

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

October 2017

Streak: White

Tourmaline

Mohs: 7.0 to 7.5

Words from...

The President

It was a good to see everyone after the summer break. Sounded like we had some pretty busy folks during the summer. Now that fall is here and cooler weather is moving in, time to start thinking about digs. The Hogg Mine has 6 more digs scheduled this year. We should think about going to one. There are also a bunch of places we can collect in north AL, GA and MS. Most of these places would require overnight or weekend trips, so we may try to join up with some of the other SFMS clubs when they are going.

Our first Show, Tell & Sell was fun. We got to look at a bunch of pieces that people made or collected over the summer. Several members also brought pieces for sale, too. I think most of us ending up buying something. Someone who brought a bunch of stuff to sell—because he is downsizing (Arnie Lambert)—ended up buying nearly as much as he sold. Once a rockhound, always a rockhound!

We turned in the SFMS raffle tickets. The drawings will happen during the SFMS annual meeting at the end of October. We will also be entered into a raffle for a chance to win a free registration to one of the SFMS workshops. Keep your finger crossed for the club. It would be awesome to see some of our folks win one of the great prizes.

We will be having a demo at the October meeting. Janie Schings will be showing us some wire wrapping techniques. If you have ever seen any of her pieces, you know how talented she is. It will be a good time to ask questions about the process and the materials. We will have Show, Tell & Sell after Janie finishes, so bring your treasures. As usual, we will have potluck so bring your favorite dish to share. Hope to see everyone on the 22nd.

Pat

Upcoming Shows

OCT 13 – 15	Huntsville Gem & Mineral Society	Huntsville, AL
OCT 13 – 15	Gem & Mineral Society of Louisiana	Westwego, LA
OCT 20 – 22	Knoxville Gem and Mineral Society	Knoxville, TN
OCT 21 – 22	St. Lucie County Rock and Gem Club	Stuart, FL
OCT 21 – 22	Kanawha Rocke & Gem Club	Orlando, FL
NOV 4 – 5	Tampa Bay Mineral and Science Club	Plant City, FL
NOV 10 – 12	Mississippi Gulf Coast Gem & Mineral Society	Pascagoula, MS
NOV 17 – 19	Columbia Gem & Mineral Society	Columbia, SC
NOV 17 – 19	Cobb County Gem & Mineral Society	Marietta, GA
NOV 18 – 19	Gem & Mineral Society of the Palm Beaches	West Palm Beach, FL
NOV 18 – 19	Northern Virginia Mineral Club	Fairfax, VA
NOV 24 – 26	Mobile Rock & Gem Society	Mobile, AL
NOV 25 – 27	Roanoke Valley Mineral & Gem Society	Salem, VA
DEC 1 – 3	Montgomery Gem & Mineral Society	Montgomery, AL
DEC 1 – 3	Withlacoochee Rockhounds	Hudson, FL
DEC 9 – 10	Mid-Tennessee Gem & Mineral Society	Franklin, TN

Meeting Minutes – September 2017 – by Secretary

CALL TO ORDER AND OPEN: The meeting was called to order at 2:08 PM by President Pat LeDuc. There were 16 members and 3 guests. Our guests were Neil and Brenda Spooner, brought by Elliott and Jane Whitton. Our third guest was Catherine Patterson, who arrived as a guest and left a member! How cool is that?

INTRODUCTORY REMARKS: Pat reminded us this would be the last chance to purchase SFMS Scholarship Raffle tickets. Through the sale of tickets we raised about \$85 that will be sent to the association this week. Our attention was directed to the new and improved Show & Tell, now known as Show, Tell & Sell. Members can bring in items to the meeting they are offering for sale and keep the proceeds. The items are not limited to rocks, gems, minerals and such. We were also reminded to check out the Landmark Park display! It is wonderful, and even answers the age old question about how much water does it take to sink pumice. The club by-laws were revamped over the summer and the members in attendance today voted and passed the changes.

CORRESPONDENCE: AFMS Newsletter.

MINUTES & TREASURER REPORT: Minutes from last meeting were approved and seconded. Diane Rodenhizer presented the Treasurer Report, also approved.

