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Arkansas Rockhound News

April 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
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Next meeting is May 24, 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

jsjimstone@yahoo.com

Secretary/Treasurer: Lenora Murray

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Hazen, AR 72064

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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



Greetings from the WINDY CITY, no I do not mean Chicago. The weather here has really been nasty the last few weeks -- rain, wind, lightning, hail, tornadoes, flooding. Oh, I forgot, it is only spring in Arkansas. Despite the weather, lots of things have happened lately. The club had two field trips to the Arkansas Geology Commission guided by Mike Howard State geologist. The tour was very interesting and educational, and best of all we got to see some neat rocks. Since the tours have a size limit, we are planning more trips in the future for those of you still wanting to go.

The club's spring swap meet at Burns Park was a big hit, even if it was a bit windy at times, at least there was no rain this year. The club gained several new members, and reconnected with some of our old members. Everyone had a great time talking and catching up with one another. Sellers with tables that I talked to, said they sold a lot of items and were pleased with the crowd turn out. I know that I did not take home as many rocks as I had arrived with. My garage is not cleaned out yet, but I did make a big dent in the old rock pile.

James Burns had a club field trip to Colemans for quartz. It was the same weekend as the

Memphis show, so I did not get to go, but he said they found a lot of great quartz and even saw a wolf. I cannot wait to hear more about that.

The turn out for the April club meeting was small, but with all the storm warnings that night, I know most people who had any distance to travel were really being cautious about leaving the house. Some of our members had wind damage to their property and some were without power. We were lucky but our neighbors house next door was struck by lightning. That did lead me to have a last minute program on fulgurites for the meeting. I hope everyone is ok, and things can get back to normal soon, with no more weather trouble.

The next club event is May 14th for the Boy Scouts merit badge program. Anyone wishing to help out should contact Pat Kissire. More information about this will be coming soon. Until next time be safe, keep dry, and be on the lookout for your next great rock find. Mike

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

The April meeting was called to order by President Mike Austen on Tuesday April 26, 2011 at the Terry Library. There were only 9 members present, probably due to the inclement weather. None had an April birthday. Mike Austen mentioned the upcoming events in May: the Boy Scout Merit Badge activity at UALR on May 14 and the show on May 21-22 at Crater of Diamonds in Murfreesboro, Ar. He also shared the notes he had about the 2.44 carat diamond found in Murfreesboro recently.

REPORTS: The secretary-treasurer report for March was approved. Tom Sharp donated new fossil books to our library. And Mike brought a personal copy of the book about dinosaurs in southwest Oklahoma, which was promptly checked out.

James Burns, the field trip chair, was not present, but reported earlier via phone that there were at least a dozen folks who attended the dig at Ron Coleman's for quartz last Saturday April 23. Mike Austen reported that the two trips to tour the Geology commission earlier in April were very

successful, with 8 or 9 people at each. Since both trips filled up very rapidly, Mike Howard will give the club a couple more dates to allow members who missed the first Geology Commission trips to take a tour of the facilities. James Burns is trying to organize a May trip to the Jones farm in Magnet Cove for rutile, weather permitting! Please call him (501-568-0315) for meeting time and location if you plan to attend. Mike Austen and Dave Murray mentioned there are some overnight field trips possible if there is enough interest by club members.

Old Business - The Swap Meet was a great success. Ann tried to count the total present, but many people didn't sign her list, so a count wasn't available. The only cost to the club was the pavilion rental. A good time was had by all, and the food was super! THANK YOU Mike Austen and Bill Alcott, for making it possible! **A motion was passed to have the Swap Meet at the same place, Burns Park, on April 14, 2012.** Mike Austen will reserve the site with the North Little Rock Park District.

Dave Murray reported that almost all the inside tables for the October Show are sold. But there is still room for outside dealers. Contact Dave if you are interested. The SHOW FLYERS are available, thanks to the hard work of David Dodson. Thank you so much, Dave! Please contact Dave Murray or Mike Austen if you will be traveling and willing to pass some flyers out at rock shows or businesses. Dave also reported that he purchased "Best of Show" items for future club raffles. Since we are almost out of raffle items, it was decided we needed more 'medium grade' raffle items. **A motion was passed to spend \$200 for items for future raffles.** Dave Murray and Tom Sharp will purchase these.

