

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

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

June 2015



Words from...

The President

Well, summer time is nearly upon us. Our 1st social will be June 20th, the last official day of spring. We will meet at 12:00, spend some time visiting and planning, eat and play some bingo. Lunch will be Pot Luck and if you have a few items that can be used for bingo prizes, please bring them along. For those of you who have acquired new specimens or produced new creations, bring them along and we will do Show and Tell.

I have recently gotten out to visit with some of our long time club members. It just reinforces for me, how much talent and knowledge we have in our group. It also reminds me that it time to start thinking about classes and programs when we resume meetings in September. Please start thinking of about giving a class, doing a demo, or picking a video about a topic that interests you. We have good sized video library on all things rocks, gems and minerals.

Hope to see everyone at the social.

Pat

Announcements

Summer Socials – By the time you're reading this newsletter, the June social will have come and gone. However, there's still time to mark your calendar for the July 25th and August 22nd socials. In July, we will hold an auction where members keep the proceeds from anything they sell. In August, we will hold a second auction where the sale of member-donated items will go to the club treasury to help defray expenses from next year's annual show.

Upcoming Shows

July 11 – 12	Natrona County Rockhounds Club	Casper, WY
July 11 – 12	Oxford County Mineral & Gem Association	Bethel, MA
July 11 – 12	The Gem & Mineral Society of Syracuse	Syracuse, NY
July 16 – 18	Wyoming State Mineral and Gem Society	Cody, WY
July 17 – 19	Treasure of the Earth, Inc.	Virginia Beach, VA
July 18 – 19	Gem City Rock & Mineral Society	Casper, WY
July 18 – 19	Carlton County Gem and Mineral Club	Moose Lake, MN
July 22 – 26	Damian Bellgali Echo Valley Show	Franklin, NC
July 25 – 26	Long Island Mineral & Geology Society	Cutchoque, NY

Source: <http://www.the-vug.com/vug/vugshows.html>

Meeting Minutes – May 2015 – by Secretary

The meeting was called to order at 14:04 on 5/24/2015 by Pat LeDuc. There were 21 members in attendance and there were no guests. Birthdays for May were acknowledged.

CORRESPONDENCE: AMFS Newsletters, a notice for Tannehill events and catalog were the correspondence.

MINUTES & TREASURER REPORT: Minutes from April were approved with a correction changing the month being discussed for the 2016 show from April to March. Diane Rodenhizer presented the treasurer's report, which was approved.

OLD BUSINESS: No old business.

NEW BUSINESS: The annual gift to the Church was proposed for \$200, seconded and passed. Laurel Meints brought up the possibility of the club making a contribution to *Wounded Warriors* and this was tabled pending more information. Abby Pollan asked about maybe booking a table at Dothan's *Foster Fest*, for the purpose of getting new members. This idea was tabled pending more information about cost and commitment.

SHOW BUSINESS: Jeff DeRoche reported that after speaking to the Farm Center, it is possible to change the date of the show to the third weekend in March as a regular thing. There could be a conflict with Easter in March of 2130, but it was decided this was easily fixed by making it some else's problem. The only conflict at the Farm Center for 2016 was the *National Lancing Games* which also takes place on the Farm Center grounds. This was deemed a possible boost to our show attendance. The change of date for the show to the third weekend in March, ad infinitum, was proposed, seconded and passed.

The 2016 show dates will be Saturday March 19th and Sunday March 20th. Friday March 18th will be a set-up day.

FIELD TRIPS: Ken Wilson wanted to know if any field trips were possible or scheduled. Pat and others shared the following information: Other clubs in this area also have problems finding good local sites. There is a shortage of interesting sites that offer safe and legal access. The Alabama Rockhounds web site and Facebook page sometimes has helpful information posted. One of their members, Henry Barwood, the Alabama Rockhounds site administrator, may also be worth contacting with specific questions. Graves Mountain was mentioned as a longer trip. Arnie Lambert said the Chattahoochee River, where it crosses Rt. 90 in Florida at the town of Chattahoochee, was sometimes worth exploring at low water, however a boat maybe the best way to get to the better dig areas. We would need to check if there were local restrictions on digs. The Flint River was also mentioned. Finding good sites for field trips can be an on-going challenge. Club members were asked to share their knowledge. Anecdotal tips are not generally helpful; hard facts and vetting of leads is key.

