his way just as a lark, and then had to find an ATM to get more money. LOL, he was so much fun to talk with. Many of us took the opportunity to follow our motto – Each one, teach one, but not enough of us. Won't you join us?

Josie Middleton

Board Meeting Minutes will be summarized by Josie on AGMS List before the Nov. General Mtg.

General Meeting Minutes October 23, 2014

The meeting began at 7:00 PM.

Josie Middleton opened the meeting by announcing our club's 2nd Vice President - **Kathleen Howard** who introduced this month's speaker, Mr. William Ambrose.

Speaker – Mr. Ambrose spoke on H₂O throughout the Solar System. It was originally thought that only Earth had water, one of our main elements needed to support life on Earth. However, with the exploration of space and other planets we now know that we are not the only

planet to support the valuable element. Although not present as surface water as we have here on Earth, water on the Moon and so far Mars, has been found encapsulated within the stone, glass, and gasses of the planets. A mapping of the Celestial bodies has been developed to show the various elements to be found on them, such as calcium, hydrogen, helium-3, hydrogen, oxygen, nitrogen carbon, and metals – such as titanium, mercury, and aluminum. The exploration is not intended to inhabit the planets as most think, but to mine them for valuable resources.

One of the most estimated valuable elements found is helium-3 that is not found on Earth due to our atmosphere, which acts as Earth's shield. Without the shield, solar winds create the helium-3 from cosmic dust that we can harvest through fusion to create electricity. However, the process can be very volatile and the temperatures on the moon and Mars are extreme. The temperature on Mars varies from minus <270 degrees below zero at night to as high as 93 degrees Fahrenheit in the day at the equator, but the poles are constantly cold with parts not having seen the light of day in over 2,200 years. The poles on the moon have not seen light in over three billion years. Another innovative method to determine what elements and minerals are contained in the moon was tried in 2009. A satellite was purposefully crashed into the moon to create a plume of dust upon impact. By shining a light through the plume, the elements reflected light that could be measured by the color and heat. The whiter the color the hotter the mineral and resulted in evidence of sulfur; the colder the element on the scale was CO₂.

Mr. Ambrose pointed out that even though Mars has extreme variations in temperature it is still more like Earth than any other planet we know and the mining of the planet could be a possibility in the future.

Club Business

Josie brought up the fact that AGMS will be hosting our biggest show ever next year and that we all need to really step up. It will be a combination of Austin's own AGMS, the South

Central Federation, and the American Federation of Gem and Mineral Societies. We should be planning and preparing now.

Jackie introduced three new members to the club: Adin & Ginger Batson; Andrea Elliott, and Dolly Thundale. Make sure you say hello the next time you see them, they are anxious to learn what we have to share. We also welcomed three visitors: Carole & Jamie Canfield, and Susanna Mendez. We hope they come back soon.

Dee Fly from the nominating committee brought up that we have positions for the Board members and officers coming vacant and the Induction Dinner will be held December 11th at the club house. We need volunteers. Positions to be filled are:

- 1) Secretary – one year term
- 4) Board members (3) for 2 year terms, (1) for 1 year term

Laird informed us that a new beading book has been donated to the library and will be added to the database. Also, Half-price Books has some calendars on sale that feature gems and minerals, as well as some colored stone magazines. Laird will be chairing the cabochon contest at the club. Next years contest will be the cutters choice.

Shawn announced that a contact for petrified wood informed her they will be willing to allow the club to come out for an excursion to their property that is rich with petrified pieces. However, it looks like with the change in weather, we may want to wait until after the holidays. We'll put a notice of interest out on the club Yahoo site to see who might be interested. The location is in the country between Bryan and Caldwell.

Meeting adjourned at 8:55 PM

Minutes submitted by, Shawn McMahon.

General Meeting Minutes

September 25, 2014 (These were not available in time for the October Stone Chipper)

The meeting began at 7:05 PM.

Josie Middleton opened the meeting by announcing our club's 2nd Vice President - **Kathleen Howard** who introduced this month's speaker, Mr. Brett Elliott.