SHOW BUSINESS: Show Chairmen, Jeff DeRoche, was not able to make this meeting due to being volunteered as a moving technician on loan to fellow member, Christina Roberts. Fortunately, this is a slow time of the year for show matters. Garry Shirah told us the farm center rental amount is still unresolved at this point. We had a brief, unresolved discussion about charging admission at the next show. We also raised the issue of offering Grab Bags again at the show and budgeted \$200 for materials to stuff the bags. Further discussion was tabled until Jeff returns and can provide us with a final count of the number of bags that were made up last year. Based on attendance we may want to make about 25 more for 2018, and we are still trying to decide whether they should be sold or given away.

FIELD TRIP REPORT: There are closed digs coming up at Jackson Crossroads and Graves Mountain. Garry will investigate and advise. These are digs where new material is machine excavated and exposed. There may also be an upcoming sluicing event at the Alabama Gold Camp that participants can buy shares in. Untold fortunes await!

NEW BUSINESS: Aside from revising the by-laws in the Summer Work Sessions, the officers and other members addressed the topics of promotion and publicity, attracting new members, and a new meeting structure.

Revised By-Laws: Most of the changes to the by-laws were minor ones, e.g., taking out some outdated wording and such. The main change was to the official Club Year. The fiscal year of the club now starts September 1st instead of January 1st. Existing members will be levied a prorated amount to cover their membership dues for the 8 months from January 1, 2018 to August 31, 2018. Therefore, singles who were previously paid up through December 2017 will be asked to pay \$10 and families will be asked for \$13. That will allow members to have uninterrupted insurance coverage.

Promotion and Publicity: We are working to get notices of our meetings routinely posted placed in approximately 15 different newspapers and web outlets. This is proceeding well. Our Facebook page, "Wiregrass Rockhounds", is a work in progress, as well. Pat plans to track down Neil and Abby Pollan, creators of the site, to get FB lessons.

Attracting New Members: This is an ongoing work in progress. The publicity angle is designed to attract new members, as is a meeting structure with regular speakers, demos, workshops and videos. We seem to be on track with our field trips as well. The Landmark Park display might snare us some new folks. All members are encouraged to bring guests.

New Meeting Structure: See above. Having regular speakers, demos, workshops and videos are all important to getting meeting attendance up. The Show, Tell & Sell is another new part of meetings. Also, having "open to the public" auctions in the summer, a la the Mobile Club, was discussed.

PROGRAM AND SHOW, TELL & SELL: Due to a misunderstanding regarding dates, our scheduled speaker was not able to attend today. Pat, Joan Blackwell, JoAn Lambert, and Ken Wilson had various items to share with us that had been made, collected or purchased over the summer. Several other members brought in items for the first "Sell" portion of the meeting. Janie Mae Schings is scheduled to speak and do a demo for our October meeting.

The meeting wrapped up with food and the presentation of this month's door prizes. The prizes went to our guests Neil and Catherine.

-- Respectfully submitted by B. Fizzell

The Vivid Blue Mineral That Grows on Buried Bodies and Confuses Archaeologists



A close up of the mineral vivianite on a piece of bone. TERRY O'CONNOR/CC BY 3.0

In 1861, a railway engineer by the name of John White passed away, was buried in a cast iron coffin, and began a slow transformation from White to blue.

The explanation for this spooky color change, which has occurred on numerous occasions all over the world, lies in the composition of the human body. Among the molecules contained within us is phosphate, a central phosphorus atom bound on four sides to atoms of oxygen. Phosphate is present in the hard bits of bones and teeth (as part of the mineral hydroxylapatite), helps hold together strands of DNA and RNA, and is used by cells to store and move energy around as well as to organize their many protein-driven activities.

If a dead person ends up buried somewhere waterlogged, lacking in oxygen, and loaded with iron, the phosphate leaking from their decaying remains can slowly combine with the iron and water to form a mineral called vivianite. It starts out clear and colorless, but will rapidly turn progressively darker shades of blue upon exposure to air as the iron within it reacts with oxygen. The formation of vivianite (also known as blue ironstone) is helped along by bacteria which act to dissolve iron out of soil and phosphate out of bodies while also directing the growth of the blue crystals.

