

<http://www.ozarkearthscience.org>
<http://www.ozarkearthscience.org/news.htm>

Meeting
Second Tuesday of each month
Van Matre Senior Citizens Center
1101 Spring Street
Mountain Home, AR

Ozark Earth Science Gem, Mineral & Fossil Club
A Member of the AFMS and MWF of Mineral Societies

August, 2009

No 50

Vol. 8

Page 1

President	Vice President	Secretary	Editor	Treasurer
Sharon Waddell	Edward Hakesley	Julia Blanchard	Brenda Johnson	Dorothy Hess
6463 Hwy 63	821-1 Alexis Circle	307 CR 901	1424 CR 18	1177 CR 1084
West Plains, MO	Mtn. Home, AR	Midway, AR	Mtn. Home, AR	Mtn. Home, AR
417-256-8948	870-424-0956	870-481-5876	870-481-5697	870-481-5944

Sharon Waddell: Liaisons Officer See address above.

OBJECTS: To study and promote an interest in the earth sciences; Geology, paleontology, mineralogy, archaeology and the lapidary arts.

Meeting: The second Tuesday of each month at 7:00 p.m. in the Van Matre Senior Citizens Center, 1101 Spring Street (Cooper Park), Mountain Home, Arkansas

Dues: Active adults \$12.00 per year or family membership of \$20.00 per year. Junior membership is \$4.00 per year. Nonresident membership is \$8.00.

The President's Message

Murphy's Law: If everything is going right, watch out 'because something is wrong!

I just sat down at my computer to write a president's message and yes, you guessed it – the screen is blank and will not come on. How do you pull together your rambling thoughts without the ability to edit, copy and paste? So pardon this communiqué, 'because it is after midnight, there is a deadline to meet and I am not at my best?

After a month of traveling, I am glad to be home, but oh – the things that need to be done. There is grass to mow, weeds to pull, unpacking to be done; new specimens to unwrap, box, identify and price; a special order to pull, after they are located in my over flowing garage, and most importantly, a show to prepare for. This is the clubs first major attempt of a real show. The library shows paved the way, but this is the first time we have had outside vendors. Your show chairmen (**Ed** and **I**) are worried. Can we pull this off? Do we have enough club members to get everything done, (set up, refreshments, club greeting table, silent auction, and people to tear down afterwards, etc.)? As I pointed out last month, the club needs everyone's cooperation to make this show a success. Without all your efforts, no club can stand.

I will see you at the August meeting. We need to know where YOU intend to help.

As always, happy rock hunting.

Sharon

**Minutes of the Ozark Earth Science Meeting
Mountain Home, AR
July 14, 2009**

The meeting was called to order at 7:05 P.M. by Vice President **Ed Hakesley**.

Guests: **Ed Hakesley** asked guests attending the meeting to introduce them and also to choose a guest door prize. Guests attending: **Dagnija Ernins, Natalie Earls, Jim Blakeslee, and Mary & Gerry Nissen.**

Financial Statement and Minutes: The financial statement was presented by Secretary **Dorothy Hess**. **Ed Hakesley** asked to approve the financial statement and minutes for the June Meeting as stated. A motion was made by Harvey Johnson and seconded by Gretchen Neal.

Old Business:

Show:

Fliers: **Gretchen** and **Julia** brought more fliers to pass out to any contacts members can think of; Locations including stores, beauty or barber shops, meetings, church, etc... for advanced advertising of our upcoming show.

New Business:

New Program: **Brenda Johnson** received a post card advertising a 20 minute program on the Tucson Arizona Show. She suggested the club purchase this to be shown at a future meeting. The membership voted to purchase the program.

Board Meeting: **Ed Hakesley** stated that a board business meeting needed to be held before the next club meeting in August, to finalize any show plans. The meeting date and time selected is Sunday, July 26th at 1:00 PM. This will be held at Hardees in Mountain Home.

Program: The evening's program was a DVD presentation on the Volcanic Activity and Phases of Volcanic Activity.

Field Trips: **Ed Hakesley** stated that our field trips had been postponed until fall, due to the extreme heat wave this summer.

The meeting was adjourned at 8:25 p.m.

Executive Board Minutes

The Ozark Earth Science Gem, Mineral and Fossil Club executive members met on Saturday, July 25, to discuss the preparation of the upcoming show, among other things.

Set Up

Club members who will be working on the set up will be asked to arrive at 6:00 a.m. and dealers will be aloud into the building at 7:30 a.m.