Speaker – Mr. Elliott spoke on Mineral Resources in Texas. Though now from Burnet, Texas he has lived all over the world pursuing his interest in geology and currently works for the State of Texas as a hard mineral consultant. In giving an overview of the state's resources he spoke of the various ages of rock formations that are found across the state, with the oldest Precambrian in West Texas and the newer Cambrian in the east. Piecing the world puzzle together in describing the tectonic plate drifts through time, he described how our part of the world collided with other plates to form a new super continent Pangea. It was during this time that the Gulf of Mexico formed and opened up to define Texas's long shoreline, over 750 million years ago. With all of the moving, shaking, and colliding, various formations were created from the Davis Mountains in the west toward the Appalachians in the east also causing massive faulting across the country. Faults like the Missouri and Mississippi rivers are more obvious results of the fracturing, but many of the lesser- known faults also lay in Texas such as the Llano Uplift, whose unique formations and mineral deposits were created during that period of the Ouachita Thrust. Though a good deal smaller, the Central Texas mountains are over 500 million years older than the Rockies, which are still growing. Texas bears exploring for its wide array of formations and minerals that make up the state's geologic history.

Mr. Elliott recommended checking out the (1992) Geology Map of Texas for the Paleozoic Era when the central area of Texas was being formed and noting the changes as limestone gives way as you reach the red clay area of the Red River valley as

you head north. He also spoke of the Cretaceous period in relationship to the Mid-Continental Sea that cuts through the U.S. and parts of Texas and the sedimentary rocks that can be found throughout our state. Because so much of Texas was at one time covered by sea, the state abounds in deposits of salt, shale, clay, and sandstone that extend from the center of the state to the coast. There are also rich deposits of coal, copper, natural gas, uranium, and oil due to the state's origins. Because of the sea, Texas is one of the leading states in producing building materials of sand, gravel, and crushed stone.

Although the fossil and limestone deposits are very interesting in variety, when looking for more enticing mineral finds, look towards the mountains in igneous intrusions and fault lines that lay largely west in the Big Bend area for uranium, cinnabar, silver, copper, zinc, fluorite and more. Stories of rich silver and gold finds of the past have proved to be mostly that, stories. But, silver mines in the area do exist and gold - well, one never knows. Mr. Elliott offered this web address for viewing a Geologic Atlas. <http://www.tnris.state.tx.us>

Club Business

Chip Burnette is still looking for investors interested in a trip to Utah for Topaz in the spring. Minimum buy in is \$200 for a day of picking from a fresh backhoe cut. See Chip for more details.

The position of Hospitality Chair is now graciously filled by Sunny Sturgeon.

Twenty door prizes were given out to eager attendees.

Congratulations to the winners of the Photo Contest. Photographs were exhibited at the Annual AGMS Show.

- 1st and 4th Place went to Laird Fowler
 1st Photo of Stibnite/Apophyllite
 4th Photo of Tourmaline/Elatite/Smokey Quartz
 2nd and 3rd Place went to Alan Cherepon
 2nd Photo of Fluorite
 3rd Photo of Tanzanite

Show and Tell

Diego proudly shared one of his samples of quartz crystal he found and brought back from ARK. Ron also showed some of his finds from his trip to Arkansas, wavellite, variscite and quartz crystal.

Josie shared that the Denver show was fantastic and some samples that she picked up of barite from Morocco, calcite with marcasite from Iowa, and Rhodonite from Brazil. She recommends checking out the web site for the Denver show as it has some beautiful pictures of some of the exhibits from the show.

Meeting adjourned at 9:20 PM

Minutes submitted by, Shawn McMahon.

Barringer Hill Night Hunt November 15

Barringer Hill Minerals is offering a night-time UV Hunt for fluorescent minerals at Badu Hill on November 15.

For details, go to:

http://www.meetup.com/_ms66489782/Texas-Rockers/events/217983752/t/ea1_grp/

THANKS!

The Austin Gem and Mineral Society would like to thank Jim and JoAnn Wiersema and Cora Caffey of **Horizon Environmental Services**, for their continuing support of the club by printing *The Stone Chipper* each month.

Sign up for the AGMS List

If you are currently not a member of the AGMSList and would like to be, please email Diann at general@austingemandmineral.org. It's the best way to keep up with the latest AGMS happenings.

