

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

July 2018



Words from...

The President

Jeff DeRoche and Arnie Lambert taught a class for kids at the Ozark library on June 20th. Bruce Fizzell and I helped with set up, tear down, pictures, and answered a few questions. A good size group of kids and parents attended. They all seemed to love the rocks and minerals. The kids seemed especially awed by the ones that lit up under the ultraviolet light and, of course, the giant dino pool!

Our first class for the summer was great. On June 30th, Janie Schings taught 7 of us how to make copper wire wrap bracelets. Bruce was there taking pictures and observing the wire wrapping. Love my bracelet and learned some good techniques for handling wire. Even though there were sharp objects, we all managed to stay safe and have fun. Janie brought several versions of bracelets that she made so we could use them for templates and get ideas for other projects.

Arnie & Jeff will be teaching a cabochon class on July 28th at Arnie's house at 12:00. Novice cabbers need not worry. Arnie and Jeff are both patient teachers and will help you through the process. Those of us who have cabbing experience will also be there to help out. If you have slabs, bring some along. If not, I am sure that Arnie has some for sale.

We still need a volunteer for the position of Newsletter Editor. Joan Blackwell's last newsletter will be for the month of August. At our September meeting, we will have to discuss what to do if we do not get a volunteer for this position.

Hope to see everyone at the July class.

Pat

Know your stone?

The birthstone for July is Ruby, the red variety of the mineral Corundum. Pictured in the banner above are various natural forms and faceted shapes of this mineral.

https://www.minerals.net/gemstone/ruby_gemstone.aspx

Upcoming Shows

JUL 20 – 21	Lakeland Gem Club	Minocqua, WI
JUL 21 – 22	Herkimer Diamond Gem Show & Festival	Frankfort, NY
JUL 28 – 29	Burlington Gem and Mineral Club South	Burlington, VT
JUL 28 – AUG 5	Grassy Creek Mineral and Gem Show	Spruce Pine, NC
AUG 3 – 5	Prescott Gem & Mineral Club	Prescott Valley, AZ
AUG 4 – 5	Darrington Rock and Gem Club	Darrington, WA
AUG 10 – 12	Copper Country Roack and Mineral Club	Houghton, MI
AUG 10 – 12	Port Townsend Rock Club Port	Townsend, WA
AUG 11 – 12	Maplewood Rock and Gem Club	Edmonds, WA
AUG 11 – 12	Baton Rouge Gem & Mineral Society	Gonzales, LA

Jewelry Bench Tips by Brad Smith

DRILL PRESS VISE

A drill press vise is a versatile tool to hold a workpiece securely and in precise alignment. It reduces the risks of working with high power motors, use of larger drill bits, and higher heat generated in the operation. The vise can be clamped to the drill press table if needed and is quite handy for use at the bench to hold things for sawing or riveting.

You can find them at stores that carry machine tool supplies. My feeling is that the best ones are made from steel. In particular, I like the ones with V grooves cut into the jaw plates. That lets me hold a punch straight upright or hold a rod horizontal. To find a supplier, search on "drill press vise" at sites like:

micromark.com
mscdirect.com/enco
smallparts.com
grizzly.com
sears.com



DENTAL GOLD

You might think that a couple pieces of dental gold would be valuable, but if you only have a small amount, it can be a problem. Sending it to a refiner is expensive for small amounts of metal.

I made the mistake of thinking I could melt it and roll out my own sheet. However, the trace metals that dental gold contains to make it a good material in your mouth cause it to crack if you try to forge it or roll it out as a sheet. It ruined my whole ingot.

So what to do with a couple gold crowns? A reasonable alternative is to try incorporating the metal into your jewelry. If you have enough material to do a casting, that's probably the best use for dental gold. If you're not into casting, try melting it on a solder pad and while molten, divide it into small pieces with your solder pick. Then re-flow each piece to make little gold balls for use as accents on your designs. The balls can also be planished a bit to make small discs or struck with a design stamp to add texture.

Many thanks,

- Brad
www.BradSmithJewelry.com

Editor's Note: See all Brad's jewelry books at Amazon.com/author/bradfordsmith

Igneous Textures

Igneous textures are used by geologists in determining the mode of origin igneous rocks and are used in rock classification. There are six main types of textures; **phaneritic, aphanitic, porphyritic, glassy, pyroclastic and pegmatitic.**

Aphanitic (*a* = not, *phaner* = visible) rocks in contrast to phaneritic rocks, typically form from lava which crystallize rapidly on or near Earth's surface. Because extrusive rocks make contact with the atmosphere they cool quickly, so the minerals do not have time to form large crystals. The individual crystals in an aphanitic igneous rock are not distinguishable to the naked eye. Examples of aphanitic igneous rock include basalt, andesite and rhyolite.