SUMMER MEETINGS: June is the start of our Summer Socials. The June meeting will be on the 3rd Saturday, June 20th. For July and August, the meeting days will be the 4th Saturday. All three events will be held at the Church. The schedule is to meet at noon and eat at 1:00 PM. The activities will be as follows: June – Bingo, July – Open Auction (proceeds to the donator), and August – Silent Auction (proceeds to the Club).

PROGRAM: No program this month.

SHOW AND TELL: Jeff brought in his latest cabs. Arnie and JoAn Lambert showed an interesting opal floated in plastic (Lucite?) and a mix of other pieces. Abby showed her Mother's Day gift; blue and pick opals in a special mounting. Elliott Whitton had some wonderfully detailed state geological maps.

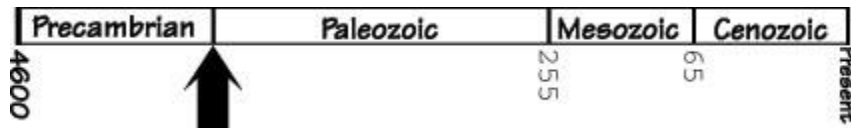
The meeting wrapped up with food and the door prize went to Bruce Fizzell.

Respectfully submitted by B. Fizzell

NOTE: The June Social will be on the 3rd Saturday, June 20th, at 12:00 PM – at the church!!!

Rocks of the Blue Ridge & Piedmont: Region 1, con't

Late Precambrian - Early Cambrian Rocks



In the late Precambrian and early Cambrian, when North America began to break away from the supercontinent and the Iapetus Ocean opened up, cracks in the crust formed that were similar to the younger Triassic rifts during break-up of Pangea. Some of these rifts enlarged and became basins that eventually filled in with sediment (of varying sizes) being eroded from the Grenville Mountains. Remnants of these ancient rift basins are found in the rocks at Mt. Rogers, VA, Great Smoky Mountains, TN, Reelfoot Lake, TN, Grandfather Mountain, NC and Lynchburg, VA. The last sediment filling the rift basins, known as the Chilhowee Group, were deposited in the early Cambrian (Figure 2.12). The rift basin sediment over time was compacted and cemented together to become the sedimentary rocks conglomerate, sandstone, siltstone and shale. These rocks were metamorphosed to slate, phyllite and quartzite during later mountain building events. These rocks are often referred to as “metasedimentary” due to the fact that their sedimentary structures are often well preserved.