The [Paleontological Society of Austin](#)

cordially invites you and your club membership to attend the [24th Annual Fossil Fest](#) held Saturday & Sunday, **November 15 & 16, 2014** from 9 am to 5 pm at [Old Settlers Association](#), 3300 Palm Valley Blvd., in Round Rock, TX (intersection of Hwy. 79 & Harrell Pkwy, next to the Dell Diamond). Our show theme, Discover Ice Age Texas seeks to explore and answer that question by focusing on the geologic history of Texas as told by the rock layers beneath our feet and the fossils they contain.

Activities include:

- Show Spotlight: Discover Ice Age Texas!
- Guest Speaker: “Fossils Talk - Hear their Stories”
- Fossil Identifications
- Opportunity to interact one on one with a UT scientist, science educators and knowledgeable PSoA members - hands-on learning & demos and questions & answers
- Mini-workshops: Learn how plants & animals fossilize and create a make & take craft
- “Paleo Passport” educational quest to fully explore displays, exhibits and activities
- Hands-on Fossil Touch Table and Microscope
- Educational Exhibits: See what amateur fossil collectors in Texas find
- Start your own fossil collection at the Wheel of Fossils and Fossil Dig Pit
- Fossils / Minerals / Jewelry / Books / Unique Gifts / Toys
- Hourly and Grand Door Prizes

Admission is \$3.00 for adults, \$2.00 for students and children under 6 are free. Tickets may be purchased at the Door on the day of event. CASH ONLY

On premise snack bar serving killer tacos from Torchy’s for breakfast and lunch along with pizza, snacks and beverages. Prices range from \$.50 to \$3.75. CASH ONLY

We would be grateful if you would please forward this announcement to your membership. Thank you very much for your support. Hope to see you there!

Sincerely,
Suzanne Galligher

Paleontological Society of Austin
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Drilling Holes in Stone

by "The Clumsy Craftsman"
(AKA Robert Morriss)

The article reprinted in the October, 2014 Stone Chipper about drilling holes in stones is dated 1969, and the ready availability of diamond drills since that date have changed the game. I accepted a job two years ago to drill holes in over 200 quartz crystals, so I researched the available equipment and then developed a production line method of doing so. At that time I determined there were two methods open to me; diamond drills or an ultrasonic unit. The initial cost of an ultrasonic unit made the unit cost for my 200 holes far too expensive, so diamond drills were the way to go. The following is a description of the equipment and method I used to complete the job.

Equipment consisted of a small table sized drill press I picked up at a pawn shop for \$40, new in the box. It proved to be just about perfect for the job. I purchased the required size diamond tipped drills on line, as they are available from many sources. Before the project was done I had purchased drills from two different dealers. I won't mention names because the lowest priced source may now be another dealer. I would suggest getting drills slightly smaller than the desired hole, as there is some "slop" in drilling. If the holes produced are too small, they will clean up quickly with one size larger drill. I used, if my memory is correct, the 2mm drills. You should buy a drill for every four holes you plan to drill, as a rule of thumb.

A word about drill construction; these drills are made by nickel plating, or soldering, diamond grit onto a stainless steel wire about 35mm long. The diamond coated area covers one end of the wire and extends some 3 to 4 mm up the length of the wire. Since the diamond grit will come off the wire the instant the wire reaches the melting temperature of the solder, it is important to keep the wire cool. Please note; without a coolant the wire will reach the high temperature very quickly, like 3 to 5 seconds!

It is also a good idea to keep the length of wire extending out of the drill press chuck as short as possible, as that little wire is flexible and the end of the drill will go everywhere except where you want it if the whole length of the wire is out below the chuck. I found an exposed length of about 5/8" worked for me.

The writer of the earlier article made a point of not drilling through the stone from one side to avoid breaking out a cone of material on the exit side. I agree, as I learned by trying to drill through and I damaged every crystal I tried to drill until I developed a "better plan." It just took two rejects and I stopped.

