



<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

July, 2009

Vol. 50

No 7

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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: Every 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

Well, the wedding is over; Herkimer diamonds were found and trimmed; brachiopods were abundantly collected to give to kids; eleven states passed through; carpet laid: a club meeting has come and gone; blueberries picked and into the freezer; the Park Hills swap attended; and all this in a short three weeks! Boy, what a start for a summer! Now, is it time to sit back and relax? Ha! Not this gal. The summer has barely begun and plans are made. There is another swap to do, then its back on the road again. But first, mow, mow, mow; weed, weed, weed; plant, plant, plant; sort, sort, sort and OH MY, have I planned too much in this very sudden humid heat? Probably so, so now it is a matter of priorities – what has to be done and what can be put off until I return and above all, not to overdo and get heatstroke. One has to remember to follow safety measures.

I am also thinking ahead to August and our club show. Now is the time for everyone to pitch in and get the news out about our show. Tell all your rock friends about it and have them pass on the information. Get flyers from Julia and help pass them out. Unless you help in getting the news out and getting people to attend, the show cannot succeed; therefore, I am placing this burden on you, the club members.

Happy rock hunting.

I'm gone again.

Sharon

Minutes of the June 9, 2009, Meeting

The meeting was called to order at 7:10 P.M. by President **Sharon Waddell**.

Guests: **Sharon Waddell** asked guests attending the meeting to introduce them and also to choose a guest door prize. Guests attending: **Chris Wright, Chris Hughes, Roger Long, Ron Webber, Pat Webber, Rob Welch, P.J Leonard, Will Brock, Patrick Wallace, Brian Mooney, Rachel Mooney, and William Mooney.**

Badge Prizes: Names were drawn for the evening badge prizes, with **Sharon Waddell** and **Buddy Bebout** winning prizes.

Financial Statement and Minutes: The financial statement was presented by Treasurer **Dorothy Hess**. **Sharon Waddell** asked to approve the financial statement and minutes for the May Meeting as stated.

Old Business:

Calendars: **Sharon Waddell** gave a reminder that the club had gem calendars at a discounted price for sale.

Show Report:

Fliers: **Julia** brought more fliers to pass out at rock shows for advanced advertising.

Show Set-Up: Reminder of the time 7:30 A.M. Saturday August 22, table set up and also for tear down Sunday August 23 at 4:00 P.M.

New Business:

Program: The evening's program was a DVD presentation on the volcanic activity in the Islands of Hawaii and Yellowstone Park.



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

BE SAFE - BE WELL**WHAT'S IN THE BOTTLE?**

By Don Monroe, AFMS Safety Chair, via our safety officer, Aradasa Johnson

http://www.amfed.org/news/n2006_06.pd

In your shop, studio, garage or barn have you ever asked yourself this question? Well, I have and one situation sticks in my mind. I was putting the finishing touches on a home-built trailer that I needed to transport our basic household necessities to my first duty station when I entered the Army. A close friend came by to bid us farewell and brought with him his two-year old son and his wife. While we admired the trailer, the little boy spotted a coke bottle sitting on one of lower beams in the garage and walked over and took a swig. The little kid choked and sputtered and cried because he wanted coke. The father then asked the question "what is in the bottle". I really wasn't sure other than I thought it was a mixture of penetrating oil of some sort. My first thought was "stupid kid" and my second thought was that I was the stupid kid for having an unknown, unmarked, substance in the wrong container. The best part of the story was that the kid was fine, and his mother eventually spoke to me again. It really did not have to turn out that way and I felt so fortunate. Now, I always try to label things.

During a recent "clean up campaign" in the silver studio where we teach I discovered several unknown solutions that I promptly threw away. Metalsmiths are notorious for trying new and/or different fluxes, pickle solutions or cleaners or most anything else that promises improved performance. It is absolutely imperative that we do not tolerate any unknown or unmarked material. We are always positive that we will remember exactly what we mixed up or re-packaged and put up on the shelf.

