The official bulletin of the Dothan Gem & Mineral Club, Inc.

Rockhounds Herald

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

March 2017

Streak: Colorless **Aquamarine** Mohs: 7.5 - 8.0

Words from...

The President

Like previous years, we will **not** be having a club meeting in March, as we are having our annual Gem & Mineral Show the previous weekend. Last reminder, our show will be March 18 – 19 in the Houston County Farm Center. Jeff says there will be access to the building on the 17th for set up. I am soooooo looking forward to shopping for some new treasures. You know how I like shiny things. ☺

The Alabama Folk School at Camp McDowell is hosting a "Mosaics in Alabama Rock" workshop this May. They sent us information to pass out to the group. They are located about an hour northwest of Birmingham, twenty minutes north of Jasper. More course information and registration is available at http://www.alfolkschool. com/workshops/mosaics-in- alabama-rock. They also offer other workshops in subjects such as music, art, homesteading, and crafts.

As mentioned in our February minutes, the AFMS sent each club 100 raffle tickets. This raffle is being used to add to monies for special programs. I will have the tickets at the show. They are $5 each or 4 for $20. You can see the types of prizes these tickets can get you at the AFMS website. If you are interested, catch me at the show or our next meeting in April.

Hope to see everyone at the show. Any help with the front tables and any donations to the silent auction will be appreciated.

Pat

Announcement

New Lapidary Blog Launched – Donna Albrecht, aka the Lapidary Whisperer, invites everyone to check out her new online community for lapidary lovers: www.LapidaryWhisperer.com. According to Donna, *"Rocks and slabs whisper and tell me what they want to be, then I commit lapidary on them to bring out their stories."* She plans to post a new entry every other Wednesday and welcomes interaction with visitors to her site. Either email her directly at Donna@LapidaryWhisperer.com or follow the prompts on the website to enter your comment or question.

Upcoming Shows

March 18 – 19	**Dothan Gem and Mineral Club**	**Dothan, AL**
March 25 – 26	**Blue Grass Gem & Mineral Club**	**Lexington, KY**
April 22 – 23	**Memphis Archaeological and Geological Society**	**Memphis, TN**

Source: http://www.amfed.org/sfms/club-shows-123.html and http://www.amfed.org/sfms/club-shows-456.html

Meeting Minutes – February 2017 – by Secretary

Call To Order: President Pat LeDuc started the 2/26/2017 meeting at 14:08. There were 18 members and 2 guests in attendance. Our guests were Gina and Freddy Reed.

NOTE: The January 2017 meeting was cancelled due to bad weather. The newsletter and website were updated as usual, but no minutes were published.

INTRODUCTORY REMARKS: Our Gem & Mineral show is listed on the calendar of events in the Sweet Home Alabama travel guide. Pat and Diane Rodenhizer told us about an email scam that some crooks have been trying on gem and mineral clubs. The scam works by sending what looks like a legit email from a club president to a club treasurer, directing the person to send a check to some vendor. The vendor is actually the crook. Several clubs have been hit, and one almost fell for the scam.

CORRESPONDENCE: AFMS newsletters and a thank you note from the church acknowledging our recent donation. Arnie Lambert received an email from the Cobb County Gem & Mineral Society. They are having a swap meet at 516 West Atlanta St. in Marietta, GA from 10:00 - 4:00 on April 15. AFMS has sent each club 100 raffle tickets. This raffle is being used to add to the Endowment Fund. This fund provides money for special programs. See the AFMS website for details about prizes.

MINUTES & TREASURER'S REPORT: Minutes from November were approved. Diane provided us with her Treasurer's Report, and the club is in fine fiscal health.

OLD BUSINESS: N/A

SHOW BUSINESS: All tables have been sold. There is a sign-out sheet for yard signs up at the front of the room. Also, show flyers for anyone to take and distribute as needed. TV and radio interviews and spot ads are scheduled. Elliott Whitten is doing a Live at Lunch TV interview. The newspaper items are scheduled. Money was voted for the 2017 club door prizes ($250) and the 2018 show prizes ($200).