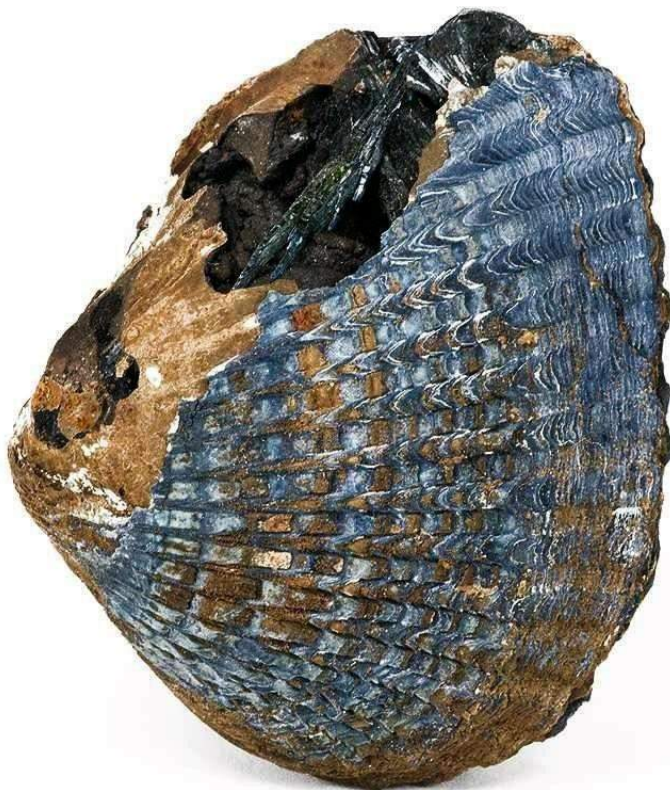


Vivianite on a fragment of bone. TERRY O'CONNOR/CC BY 3.0

In the case of Mr. White, in keeping with the styles of the time, his coffin had a glass window installed in the front so his face could be seen by mourners when the lid was shut. At some point after burial, the glass had broken, allowing groundwater to seep inside and react with the cast iron coffin and phosphate-rich body. The end result was a corpse surrounded by blue vivianite crystals, revealed when the coffin was exhumed as part of an archaeological rescue excavation over a century after being buried.

Vivianite can form in, on, and around human remains. It appears as crusty patches on bones, needle-like crystals within the pulpy centers of teeth, and discolored blotches on skin. It's also been found on adipocere, the waxy gunk occasionally produced as fat-filled flesh breaks down under cold and wet conditions.

Partially blue human remains have been recovered from graveyards, past war zones, and alpine lakes and glaciers. As iron is an essential ingredient in vivianite, it tends to show up in naturally iron-rich locales or in cases where a corpse ends up near a source of the metal: cannonballs strewn about a battlefield, the site of a plane crash, or iron coffins in an older cemetery. The skin of Ötzi the Iceman, a 5,000-year-old mummy discovered in the Ötztal Alps between Austria and Italy after the glacier it was encased in partly melted away, is dotted with blue spots marking where it had been in close contact with iron-bearing rocks.



Vivianite on a fossilized mollusc shell. [ROB LAVINSKY/ IROCKS.COM/ CC-BY-SA-3.0](https://irocks.com/)

In addition to giving the dead a splash of color, the presence of vivianite can both help and hinder their investigation by archaeologists and forensic researchers.

Firstly, vivianite can tell us about what happened to a person's body after their death. In 1963, an American B-26B aircraft went down over a mountainous part of South Vietnam. Its crew was subsequently listed as missing in action. Decades after the war, their blue-tinged skeletal remains were identified and returned to the US. American investigators were initially confused by the blue material, suspecting it to be paint intentionally added by someone who handled the remains while they were in Vietnam. With further study the material was revealed to be vivianite, leading the investigators to speculate that the crew had been buried in waterlogged soil dosed with iron from their corroding aircraft—ideal conditions for the blue mineral to arise.

Vivianite can also disrupt efforts to study human remains. It's a thorn in the side of archaeologists who use DNA from well-decayed dead people to learn more about their ancestry and other gene-encoded characteristics.

After discovering a mass grave of soldiers who perished during a clash between the Austrian and Prussian armies in the spring of 1757 near what is now the city of Liberec in the Czech Republic (as part of the Seven Years' War), researchers had trouble analyzing DNA extracted from the skeletons. They traced the source of their problems to the blue crust coating the bones they were getting the DNA from.



