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Arkansas Rockhound News

February 2011

Official Newsletter of the
Central Arkansas Gem, Mineral and Geology Society

CAGMAGS

The Arkansas Rockhound News is Published monthly by the **Central Arkansas Gem, Mineral, and Geology Society**

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Website: www.centralarrockhound.org

Member of: American Federation of Mineralogical Societies
Midwest Federation of Mineralogical Societies

Next meeting is March 22, 2011 at 6:30pm at the Terry Library

Call James (501-568-0315), Dave (870-255-3679) or Obie (501-804-2331) to find out about the field trip plans.

2011 Officers:

President: Mike Austen

steelpony@aol.com

Phone 868-4553

Vice President: Tom Sharp

thom61847@yahoo.com

Past President: Jim Schenebeck

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Secretary/Treasurer: Lenora Murray

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Committees / Chairs:

Programs: Pearl Roth

Library: Ann Austen

Membership: Mike Austen

Field Trips: James Burns

Show Chair: Dave Murray

Editor: Bill Alcott

Club Contact: Ann Austen

Sunshine Chairman: Angelee Peeler

Junior Programs: Obe Willix

Webmaster: Bill Alcott

Time and Location of Meetings:

4th Tuesday of the month (January-November)

6:30 PM Terry Library, 2015

Napa Valley Drive, Little Rock, AR 7221

(Non-smoking) Visitors are always Welcome

Membership Dues \$15 Individual \$25 Family (Yearly)

Mission Statement: The Central Arkansas Gem, Mineral and Geology Society is dedicated to promoting interest in mineralogy

and the related sciences, interest in lapidary and the related arts; to encourage field trips and the enjoyment of collecting and preserving minerals as they occur in nature, and the study of geological formations, especially those of our Natural State of Arkansas. We are a small group of people that enjoy getting together to share our common interests.

2011 Meeting Schedule

Jan 11	Feb 22	Mar 22	Apr 26
May 24	Jun 28	Jul 26	Aug 23
Sep 27	Oct 25	Nov 22	

There is no meeting in December

President's Message



The February meeting was back in our regular room at the library. After the repairs were done, hopefully the roof won't leak next time it rains. There were over 30 members and guests present for the meeting and club auction. Everyone seemed to have fun at the auction as they always do, and most stayed around afterwards to check out all the neat items and talk. I hope we can keep that level of energy going all year.

Last weekend was the field trip to Razor Rock with 15 members going on the road. We all agreed that we found some of the biggest, best, most colorful agates, coral, fossils and petrified wood to date. If you did not make the trip, you really missed out on a great one.

The next meeting on March 22 will have a program by Mike Howard on safety when working with your rocks. Mike always has very interesting and informative programs so plan on being there. The weather is getting warmer so there is no good reason to stay inside, lets all get out there and do some collecting.

Rock On-- Mike

MINUTES for the February Meeting of Central Ark. Gem, Mineral and Geology Society

The February meeting was called to order by President Mike Austen on Tuesday Feb. 22 at the Terry Library. There were 29 members present. Mike announced we have the Terry Library reserved for February through July. The next meeting date will be March 22. Mike Howard will be giving an interesting presentation on Lapidary Safety. Mike tried to find someone to give a February birthday rock, but no one had a birthday. But, since we missed Pearl Roth's birthday last December, he gave her a 'late birthday' rock.

Mike Austen gave a list of upcoming shows in states around Arkansas. The complete list will be in the newsletter. He mentioned Feb. 27-28 – Jacksonville, Ms. ; March 11-13 in Kansas City, March 25-27 in Ada, Ok.; April 21-22 Poplar Bluff, Mo.; April 26-7 in Memphis, Tn; May 21-2 at Crater of Diamonds in Murfreesboro, Ar; and June 11-12 Park Hills Mo. For details on any of these shows, please contact Mike or Secretary Lenora Murray, since they have the flyers. But the MOST important dates are for OUR club activities: APRIL 9 is the CLUB SWAP at BURNS PARK. And May 14 we're going to help at the Boy Scout Merit Badge 'college'. Please reserve those two dates and volunteer to help!