Glassy or vitreous textures occur during some volcanic eruptions when the lava is quenched so rapidly that crystallization cannot occur. The result is a natural amorphous glass with few or no crystals. Examples include obsidian and pumice.

Pegmatitic texture occurs during magma cooling when some minerals may grow so large that they become massive (the size ranges from a few centimetres to several metres). This is typical of pegmatites.

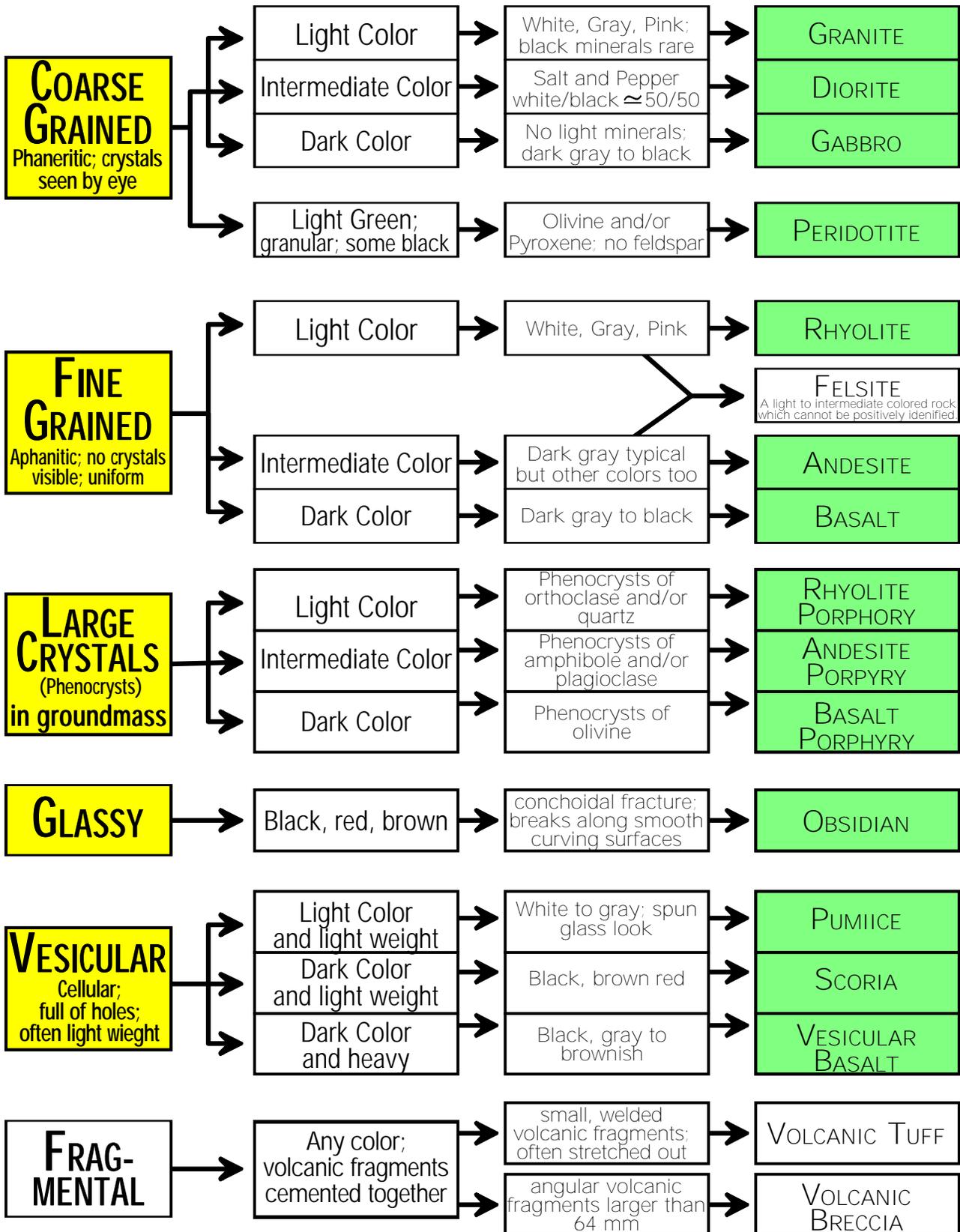
Phaneritic (*phaner* = visible) textures are typical of intrusive igneous rocks, these rocks crystallized slowly below Earth's surface. As magma cools slowly the minerals have time to grow and form large crystals. The minerals in a phaneritic igneous rock are sufficiently large to see each individual crystal with the naked eye. Examples of phaneritic igneous rocks are gabbro, diorite and granite.

