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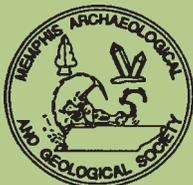
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## GEMSTONES



**Polished Opal** cabochon. Precious opal from Baracoo River, Queensland, Australia. Image courtesy of "The Encyclopedia of Gemstones and Minerals".

MIKE BALDWIN: Gemstones are minerals prized for their beauty, durability, and rarity. Their worth depends on scarcity, color, purity, brilliance, hardness, and demand. Most stones are cut and polished so they glow and sparkle, then set in gold or otherwise as articles of jewelry.

Gemstones largely form in igneous or metamorphic rock from elements combining as they cool in gas pockets or superheated water. The coarse-grained igneous rock pegmatite is a source of beryl, tourmaline, and topaz. Volcanic andesite holds cavities containing opal. Volcanic activity deep down produced the intense heat and pressure that forged the diamonds now found in pipes of kimberlite, one form of peridotite. Emeralds are a transparent form of beryl that occurs in mica-schist, a metamorphic rock.

Jewelers identify gems by color, shape, hardness, refractive index [light-bending power] and specific gravity. Diamond, ruby, emerald, and sapphire—all transparent gemstones—rank with opaque opal as precious stones. Semiprecious stones include agate, amethyst, garnet, and peridot. Many gemstones are simply spectacular forms of ordinary-looking minerals. For instance, diamond is a pure, hard form of carbon—the substance coal is made of, and ruby and sapphire are transparent, colored forms of corundum, much of which is drab or colorless. Metal oxides tint most gemstones, but diamonds get their color from a defect in their crystal structure.

(see Gemstones on page five)

## DECEMBER EVENTS

- |   |       |   |
|---|-------|---|
| Dec 04  | 6:30p | Board Meeting: Blue Plate Café, 5469 Poplar Avenue  |
| Dec 12  | 7:30p | Holiday Party: Shady Grove Presbyterian Church, 5535 Shady Grove Rd., Memphis [bring covered dish and hobby-related gift for exchange—see page 3 for details] |
| Dec 13  | 8:30a | DMC Field Trip: Antreville, SC [see page 6 for details]   |
| No M <sup>3</sup> Micromounters Meeting in December |       |   |
| No MAGS Field Trip in December                      |       |   |
| Dues are Due [see page 3 for details]               |       |   |

## 2003-2004 MAGS BOARD

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MAGS Rockhound News is published monthly by and for the members of the Memphis Archaeological and Geological Society. Please send your comments and articles to Mike Baldwin, 367 N. Main St., Collierville, TN 38017 or email them to rockclub@earthlink.net .

## From the President

MAGS will wind down the year with our annual Christmas Party on December 12. Be sure to check out the party program. Please note the change in gift procedures this year. We will have one table this year (in the past we had four [4]: male, female, either and juniors). This created some logistical problems and we hope to remove those by going with one table. Remember, hobby related gift, generic and about \$10. We usually average about 60-70 people at our party so its very beneficial if members bring a dish or two. Don't forget desserts. MAGS will provide the ham, turkey, drinks, cutlery and decorations.

The field trip to Parsons was exceptional: abundant rockhounds (I think it was the largest of the year), abundant fossils and abundantly good weather. Thanks to all that collected material for the show's gem dig.

Our November display winners were Jerry Seamans for the adults with a collection of wire wrapped jewelry [many pieces were done at the William Holland School this past summer] and Karen Schaeffer for the juniors with her collection of minerals and fossils. Check out the list for the complete year and come to the party for your opportunity to select a prize.

With 2004 just around the corner it's time to start planning club activities. If you have ideas or comments about what you would like for the club to do next year please let me know. One activity we will encourage is that our members become more diligent in labeling and recording specimens. We will have a sample specimen label at the January meeting.

At the January meeting, members are encouraged to bring a display of your field trip finds from 2003. We have gone to many places and I know of several members who have made some good finds. So bring those and lets show off our club's field trip program.

Merry Christmas and Happy New Year!

W.C. McDaniel

## DISPLAY WINNERS FOR 2003

W.C. McDANIEL: The adult winners for 2003 were: Dennis Sanders [January]; Roger Van Cleef [February]; George and Rena Everett [March]; Lou White [April]; Sherri Baldwin [May]; Doris Parsons [June]; Carol Lybanon [July]; Melinda Warren [September]; James and Doris Parsons [October]; and Jerry Seaman [November] The youth winners for 2003 were: Kelly Baldwin [January]; Emily Barton [June]; Hunter Hill [July]; Jennifer Baldwin [September]; and Karen Schaeffer [November].