REPORTS:

The Secretary-Treasurer report for January was approved. Ann Austen, our Librarian reported we have many new magazines for check out. Our Rock and Gem and Lapidary Journal subscriptions are renewed for another year. Please call her before a meeting if you want to check out some of the books or magazines. James Burns, the field trip chair, reported on the February field trip to Razor Rock Quarry. 14 members took part, and all found some really great items. James and Mike agreed that many folks found some of the best samples they'd seen from there in quite a while. James asked for a vote on the March trip: A farm in Magnet cove for rutile or Leslie Ark for fossils. The vote was tied, so James will set up arrangements for one of the two. Please call him (501-568-0315) for meeting time and location if you plan to attend (the second Saturday in March).

Library report:

There are new magazines ready for check out, and many books available.

Programs:

Mike Howard will present a program on Lapidary Hazards at our March meeting.

Old Business - none.

New Business:

Bill Alcott presented the club with the Silversmithing instruction program on DVD. It is a set which has over 80 hours of instruction. It will be available for check out from the library. He showed one pin he made, using the information in the DVD's.

A member mentioned a Wire Wrap and Gem Fair at the Crown Plaza Hotel this Fri and Sat (Feb 26-27.)

Another member mentioned that Conway has a new rock shop: "Queen Bead" at 603 Court St in Conway. It just opened this month. Kathy Klepper is the owner, and can be reached at 501-329-2100, or her cell 870-688-1327. Members are encouraged to stop by if you're in Conway.

Angelee Peeler, Ann Austen and Pat Kissire are in charge of organizing the Boy Scout Merit Badge group that will work with the scouts to earn geology merit badges. Please contact one of them if you wish to volunteer or donate material for the merit badges. The date is May 14, so we will get more information at the next meeting.

There was no more old or new business, so the meeting was adjourned for the much-anticipated auction. There were 55 items to bid on. Mike Austen, Weldon Kissire and Dave Murray rotated as auctioneers, while Lenora Murray, Sarah Dodson and Angelee Peeler kept up with the paperwork. It looked like everyone present had a good time, even the folks who didn't go home with any new treasures! The club made \$122.00 counting donations. As the treasurer, I want to personally thank Angelee and Sarah for keeping things straight. We really did balance – to the dime!

Respectfully submitted,
Lenora Murray,
Secretary-Treasurer

Members' Birthdays in February
Rick Farmer and Larry Tatom
Happy Birthday!

Upcoming Events:

Feb 26-27 Jacksonville, MS
Mar 11-13 Kansas City, Mo
Mar 25-27 Ada, Ok
Apr 1-2 Poplar Bluff, Mo
Apr 9 Little Rock, Ark club swap
Apr 23-24 Memphis, Tn
May 21-22 Crater Of Diamonds, Ar
June 10-12 Park Hills, Mo
**Oct 1-2 Jacksonville Ark club
show**

SWAP MEET IN APRIL



The Central Arkansas Gem, Mineral and Geology Society will hold its annual rock, mineral, and fossil swap meet on April 9, 2011 from 9 am until 5 PM. It will be at Burns Park in North Little Rock Arkansas at the Elder Johnson Pavilion next to the visitor center. Take exit 150 off of I-40 on to Military Drive, and go north on Military Drive to the first road to the West. Go west to the park visitor center; the Elder Johnson Pavilion is next to it on the West side. The swap is open to all area rock clubs and the public. Free admission. Contact Mike Austen 501-868-4553 or steelpony@aol.com.



The Central Arkansas club along with others from the area will have rocks, minerals, fossils and other related items for sale or trade. Bring along your own items for free identification or trading. There is no charge to the public, so just come and see what kinds of wonderful items can be found in our state. You can talk to some great people with a lot of knowledge of geology and the hobby of rock collecting. You can get information about or join the Central Arkansas Gem, Mineral and Geology Society.



Here's a few pictures from last year's swap meet for those of you who have never been. The merchandise will be different, but it'll be just as much fun!