Porphyritic textures develop when conditions during cooling of a magma change relatively quickly. The earlier formed minerals will have formed slowly and remain as large crystals, whereas, sudden cooling causes the rapid crystallization of the remainder of the melt into a fine grained (aphanitic) matrix. The result is an aphanitic rock with some larger crystals (phenocrysts) imbedded within its matrix. Porphyritic texture also occurs when magma crystallizes below a volcano but is erupted before completing crystallization thus forcing the remaining lava to crystallize more rapidly with much smaller crystals.

Pyroclastic (*pyro* = igneous, *clastic* = fragment) textures occur when explosive eruptions blast the lava into the air resulting in fragmental, typically glassy material which fall as volcanic ash, lapilli and volcanic bombs.

The time that the magma is allowed to cool will then determine whether the rock will be pegmatite (produced by extremely slow cooling producing very large crystals), phaneritic (produced by slow cooling that produces visible crystals), aphanitic (intermediate cooling times that produce microscopic crystals), or glassy in texture (a product of rapid cooling without **crystal** formation). When magmas experience differential cooling conditions, they produce porphyritic rock, a mixture of crystal sizes and exhibit either a phaneritic or aphanitic groundmass.

Color/TEXTURE Identification Key for Igneous Rocks



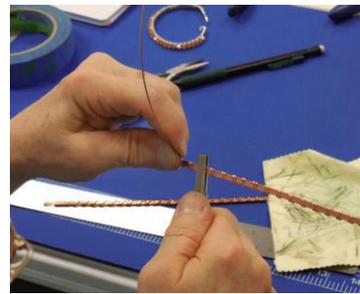
Ozark Library Presentation – June 2018

Photos by Pat & Bruce



Wire Wrap Bracelet Class – July 2018

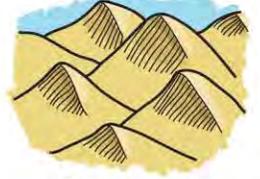
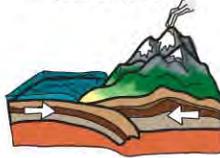
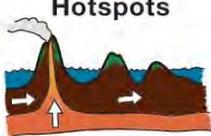
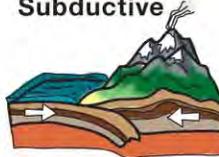
Photos by Pat & Bruce



GEOLOGICAL PROCESSES

AND HOW THEY SHAPE OUR EARTH

There are many different types of geological processes; some slow, and some fast. They are constantly at work changing the face of our Earth, both destroying land, and creating new land.

<h3>EROSION</h3>	<h3>EXAMPLES</h3>		
<p>Erosion is the process of materials moving from their source to another location through weathering. There are several types of erosion, but the most common are erosion by wind, water, and ice.</p>	 <p>River Deltas: Water Erosion</p> <p>Rivers carry sediment from farther upstream, and it is deposited at the ocean.</p>	 <p>Glacial Valleys: Ice Erosion</p> <p>Glaciers move materials from the mountains downslope as they move.</p>	 <p>Sand Dunes: Wind Erosion</p> <p>Wind moves the sand to new locations, building new dunes.</p>
<h3>WEATHERING</h3>	<h3>EXAMPLES</h3>		
<p>Weathering is the breaking down of rock, soil, and minerals. The main types are physical (including freezing, abrasion, and thermal stress) and chemical (including dissolution, oxidation, and carbonation)</p>	<p>Example of Physical Weathering: Abrasion</p>  <p>Abrasion weathering can be caused by wind or water carrying particulate matter, and as it passes rocks or other materials, the material is worn down.</p>	<p>Example of Chemical Weathering: Oxidation</p>  <p>Oxidation is caused by the reaction of materials with oxygen. The most popular example of this is rust, which is oxidized iron. This can be seen in iron-rich rocks.</p>	
<h3>PLATE TECTONICS</h3>	<h3>EXAMPLES</h3>		
<p>Plate tectonics states that the Earth's crust is broken up into different "plates" that slowly move and interact with each other. Where these plates meet are often very geologically active. There are three types of plate boundaries.</p>	<p>Transform</p>  <p>Transform boundaries occur where two plates slide along each other. Powerful earthquakes are common along transform boundaries.</p>	<p>Convergent</p>  <p>Convergent boundaries can result in either subduction (shown above, volcanos are commonly found here) or collision (resulting in uplift).</p>	<p>Divergent</p>  <p>Divergent boundaries are the only constructive boundaries (resulting in newly created land). They occur where plates pull apart.</p>
<h3>VOLCANISM</h3>	<h3>EXAMPLES</h3>		
<p>Volcanism refers to the phenomenon of magma from the Earth's mantle coming to the surface through openings. Volcanos are most common along Divergent and Subductive plate boundaries, and hotspots.</p>	<p>Hotspots</p>  <p>Hotspot are places where magma comes up through the crust, and as the crust moves from continental drift, a string of volcanos or islands are formed.</p>	<p>Subductive</p>  <p>Subduction increases volcanism due to the crust being pushed into the mantle. Often the material will rise to the surface as a volcano.</p>	<p>Divergent</p>  <p>Divergent zones will often have magma coming to the surface due to the gap created by the plates pulling apart from each other.</p>

GEOLOGICAL PROCESSES REVIEW

HOW THEY SHAPE OUR EARTH!