In the last class we taught I saw that a student was having a terrible time setting a cabochon in a simple piece of jewelry. After asking a few questions I learned that the student was using a strip of silver that he brought to class and assumed it was fine silver bezel material. It wasn't! It was sterling which we all know is more rigid and more difficult to set around a stone, particularly for a beginning student. The converse of this situation has also occurred when a student made prongs for a setting from fine silver when the project called for sterling silver. The setting was too flexible and would not hold the stone properly. Gremlins are always among us and miss-marked material can jump up when we least expect it.

Other prime areas for surprise include:

- Mixing or using the wrong solder.
- Confusing permanent markers with dry-erase markers.
- Mixing jewelry saw blades – coarse and fine.

Well, what can we do to avoid the type of problems we have been discussing? I really do not have a fool-proof solution except for attention to detail and constant alertness. What ideas do you have?

**OZARK EARTH SCIENCE CLUB
JUNE 2009 FINANCIAL REPORT**

Dorothy Hess, Treasurer

Last Report Balance: (May 11, 2009) \$ 839.22

Transactions for the Reporting Period: (May 12, 2009 – June 8, 2009))

Income:

Membership Dues for 2009	\$ 12.00
Vendor table fees for August show	\$ 236.00
Raffle tickets	<u>\$ 18.00</u>
Total	\$ 266.00

Expense:

May program supplies	\$ 50.00
June Website fee	\$ 29.95
June newsletter publication	<u>\$ 7.56</u>
Total	\$ 87.51

Check Book Balance as of June 8, 2009: \$1,017.71

**The Unexpected Hummingbirds
Via in the news...the Pegmatite, July – August, 2009**

Five years ago, scientist discovered the fossil remains of the first Old World hummingbird-like creature in 30-million year old rocks in southern Germany. They named their find, *Eurotrochilus inexpectatus*, which roughly translates to “unexpected European hummingbird,” because no one expected to find fossil hummingbirds outside the Americas. In 2007, a related hummingbird fossil, *Eurotrochilus noniewiczzi*, was discovered in the Polish Outer Carpathians, dating back 31 million years. It also had the long, thin beak and short, stout wing bones typical of modern hummingbirds.

(Summarized from articles at www.msnbc.msn.com and www.springerlink.com)

Our Juniors Page



Vug (Vuhg) n. - A small cavity in a rock or vein, often with a mineral lining of a different Composition from that of the surrounding rock. We will be your jumping off point for searching the web for information and sales regarding our fine hobby. Like a crystal-filled void in a host rock, we hope The-Vug will serve as a treasure trove of information!

www.thevug.com

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Mini Miners Monthly

Pangaea

The most recent time that the land masses all clumped together was about 250 million years ago, during the time of the dinosaurs. We call this super – continent Pangaea (pan-JAY-ah). Then, about 180 million years ago, the land masses began to drift apart again, and they are still drifting away from each other today.

First Pangaea broke in half into two pieces, Laurasia and Gondwana. Then Laurasia broke up into North America, Europe and Asia. Gondwana broke up into South America, Africa, Antarctica, and Australia. If you look at the continents today, you can see how South America would have fit against Africa.

The land masses are still moving today. North America and South America are gradually moving away from Europe and Africa, so that the Atlantic Ocean is getting bigger and the Pacific Ocean is getting smaller. The California edge of the Pacific Ocean is ramming into North America and sliding past it, causing earthquakes in California and forming the Rocky Mountains. In several hundred million years, the Pacific Ocean will disappear, and the West Coast of North America will smash into Japan and China, forming another large land mass, and probably another large mountain range.

Via The Rock Post, June, 2009

From: Carr, Karen. "Plate Tectonics" Kidipede – History for Kids. 2009. March 27, 2009.

<http://www.historyforkids.org/scienceforkids/geology/platetectonics/index.htm>

A Warning about Artifacts
By John Martin, AFMS Conservation & Legislation Committee

Just a note to remind any rockhounds with an interest in arrowheads, scrapers and the like; these can get you into a lot of trouble if they are collected on Public Lands. That's BLM and USFS managed land and maybe others. Did you know that old rusty cans, rusty barbed wire, pieces of purple glass and even nails, especially the square one, are also considered archeological artifacts? Collect them, and you can be arrested, your vehicle impounded, and you may face fines and jail time. So when you are out collecting rocks, just remember that even junk is now considered archeological artifacts, and be careful about what you pick up, as illustrated by the case below.