## DIRECTORY ADDITIONS AND CHANGES

BILL SCHEFFER: MAGS member, Lenette Mewborn, has a new address. It is: 2249 Chilton County Road, 18W, Clanton, AL 35045; phone number 205-755-6860.

Welcome these new members to MAGS. Please add this information to your directory.

[1] Chris Cozart--1911 Sherwood Place, Weaton, IL 60187, 630-462-9778

[2] Ed and Angela Underhill--7359 Benjestown Road, Millington, TN 38053, 901-876-3144, edunderhill1@hotmail.com



## MAGS HOLIDAY PARTY SHADY GROVE PRESBYTERIAN CHURCH

FRIDAY NIGHT, DECEMBER 12, 2002, 7:30 PM  
IDAJEAN JORDAN, COORDINATOR

Mark your calendar now for the Annual MAGS Holiday Party. Idajeane Jordan is coordinating the party again this year. If you would like to help, please call Idajeane as soon as possible. Her number is 901-452-4286.

- [1] You and your family are invited to the party. You are welcome to bring a friend or two with you. Attire for the evening will be casual to semiformal.
- [2] Please bring a potluck dish big enough to share. Turkey, ham, drinks, condiments and dinnerware [plates, cups, utensils, and napkins] will be provided by MAGS. The dish that you bring can be an appetizer, salad, side dish, bread, or dessert.
- [3] The gift exchange will be a little bit different this year. There will not be a distinction between women's, men's, or children's gifts. Please bring a gift that can be enjoyed or used by anyone, no matter what age they are. All gifts will be placed on one table, so when it is your turn to choose a gift, there will only be one place to choose from. Please bring a gift that you would be happy receiving if it came from someone else. The minimum value of your gift should be \$10.00. Bring one gift from each person in your group. If there are four of you, bring four gifts. If you bring guests, please bring a gift for your guest to exchange. The gifts will be collected and numbers will be assigned to each person in attendance. These numbers will be used to draw names for gift exchange and to draw names for door prizes. *If you bring "extra" gifts, please make sure that those gifts are also valued at least \$10.00. All gifts should be related to our hobby.*
- [4] The names of the monthly display winners [adults and juniors] will be placed in a drawing for display winner gifts, provided by MAGS.
- [5] Entertainment for the evening will be provided. If you have a talent that you would like to share with the rest of us, please call Idajeane. If you would like to help decorate the tables, arrange the room, decorate the tree, or help in any other way please call Idajeane as soon as possible. The table centerpieces will be available for you to purchase after the party. A holiday fireplace and mantle will make a nice backdrop for pictures of family and friends, so bring your camera.

*Come to the party on December 12, and let's enjoy food, fun, and fellowship together.*

## DUES ARE DUE

BILL SCHEFFER: Dues are due now. Please take a minute to renew your membership in MAGS for 2004. Make your check payable to MAGS. Family membership is \$20.00, single membership is \$16.00, associate membership is \$13.00, and junior membership is \$8.00. Bill will not be collecting dues at the December Party, so please take care of it now, before you forget. You can mail your check to Bill Scheffer, 2959 Sky Way Drive, Memphis, TN 38127. Thank you for your membership in MAGS.



## DECEMBER BIRTHDAYS

December Birthstone is TURQUOISE

- 2 – Mildred Laster
- 2 – Sharon Muir
- 2 – Shelley Ramsey
- 3 – David Helms
- 5 – Kim Prudhomme
- 6 – David McAlister
- 6 – Horace Roane
- 6 – Lynn Spencer
- 8 – Diane McIlwain
- 8 – Martha Rannels
- 9 – Marilyn Free
- 9 – Angela Underhill
- 9 – Nicholas Hurley
- 10 – Docia Lenz
- 15 – Jerry Seamans
- 17 – Natalie Horowitz
- 17 – Susan Thom
- 18 – David Prudhomme
- 19 – Paula Gunter
- 20 – Ed Underhill
- 21 – Joel Huber
- 23 – Jimmy McNeil
- 24 – Allen Grewe
- 26 – Keith Dulin
- 30 – Rick Bethune



## SUNSHINE REPORT

CORNELIA McDANIEL—It was great to see Dr. Joe Young at the November meeting and Carl Warren at Vulcan Quarry in November. Our wishes for a speedy recovery go to Bill Scheffer following his recent knee surgery.