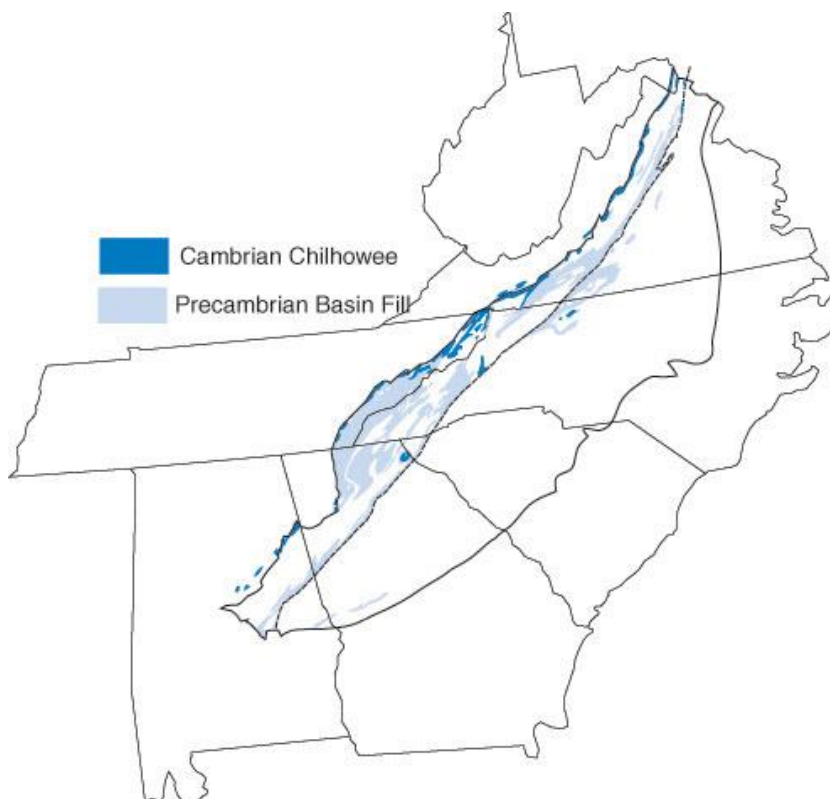
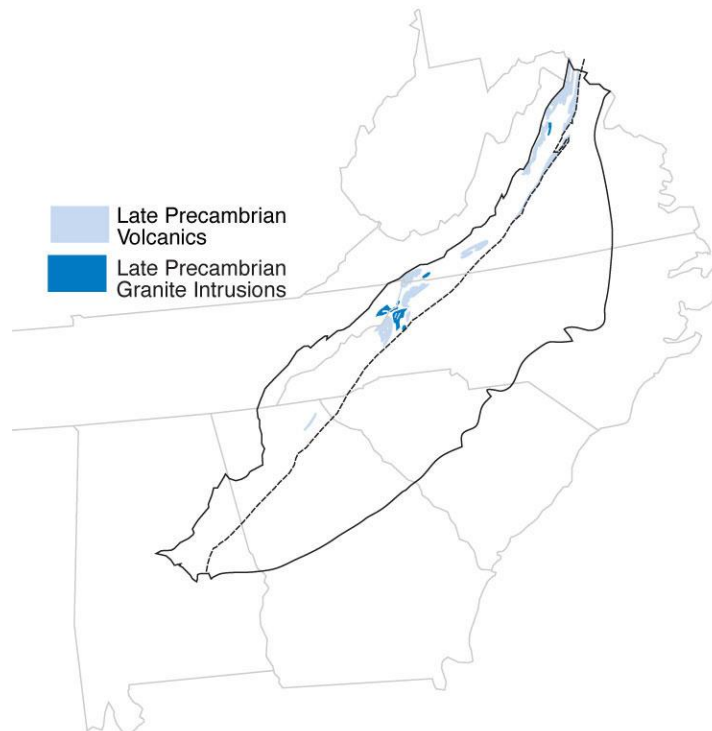


Figure 2.12: Late Precambrian and early Cambrian (Chilhowee Group) rocks of the Blue Ridge and Piedmont Region.

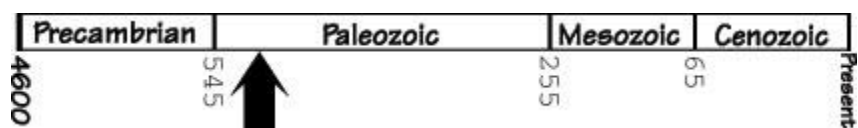
Volcanic activity was common along the margin of North America during the late Precambrian and early Cambrian as a result of rifting of the supercontinent and widening of the Iapetus Ocean. The rifts and fractures in the crust made pathways for emerging lava to pour out across the surface. Lava cooled to form volcanic rocks such as basalt (Figure 2.13). The Catoclin Basalt underlies the Maryland Catoclin Mountains and caps many of the peaks in easternmost West Virginia and the Virginia Shenandoah Mountains. The basalt was also highly metamorphosed during later mountain building events, becoming a very resistant greenstone or amphibolite. At Mount Rogers in southwestern Virginia, there is evidence in the rocks of an explosive Precambrian volcano that formed where the continents were breaking apart. The lava from the volcano eventually cooled to form very thick rhyolite sections (as much as 10,000 feet) in the Mt. Rogers region. The Mount Rogers volcano is extinct and all that is left behind of its active days are cooled lava (now rhyolite), cooled magma that never reached the surface (granite), and ash deposits. The volcanic activity from the shifting crust also caused great blobs of magma to rise up through the crust but not break the surface. The intrusive magma commonly cooled slowly, far beneath the surface, to form granite. The Southeast Grenville granites are exposed today because of erosion and uplift of the area (Figure 2.13).