Pat Kissire reminded us of the Boy Scout Merit Badge group that will work with the scouts to earn geology merit badges. Please contact her if you wish to volunteer for the day. The date is Saturday May 14, and there will be a 'poster making' session sometime before that date.

New Business – No new business.

Programs : Due to inclement weather, the program by crystallographer Gerald Roth on Micromounts, with a slide presentation of the

crystal structures of these interesting collectibles was postponed until MAY.

Instead, Mike Austen presented a short, but very appropriate program on Lightning Hazards and Flugerites made by that lightning. He reviewed common safety rules when in a lightning storm, and some common wrong ideas. Don't lie on the wet ground, but crouch low to the ground. Standing under one lone tree is not good, but standing in the middle of a grove of trees is safer. If you are in a crowd of people, spread out, don't gather together. Better yet, seek shelter under a culvert or in a building. Mike shared how flugerites are made, and passed around samples of these strange 'natural glass' pieces. He also told a strange story of his neighbor's lightning strike that burst an underground water line where the line switched from metal to plastic. Guess the lightning just melted the plastic part. IT was quite an informative, and timely, presentation. Thanks, Mike.

Raffle: Due to the small number of members present, no raffle was held.

Show and Tell: Besides Mike's flugerite presentation, Lenora Murray and Mike Howard had some show and tell items. Lenora had a small double sided cluster of smoky quartz from McCurtain County, Oklahoma. This was from an early March trip to the Siloam Springs show, followed by a collecting day in Oklahoma. There is a possibility that this collecting area could be available as an overnight trip to a small group of people. She also had calcite and druzey quartz collected on a trip to Missouri with the Ozark club from Mountain Home. The Murrays found time to collect one day, then visit the Bonne Terre underground mine, complete with an underground lake that is popular year-round with scuba divers. They visited the Elephant Rock State Park, and even collected some calcite at a road cut on the way home. But the prettiest part was the gorgeous dogwood trees in bloom throughout the whole area. Lenora and Dave declared their 'dogwood trip' a success.

Mike Howard gave an account of his activities as a new amateur metal detecting person, with his recently acquired metal detector. He found a number of interesting sites. One had money that

was coated with copper. Since there were many copper pennies, but just a few other coins in the area, he figured the copper was leached by nature, and then deposited on the other coins. But the cutest was what he found in Riverfront Park after the Easter Egg hunt: In addition to plastic eggs with candy which he found just by searching, his metal detector beeped on a plastic egg. Surprise! It was filled with 5 shiny new dimes, which would have been quite a prize for some lucky child at the hunt. Instead, it added to Mike's collection that has almost paid for his metal detector!

There being no other business, the meeting was adjourned.

Respectfully submitted,
Lenora Murray secretary-treasurer

[Editor's note: A late change to the scheduled program:]

Dear Mike,

The Program for May will be a video called, "Gems". This video has been cut down so that it is only about 50 minutes long. I hope it will be enjoyable. I will be there with it on the meeting night if the weather doesn't interfere.

Sincerely yours,
Pearl F. G. Roth
pearldances@att.net
501-623-7753

Wind Chimes

The best material for wind chimes is solid, Brazilian agate, India black-skin agate, or India red/green moss agate. Picture jasper is also very good. Slice the material 1/8-inch thick. Do not polish as this has a sound deadening effect. Do not use slabs containing cracks.

from Grindings, Oct 2002 via Rock Buster News,
Nov 2006 via Crack 'n Cab Feb 2007

THE STORY OF MONTANA AGATES

It has always been a mystery how the peculiar little scenes got inside a rock as hard as agate. It is the claim of geologists that the spots were caused by