*If you, or a MAGS member you know, becomes ill, please call Cornelia McDaniel at 274-7706 and let her know.*

## M<sup>3</sup> MEETING HIGHLIGHTS

JENNIFER BALDWIN: Members present at the November M<sup>3</sup> meeting were: Roger Van Cleef, Idajeen Jordan, Nancy Folden, W.C. and Cornelia McDaniel, and Mike, Sherri, Jennifer and Kelly Baldwin.

In celebration of the holiday season, we enjoyed a time of fellowship and refreshments before we began our evening of exploration. The emphasis for the evening was opal. We examined several specimens from Spencer, ID under the microscopes. The “fire” in some of them was outstanding. After talking about opal and learning about the Spencer Mine, we were given a grand tour of Roger’s fossil collection. Thank you, Roger, for your generosity and your hospitality, hosting the Micromounters in your lab month after month. We are having a great time, viewing so many minerals and fossils under the lens of the microscope, learning about each piece, and sharing our love for the hobby. We look forward to 2004 and more M<sup>3</sup>. Most MAGS members have not attended an M<sup>3</sup> meeting. If you haven’t been, you really don’t know what you are missing! You don’t have to know a lot about minerals to enjoy seeing their beauty under the microscope, and yet, you can know a wealth of information about them, and find out something new each time you come to a meeting. Give Roger a call at 901-794-1641, or send an email to fossilorb@aol.com for more information about fossils, minerals, micromounting, and M<sup>3</sup> [MAGS MicroMounters].

BROUGHT TO YOU BY M<sup>3</sup>

## SPENCER OPAL

MIKE BALDWIN: Spencer, Idaho, population 38, is home to one of the largest opal deposits in the United States. Two lost deer hunters discovered opal in this area in 1948 and the first claim was filed in 1952. Today there are four commercial opal companies there. Though white is the most common color around the world, Spencer miners find rare red, pink and blue opal.

The primary formation of the Spencer opal mines is a rhyolite and obsidian flow filled with gas pockets. The secondary deposit is a solution of silica and water, trapped within the rock and released by a series of geysers. As a result of several eruptions over a period of time, the opal is found in layers. Most of the layers are very thin. These thin layers, hydrothermally deposited inside hollow geodes, produce some extremely high quality precious opal which is very transparent with great color intensity. Opal is brittle, heat sensitive, and it scratches or breaks easily. Some varieties even self-destruct through loss of water. Even with these delicate qualities, opal remains as a precious gemstone, due to its unsurpassed beauty.

The word opal is derived from the Roman word “opalus” and the Greek word “opallios”, meaning “to see a change of color.” The Greek word was a modification of the ancient Indian Sanskrit name for opal, “upala.” which

meant “precious stone.” To combine the derivatives of the opal name, opallios upala, would yield the meaning, “to see a change of color precious stone.” Opal has been a treasured gemstone for centuries. Romans adored the opal as a token of hope and purity. Greeks thought that opal yielded foresight and prophecy. Arabs thought that it was a gift from heaven, and Asians viewed it as sacred.

Opal is the most colorful of all gems. The flashes of iridescent color seen in an opal change dependent upon the angle from which the stone is viewed. The value of an opal is determined by the intensity and distribution of these flashes of color. Cracking [internal cracking] may occur in opals if they are removed from damp conditions and allowed to dry too quickly. Cracking may also take place from vibration, such as during the cutting and polishing of specimens. A very gradual drying process over months, or sometimes even years, can sometimes stabilize a

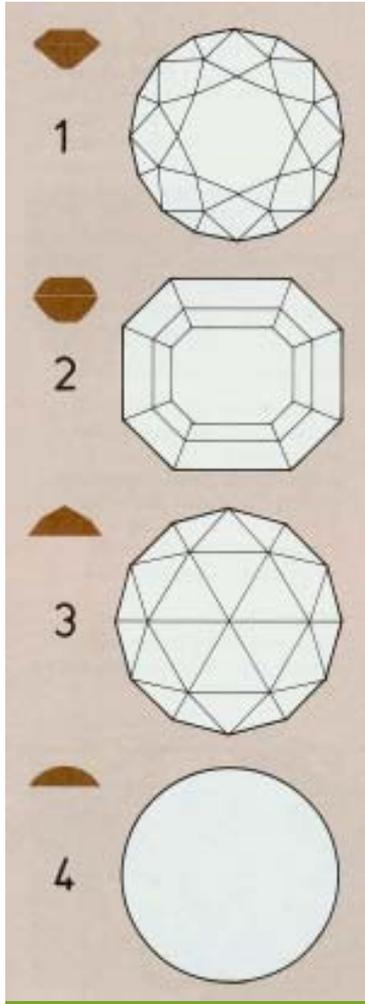
(see *Spencer Opal* on page five)



### Spencer Opal

Top image courtesy of gemstoneworld.com; bottom image courtesy of facetgems.com. Images used for educational purposes under the provisions of the “Fair Use Act of 1976.”