On page two of this worksheet, you will answer questions based on the information you read on page one.

Circle the best answer.

1. Erosion is:

- A.** The process of moving materials from their source to another location through weathering.
- B.** The breaking down of rock soil and minerals.
- C.** Magma coming up from the Earth's mantle through openings in the crust.

2. Wind carrying abrasive materials blows against a rock formation, wearing it down over time. This is an example of:

- A.** Erosion
- B.** Weathering
- C.** Oxidation

3. In the Pacific Northwest in the United States, a small earthquake happens off the coast. This is caused by:

- A.** Volcanism
- B.** Weathering
- C.** Plate Tectonics

4. True or False? The Grand Canyon was probably formed through wind abrasion.

- True
- False

5. The San Andreas fault in California is where the North American plate and the Pacific plate rub against each other, north to south. This is an example of a:

- A.** Convergent Boundary
- B.** Transform Boundary
- C.** Volcanism

6. The Hawaiian island chain is volcanic in origin. As time passes, new islands are formed from erupting volcanoes as the Pacific plate slowly moves. What is causing the volcanoes?

- A.** Weathering
- B.** A Convergent Boundary
- C.** A Hotspot

7. Which one of the following is NOT one of the three types of plate boundaries?

- A.** Divergent
- B.** Hotspot
- C.** Convergent
- D.** Transform

8. True or False? Weathering is the breaking down of soil, rock, and minerals over time.

- True
- False

Who What Where When Why How

July Birthdays

JUL 5 Ambria Tanner
JUL 16 Ellen Webber
JUL 21 Mike Lamonica
JUL 26 Julaine Reed
JUL 31 Meredith Capshaw

Random Rock Facts

Every crystal class is a member of one of the six **crystal systems**. These systems include the isometric, hexagonal, tetragonal, orthorhombic, monoclinic, and triclinic crystal systems. The hexagonal crystal system is further broken down into hexagonal and rhombohedral divisions.

Source: <http://dave.ucsc.edu/myrtreia/crystal.html>

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

Officers

President – Pat LeDuc
334-806-5626

Vice President – Garry Shirah
334-671-4192

Secretary – Bruce Fizzell
334-577-4353

Treasurer – Diane Rodenhizer
334-447-3610

Bulletin Editor – Joan Blackwell
334-503-0308
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Webmaster – Pat LeDuc
334-806-5626

Membership Chair – Diane Rodenhizer
334-447-3610

Show Chair – Jeff DeRoche
334-673-3554

Field Trips Chair – Garry Shirah
334-671-4192

Hospitality Chair – Vacant

Club Hostess – Vacant

Club Liaison – Garry Shirah
334-671-4192

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
28 Lakeview Trail, Apt. C
Daleville, AL 36322
Phone: 334-503-0308
Email: Tfavorite7@aol.com

Annual Dues

Single \$15
Family \$20

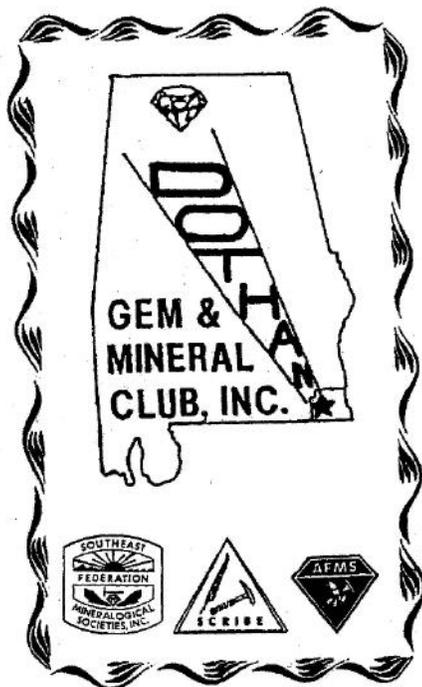
Refreshments

No meeting in July

ROCKHOUNDS HERALD

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Where you might hear...

Amber is neither a crystal nor a mineral. It is the hardened sap of an ancient tree. It started out as resin secreted to heal a wound. The resin protected the tree from a certain death by making a sticky, protective barrier against fungus. When the tree eventually fell and began to decay, the sap remained. Buried under layers of vegetation, earth and, sometimes, water, the sap continued to harden from the pressure and heat that naturally builds up in such conditions. This fossilized resin is the final product of millions of years of slow processing.

Source: <http://www.fossils-facts-and-finds.com/amber.html>

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Southeast Federation of Mineralogical Societies, Inc.
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