I took a not so pretty agate slab and drilled a hole through it, then found a small nail that was a push fit in the hole. I cut it off to length, leaving a stub sticking out of the slab such that the stub length was slightly less than half the thickness of the crystals I was drilling. That little cone shaped breakout fit the head of the finishing nail perfectly! The slab was glued to the bottom of a shallow plastic pan, the type used to package TV dinners, but having only one compartment. This pan was placed on the table of the drill press and the crystal to be drilled was placed on the slab, under the drill, but away from the nail stub. The pan was filled with water to the point that the crystal was covered about 1/8" (for you metric fans, that's about 3mm.) Using light pressure, with the stone held in place with one hand, drilling was started. Contact between the crystal and drill was only about two seconds, and the drill was raised. This allows water to enter the hole that has been started. That's the method; light pressure, 2 to 3 second contact, and back out to let water in. You can see the powdered stone material coming out of the hole as the drill is lowered each time.

Once the hole depth was estimated to be a bit over half the crystal thickness, I set it aside and drilled another crystal in the same manner, continuing thus until a dozen or so were half drilled. Note; you may wish to change the water every three or four stones so you can see what is happening, since the powdered stone flushed from the hole will make the water murky.

In order to drill the other half of the holes, I cleaned everything up, placed the pan back on the table and shifted it around until the drill (not turning, of course) would come down directly on the nail stub. The pan was clamped to the table in this position with a C clamp. With a crystal placed with the partial hole pushed down on the nail stub and covered with water, the second stage of the drilling was started, using the same drilling method. Drilling continued until the initial hole was reached and the junction of the two holes was passed, which cleaned up any slight misalignment of the holes.

Using this method, I could complete a dozen holes with an average length (crystal thickness) of about 10 to 12mm in about 2 to 2-1/2 hours. This was about my limit at one time, as I was holding the crystals in place with one hand, in water, and I would eventually get a cramp in that hand. Time for a beer, was the way I put it. Since the crystals were delivered to me in batches of 20 to 30 about once a week, I could keep up with deliveries with three work sessions a week.

Drill life varied from one hole = two drills to one drill = six holes. Clearly, I let something get hot once or twice.

If I were I to be drilling holes in cabs, I think it would be easier to drill before cabbing, as this would allow you to be dealing with flat surfaces. Trying to start a hole at an angle to the surface just begs the drill to run off down slope.

Comments, suggestions and nice criticisms are gratefully accepted.

Ed's Note: Thanks, Robert, great article! I hereby promise not to delve into old newsletter files for technical articles again.

And while we are on the subject of trying to fill a newsletter with meaningful information, We have a lot of very savvy folks in the club who know things the rest of us would like to know about minerals and lapidary. If you feel like sharing your knowledge, your contribution to the Stone Chipper would be appreciated.

November Speaker

Michael Young, from the Bureau of Economic Geology at the Pickle Center, will be speaking of travels to the North Slope of Alaska at the November General Meeting.

Stone Chipper Ads

The Stone Chipper can now accept non-political AGMS Board-approved paid advertising. If you are interested in placing an ad or have questions about the process, please contact *Stone Chipper* editor Carolyn Perkins at stonechipper@austingemandmineral.org.

You can choose from a variety of sizes for your print-ready ad:

Full Page (7" x 8") (\$100 per issue)

Half Page (7" x 4") (\$50 per issue)

Quarter Page (3 1/2" x 4") (\$25 p.i.)

Business Card (3 1/4 x 2) (\$12.50 p.i.)

There is no extra charge for full color, but mail out copies will be black and white only.

Hunts & Events

November 15-16-- Fossil Fest, Paleontological Society of Austin show, Old Settlers Park, Hwy 79 E., Round Rock, TX

November 22-23-- Dallas Gem & Mineral Show, Rodeo Center Exhibit Hall, 1800 Rodeo Drive, Mesquite, TX 75149

January 23-25, 2015-- Tyler Gem & Mineral Show, Rose Gardern Center, 420 S. Rose Park Dr., Fri. 9-5, Sat 10-6, Sun 10-5. Adults--\$5, Children--\$1

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The Stone Chipper

November 2014 Newsletter

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Address Correction Requested

Austin Gem and Mineral Society



Please visit us at www.Austingemandmineral.org