Advertisement

Brenda Johnson suggested someone contact KTLO radio station about going on *The Talk of the Town* to announce the show.

Edward Hakesley said West Star Fitness Center had an area to put up a flyer at a cost of \$20.00, the money goes to the Mountain Home High School, and it was voted that the club pay for having the flyer there for three weeks at the \$20.00 price.

Julia Blanchard has had posters and signs made and said signs will be displayed along the route to the show and will be put into place on the Wednesday before the show.

Demonstrations

A.J. Johnson agreed to demonstrate how to cab on a diamond capping machine.

Brenda Johnson will do demonstration on micromounting.

Gretchen Neal will demonstrate how to wire wrap, but will have to do so at her table.

Door Prizes

Tickets will be sold at the door for \$1.00 each for a chance at either a fossil or a mineral for the Grand Prize to be drawn at the end of the last evening before breakdown. The winner will not have to be present. Every two hours a free door prize will be drawn. Winners must be present to receive the prize.

Other Business

Other show preparations were discussed, to be taken up at the regular meeting by the president.

Board Meetings: It was decided that board meetings will now be conducted one half hour before all meetings, beginning with the September club meeting.

Programs: **Ed Hakesley**, program chairman, asked if the club could set aside \$50.00 for payment to get speakers to come in for programs. It was voted on and passed unanimously.

The meeting adjourned at approximately 2:15 p.m.

From the Editor of the Tulip City Conglomerate, June, 09

The Omnibus Public Lands Management Act of 2009 has been signed by President Obama in March and is now law!

There are over **150 bills** combined into this one Act, designating over **two million** acres as Wilderness-Federal Property.

How does this affect the amateur hobby collector? Encompassed in this 1200 page Act included the **Paleontological Bill**, which makes it illegal to pick up any **invertebrate fossil or plants** on Federal Property (not limited to fines and the removal of your vehicle for doing so). See link for details: <http://thomas.loc.gov/cgi-bin/query/F/c111:4:./temp/~c111SvTmlk:e61070>

Amateurs have made some of the greatest fossil finds of our time! I don't know about you, but I have many unanswered questions. Will the fossils, now exposed, be destroyed by erosion because no one will discover them? What land is available for my future rockhound child to discover a fossil?

The ALAA need your support now more than ever. Their next meeting is Saturday, August 1 in Billings, MT, at the AFMS show in the Cottonwood room.

The American Lands Access Association's purpose and need is the same: "promoting and ensuring the right of the amateur hobby collecting, recreational prospecting and mining, and the use of public and private lands for educational and recreational purposes; and to carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators and public land managers." www.amlands.org . Help protect our rights and public land as it is slowly disappearing.

You can help support the ALAA by an annual membership fee of \$25 or \$50 for a club.

Remit to: Joyce Hanschu, Treasurer
6607 Sturbridge Lane
Canton, MI 48187-2638

As your own Editor, I would like to reiterate here that it is also illegal to pick up artifacts, and relics such as old railroad nails, old mining tools, colored glass, old bottles, or other related objects, while you are on federal lands; and remember, collecting fossils on federal lands also means, no collecting along federal highways for certain fossils. So please be aware of this. The way these bills are written, if caught, you could be tied up in court for years trying to prove your innocence, and trying to retrieve your personal property. So please be aware now in order to prevent problems in the future. One bad rockhound makes it hard for all rockhounds. Brenda

Safety by Bill Buckner

Selected by Aradasa Johnson, Safety Chair

http://www.amfed.org/news/n2003_06.htm#safety

Concerns of safety issues in our shops, studios, or whatever we call our places where we work with lapidary concerns and jewelry making.

1. Ventilation: either have enough room or have some way to get enough fresh air that there is no danger of breathing problems.
2. Eye safety: a pair of safety glasses (either prescription or goggles) is needed when using machinery and rocks or minerals. In breaking stones, sawing stones, grinding stones, or polishing stones small pieces of rock could hit your eye and cause damage.
3. Chemicals that we use: care should be taken to be extremely safety minded when we use these toxic chemicals. Follow directions on the containers. Most chemicals that mix with water should be mixed into water, not water added to the chemicals.
4. Storage of chemicals: they should always be stored in a safe place with a good cover on them and out of reach of small children. I try to store mine in a wood rack with wooden dividers between the bottles or containers. They should always be labeled properly.