Diamond Testers

Bill Alcott

Years ago, my wife had an interesting gadget that she said could tell diamonds from other clear gemstones or look-alikes. She tried to demonstrate it for me, but either it was broken or the batteries were dead. The demonstration was over before it really got started and neither of us has thought much about it since then. That changed recently, however, as that tray of small faceted gemstones that I brought to the auction for a co-worker was alleged to contain at least a few diamonds. That got me thinking about that diamond tester, which got me wondering how it was supposed to work. Being an electronics technician, I figured I could measure electrical resistance of a stone if that's what it took. I got on the web, and did a little research. Turns out a diamond is an excellent electrical insulator (and may have been the BEST electrical insulator), but at the same time is an excellent conductor of heat (again, maybe the BEST). Thermal conduction can be demonstrated very easily. Just touch some objects around you that haven't been exposed to heat or cold recently, and are at room temperature. Things like Styrofoam packing or a stack of loose papers are going to feel almost warm, or at least not cool to the touch. Something made of wood might feel just a little cool, while metal objects will feel definitely cool. All are the same temperature, but something is different in the way they feel. It's different degrees of thermal conduction. The metal conducts the heat away from your hand much better than the Styrofoam, causing the sensation of cold. If you had (and I wish I DID) a block of solid diamond, it would feel even colder than the metal. The diamond testers on the market work on that principle and can measure how much heat is being drawn off their tip. They're not fool-proof, as a clear gem called Moissanite has a level of thermal conductivity close to diamond, and some of the colored diamonds have a lesser degree of thermal conductivity than the clear stones. But it's a start! Suffice to say, my electronic meter isn't going to be any help in identifying these stones, and the search is on at our house to find the wife's tester!

February 19, 2011 Field Trip to Razor Rock

Here are some pix of the field trip to RazorRock Sat. There were 12 people and we found some of the biggest, best stuff ever. Agates, wood, ammonites, coral.

(Editor's note: Seems to be some uncertainty as to how many folks were there, but sounds like everyone that went enjoyed the trip. Do any of you who went have any pictures of what you found? I'd be happy to add them to the next newsletter!)



What Happens To Club Bulletins?

It is said that -- of every one hundred people who receive a club bulletin:

- 3 discard their copy along with other material they regard as junk mail, that leaves 97.
- 17 have no way to get the staple out, so they just lay it down and forget it, that leaves 80.
- 17 powerful ones rip the bulletin apart, that leaves it torn and wrinkled, not worth reading, that leaves 63.
- 13 open it, but don't have their glasses handy, so that ends that, that leaves 50.
- 12 look at the first page - they aren't mentioned there, so they chuck it, that leaves 38.

-- 9 glance through it, then lay it down where it gets buried in a pile of other papers and magazines, that leaves 29.

--10 exchange editors read it to find out something they can use, that leaves 19.

--13 members read it because they are interested, that leaves 6.

-- 5 relatives are reading out of loyalty to the editor, that leaves 1.

--The editor reads it to admire the work.

--from the Beehive Buzzer, 7/06 via RockCollector, 9/06
(Editor's note: Tell me Folks – this isn't true!)

Wax -Strange Mineral Tales

A long time ago, if you wanted a candle, you went to a beekeeper. His wax and your wick made a candle. In modern times, candles are mass produced from paraffin, which is a commercially refined product of petroleum. What is not widely known is that wax can also be mined! There are very few places where wax has been mined on a commercial basis, because of the quantities available. A location in Austria was the only place where wax was being mined in the last century, until a discovery was made at Soldier Summit, Utah. The wax is related to petroleum and is called ozokerite. It is apparently a high-quality form of natural paraffin, developed from the residue of crude oil percolating through fissures in rocks. Compared to beeswax and man-made paraffin, its melting point is much greater (between 155 and 190 degrees). Ozokerite was sometimes found in large veins that were almost 100% pure. The majority, however, is found in a brecciated form, bound up with sandstone and shale. Once mined, it must be crushed, then dumped into tanks of boiling water, where the wax is skimmed and pored into molds. The "wax belt" of ozokerite covers an area of about 12 miles in Utah. Large tailing piles from the mining operation of the American Ozokerite Co. are strewn alongside U.S. 50 near Soldier Summit.