“Folsom pair pleads not guilty in artifact-theft case”
(Sacramento Bee, 11/13/08)

“A Folsom father and son pleaded not guilty Thursday to allegedly removing archeological artifacts from public lands.” The pair “allegedly unlawfully collected archaeological items that were at least 100 years old and had archaeological interest including Native American projectile points, stone tools, bifaces and flaked or ground stones from Nevada... The two men face a potential prison sentence of 10 years and a fine of up to \$850,000...”

(Above reprinted from *News.bytes*, issue 358 – BLM California.

Via the Post Rock, June, 2009, as printed from T-Town Rockhound, March, 2009

On July 17 and 18, there will be a yard sale containing a **small** amount of **Lapidary Material** (approximately one 6 to 8 foot table full). It will be located on State Route 342 off of Highway 5 south of Mountain Home. There will be several pieces of various agates, a large piece of mahogany obsidian, several pieces of petrified wood, some tumbled stones, a nice slab of malachite, and other pieces. Follow St. Rt. 342 (left off of Hwy 5) approximately 3 miles. You will see a large stone sign that says “Sycamore Highlands”. The sale will be in the third house on the right, past the sign.

Greg Foulk and Bo Huddleston are in charge of refreshments for this month.

Our program this month will be a continuation of sorts; **Volcanic Activity**. Bring minerals associated with volcanoes.

OBSIDIAN: The Volcanic Glass

Obsidian is the classic volcanic glass that occurs worldwide. Obsidian is a type of naturally-occurring glass formed as an extrusive igneous rock. It is produced when felsic lava, erupted from a volcano, cools rapidly through the glass transition temperature and freezes without sufficient time for crystal growth. Obsidian is commonly found within the margins of rhyolitic lava flows known as obsidian flows, where cooling of the lava is rapid.

Obsidian is mineral-like, but not a true mineral because it is not crystalline. It is sometimes classified as a mineraloid. While a rock such as basalt is dark because of ferromagnesian enrichment, obsidian consists mainly of SiO₂ (silicon dioxide), usually 70% or more. Most obsidian is arranged in the trachytic and rhyolitic families of eruptive rocks. Rhyolites are the volcanic equivalents of the plutonic granites. Because obsidian is metastable at the earth's surface (over time the glass becomes fine-grained mineral crystals), no obsidian has been found that is older than Cretaceous Age.

Obsidian has a chaotic, amorphous structure. However, single crystals in more or less great quantities can be embedded in the glassy mass. Obsidian glasses can contain inclusions of radial structures, so-called spheruliths. These inclusions, mostly feldspars or cristobalite (a high temperature modification of quartz) increased spherically from a kernel in the surrounding melt, until the process was stopped by cooling. The breakdown of obsidian is accelerated by the presence of water. Obsidian contains approximately 0.2% - 0.5% water by weight.

While pure obsidian is usually dark in appearance, the color varies depending on the presence of impurities. Iron and magnesium typically give the obsidian a dark green to brown to black color. A very few samples are nearly clear. In some stones, the inclusion of small, white, radially clustered crystals of cristobalite in the black glass produce a blotchy or snowflake pattern (snowflake obsidian). Obsidian may contain patterns of gas bubbles remaining from the lava flow, aligned along layers created as the molten rock was flowing before being cooled. These bubbles can produce interesting effects such as a golden (sheen obsidian) or rainbow sheen (rainbow obsidian).

Obsidian can be found in many locations around the world which have experienced rhyolitic eruptions. Obsidian can be found in North America, Mexico, Peru, Iran, Armenia, Turkey, Italy, Greece and Scotland.