infinitely minute seams or fissures in the softer parts of the rock being filled with metallic oxides when the world was young. These oxides made four different colors that form various combinations of color when blended together, or appear in single colors in each rock. The red color is oxide of iron. The black is oxide of manganese. The green is oxide of copper. The blue is oxide of nickel. This theory has been elaborated by the help of high-powered microscopes which show the tracings of little canals so close the naked eye could not detect it; but the oxides remained, staining the rocks in wonderful designs. The fernlike and branch effects of the trees grass and shrubbery, come from the fact that the tiny canals branched out in various subdivisions forming smaller canals for a common center. In addition to these canals, the rock became flawed through shrink-age while passing through a period of evaporation which, according to scientists, has taken more than three million years to reduce the stone to the hardness of 7 on the Mohs scale. These canals and flaws have been perfectly healed by soft silicate formations of which the stone is a part, and the evaporation has caused the oxides to take on such forms as seen on the window after a frosty night. Technically, Montana agate is known as "dendritic" agate, and the moss spots are called "dendrites". It is the third hardest stone in the world, and is cut only with a diamond saw. There can never be two pieces alike even though cut from the same stone.

(From The Petrified Digest May 2001 via Rock Writings & others via Rocket City Rocks & Gems, 3/2000) via Stoney Statements, Aug 2008, CLGMS

CZ or Diamond?

If the stone is loose, turn it upside down on the table and slide it over a thin black line on a piece of paper. When looking straight down through a CZ, you will see a circle in the center of the stone. A diamond won't do this.

from Breccia, Feb 2002 via Rock Buster News, Nov 2006.

Members' Birthdays coming up

MAY

Weldon Kissire
Nancy Thaden
Jerry Roth
James Bauldree
David Theis
Sharon Watson
Kobe TwoRivers

JUNE

Mike Austen
Barry Findley
Madelyn Anderson
Steve Losey
Tom Sharp
Reece Watson
Obe Willix

Happy Birthday!

Jasper or Agate: A Simple Distinction

by Dave Olson

Jasper and agate are the rocks we hobbyists deal with most often in pursuit of our goals as lapidaries and collectors. Do we really understand the difference between the two? Often, confusion arises when attempting to describe a specimen as either jasper or agate. Both jasper and agate are composed of extremely fine interlocking quartz crystals called crypto crystalline quartz. As such they are both members of the fine-grained quartz family referred to as Chalcedony. Chalcedony occurs throughout the world in beds, bands, nodules, geodes, botryoidally masses, as a replacement of fossils, wood tissue or other minerals, and as a cementing material. It is deposited from silica-rich waters, often carrying other mineral impurities. It is the presence of these minerals impurities which stains the microquartz grains to produce the wide variety of colored patterns, banding effects and inclusions

that differentiate the basic “gem” forms of crypto crystalline quartz - jasper and agate- from ordinary drab chalcedony. So what is the difference? In general, agate, is a transparent to translucent form of chalcedony in which the coloration takes the form of regular bands, rings, clouds, wispy inclusions or distinct groups. Agate containing straight or concentric bands is referred to as fortification agate. Moss agate contains delicate wispy or lacy inclusions of coloring minerals, often green mineral chlorite that penetrated cracks in the silica gel matrix prior to hardening. Now they remain as fine picture-like images. Agates are usually named by employing the geographical area where it is found with a descriptive adjective, as “Priday Ranch Plume Agate”. Jasper, on the other hand, can be some what translucent but it is most often opaque. The colorations of jasper is usually much darker then that of agate and is totally random with respect to pattern of distribution. Finely divided hematite gives the color to reddish jaspers and an other iron mineral -goethite- is responsible for yellows and browns. Chlorite and nickel minerals contribute to green coloration. As with agate, jasper comes in many colors and displays an almost infinite variety of patterns. Because of these properties, it is an extremely versatile material for cabs, scenic “pictures” to be framed and other functional and decorative purposes. It is truly the bread and butter “gem” of our hobby.

Original source Petrified Digest 08/03 via Chips 11/05, via Gneiss Times 04/06

Stabilizing Porous Stones

If you would like to try your luck at stabilizing porous stone, like turquoise, so it can be cut and polished, the Silvery Colorado Rock Club offers this hint: Take a jar with a lid and add one pint of acetone. To this, add the complete contents of both the resin and hardener tubes of epoxy glue. Mix well. Add well-dried stones. Cover the jar and let it sit for at least four days. Remove the stones and allow a week for them to dry. They should now be stabilized and ready to work.