# GEMSTONES (continued from page one)



Craftsmen cut and polish gems to bring out their special features. Translucent and opaque stones may get the rounded shape called cabochon. Transparent gems are faceted so that they reflect and bend the light. Each expert cuts a stone by grinding with a hard abrasive; diamond dust alone is hard enough to cut a diamond. Most stones are cut in one of four main styles, called brilliant, step, mixed [brilliant and step], and rose.

Even in antiquity diamond was known as the hardest substance on Earth, which is why the Greeks called it “adamas,” meaning “the invincible.” Diamonds have now displaced all colored stones, except the best rubies and emeralds, as the most valuable of gemstones.

References:

- 1 Martin Holden; *The Encyclopedia of Gemstones and Minerals*; Michael Friedman Publishing Group, Inc.; China; 1999.
- 2 David Lambert; *The Field Guide to Geology*; Facts on File, Inc.; New York, New York; 1998.

Information gathered for educational purposes under the provisions of the “Fair Use Act of 1976”.

### Major styles of cut

[side views inset]: [1] Brilliant; [2] Step cut; [3] Rose cut; and [4] Cabachon. Image courtesy of The Field Guide to Geology.

# SPENCER OPAL (continued from page four)

stone and allow it to be cut and polished. Opals which show a play of color are called precious opals and those that do not show a play of color are called common opals. Gems are cut from both precious and common opal. The most desired opal is the black opal, which has a dark blue, dark green, or black background and a strong play of color. White opal [white, yellow, or cream] with a strong play of color is also highly desired, followed by Mexican fire opal, which is a transparent or translucent orange-red common opal.

The Spencer Opal Mines are located in Southeastern Idaho, about 70 miles north of Idaho Falls along I-15, 70 miles west of Yellowstone National Park, and 80 miles south of Dillon, Montana. The mines are not open to the public daily, but there are several times throughout the year when you can dig [for a fee]. For more information about the mines and digging times, call 208-374-5476 [May-October], 928-859-3752 [November-April] or email [Info@SpencerOpalMines.com](mailto:Info@SpencerOpalMines.com) .

References:

- 1 Idaho’s High Desert Hides Opal; [http://www.opalstore.com/news\\_1.htm](http://www.opalstore.com/news_1.htm); November 5, 2003.
- 2 Headquarters of the Original Spencer Opal Mine; <http://www.SpencerOpalMine.com>; November 5, 2003.

Information gathered for educational purposes under the provisions of the “Fair Use Act of 1976”.

# WEB NEWS

MIKE BALDWIN: Over 100,000 people have visited our website since January 21, 2002! If you are reading this article via the internet, we would like to thank you for visiting our site. We hope that you found the information you were looking for, and we would like to hear from you. Let us know how you were able to use the information you found. If you have other geology/archaeology/paleontology sources that you use regularly, please let us know, so we may share them with our club members and readers. Thanks again for reading. Send your email to [rockclub@earthlink.net](mailto:rockclub@earthlink.net) .

Here’s a look at our website statistics 01.21.02 – 11.30.03:

Visits*	100,429
Hits**	439,349
Top pages in the past 30 days:	
Explorer0203.pdf	780 hits
RockNews0203.pdf	534 hits
Explorer0903.pdf	527 hits
RockNews1202.pdf	416 hits
RockNews1103.pdf	347 hits
Visits in past 30 days	10,440
Hits in past 30 days	45,233
Avg. visits/day this month	326
* visit= every time someone comes to the site	
** hit= every page viewed on the site	



Explorer0203.pdf: read by 780 people in Nov.

## SFMS CLUBS SHOWS/EVENTS

DECEMBER 5-7 • 9am-5pm  
Springhill, FL—Withlacoochee  
Rockhounds, Inc. Gem and  
Mineral Show and Auction.  
Slovene American Club, 13383  
County Line Rd., Spring Hill, FL.  
Contact: Jerry Johnson 352-688-  
7810 or [hisnibs@earthlink.net](mailto:hisnibs@earthlink.net) .