NEW BUSINESS: Arnie has done rockhounding presentations at the church twice. Arnie and JoAn Lambert and Jeff DeRoche are going to be doing rockhounding presentations for schoolchildren in the future. Elliott discussed a teaching seminar that is a sponsored workshop for anyone who is a teacher and is interested in teaching geology. This will be taking place June 19 – 21. Elliott said he would bring info to the show for anyone who is interested.

FIELD TRIPS: Garry Shirah has a field trip to the Alabama Gold Camp in the works for March 31 – April 2, near Lineville. Go to www.AlabamaGoldCamp.com for details. Garry is also seeing if he can organize a dig on his brother-in-law's property in that same area. Graves Mountain is having an event on April 28 – 30. Jackson's Crossing has an April event, as well, but we need to get the details on that. Garry will be checking to see if the Hogg Mine has any dates planned.

PROGRAM and SHOW & TELL: Ben Childress had some new items from the Boggs and Boulders site. Jeff showed a huge emerald conglomeration he got at the Panama City show. Pat brought a beautiful slab of Michigan copper she got from Arnie at the Panama City show. Garry showed a gold panning set he bought to try out at the Alabama Gold Camp.

The meeting wrapped up with food and the presentation of door prizes. Prizes went to one of our guests, Gina, with the other going to Diane Rodenhizer!

Respectfully submitted by B. Fizzell

Snowflake Obsidian

By Leslie A. Malakowsky

Obsidian is mineral-like, but it is not a true mineral. It's a naturally occurring *volcanic* glass that forms as an extrusive igneous rock. (Glass is an amorphous, homogeneous material with a random liquid-like structure that generally forms due to rapid cooling.) Obsidian is sometimes classified as a *mineraloid*, a mineral-like substance that does not display crystallinity.

Obsidian is a mixture of cryptocrystalline grains of silica minerals in a glass-like suspension, a super-cooled liquid. In the last stages of volcanic eruptions, when most of the other elements and the water in the lava are gone (burned up, ejected or flowed out), the remaining material chills at surface temperatures.

"Snowflake" obsidian is a variety of obsidian that is usually black with white, off-white or light brown snowflake-shaped crystal patches of the mineral cristobalite. Cristobalite is a silica polymorph (the ability of a solid material to exist in multiple forms or crystal structures) that, in the case of snowflake obsidian, forms as crystals or spherulites during partial crystallization as the glass cools. Other names for this variety of obsidian are "flowering" obsidian and "spherulitic" obsidian.

Obsidian was named after the Roman explorer Obsius because of its resemblance to a stone he found in Ethiopia that he named *obsianus lapis*. And the English translation of Natural History, an early encyclopedia originally written in Latin by Pliny the Elder, includes a few sentences about a volcanic glass called Obsidian.

Obsidian is commonly found within the margins of rhyolitic lava flows known as obsidian flows. Rhyolite is an igneous, volcanic rock of felsic composition. "Felsic" refers to rock that is rich in minerals that form feldspar and quartz. (Typically the silicon dioxide (SiO2)

content of felsic rocks is greater than 70%.) The high silica content induces the lava to have high viscosity and polymerization (a chemical process that binds molecules together with a tendency to form glass and semi-crystalline structures rather than crystals) that causes the obsidian to be hard and brittle. That is why obsidian has a conchoidal fracture with very sharp edges.

Obsidian is found all over the world; any place that has experienced rhyolitic volcanic eruptions. This includes (but is not limited to) Argentina, Armenia, Azerbaijan, Australia, Canada, Chile, Georgia, Greece, El Salvador, Guatemala, Iceland, Italy, Japan, Kenya, Mexico, New Zealand, Papua New Guinea, Peru, Scotland, Turkey and the United States (in Arizona, Colorado, New Mexico, Texas, Utah, Washington, Oregon, Idaho, Virginia, Pennsylvania and North Carolina).

No obsidian has been found that is older than the Cretaceous age. This is because obsidian is metastable (a condition in which the material spends an extended time in a configuration other than its state of least energy) at the Earth's surface, and over time it becomes fine-grained mineral crystals. When newly formed, obsidian has a low water content, typically less than 1% water by weight. Over time, when exposed to groundwater, it becomes progressively hydrated forming perlite.