From Conglomerate, via Lodestar 11/02, via Crack 'n Cab 01/03

FIBER OPTIC GEMS: WHAT ARE THEY?

by Bill Grimes

Fiber optics were developed as a result of someone studying a piece of the mineral ulexite. Also known as TV stone, it is a hard, brittle, fibrous stone which when writing is placed underneath, will allow the image to appear on the surface of the stone. This led to the theory that if this type of fibrous material could be manufactured, it could be used in many different ways where image transmission is needed. Fiber optic cables were at first very slender and flexible, used in surgeries and in house-hold decorations. The manufacturing technology improved and soon manufacturers were spinning out miles of cable for a new application - data transmission lines. These lines can be up to two inches across. The cable consists of thousands of pairs of optic fibers. Each pair carries data for phone, computer, fax, etc. Since the sides of the cable are reflective, there is no need for insulation or shielding around each fiber, as in old phone lines. This translates to more pairs in a smaller space. For us in the hobby, this created one of the newest gem treasures – fiber optic cabs. In order to make a fiber optic cabochon, the cable scraps are first cut into small lengths. The cable is then either cut into spheres, or it is sectioned parallel to the length of the fiber. Once the slices are made, it is cut much like any other gem. Care must be taken, however, to protect the ends of the cable from splintering, or catching cutting dirt, abrasives, etc. There is an interesting thing about fiber optic gems. If you look at them from a 90 degree angle from the eye of the gem, the gem will be transparent to light, maintaining its properties for light transmission.

from Rockhound Roundup, 5/99, via GEM CUTTERS NEWS 5/2001 VIA Stoney Statements 02/08

SOURCES OF INFORMATION FOR ROCKHOUNDS

By C. E. Johnson

U. S. Geologic Survey offices publish geologic maps, topographic maps & minerals maps, and

reports & bulletins, on geology and minerals on any area in the country. Look in your phone book for the one nearest you and ask them what you need to do to order geologic maps and other information on the areas you are interested in. (They may be listed under the U.S. Dept. Of The Interior). They will probably send you free information on what is available in those areas, along with their usual order forms and prices for the maps they sell. If you have a computer, you may want to log onto the geologic survey's home page <usgs.gov> and follow the links to what you need.

Many states have Departments of Geology & Mineral Resources which publish geologic maps and reports & bulletins, and mineral maps, of any area in the state, some with detailed reports on our present and former mines and prospects and "minerals occurrences", and some by counties, which are more detailed.

U. S. Bureau of Land Management offices have maps and other publications handled in their "Lands & Minerals Dept." or "Minerals Resources Division", etc. Like the U.S.G.S, This BLM is under the jurisdiction of the U. S. DEPT. OF THE INTERIOR. Many of the localities listed in the reports of these agencies, and shown on their maps are not included in the usual rockhound guides and magazines. Also many of them are not only mines but are known as "minerals occurrences", which have come to their attention from various sources, but have not been followed up by proper investigation by anyone, so those minerals are overlooked and are still there waiting, even though the reports are easily available to the public.

A great deal of rockhounding is done on National Forest land, so the U.S. Forest Service maps are almost indispensable when driving or hiking the forests. They show roads and trails, creeks & rivers & lakes, mountain peaks, and usually show locations of mines and prospect diggings, both past and present. These maps can be purchased at any U.S. Forest Service office for a nominal fee.

Topographic maps are a great help in many ways, and in remote areas, no responsible rockhound should be without one. They outline hills and valleys in elevation "contour" lines, and they distinguish forest cover from bare areas and show all creeks in detail, and they show any known trails in the region; and if you mark the map as you go,

you can't get lost. They also usually show mines and prospect diggings, but are more exact in their locations than the forest service maps because of the greater topography detail, especially on the more "close-up" scales usually available in this type map. Another advantage is that you can transfer geologic information from your geologic map onto a topographic map of the same scale, and more easily pinpoint the most favorable parts of the area to examine. Also, you can mark with greater accuracy, your "discoveries", like the samples you gathered, and the rock exposures that look promising, and landmarks, for future reference and to help you return to the area later. These maps are sold by many U.S. Geologic Survey offices, and by some stationary stores and sportsman's supplies stores.

From The Pineywoods Rooter, 04/08

Specimen Wrapping:

Use an old phone book for wrapping your small specimens. It can be kept in your vehicle's trunk or on a shelf in your shop so the pages can be torn out as needed.