DECEMBER 13 • 10am-6pm  
DECEMBER 14 • 10am-5pm  
Deland, FL—Tomoka Gem and  
Mineral Club. Gem and Mineral  
Show. Volusia County Fair  
Grounds, Route 44, Deland, FL.  
Contact: John Withey 386-445-9030.

DECEMBER 12-13 • 10am-7pm  
DECEMBER 14 • Noon-5pm  
Norcross, GA—The Georgia Mineral  
Society. Free Gem and Mineral  
Show. North Atlanta Trade Center,  
1700 Jeurgens Court, Norcross, GA.  
Contact: Anita Westlake 404-761-  
7849 or [libawc@emory.edu](mailto:libawc@emory.edu) .

FEBRUARY 28 • 9am-6pm  
FEBRUARY 29 • 10am-5pm  
Jackson, MS—Mississippi Gem &  
Mineral Society. 45th Annual  
Gem, Mineral, Fossil, and  
Jewelry Show. A&I Buildings,  
MS State Fairgrounds, Jackson, MS.  
Contact: Brenda Hankins, POB 844,  
Jackson, MS 39205 or [msgem.org](http://msgem.org) .

*Visit the Southeast Federation  
website for more shows/events  
information. The web address is:  
<http://www.amfed.org/sfms> .*

## SFMS FEDERATION NEWS



**Dixie Mineral Council Field Trip:  
Hosted by the Athens Rock & Gem Club  
8:30am [EDST], Saturday, December 13, 2003  
Diamond Hill Mine, Antreville, SC**

The Athens Rock and Gem club would like to extend an invitation to rockhound one of the premier quartz collecting localities in the southeast. Recently, under new ownership, years of overburden have been removed to expose new veins and deposits of high-quality quartz. You will find an abundance of plates of well-formed milky quartz crystals, primarily in the form of “skeletal” quartz, as well as smokey quartz and even an occasional amethyst crystal.

**Assembly Point:** Diamond Hill Mine, located near the small town of Antreville in northeastern South Carolina.

**From the north:** Exit I-85 at US 178 at Anderson, SC (exit # 21). Drive south on US 178 for approx. 1 mile and then bear right onto SR 28. Follow SR 28 south approx. 20 miles to Antreville. Upon entering Antreville you will see Crawford’s Store on the left. Drive past the store and then watch on the right for Emanuel Baptist Church. Turn right at the church onto SR 284. Drive east on SR 284 for 2.3 miles watching carefully on the right for Suber Road (S-01-508). Turn right onto Suber Road and follow it approx. 0.7 mile to Diamond Hill Road (on right, gravel, S-1-538). Turn right onto Diamond Hill Road and follow it about 0.5 miles. The mine entrance will be on the right.

**From the south:** Exit I-20 at US 221 (exit # 183) just east of Augusta, Georgia. Drive north on US 221 to McCormick, SC. In McCormick turn north onto SR 28. Continue north on SR 28 to Antreville (approx. 50 miles). About 2 miles south of Antreville, SR 184 enters SR 28 from the right (east). When you pass SR 184 start watching carefully on the left for Emanuel Baptist Church. Turn left at the church onto SR 284. Drive east on SR 284 for 2.3 miles watching carefully on the right for Suber Road (S-01-508). Turn right onto Suber Road and follow it approx. 0.7 mile to Diamond Hill Road (on right, gravel, S-1-538). Turn right onto Diamond Hill Road and follow it about 0.5 miles. The mine entrance will be on the right.

**Fees:** Adults - \$10/day; Children under 16 year of age - \$5/day. Upon arrival, each participant will be required to sign a waiver of liability.

**Other Essentials:** Pick and shovel, rock hammer, chisels, and scratching tools. There is ample water on site for screening and washing specimens. Bring a lunch, plenty of fluids, hat, gloves, and sturdy shoes. Bring rubber boots and a change of cloths if it is going to be a rainy or wet day.