Figure 2.13: Late Precambrian volcanic rocks and granite intrusions.



The Precambrian rocks (including the Grenville basement discussed above) and earliest Cambrian rocks were repeatedly subjected to enormous pressures and high temperatures from the colliding continents, recrystallizing to become metamorphic rocks such as gneiss, quartzite, greenstone, schist and amphibolite. Indeed, the erosion-resistant Precambrian rocks have become the "backbone" of the Appalachian range, preventing the mountains from being worn completely flat. The Blue Ridge rocks have been compressed by the collisions of the continents into a giant upward fold. The softer sedimentary rocks deposited on top of the crystalline core were eroded away at the peak of the fold, exposing the resistant Precambrian rocks at the center.

Cambrian - Ordovician Rocks



The late Cambrian and early Ordovician sedimentary rocks record the ancient North American shelf and slope sediment of the Iapetus Ocean. These sedimentary rocks were part of a wide bank of carbonate rocks that formed along the margin of the continent while the eroding sediment supply dwindled from the nearly worn-down Grenville Mountains. Because the sediment supply eroding from the mountains had decreased, carbonate-forming environments were widespread. Worldwide sea level was high during the late Cambrian and the Southeast (and most of North America) was entirely underwater. Sandstone and shale were the dominant rocks formed from the eroding sediments of the continental highlands, and limestone was formed from the carbonate sediments and shelled organisms in the inland ocean.

During the late Ordovician, the Inner Piedmont Iapetus Rocks collided with and were attached to the margin of North America. As the Taconic volcanic islands approached North America, the compression caused the original limestone, sandstone and shale to be metamorphosed in many areas, forming marble, quartzite, slate, phyllite, and schist (Figure 2.15). The Murphy Marble, stretching across northern Georgia into North Carolina, dates from the Taconic mountain building period and was originally formed from the build up of calcium carbonate at the bottom of the Iapetus Ocean.

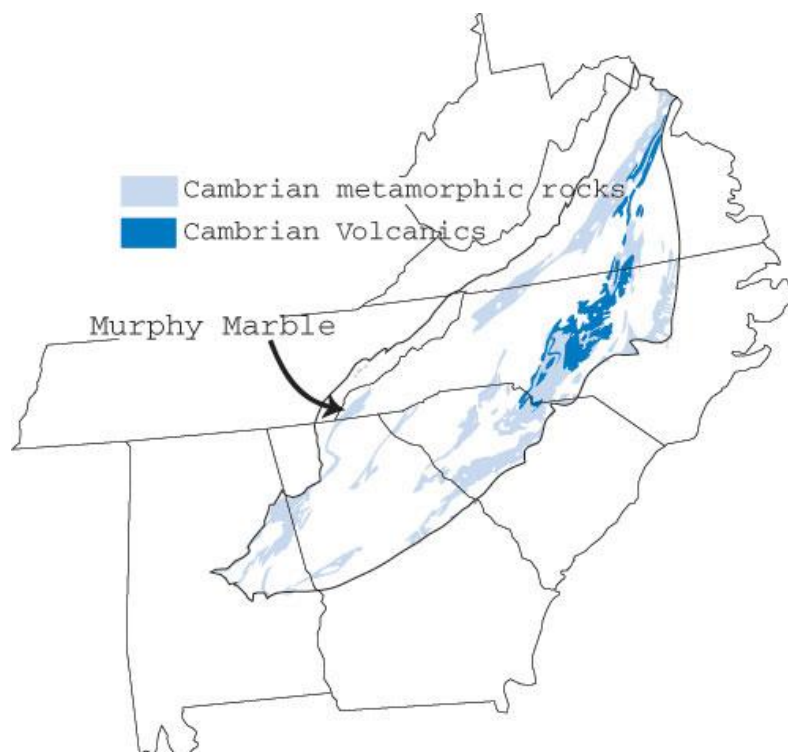


Figure 2.15: Cambrian metamorphic and volcanic rocks.