Traces of vivianite on rocks. RODNEY BURTON/CC BY-SA 2.0

Iron-containing minerals such as vivianite can mess with the molecular tool used to access small amounts of DNA present in biological remains. This tool, polymerase chain reaction (usually shortened to PCR), is essentially a DNA photocopier, making vivianite a paper jam of sorts. The inhibition of PCR by vivianite led the researchers to develop a new method for analyzing bones containing the disruptive mineral.

Finally, vivianite can protect human remains and provide information about burial sites. The North Brisbane Burial Grounds is a collection of cemeteries used until 1875 to bury deceased residents of Brisbane Town, now the capital of city of Queensland, Australia. A century later, it was partially excavated during a construction project, leading to the discovery of 25 graves containing vivianite. Researchers discovered the blue coating on the bones and teeth had helped to slow their decay, improving their archaeological value. The presence of vivianite also served as evidence of occasional flooding of the burial grounds, confirming what had been reported in an early Brisbane newspaper.

Mr. White may have changed color thanks to vivianite, but a couple of other minerals can have a similar effect on the dead. Blue-green copper minerals are known to show up on human remains if there are objects such as bullet jackets, jewelry, or clothing buttons made of the metal nearby. No one said decomposition couldn't be a little showy.

ARTICLE BY CHRIS DRUDGE
OCTOBER 25, 2016

Source: <http://www.atlasobscura.com/articles/vivianite-blue-human-remains>

Club Meeting – September 2017

Photos by Pat & Bruce

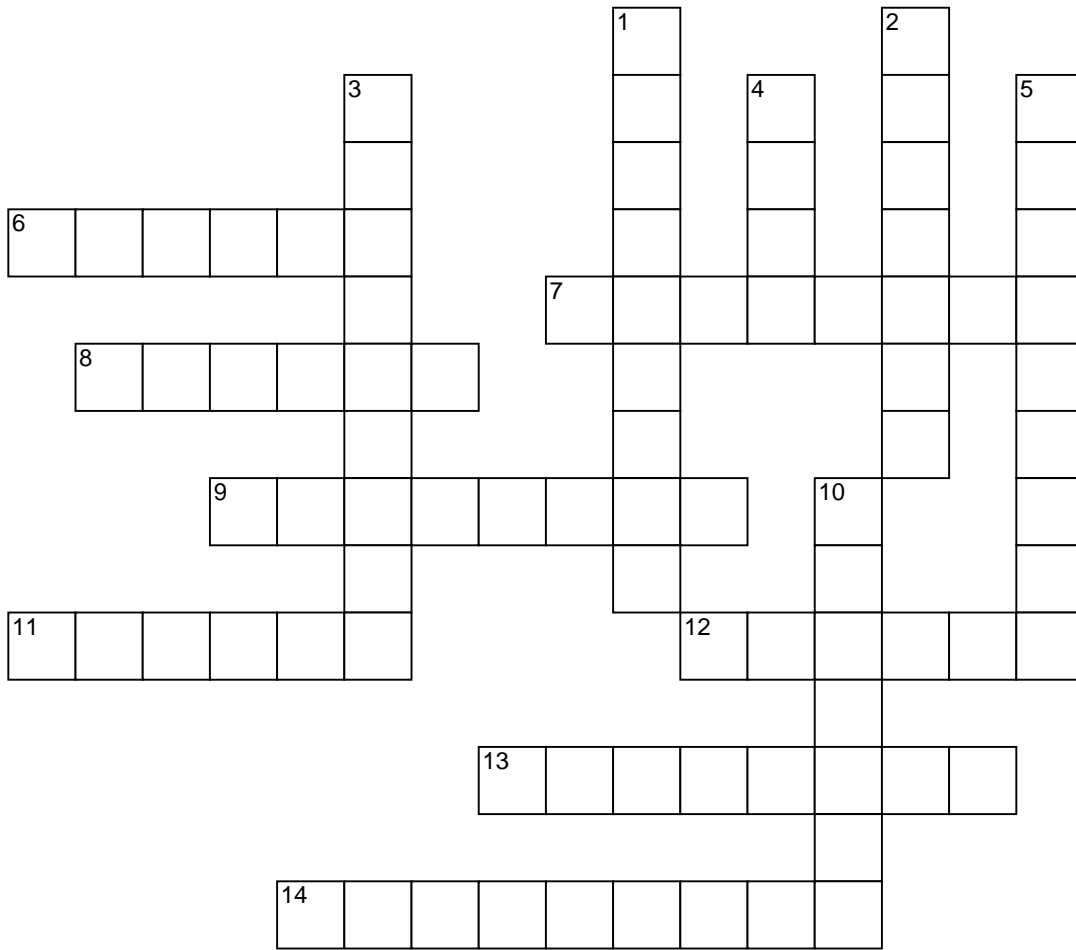


Club Meeting – September 2017

Photos by Pat & Bruce



Common Minerals



www.rocksandminerals4u.com

ACROSS

- 6** the main source of lead
- 7** an iron ore, sometimes used in jewelry
- 8** sometimes called fool's gold
- 9** sulfide mineral, long metallic slender bladed crystals
- 11** a very heavy sulfate mineral
- 12** rock salt
- 13** calcium fluoride
- 14** a bright green copper carbonate

DOWN

- 1** a naturally magnetic rock
- 2** a bright blue copper carbonate