Historically, obsidian was used in cutting and piercing tools such as arrowheads, scrapers and blades. Analyses of ancient obsidian artifacts is instrumental in understanding prehistoric cultures. Today, obsidian is used by some surgeons for scalpel blades, although this is not approved by the US Food and Drug Administration (FDA) for use on humans. Obsidian is also carved for ornamental purposes and it is a favorite gemstone

Source: Rocket City Rocks & Gems Newsletter - Volume 49 No. 1 (January 2017)

Editor's Note: Additional photos have been added to the original article.

Club Meeting – February 2017

Photos by Pat & Bruce

Club Meeting – February 2017

Photos by Pat & Bruce

Rock Tumbling for Beginners – Part 1 of 2

Types of Rock Tumblers

There are two different types of rock tumblers - rotary and vibratory. Rotary tumblers are much more common and best for beginners. When most people picture a rock tumbler, they're thinking of a rotary. This is the type of tumbler that will knock off the edges, shape, and smooth out rough rocks during the coarse grind stage. Rocks tumbled in a rotary tumbler will change shape and become rounded.

Vibratory tumblers are less common with beginners and are typically used for fine polishing rocks you've already shaped. A vibratory tumbler will not shape your rocks like a rotary tumbler. If you just want to polish your rocks and maintain the same shape and angles, then a vibratory tumbler may be for you. The main advantage to a vibratory tumbler is that it dramatically speeds up the tumbling process for stages AFTER your rocks have been shaped (i.e., medium grind, fine grind, and polish). So while each of the four stages in a rotary tumbler can take a week on average, stages 2-4 can all be done in only one week.

An ideal setup would be to buy both a rotary and vibratory tumbler. This way you can do your coarse grind and shaping during the first week in your rotary, then switch over to your vibratory the next week to handle the other stages. If you're buying a rock tumbler for the first time, go with a rotary.

Best Rotary Tumblers

Rotary tumblers range in size and price depending on how many rocks you want to tumble at the same time. Sizing is expressed in pounds. A three pound tumbler will hold about two pounds of rock (and one pound of water and grit).

You can also get a double barrel rotary tumbler. These are great if you're tumbling two different kinds of rocks at the same time especially if they're a different hardness. Remember, always tumble rocks together of similar hardness. This is especially true in the polish stages. If you really wanted, you could tumble rocks together of different hardness in stage one and two. But be sure to separate them before stage three and four!

Another good reason to have a double barrel tumbler is if you have two batches of rocks in different stages. So for example, if you start the coarse grind process on one batch, then a week later you want to start another batch. You can use one barrel for the new batch's coarse grind, and use the second barrel for first batch's medium grind. It's like having two tumblers for the price of one!

If you're just looking to tumble larger amount of rocks as one batch, don't buy a double barrel. It's much easier to manage a single barrel that's double the size (only one barrel to clean and maintain).

The two brands you want to look for when buying a rotary rock tumbler are Lortone and Thumler's. The most popular Lortone tumbler for beginners is the 3A Single Barrel rotary. The most popular beginner rotary tumbler from Thumler is the Model T 3lb single barrel. Thumler's also makes a very popular mid-sized tumbler called the Model B. You can read our review here (https://www.smarterhobby.com/rock-tumbling/thumlers-tumbler-model-b-review/). Both of these tumblers have 3 lb barrels. You can't go wrong with either.

Supplies

Once you've picked out your tumbler, you'll need a few more supplies such as:

Grit
When you're first starting out, stick to the simple four step process (coarse, medium/fine, pre-polish, and polish).

The four stages of grit you'll want to use are:

- 60/90 silicon carbide for initial grinding and shaping of rocks.
- 120/220 silicon carbide for smoothing surface after initial shaping.
- Pre-polish aluminum oxide for preparing rocks for the final polish.
- Polish aluminum oxide for the final polish.

The exact type of grit may differ depending on which tumbler you're using so always refer to the instruction manual that comes with your machine. You can buy all four levels of grit as a kit from your local rock shop or on Amazon.

Plastic Pellets
You'll want to have these on hand for small tumble loads when you don't have enough rocks to fill the entire barrel. These are great for taking up the empty space in the tumbler and help to deliver more of the polish to your rocks. Pellets also help to 'cushion' the impact of rocks in your tumbler, and can even speed up the process since they encourage more tumbling and less sliding in the barrel. One batch of these is all you need to last quite a while as they can be reused. Also, pellets should only be used in rotary tumblers - never in vibratory.