Evidence of the collision as well as the sediment associated with volcanic activity of the Taconic Mountain building period is found in the rock record of the Southeast. Ordovician-age metamorphosed sedimentary rock that originated from the Taconic volcanic islands is interlayered with metamorphosed volcanic rocks such as slate (originally ash) and greenstone (originally basalt). Ordovician-age igneous intrusions (most commonly granite, but also gabbro and diabase) resulting from the collision are located along the suture area where the Iapetus Rocks were attached to ancient North America (Figures 2.16).

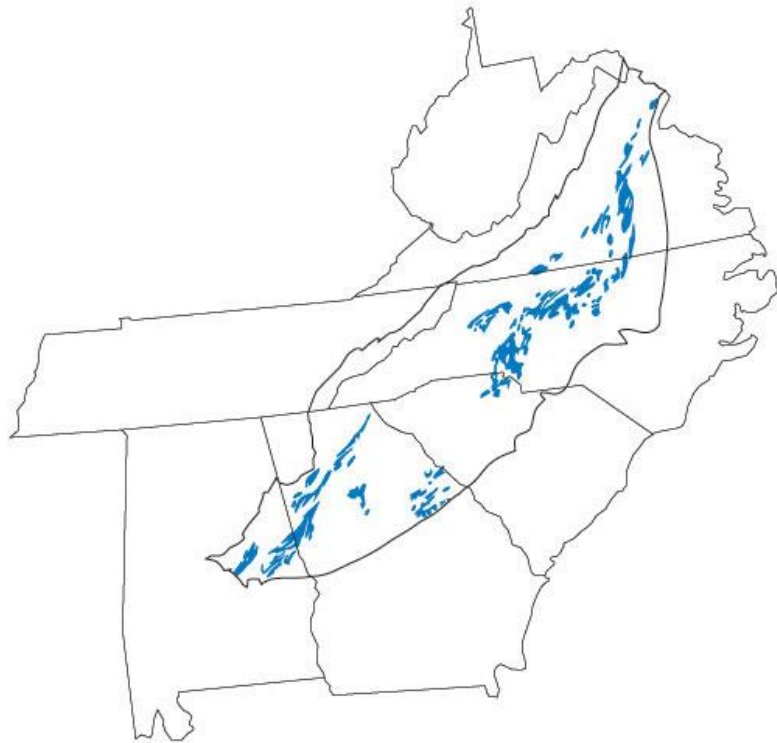


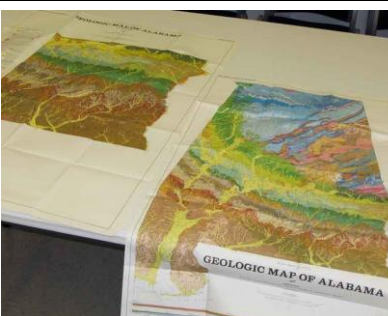
Figure 2.16: Granite intrusions related to the Ordovician Taconic mountain-building event. And Paleozoic mafic intrusions, including gabbro and diabase.

Picconi, J. E. 2003. The Teacher-Friendly Guide to the Geology of the Southeastern U.S. Paleontological Research Institution, Ithaca, NY.

Source: <http://geology.teacherfriendlyguide.org/index.php/how-to-use-the-guide-se>

Club Meeting – June 2015

Photos by Pat & Bruce

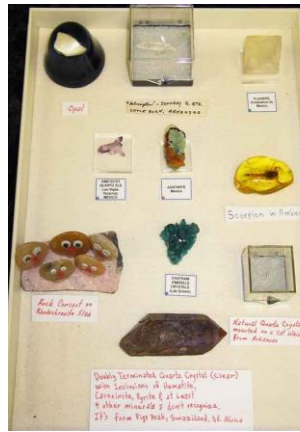


Pretty good attendance for a holiday weekend and we had some really beautiful specimens in Show & Tell.



Club Meeting – June 2015

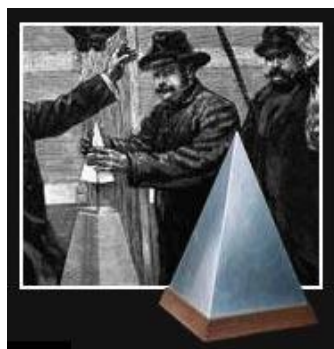
Photos by Pat & Bruce



Aluminum or Gold...Which is more valuable? It depends.