- 3** metamorphic quartz sandstone
- 4** a silicate mineral known for its perfect cleavage into thin sheets
- 5** strontium sulfate, its name means celestial
- 10** a common carbonate mineral, often a replacement mineral in fossils

Who What Where When Why How

October Birthdays

OCT 2 Pat LeDuc
OCT 8 Maxine Johnson
OCT 16 Tavia Pensinger
OCT 17 Gary Meints
OCT 19 Anne Trice
OCT 30 Staley Pensinger

Random Rock Facts

Using a diluted form of acid allows rockhounds to perform a quick field test to distinguish between common carbonate rocks. While 10 percent hydrochloric acid is typical for this purpose, even household vinegar can be used—though admittedly with slower results. In HCl, Dolomite from a chip of marble will fizz immediately but gently, while calcite from a chip of marble will fizz vigorously.

It is important to note that some minerals react differently to cold and hot acid. For example, Calcite bubbles strongly in cold acid, while Magnesite, Siderite and Smithsonite will bubble only in hot acid.

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

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

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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

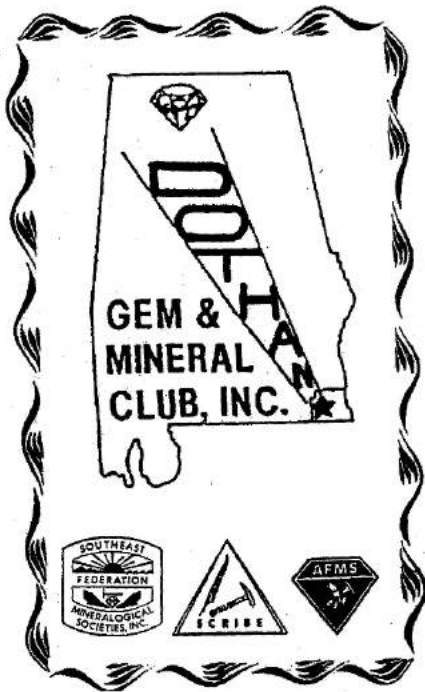
Refreshments

OCT 22 – Potluck Refreshments

ROCKHOUNDS HERALD

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Where you might hear...

In the monoclinic system—one of six crystal systems—two of the axes, A and C, meet at 90°, but axis B does not. All axes in the monoclinic system are different lengths. Monoclinic system minerals include azurite, brazilianite, crocoite, datolite, diopside, jadeite, lazulite, malachite, orthoclase feldspars (including albite moonstone), staurolite, sphene, and spodumene (including hiddenite and kunzite) – each of which form in one of these three basic shapes:

Monoclinic System



Prism



Prism



Clinopinacoid

Source: https://www.gemsociety.org/article/mineral-habits/#The_Isometric_System
What are Crystal Systems and Mineral Habits? by Donald Clark, CSM IMG
Used with permission from Michael Martinez.

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