A few DO NOT'S:

- A. Do not store gasoline or use it in a room where a gas water heater or any gas appliances with pilot lights.
- B. Do not haul acetylene in a closed trunk or car or truck cab without at least two windows open at least two inches. When there is an acetylene leak enough gas might build up to cause an explosion.
- C. Do not try to use tools or torches when you are drowsy from medication. In fact it is a good idea to rest a little while before you go into your shop if you feel tired or sleepy.
- D. Do not forget ventilation.

Some DO'S:

- A. Do be careful.
- B. Do have a good time.
- C. Do good work.

**Welcome to new members
Gerry & Mary Nissen. We
are glad to have you as
members and look forward
to your input into the club.**

RHYOLITE

By Mina Sifrit, Member McPherson Gem & Mineral, McPherson, KS

Rhyolite is igneous-volcanic. The texture varies from small separate grains of crystals to partly glassy. There may be small embedded crystals. The structure may have flow banding with small spherulites (little spheres) or vesicles (a small cavity in a mineral or rock).

Pumice rhyolite is very porous and brittle. It is sponge-like in appearance and light enough to float in water. The colors of rhyolite are mostly light colored minerals in shades of gray, yellow and pale to deep red. The hardness is usually 6 to 6½.

The minerals in rhyolite are quartz alkali, feldspar, biotitic, amphibole, which usually includes hornblende, and magnetite. Opal, orthoclase, sanidi and topaz may also be included.

It occurs as lava flows in small bodies such as dikes and sills. Rhyolite is formed when magma that has granitic composition erupts at the surface of the earth or intrudes the crust at shallow depths. Since this type of lava flow cools quickly only small crystals, most of microscopic size are able to develop. It hardens almost quickly enough to become volcanic glass.

Rhyolite is found in Mexico (San Luis Potosi) and Utah (Juab Co.). Great flows of it can be seen in Colorado and are crossed by the Canyon-Norris Basin in Yellowstone National Park. Rhyolites are often found in Great Britain and some can be found in other parts of Europe.

Sources: *The Audubon Society Field Guide to North American Rocks and Minerals*, a Borzoi Book Published by Alfred A Knopf, Inc

The Rock Book by Carroll Lane Fenton & Mildred Adams Fenton, Doubleday & Co., Inc., Garden City, NY.

From the Rock Post, July, 2009

ELIMINATING FLAT SPOTS

By Ted Robles, via Hints & Tips, T-Town Rockhound, July, 2009

Awhile back someone was saying he was having problems with getting 'flats' on his cabs, that there was insufficient 'give' in his wheels, and it didn't seem to make any difference no matter how much pressure he applied. That was his first mistake.

Diamond and corundum are two different animals, relatively speaking, about the same difference as between quartz and chalk. If you 'lean into' a diamond wheel, you will get lousy results (flats, etc.) on your stone, and your wheels will wear out long before their time. On diamond, you try to do your cutting (and everything else) by almost not touching the wheel. Use essentially no force. Don't 'grind' the stone, let the diamond wear it away, but keep it spinning.

Flat spots---continued

The technique is simply to use the whole face of the wheel and keep your cab moving. Any time you stop, you just bought a 'flat'. Can't help it! It's the same principle as sharpening a knife on an emery wheel. If you don't want notches in your blade, you keep it moving. Do almost all of your cutting on the coarsest wheel you have. If you leave any flats on the perform, you're going to have them on the final piece....can't help it.

From the Rock Collector, February, 2008 and Hourglass News, March/April, 2009

POLISHING RHODOCHROSITE

**By Bob Daniel, from Council Reporter, Oct., 2001,
"Tin Oxide, Acid Give Rhodochrosite Polish**

When cutting rhodochrosite, it is important that only water be used in the saw. An oil-based product will be absorbed, and the stone's color deadened.

After the material is ground to form, sand first on 220 grit, wet, then on 400 grit, wet; for best results use worn sanding cloths.

Tin oxide is perhaps the best polishing agent for rhodochrosite. Some lapidaries report good results from tin oxide that has been mixed with a small amount of vinegar and used on a felt wheel.

Another method is to mix two teaspoons of tin oxide and one level teaspoon of oxalic acid in half a pint of water and use on a leather buff. In this formula, be sure that not more than a third by volume of acid to tin oxide is used or the stone will be damaged. This also works well on marble.