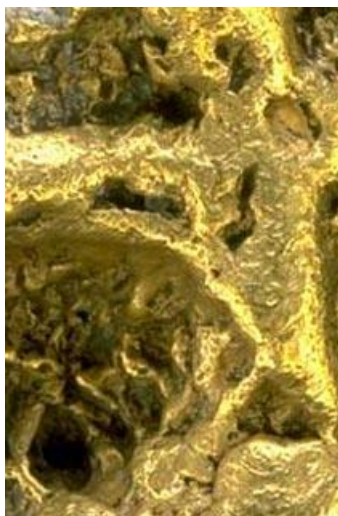
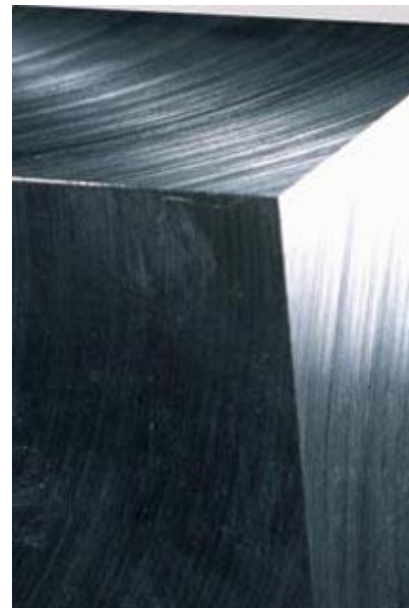
Aluminum

Abundant and versatile, aluminum is now cheap and widely available. But early in the 19th century, the French Emperor Napoleon III served food to his most distinguished guests on aluminum plates. Why was



When the Washington Monument was dedicated in 1885, it was topped with an aluminum cap. At that time, aluminum's price rivaled silver's.

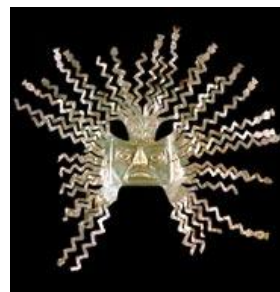
aluminum—the most abundant metal in Earth's crust—once so precious? For many years after its discovery in 1825, aluminum was extremely difficult to remove from rocks. In 1886, when an inexpensive method of extraction was developed, aluminum suddenly became cheap and widely available.



Gold

Glittering and durable, gold has historically been a symbol of wealth and power. Yet today, gold is a workhorse metal for high technology. Why is gold so valuable? Gold is scarce. Throughout all of history, only about 116,000 metric tons have been found—enough to make a cube about 18 m (59 ft) on a side. Gold is beautiful. Ancient cultures equated its brilliance with the Sun's, and we still prize its glow in jewelry and ornaments. Gold has properties valuable to industry, such as excellent electrical conductivity and corrosion resistance.

Sun rays flare out from this famous gold mask of Inti, the sun god of the Incas.



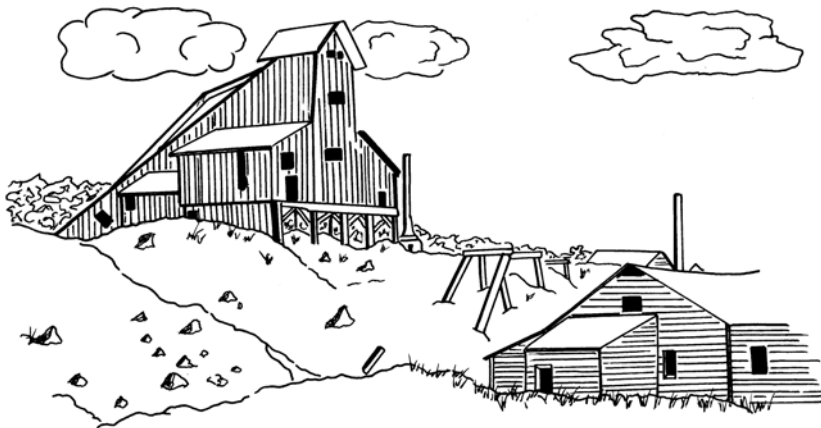
Minerals in the U.S.A.