**Trip Chairman:** Jim Maudsley; (706) 353-1792; [jamesm24@charter.net](mailto:jamesm24@charter.net)

*DMC Field Trips are open to all members of associated clubs of the DMC program of the SFMS Field Trip Committee and to all members of SFMS member clubs who have provided their membership with SFMS liability insurance. Because of insurance requirements, members of the GENERAL PUBLIC are NOT invited on this or any DMC program field trips!*

# MAGS REVIEW

## BOARD MEETING October 3, 2003; 6:30pm

RAYNEE RANDOLPH: The MAGS board of directors met October 3, 2003 at The Blue Plate Café, 5469 Poplar Avenue. The following were present: Mike Baldwin, Nancy Folden, Cornelia and W.C. McDaniel, Park and Terri Noyes, Raynee Randolph, Bill Scheffer, Paul Sides, Roger Van Cleef, and Lou White. The following reports were given: **(1) TREASURER:** Financial reports for August and September were presented. **(2) FIRST VP:** October field trip will be to the Ledbetter Farm for geodes, then on to Dale Hollow Lake. November field trip will be to Vulcan Quarry on the 22nd. We will get to Richardson's Landing sometime this year when the river cooperates. **(3) PROGRAM:** Our speaker for October will be Jerry Potter, a Memphis attorney that penned the book *The Sultana Tragedy*. November will bring us to Mary Austin Talley. **(4) EDITOR:** No news yet from the Southeast Federation regarding any awards. **(5) LIBRARY:** Overdue fines were assigned in a former board approved report. The speaker for our program has donated a book to the library about the Sultana. It will be on display for the general meeting. **(6) MEMBERSHIP:** Carl Warren has been moved to his own room, but will remain for further testing. A card was sent to John Jones. New memberships were approved. **(7) SHOW:** Committee will meet October 27, 7:00pm, at the McDaniels'. **(8) OLD BUSINESS:** [1] October will be our last rock swap of the year; [2] The November board meeting will be a planning meeting for 2004. Any and all ideas will be appreciated; [3] The combination TV/VCR was not purchased due to sell out. We will watch for future sales for this purchase; [4] Please be thinking about plans for the Christmas party, which will be December 12; [5] There is a bill in the Senate that will make collecting fossils on Federal property illegal. Please voice your opinion to your congressman; [6] Eileen Price would like us to host the quarterly executive board meeting during the show in April. Discussion will be deferred until the November board meeting; [7] Roger will have an IM chat room set up for his committee; [8] Dues are due. Money will not be accepted at the Christmas party. Meeting adjourned at 7:45pm.

## WILLIAM HOLLAND AND WILDACRES

RON DENTON, PRESIDENT, SFMS: I have some good news for our members wishing to attend a lapidary workshop next year. **William Holland** has scheduled two (2) weeks for SFMS in 2004; **June 13–19 & October 10–16**. **Wildacres** has scheduled the following two (2) weeks for 2004; **April 19–25 & August 23–29**. The third week is unassigned at this time. When the remainder of the year's schedule is completed we will probably have a week in either late September or mid to late October. The weather allowed Wildacres to have a week that ended in the first week of November this year.

## GENERAL MEETING October 10, 2003; 7:35pm

RAYNEE RANDOLPH: MAGS October General Membership meeting was held at Shady Grove Presbyterian Church, presided by President W.C. McDaniel. There were 47 members and 5 visitors present. They were Ed Underhill, Andie Owens, Maggie Owens, Floy Bright, and Aubrey Lipford. **(ROCK SWAP):** The rock swap will be tomorrow as scheduled from 10-2, with catfish being served about noon. Please bring a side dish or desert. If you need directions please see Alan. This will be the last swap of the year. Your admission fee will be a shoebox full of rocks for the gem dig or grab bags, for the show in April. **(PROGRAM):** Jerry Potter is with us this evening. He is one of the leading historians of the horrific tragedy of the doomed riverboat, "Sultana". He has also published a book about the Sultana. **(DISPLAYS):** Adults: [1] Dennis Sanders–Missouri collection; [2] Docia Lenz–Parsons trilobites; [3] Doris and James Parsons–Malachite, turquoise, and petrified wood; [4] Roger Van Cleef–Oklahoma mammoth tooth; painted desert; and [5] W.C. and Cornelia McDaniel–Minnesota, South Dakota, Nebraska vacation. **(WINNERS):** Doris and James Parsons. Three door prizes were awarded and the meeting adjourned at 9:00pm, followed by refreshments.

## ARIZONA PETRIFIED WOOD

Petrified wood is the result of a natural process called petrification, which means "to turn to stone." This process involves mineral replacement of organic material, in this case, branches and logs of ancient trees.

About 190 to 225 million years ago, vast areas of what is now the American West were covered with giant trees. These trees [Araucarioxylon Arizonicum] grew to heights of 220 feet and up to 10 feet in diameter. They flourished in the swampy, semitropical environment created by slowly receding inland seas.