(The Pica Pick, via Gem City Rock News 11/06)

Hiding Fractures in Your Cabs

The secret of hiding fractures in a cab with epoxy is to shape your stone and semi-polish it. Heat the stone to 200 degrees in an oven. Mix epoxy and apply it to one end of the crack and work toward the outside of the cab so that the air in the fracture is driven out and the resin now replaces it. You will note that the epoxy becomes very fluid when it touches the hot stone and flows right into the crack. Put the stone back into the oven for 20 minutes for the epoxy to harden. Scrape off the surplus and proceed with your final polish.

(The Golden Nugget, 2/06 Via Ozark E. S. News 12/06, via Rockwood Rockhounds News, 01/07)

Save the inner plastic rings from scotch tape rolls. They make handy stands for spheres.

Add STP to the oil you use in your saws. It will cut down on the mist and the odor.

(Quarry Quips 8/06 Via Gem City Rock News 12/06)

Little Known Fact

The worlds strongest adhesive is the glue that the barnacle uses to stick itself to the side of a ship or whatever. Chill it to zero degrees F and it still won't crack. No solvent known breaks it down. The holding power of a tiny speck of it is rated at three tons per square inch. Now thats some glue, too bad it is not on the market!

(Petrified Digest 4/97 via Ozark E.S. Club News)

On Identifying Rocks

I've looked into Poughs,
And memorized Mohs,
And even paid Dana a visit.

But when its all said,
I still scratch my head
And sit here and wonder,
"What is it?"

*(From The Pegmatite 1/07 via: Ozark E.S.News
2/07)*

Flourescent rocks have to be viewed in the dark. To make labels, mix quinine and water to use for ink. It glows a bright bluish white under the black light.

*(Sources: BRECCIA7/03 via Gem City Rock News
7/06)*

When polishing peridot, apply a drop of lemon juice or vinegar to speed things considerably. The slight acid seems responsible for the improvement. Rinse laps and splash pans with plain water when finished.

(Source: Rock Chips bia: Gem city Rock News 9/06)

When the lapidary saw needs to have the tub cleaned, filter all of the oil through four or five paper grocery bags. The oil will be clean and reusable. The oil never wears out and is very expensive.

*(Source: The Pinewood Rooter, 7/06 via: Ozark E.S.
News 10/06)*

Whether it is protection from the sun on the way to a collecting site, protection from flying particles at a collecting site, or protection from dust, chemicals or particles while processing our finds back in the shop, rockhounds must wear the proper level of eye protection all the time. Safety glasses or spectacles are designed to provide impact protection from

flying particles and have heavier frames than normal spectacles, plus impact resistant lenses, usually of polycarbonate. They can be tinted to protect the eyes from laser or ultraviolet light. As most particles enter the eye at an angle, it is recommended that safety glasses have side shields.

Keep spectacles clean and free of scratches. For protection from fumes, use safety goggles. For extra protection, wear a face shield over safety goggles.

Never wear a face shield alone, it is inadequate.

*Source: Bill Klose, EFMLS Safety Chair, in Music
City Rockette, 8/04, via The Pegmatite, 1/05*

PEACOCK ORE BY KEMP ROLL



Peacock Ore-a strange name for a mineral but it makes sense. The peacock is noted for its brilliant array of iridescent colors- gold hued reds, blues and purples. So is this mineral. Its brilliant colors change from golden purples to pinks to blues depending on how the light re- flects from it. It is also called "purple copper ore." Freshly mined chalcopyrite displays such colors also. The ore is called "yellow copper ore." Its the tarnishing exposure to air that produces the thin-filmed iridescence. The reason one doesn't see such minerals on jewelry is that the color disappears soon after exposure to the atmosphere. The sulfides oxidize and a thicker, duller coat of copper/iron oxide conceals the colors below. An ore is exactly what it is, copper ore. Chemically, it is a sulfide of copper and iron with metals in varying proportions. It is an important source of metallic copper. Mining is mostly in Chile, Canada and Mexico. For the purist, it is "Bornite" after the 18th century mineralogist, Ignatius Von Born (also called "peacock" by his friends.)

*(Source: Chats & Chips 3/02, Via: Gem City Rock
News 7/06)*