In this word search are the names of minerals found in the United States of America. The names can run left to right, right to left, top to bottom, bottom to top or diagonally. When you are done, use the internet and find information and pictures of each mineral.

R	A	R	S	T	A	U	R	O	L	I	T	E	F	T
Q	H	P	E	T	I	R	A	B	A	M	W	T	R	O
U	R	O	C	V	T	O	P	A	Z	U	A	G	A	U
A	F	R	D	G	L	K	T	A	B	S	V	B	N	R
R	F	L	U	O	R	I	T	E	U	C	E	Z	K	M
T	N	A	I	L	C	X	S	L	P	O	L	E	L	A
Z	E	J	E	D	S	H	F	Y	G	V	L	T	I	L
O	P	M	E	R	C	U	R	Y	Y	I	I	I	N	I
S	T	B	V	I	R	I	U	O	P	T	T	O	I	N
K	U	N	Z	I	T	E	T	S	S	E	E	T	T	E
B	N	I	E	E	S	H	I	Z	U	I	K	I	E	T
D	I	A	M	O	N	D	L	B	M	E	T	N	N	R
E	T	I	L	A	H	P	E	C	O	P	P	E	R	O
D	E	T	I	C	L	A	C	V	D	W	R	B	A	N
D	A	T	O	L	I	T	E	A	N	E	L	A	G	A

Mineral names in this word search:

Copper; Fluorite; Galena; Staurolite; Rhodochrosite; Tourmaline; Garnet; Gold; Silver; Pyrite; Halite; Benitoite; Neptunite; Wavellite; Quartz; Barite; Diamond; Mercury; Sulfur; Gypsum; Topaz; Kunzite; Rutile; Trona; Muscovite; Datolite; Calcite; Franklinite.



Who What Where When Why How

June Birthdays

JUN 6 Roger Draughon

JUN 19 Abbey Pollan

JUN 25 Ben Childress

Random Rock Facts

June counts three gems as birthstones, pearl, Alexandrite, and moonstone. A relatively modern gem, *Alexandrite*, was first discovered in Russia in 1831 during the reign of its namesake, Czar Alexander II, and is an extremely rare chrysoberyl with chameleon-like qualities. Its color is a lovely green in both daylight and fluorescent light; it changes color to a purplish red in incandescent light. Due to its rarity, some jewelers stock synthetic versions of this enchanting gemstone. (Synthetic gemstones are man-made alternatives to the natural material, possessing the same physical, optical, and chemical properties as the natural gemstone.)

Reprinted with permission from the American Gem Society
Source: <http://www.americangemsociety.org/june-birthstones>



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 – Bruce Fizzell
334-577-4353

Hospitality Chair – Vacant

Club Hostess – Laural Meints
334-723-8019

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: Tsavorite7@aol.com

Annual Dues

Single \$15
Family \$20

Refreshments

JUN 28 – Potluck Refreshments

ROCKHOUNDS HERALD

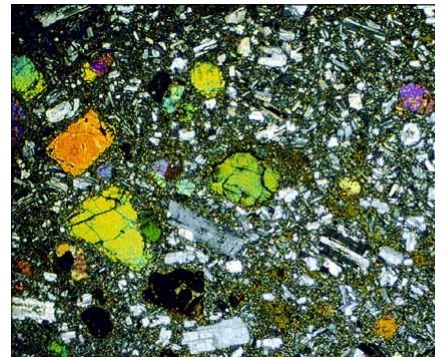
Editor – N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322

www.wiregrassrockhounds.com



Where you might hear...

Basalt is a dark, fine-grained, extrusive (volcanic) igneous rock with a low silica content (40% to 50%). Rich in iron, magnesium, and calcium. Most of the ocean floor is made up of basalt and it is the most abundant volcanic rock in the Earth's crust.



Although basalt is a fairly homely rock to the naked eye, the beauty of its perfectly-formed microscopic crystals is revealed under the microscope. This close-up photo (photomicrograph) of a very thin slice of basalt was taken through a microscope with polarized light.

Source: <http://geomaps.wr.usgs.gov/parks/rxmin/gbasalt.html>

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American Federation of Mineralogical Societies