These giant trees were sometimes buried by silt and debris from floods, erupting volcanoes, or other means. The silt prevented the aerobic decay of the organic material. Meanwhile, groundwater carried dissolved silica and other minerals through the silt. This silica replaced each cell of the buried wood, thus preserving the appearance of the wood in much harder and heavier stone. Trace amounts of other minerals, such as iron oxide, manganese, and lithium gave the petrified wood the array of colors that make it so attractive.

Over time, the buried logs and thick layers of sediments surrounding them were raised up by the same forces that pushed up the Rocky Mountains. Slowly, the softer sedimentary rock was worn away by wind, water and other forces. This exposed some of the petrified wood on the surface. The Chinle Formation in Arizona, New Mexico, Utah and Colorado contain exceptionally large deposits of petrified wood.

*Information courtesy of Pat Akins, Sr., Lincoln Curios, Lincoln, NE*

## DEAR MAGS MEMBERS

*I thank you for all your support in the auction sales of my husband, Walter's, rocks at the club meetings.*

*On this last sale in November, I would like to give my share of the profit to MAGS in honor of W.C. and Cornelia McDaniel for the tremendous amount of help they gave me in my preparation to move to Alabama. I plan to move on November 14th.*

*With Thanks and Best Wishes  
Lenette Mewborn*

*How nice and caring of you to remember us. We had hoped Ruth would recover from her operation. It's mighty sad and heartbreaking to lose one after almost 62 years of marriage.*

*I do expect to return to MAGS meetings in the near future. This was and is such a fine society.*

*Thank you for caring  
Joe Young*

*Thank you for the Geology Presentation. We truly appreciate your time with our Webelos.*

*Webelos Den 1 Cobras  
Jeff Spence/Debra Boucher  
Taylor Spence, Adam Boucher, Kurt Dolson,  
James Conlan, Wesley Johnson, Nick Jones,  
Matthew Roberts, and Dylan Crawford*

EDITOR'S NOTE: Mrs. Mewborn has moved to Alabama. Her new address is on page two of this newsletter. It was great to see Dr. Young at the November MAGS meeting. MAGS visited with 14 Webelos Scouts in Collierville on November 18.

## ROCKHOUND NEWS DEADLINES

If you have information that needs to be in the *MAGS Rockhound News* or if you would like to submit articles for publication in the *News*, here are the 2004 deadlines for submission. Email your articles to rockclub@earthlink.net or mail them to Mike Baldwin, 367 N. Main St., Collierville, TN 38017-2301.

Issue	Articles Due By	Issue	Articles Due By
JAN 04 .....	December 20, 2003	JUL 04 .....	June 19, 2004
FEB 04 .....	January 24, 2004	AUG 04 .....	July 24, 2004
MAR 04 .....	February 21, 2004	SEP 04 .....	August 21, 2004
APR 04 .....	March 20, 2004	OCT 04 .....	September 18, 2004
MAY 04 .....	April 24, 2004	NOV 04 .....	October 23, 2004
JUN 04 .....	May 22, 2004	DEC 04 .....	November 20, 2004

# MINI MAGS

## JUNIOR-OF-THE-YEAR TIME JUST AROUND THE CORNER

Kids, don't forget to take the time during your December break from school to look back at your rockhound activities during 2003, and send in your Junior of the Year application.

**COLLECTOR'S CARDS:** Cut out the Dinosaur Card, and the Specimen-of-the-Month card, fold on the dotted lines, tape them closed and add them to your collection.

## [M&M's] WHAT'S UP WITH THE KIDS

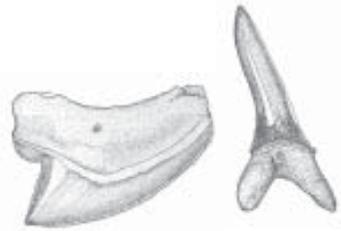
**VULCAN QUARRY FIELD TRIP:** The MAGS field trip to Vulcan Quarry, Parsons, Tennessee on November 22, 2003 was the best attended field trip of the year. More than 40 families registered, and an unofficial head count totaled almost 70 people. There were 15 or so minor miners on this trip, and the weather was perfect. The folks at Vulcan took us to a section of the quarry that we had not been to before and the bounty was plentiful.