From Hourglass News, March/April, 09 via **Hints & Tips**, T-Town Rockhound, July, 2009

THE KA-DO-HA INDIAN VILLAGE

Arkansas has a very educational and really neat place to take the family for a quick and interesting vacation. The children will love it. It is the KA-DO-HA Indian Village near the Crater of Diamonds State Park in Murfreesboro, AR. They have their own museum, gift shop, and out



Village continued...

back, they have the actual replica of a true KA-DO-HA village. As their brochure states, "At KA-DO-HA Indian village you will be able to gaze backward into time and see beautifully molded and decorative pottery, pipes, and expertly chipped flint, all fashioned by hand by these artistic people. You will learn how the mysterious mounds were constructed and you will see the reconstructed mud and straw houses. You will come to understand their customs, their ceremonies, and their way of life."

If you haven't ventured a vacation because of the economy, take the children to Murfreesboro and see the KA-DO-HA Village to see how the Mound Builders of approximately 1000 years ago lived.

You can take in their rock shop and museum and maybe even buy a piece of nice Indian Pottery. The village is located 1¼ miles from Murfreesboro, but it is very easy to find. Just follow the signs as you go toward town.

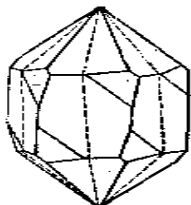
Then if you have a mind too, go try finding a diamond. You just might get lucky! Or, if you are a fisherman, there are nearby lakes, if a hiker, nearby trails. Arkansas has so much to offer. Why spend hard earned cash on high priced vacations. See the Natural State.

Recap of July program

Our club meeting was very unusual last month, as our President was away, the Senior Citizen's Center hid the remote controls, the people who had refreshments didn't show up, and our show and tell table was without lights or table cloths. Yet, we had a very educational and interesting program on how the different phases of Volcanoes from one of our club DVD's that was donated by **Bud Higgins**, manually set up by **Ed Hakesley**. Everyone learned about the formation of volcanoes and why some are more violent than others.

Our next program will be one on basic paleontology, a VHS movie on *Magic in the Rocks* with David Attenboro narrating.

Bring in your fossils and share your stories with other members on how and where you collected them.



Refreshments are by **Harvey and Brenda Johnson** this month

TEST YOUR KNOWLEDGE OF MINERAL TERMS

Match the definition with the correct term in the left column (From Glacial Drifter, 5/07, T-Town Rockhound, July, 09) Answers are on page 11.

#	TERM	DEFINITION
1.	Igneous rock	___A. rounded, kidney shaped mass
2.	Inclusion	___B. with luster like that of silk
3.	Iridescence	___C. outline of an object can be seen through it
4.	Massive	___D. with luster like that of broken glass
5.	Matrix	___E. without definite structure or form
6.	Metamorphic	___F. crystal like double pyramid base to base
7.	Nodule	___G. coarsely crystallized igneous rock
8.	Octahedral	___H. sedimentary rock formed of hardened clay, usually in thin layers
9.	Opalescent	___I. crack in rock filled with mineral
10.	Opaque	___J. rounded, irregular shaped mass
11.	Pearly	___K. formed by solidification of a molten mass
12.	Pegmatite	___L. metamorphic rock that splits into thin sheets
13.	Pocket	___M. unable to pass light
14.	Prism	___N. foreign matter in a material
15.	Pseudomorph	___O. luster like that of rosin
16.	Reiniform	___P. replacement of one mineral by another in which form of first mineral is preserved
17.	Resinous	___Q. cavity in rock
18.	Schist	___R. crystal formed of more than one individual crystal and symmetrically intergrown
19.	Sedimentary	___S. crystal with faces parallel to one axis and intersecting other two axes
20.	Shale	___T. passes light but not the outline of an object
21.	Silky	___U. shimmering peacock-like play of colors
22.	Slate	___V. rock in which a crystallized mineral is embedded
23.	Tabular	___W. with pearly reflections like those of opal
24.	Translucent	___X. tablet like
25.	Transparent	___Y. one formed of clay, sand and other debris
26.	Twin	___Z. metamorphic rock with leaf-like structure usually containing much mica
27.	Vein	___AA. luster like that of mother-of-pearl
28.	Vitreous	___BB. One altered by heat, pressure, liquefied or Gases

From the Internet

Golden Windows Remove Toxins

Friday, 22 August 2008

Queensland University of Technology

Stained glass windows that are painted with gold purify the air when they are lit up by sunlight, a team of Queensland University of Technology experts have discovered.

Associate Professor Zhu Huai Yong, from QUT's School of Physical and Chemical Sciences said that glaziers in medieval forges were the first nanotechnologists who produced colors with gold nanoparticles of different sizes.