The colors in obsidian result from the oxidation state of the chemical elements within the tiny minerals that are finely dispersed in the glass. The color black results chiefly from magnetite, Fe₃O₄. If the obsidian is highly oxidized, then the glass may contain hematite, which provides a reddish hue. Variations in the oxidation state of the iron (Fe) varieties impart a slight greenish hue. Some obsidian is banded, a consequence of oxidation on a flow surface being folded into the lava as it continues to move.

(Excerpted from fascinating web site, www.b14643.de/Tektites/index.htm, with all sorts of information and photos of obsidians, "desert glasses" and tektites from all over the world.)

Via the Pegmatite, March, 2009

Who AM I?

From the OESC (Gem, Mineral & Fossil) Archives – August, 1985

I am more deadly than bullets.
I have destroyed more homes than the atomic bomb.
I steal, in the U.S., billions of dollars each year.
I spare no one, for I find many victims everywhere.

I find them among the rich and poor, the young and old, the strong and the weak, the educated and the ignorant. I have cast my shadow over every field of human endeavor. Pedestrians and auto drivers, housewives, laborers and executives are numbered among my victims.

Each year, because of me, there is thousands of additional orphans, widows, and widowers. Each year, because of me, thousands of wage earners are killed. I lurk on every street corner, on every highway, in every home, factory and on every farm.

I do most of my work silently. Many of you are warned against me, but fail to heed the warning. I bring sickness, poverty, broken bodies and death, yet people do not shun me.

I kill, I destroy, and I maim you. I am your constant, and your worst enemy.

I AM CARELESSNESS!
(From the C.F.M.S. Newsletter via Polished Slab)

More from the Archives....

A Wife Goes Rock-hunting

Once upon a time my wife wanted to go rock-hunting, up on the newly-built highway in Canada. She was to drive the car, and stop when she saw rocks she might like. All I had to do was to leap out with hammer and chisel and find treasure.

Suddenly she stopped across from a huge rock. It was about 20 feet long, six feet high, and there was a marking in one small spot showing that someone had tried to get a specimen. Hammer, chisel, and husband went to work.

No luck! That huge rock was tougher than I was. At the end of 20 minutes I gave up. I came back to get into the car. Then I spotted an attractive specimen by the wheel of the car; it was about the size of a finger, shaped like one, and an entirely different type. I handed it to my wife and she went into thrills.

Archives continued...

I decided to go back of that big rock and perhaps find a small specimen. Back of the rock the land sloped so I went down hill. Whee! There were a lot of fine specimens, some bigger than footballs! I got one under each arm, struggled back uphill, showed them to my wife. She merely glanced and said, "Stick them in the back and let's get going." I want to show MY beautiful little find to some expert.

That's a wife! Come home from work and show her your paycheck and she merely sticks it into her pocket. Then she takes you to see her new arrangement of HER choice rocks.

I think I will keep her anyway.

R. K. Lampe

(Honorary Member OESC)

SIGN ON A BULLETIN BOARD: "This department requires no physical fitness program. Everyone gets enough exercise jumping to conclusions, flying off the handle, running down the boss, dodging responsibility and pushing their luck."

From Rok-Tok & Breccia

Via the Rocky Reader – August, 1985



HAPPY BIRTHDAY AMERICA!

Thank you Veterans for our freedom!

From your Editor...

As your Editor, I try to give my all to your bulletin. Any Federation will tell you that without a good bulletin, a club will cease to be. That is why I joined S.C.R.I.B.E. (Special Congress Representing Involved Bulletin Editors) to learn how to be a better Editor.

I receive many exchange bulletins from other clubs. One club recently received a resignation from their Editor that made me stop and wonder a bit about our club. In her statement, she said, **“Some may think that the newsletter was mine personally, not true; it is the voice...”** and here she put the name of the club. She went on to say, **“Some thought the newsletter was their own personal venue for announcements and ramblings; it belongs to every club member. Some thought of the newsletter as an insignificant rag that should be handed off to anyone they choose without economic regard to the club and its fiscal well being. Some thought the position of editor/publisher was a target for any member and the barbs they chose to fling. I was not issued a flack jacket nor was there a target painted on my back, but at times it sure felt like it.”** She had much more to say, but I think by now you have the gist of what she was saying.