(From *Opal Express*, 4/2003 via *Stoney Statements*, 10/2005)

Don Norris' SilverSmithing DVDs

Bill Alcott

At the January meeting, I proposed buying Don Norris' Silver Smithing course on DVD, and y'all approved it. At the February meeting I delivered it to the club. For those of you who may be interested, I'd like to give you my take on it so far:

Don Norris is not an actor. He doesn't do his videos in a hollywood studio with tons of expensive equipment or a crew of video technicians. If that's what you want to watch, join NetFlix and enjoy the superb special effects, quality acting and suspenseful plots. If, on the other hand, you want to learn silversmithing, give these DVD's a look. Mr Norris is a very opinionated craftsman, but with something in the neighborhood of 35 years of experience, I believe he's entitled! He disagrees with some of the methods and techniques that I've seen other instructors swear by, but does so with detailed explanations of why he does it his way. I'm too much of a beginner to argue or agree, but what I've tried of his technique has worked so far for me. He doesn't edit out mistakes, but rather uses them to let you know that YES you will make mistakes, but NO they're not going to cause the end of the world. He backs up a step or two, explains what he did wrong, and what he does to correct the problem. He gets rather chatty at times, but it's a whole lot better than some of the clips I've seen on You-Tube where the instructor is so caught up in their acting that they lose sight of what they're trying to teach.

I've talked to Don a couple of times on the phone in the course of buying this set, as well as some e-mail back and forth between us. One thing he wanted to make clear is that since CAGMAGS was buying this set, the members of CAGMAGS are offered any phone and e-mail support that any individual buyer of the course is entitled to. If you try the course and run into problems, contact Don and he'll do his best to figure out what's wrong and what can be done to correct it. You're not out there on your own! Here's his phone and e-mail info if you have any questions for him.

Don Norris

303-517-1068

dnorris@frii.com

If you're not first in line to borrow the set from the library, but want some further info, contact me at mister.bill@starband.net or 501-231-2030 and I'll do what I can.

Hopefully, if there's enough interest in silversmithing in this club, we can help each other along as we go. My shop is far from being ready for guests, but once I get it to that stage I'd love to host a silversmithing demo and discussion. Perhaps we could even get some of the pros amongst us to come out and show us their techniques!

Rocks for Schools

When asked by a county PTA member if there was a way to get mineral specimens to teachers, David Tuttle and members of the Jacksonville GMS stepped up to the plate to help out. They filled 560 egg cartons, each with 12 labeled specimens, and succeeded in passing on over 6000 rocks and minerals to educate future generations.

--seen in JAX Gems, September and November, 2006

Shop Tips...

Pyrite can be cleaned using radiator cleaner (DuPont #7). About 2 commercial tablespoons of cleaner in an aluminum pan with about two quarts of water is adequate. Action to remove tarnish is relatively rapid. To rinse, use a dilute ammonia solution to neutralize the residual action on the specimen. Follow this with clean water. [As with all chemicals, be sure to use in a well-ventilated area and wear adequate hand and face protection.]

(From *Stoney Statements*, November 2005)

Nifty Rock Hound Bumper Sticker Slogans

Love a Geologist - feel your earthquake.

Love a faceter - they're a cut above the rest.

**Love a Mineralogist –
but don't take them for Granite.**

Love a beader - but they'll string you along.

**Love a Paleontologist - but be aware.
They collect old dead things.**

**I collect rocks too!
Diamonds, rubies, topaz, emeralds...**

**Amateur Mineralogist –
Professional Rock Collector**

(Submitted by Bob Livingston, from *Crack N' Cab* 10/2005 newsletter via *S.C.R.I.B.E. Newsletter*, Oct.-Dec. 2005)