If you attended this field trip, bring your treasures to the January Mini MAGS meeting and show us what you found. There were tons of crinoids to be found. Some of them were as big as an inch in diameter and many of them were 6 inches long or longer. Of course, the really good ones were still in the matrix, so there were several large plates that made the journey back to Memphis. Several crinoid heads [calyxes] were found, as well as many trilobite fragments. Add sponges, brachiopods, corals, horn corals, and other seabed creatures to the mix and you have a very enjoyable morning of collecting at Parsons.

After a stop at Subway, it was on the Melba Cole's property to collect selenite crystals. Her property looks like the surface of the moon, or something, with all the gullies, black soil, and no vegetation.

Pick up a copy of the *December MAGS Explorer* at the December meeting or online at <http://www.memphisgeology.org/images/explorer1203.pdf>.

Did You Know . . .	Dryosaurus
<p>Far different from the common view of dinosaurs, Dryosaurus had excellent eyesight and was small, fast, and agile. A graceful animal, its only means of defense was greater speed than that of predators. It also may have lived in herds, which would have provided it with early warning signs when danger approached. It is quite likely to have had nesting behavior and that it took care of the hatchlings.</p> <p>Dryosaurus had large eyes, a hard horny beak, long thin legs, and a stiffened tail to provide balance. It appears to have been closely related to the hypsilophodontids - small agile dinosaurs. The fact that Dryosaurus has some iguanodontid features lead to confusion in placing it in the family tree.</p> <p><small>©2003 Memphis Archaeological and Geological Society</small></p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>MAGS DINOSAUR CARD</b></p> <div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Dryosaurus altus</i>                  Pronounced: DRY - oh - sore - us                  Diet: Herbivore (Plant-Eater)                  Name Means: "oak lizard"                  Length: 10 feet (3 m)                  Height: 5 feet (1.5 m)                  Weight: 175 lbs. (80 kilos)                  Time: Late Jurassic - 150 MYA</p> </div>

Did You Know . . .	Shark Teeth
<p>The <i>Scapanorhynchus</i> [Goblin shark] and the <i>Squalicorax</i> [Tiger shark] roamed the shallow coastal waters of the Late Cretaceous Frankstown area—75 million years ago. Today, Goblin sharks live only at the bottom of deep oceans. Goblin shark teeth are, by far, the most common fossil teeth found at the Frankstown site. Tiger shark teeth are the second most common teeth found at the site. They are the only shark teeth from the site with serrated edges. They must have been very efficient predators, cutting huge plugs of meat out of the sides of big fish.</p> <p>December specimens donated by MAGS Librarian, Nancy Folden.</p> <p><small>©2003 Memphis Archaeological and Geological Society</small></p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>MAGS SPECIMEN CARD</b></p> <div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>[1] Upper lateral tooth [left above]  <i>Squalicorax pristodontus kaupi</i> [Tiger Shark]                  [2] Lower anterior tooth [right]  <i>Scapanorhynchus raphiodon texanus</i> [Goblin shark]                  Location: Frankstown, MS                  Collected by: Nancy Folden</p> </div>



## GODZILLUS PLASTICUS

MAGS member Carol Lybanon made a potentially important discovery during the recent MAGS field trip to Nonconnah Creek. This photo shows what appears to be an intact fossil of Godzillus plasticus, in unusually fine condition, which she found during the field trip.

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### AFMS NEWSLETTER AWARDS:

New Editor 7th-95 • Junior Article 3rd-98; 8th-03 • Special Pub 4th-03

### SFMS NEWSLETTER AWARDS:

New Editor 1st-86 • New Editor 2nd-88, 97  
Certificate of Excellence-89, 90, 91, 92, 93 • Large Bulletin-87  
Art-77, 80, 81, 82, 86 • Original Articles-(2th) 89, 90; (3rd) 92; (4th) 85; (5th) 91; (6th) 87

### DUES:

Family-\$20.00  
Single-\$16.00  
Junior-\$8.00  
Associate: \$13.00

The Memphis Archaeological and Geological Society's main purpose is to promote and advance the knowledge of the Lapidary Sciences in the mining, identification, cutting, polishing and mounting of gems, minerals and fossils to the utmost of our geological and lapidary capabilities.

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MAGS Rockhound News  
367 North Main Street  
Collierville, TN 38017-2301



## MARK YOUR CALENDAR

Board Meeting  
December 4

Holiday Party  
December 12

DMC Field Trip  
December 13

No M<sup>3</sup> Meeting  
in December

No MAGS Field Trip  
in December

DUES ARE DUE!