If I make an incorrect statement, please let me know, do not make snide remarks behind my back. I have already heard a few of these in the past, but chose to let them go in one ear and out the other. I will be the first to tell you I have no problem in printing retractions and corrections. If you feel, ever, that it is time I give the editorship up, please let me know and I will gladly hand it over to you. Do not let me hear from someone else what you said.

I enjoy doing your bulletin, but like the other Editor said, there may be some of you who think that I feel the bulletin is “mine.” I assure you, I do not.

I suppose what I am trying to convey is that I hope in the future I can continue to help the club grow. But when the time comes that any of you wish to take this position, please let it be a friendly situation, not one that causes bad feelings.

Brenda Johnson

July 22-25 - 43rd Annual Macon County Gemboree. Macon County Community Building US 441S. Contact 800-336-7829. One of the largest and oldest gem & mineral shows in the southeast. Sponsored by the Gem & Mineral Society of Franklin and the Franklin Chamber of Commerce. Hours 10am to 6pm Thursday-Saturday; Adult \$2. Children under 12 – free

Supergene Enrichment

(From Wikipedia <http://en.wikipedia.org/wiki/Supergene> (geology))

Via Rock Lore – February, 2009

In ore deposit geology, **supergene** processes or enrichment occur relatively near the surface. Supergene processes include the predominance of meteoric water circulation with concomitant oxidation and chemical weathering. The descending meteoric waters oxidize the primary (*hypogene*) sulfide ore minerals and redistribute the metallic ore elements. Supergene *enrichment* occurs at the base of the oxidized portion of an ore deposit. Metals that have been leached from the oxidized ore are carried downward by percolating groundwater, and react with hypogene sulfides at the supergene-hypogene boundary. The reaction produces secondary sulfides with metal contents higher than those of the primary ore. This is particularly noted in copper ore deposits where the copper sulfide minerals chalcocite, covellite, digenite, and djurleite are deposited by the descending surface waters.

Is It Possible?

In this section of the country, trilobites are generally found in a curled up position. No one is certain as to why they didn't die in a flattened position as those found in the west and other countries. It really is an exceptionally easy problem to solve. It is without a doubt a matter of economics. The Trilobites in the Midwest were more economical and able to make ends meet.

From Rock Pickings 6/01, via Serendipity Gems 6/01

The Glacial Drifter 9/01 via 2009 SCRIBE CD

How to Cut Obsidian

Gold Sheen: Saw with the bands, as if they were a stack of plates and you wish to unstack them.

Watch for "fire spots" in gold sheen. It is not plentiful, but opal-like colors do occur.

Rainbow: Cut parallel to the flow layers. These can be seen by looking at fractured surfaces using a single lamp directly overhead. Note the bands are not always straight, it may be necessary to turn the stone slightly between cuts. Examine each slab set with either water or saw oil to see if the correct angle has been obtained.

Iridescent: in cutting the two types of iridescent obsidian', orientation is important. One type is banded and the color lies in the bands. On the other type, the surface has to be chipped to find the color in the conchoidal fracture surface. Cut the banded material parallel to the bands. To get rainbow effects, cut the stone at about 15 degrees across the bands.

Midnight Lace: Lace-pattern obsidian should be cut across the surface pattern that you want to reproduce.

Sand out all scratches with grit and wet sanding (to reduce heat) before going to polish. For final polish, use felt with cerium oxide.

From The Tumbler 11/95, via Skagit Gems 6/98

Via Osage Hills Gems 11/99 via 2009 SCRIBE CD

Upcoming Shows

- July 11-12 Roseville, MN. Anoka County Gem & Mineral Club. Har Mar Mall, 2100 Snelling Avenue.
- July 12 Lincoln, NE. Grinding Party, Lincoln Gem & Mineral Club, Inc., Pioneer Park Nature Ctr. W Van Dorn & Coddington.
- July 18-19 Minocqua, WI. Lakeland Gem & Mineral Club. Lakeland High School, Hwy 51 & 70.

Dorothy Hess, Publisher
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