A Little About Petrification

By Michael Papay

Have you ever wondered how petrification occurs? How does wood turn into stone? In so far as I can tell, there are several events that occur in this process. Aside from the fact that the trees must first grow to provide the wood, the first step in the process of petrification is burial. The wood must be deeply buried either while still standing or soon after falling in order to prevent its destruction by the activity of ants, beetles, termites and fungi. The environment in which the wood is buried must also be anoxia (without oxygen), otherwise microorganisms would soon destroy the wood. The matrix encapsulating the deeply buried wood must be rather firm in the sense that it not be too plastic. A thick mud would not be stable enough to maintain the shape of the wood through the vagaries of time. Instead, the matrix would have to be rather like a porous concrete or consolidated sand. The porosity is important because porosity allows the introduction of water. Once the wood is deeply buried in a consolidated, porous matrix in an anoxic environment it can only be transformed from wood to stone if quartz and water are present under the right conditions. No quartz, no water, no petrified wood. Fortunately, quartz is a common and abundant mineral, and even the deserts have their days in the rain. And as the fallen rain passes down through the ground, it picks up and carries a little quartz dissolved in its waters. This solution then permeates the buried wood. Now the miracle happens. A little wood dissolved into the water and a little

quartz is deposited in its place; and the water moves on its way carrying away a little carbon, leaving behind a little quartz. The slow process of removing organic material while depositing quartz may take thousands of years to reach completion. In fact, petrification may not reach completion before the favorable conditions end. If you have collected petrified wood in the field you will know first hand that not all specimens are the same. The most sought-after petrified wood are specimens in which the process went to completion leaving behind highly agatized or opalized wood. These specimens can be sawed and the sawed ends given a mirror polish to reveal the beauty of the specimen. Specimens too small for sawing are tumbled to mirror finishes which are highly attractive. Wood that is not agatized or opalized may be shunned by collectors that fail to see the rugged beauty of the uncut, unpolished specimens. Other collectors favor these exquisite specimens as fossils of a bygone age and as natural works of art wrought by nature and not the hand of man. Believe it or not, some portions of a specimen may be preserved as the original wood while other portions of the same specimen are lignified or petrified to various degrees. While the rockhound may not appreciate these specimens, scientists may rejoice over the intact wood for it may reveal through their methods the ancestry and biology of the tree which otherwise they could never behold.

--from Rockhound Roundup, date unknown via Gem Cutters News, 02/2006

New Rock Shop in Conway, Ark

**THE QUEEN BEAD
603 Court Street Suit 1
Conway, Ark**

**Kathy Klepper
store 501-329-2100 / cell 870-688-1327**

Pyrite & Marcasite Decomposition

(Excerpts of a talk by Frank Howie on Unstable Minerals, The Geological Society (UK))

Under appropriate conditions many pyrite and marcasite specimens will decompose into a gray or white powder and sulfuric acid. This not only leads to the loss of the specimen but can damage cabinets and affect near-by specimens by the release of acid. The process of decomposition is oxidation. FeS₂ oxidizes to ferrous sulfate and sulfuric acid. It has been held that bacterial action is necessary for the oxidation of the sulfide to occur under normal environmental conditions. Frank Howie has investigated the chemistry of this process over a number of years and had conducted many controlled experiments. He concludes that bacterial action plays no part at all, so antibacterial treatment of specimens is useless. The essential condition is exposure to air at high relative humidity. At an RH of less than 50%, very little decay of pyrite occurs. At around 55% RH the rate rises rapidly and continues to increase as the RH nears 100%. Some pyrite appears to resist the attack when all around disintegrate. Scanning Electron Microscopy has shown that the attack starts in regions having microcrystalline structure. If the structure has crystallite size in excess of 10 um, the crystallites will be angular and packed. Below 1um the crystallites are rounded with open interstices giving a microporous structure. This acts like a sponge and provides a path for the moisture ingress at the start of the decay process. Similar decomposition occurs in many other sulfides, e.g. Arsenopyrite, Realgar, Chalcocite, Stibnite and Argentite. The remedy is to keep the specimens in an RH below 50%. This is generally achieved most of the time in a cabinet having close-fitting doors situated in a living room environment. To ensure full-time protection the use of silica gel as a desiccant is suggested.

--From Gem Clips, 03/2006