Professor Zhu said numerous church windows across Europe were decorated with glass colored in gold nanoparticles.

"For centuries people appreciated only the beautiful works of art, and long life of the colors, but little did they realize that these works of art are also, in modern language, photocatalytic air purifier with nanostructured gold catalyst," Professor Zhu said.

He said tiny particles of gold, energized by the sun, were able to destroy air-borne pollutants like volatile organic chemical (VOCs), which may often come from new furniture, carpets and paint in good condition.

"These VOCs create that 'new' smell as they are slowly released from walls and furniture, but they, along with methanol and carbon monoxide, are not good for your health, even in small amounts," he said.

"Gold, when in very small particles, becomes very active under sunlight.

"The electromagnetic field of the sunlight can couple with the oscillations of the electrons in the gold particles and creates a resonance.

"The magnetic field on the surface of the gold nanoparticles can be enhanced by up to hundred times, which breaks apart the pollutant molecules in the air."

Professor Zhu said the by-product was carbon dioxide, which was comparatively safe, particularly in the small amounts that would be created through this process.

He said the use of gold nanoparticles to drive chemical reactions opened up exciting possibilities for scientific research.

"This technology is solar-powered, and is very energy efficient, because only the particles of gold heat up," he said.

"In conventional chemical reactions, you heat up everything, which is a waste of energy.

"Once this technology can be applied to produce specialty chemicals at ambient temperature, it heralds significant changes in the economy and environmental impact of the chemical production.

Answers to Test Your Knowledge

1-K, 2-N, 3-U, 4-E, 5-V, 6-BB, 7-J, 8-F, 9-W, 10-M, 11-AA, 12-G, 13-Q, 14-S, 15-P, 16-A, 17-O, 18-Z, 19-Y, 20-H, 21-B, 22-L, 23-X, 24-T, 25-C, 26-R, 27-I, 28-D

Volcanic Monitoring - 1912 vs. Today

Today the stirring of an important volcano draws enormous global attention. Weeks or even months before most large eruptions a buzz circulates through an electronically-connected community of volcano scientists as clusters of small earthquakes are detected by a global array of seismographs. Many scientists working at diverse global locations interpret this data and begin to collaborate about an awakening volcano and the eruption that might follow. Reports are posted on the internet and news stories communicate the volcano's activity to millions of people. Often it is a false alarm – the volcano is simply stirring.

If the earthquakes strengthen and begin moving upwards, many of these scientists will travel to the area of potential eruption to make observations and set up a local network of data-gathering instruments.

However, in 1912, Alaska was not a US state, very few scientists were supported to do volcanic studies and a worldwide network of seismic monitoring was not in place. Scientists were just starting to understand the mechanics of volcanic eruption, when on July 6th, the most powerful volcano of the 20th century erupted. (<http://geology.com/novarupta> Visit this web address to see the rest of the story.



GEM, MINERAL & FOSSIL SHOW

August 22 & 23, 2009

Sat. 10 a.m. – 6 p.m. Sun. 10 a.m. – 4:00 p.m.

Van Matre Senior Citizens Center

1101 Spring Street

Cooper Park

Mountain Home, Arkansas

Gems, Minerals, Fossils

Spin & Win Games

Unique Crafts

Silent Auction

Jewelry

Drawings [need not be present to win]

Sponsored By:

Ozark Earth Science Gem, Mineral & Fossil Club

For More Information Call:

870-424-0956 or 870-481-5697

Dates to Remember

August 11 OESGM&F Club Meeting, 7:00 p.m., Van Matre Senior Citizens Center, 1101 Spring St., Mountain Home, AR

Aug 14-16 –Bridgeton, MO: Machinist Hall Auditorium; Fri. 4-9, Sat. 10-6, Sun. 11-5.

August 15-16 Rice Lake, WI, Annual Show, Northwest Wisconsin Gem & Mineral Society, Wisconsin Barron County Campus, 1800 College Dr.

August 22-23 OESGM&F Club Show, Van Matre Senior Citizens Center, 1101 Spring Street, Mountain Home, AR

August 22 Clio, MI 7th Annual Swap Meet, Flint Rock & Gem Club, Clio Senior Center, 2136 W Vienna Rd.

September 11-13 Toledo, OH, Annual Show, Toledo Gem & Rockhound Club, Stranahan Great Hall, 4645 Heatherdowns Blvd.

**Dorothy Hess, Publisher
Ozark Earth Science Gem, Mineral & Fossil Club
1177 CR 1084
Mountain Home, AR 72653**