As an alternative to plastic pellets, some folks like to use other material like corn or walnut shells. If you end up becoming a serious rockhound, you may eventually look into things like slab saws, trim saws, arbors, and oscillating laps. But we'll save those tools for another time since this guide is for the beginner!

Excerpt from *Ultimate Beginners Guide to Rock Tumbling* by Mark Orwig
Source: https://www.smarterhobby.com/rock-tumbling/
Permission granted by Mark Orwig, Managing Editor, SmarterHobby.com

Who What Where When Why How

March Birthdays

MAR 1 David Jones
MAR 7 Jeff DeRoche
MAR 7 Thomas Merino
MAR 16 Ginger Merino
MAR 19 Grady Dunn
MAR 19 Lisa Wisham
MAR 23 JoAn Lambert
MAR ?? Ben Ferguson

Random Rock Facts

The Mohs scale is an ordinal scale, meaning that it is not proportional. The values range from 1 for Talc (the softest reference mineral) to 10 for Diamond (the hardest reference mineral).

In terms of absolute hardness, however, diamond would have a value of 1500--effectively four times harder than corundum *(Mohs = 9; absolute hardness = 400)* and six times harder than topaz *(Mohs = 8; absolute hardness = 200)*.

Source: http://geology.about.com/

Meeting Information

Time: 2:00 PM
Date: Fourth Sunday of each month (except June, July and August)
Place: Fellowship Hall – Tabernacle United Methodist Church
4205 S. Brannon Stand Road
Dothan, AL

Website: www.wiregrassrockhounds.com

Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

Classified Ads

Looking for an item to round out your rock collection?

Got a specimen, tool or handicraft for sale or trade?

Submit the pertinent details to me by the 10th of each month and your inclinations will be made known to the membership in the next bulletin.

N. J. Blackwell
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Annual Dues

Single $15
Family $20

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Field Trips Chair – Garry Shirah
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Hospitality Chair – Vacant

Club Hostess – Vacant

Club Liaison – Garry Shirah
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Refreshments

MAR 26 – cancelled due to show

ROCKHOUNDS HERALD
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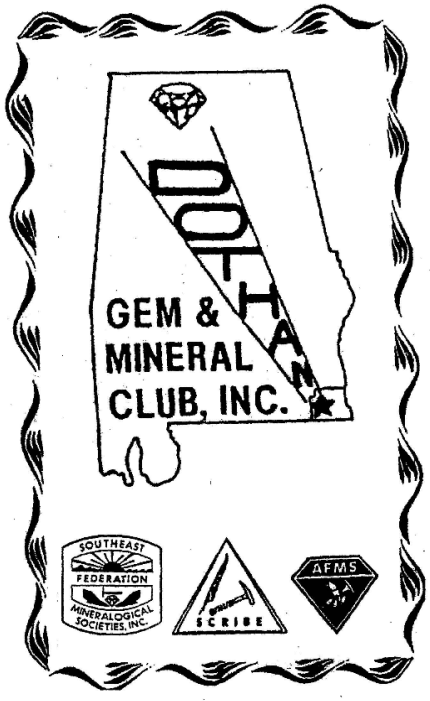

Where you might hear...

The speed of light is different in air, water, and other dimensions, including minerals and gemstones. When light travels from one dimension to another dimension, the light bends, or *refracts*, upon entering the second dimension. This phenomenon can be witnessed with a stick protruding from a pond, where the stick appears to "bend" at the water level.

The refractive index value measures how much slower light travels in the gemstone than in the air. Refractive indices of minerals range from 1.2 to about 3. All transparent gemstones refract light, since the speed of light is different in the air than in gemstones. For example, the refractive index of Diamond is 2.42. This means that the speed of light in Diamond is 2.42 times slower than the speed of light in air.

The greater the refractive index of a gemstone, the more brilliant or lustrous it is. However, gemstones with a refractive index greater than Diamond (2.42) are either synthetic or are too soft for practical gemstone use.

Source: http://www.minerals.net/resource/property/optical.aspx

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