

JUNE 2003 • VOL 49 NO 06

Memphis Archaeological and Geological Society • Memphis, Tennessee

EARTHQUAKE HISTORY OF WEST TENNESSEE

INSIDE THIS ISSUE

FEATURE ARTICLES

Earthquake History of West TN	1
Recent Quakes in the Mid-South	5
Studying Seismic Activity	8
Long Live Americans 1	С

MEMBER PAGES

From The President
Board Members
Directory Additions
MAGS Field Trip: Mt. Ida, AR
June Birthdays
Sunshine Report
Memphis World Music Festival 5
April Board Meeting Notes
April General Meeting Notes
Written in Stone: Glossary
Web Statistics

MICROMOUNTERS [M³]

ROCK SWAPS

Rock Swap @ Dennis Sanders' 8

MINI MAGS [MAGS YOUTH]

Trilobites	9
What's Up With The Kids	9
Dino Card: Janenschia	9
Specimen Card: Agate	9

FEDERATION NEWS

DMC Field Trip: Morganton, NC 6
Wildacres Update 6
SFMS Clubs/Events 6
Lodestar Editor Position
Missouri Mines Rock Swap 8





From March 27, 2003 until May 27, 2003, there have been 30 measurable earthquakes in the Central US. This map shows all of them. The biggest earthquake on the map was a 4.0 quake which occurred at 11:56pm on April 29, 2003, with its epicenter 1 mile north of Blytheville, AR. Map provided by CERI, University of Memphis, May 28, 2003. USGS: MAY 28, 2003: The three great earthquakes that occurred in the Upper Mississippi region near New Madrid in 1811-1812 rank among the most significant events in U.S. history. Maximum intensity for each of the large shocks is estimated at 7 [VII]. Topographic changes were noted over an area of 75,00 to 130,00 square kilometers; the total area shaken was at least 5 million square kilometers. Damage was very small for such great earthquakes because of sparse population. Chimneys were knocked down in many places in Tennessee, Kentucky, and Missouri. The most seriously affected area was characterized by raised and sunken lands, fissures, sinks, sand blows, and large landslides. The most typical sunken land is Reelfoot Lake in Tennessee. This lake is from 12 to 16 kilometers in length and from 3 to 5 kilometers in width. The submergence ranged from 1.5 to perhaps 6 meters, although greater depths were reported.

On January 4, 1843, a severe earthquake (intensity VIII) affected Memphis and other places in western Tennessee. The shock was reported to have lasted 2 minutes, though this is probably exaggerated. Walls were cracked, chimneys fell, and

(see Earthquake History of West Tennessee on page five)

JUNE EVENTS

Jun 05	6:30p	Board Meeting: Blue Plate Café, 5469 Poplar Avenue
Jun 13	7:30p	 General Meeting: Shady Grove Presbyterian Church, 5535 Shady Grove Rd., Memphis [bring displays] Adult Program: Show Update with WC McDaniel and Program presented by Paul Sides MAGS Youth [Mini-MAGS] Program: "Trilobites and Sponges of Tennessee" with Idajean Jordan
Jun 14	10:00a	MAGS Rock Swap @ Dennis Sanders' home [see page 8]
Jun 19	7:00p	M ³ Micromounters Meeting @ Roger Van Cleef's home
Jun 21	8:00a	DMC Field Trip: Morganton, NC [see page 6]
Jun 28-29	8:00a	MAGS Field Trip: Mt. Ida/Jessieville AR [page 3]

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

The last two months sure have been blockbusters. A great show, good membership meetings, field trips, rock swaps, lots of visitors and a MAGS' member was named as Junior Rockhound of the Year for 2002.

During the June meeting an update on the show will be provided and recognition to those who contributed to the show. Also, you get a break from bringing refreshments for the meeting, as the show will treat.

The last two membership meetings have been well attended with good programs and great displays. For May we had six displays and in a nail biter, Sherri Baldwin won with her display of druse quartz from our trip in May of 02. Keep those displays coming. Where are the juniors? Parents, encourage you children to bring a display. Great prizes will be awarded at our December Christmas party.

The April field trip to Memphis Stone and Gravel was attended by a large number of people with a car caravan stretching a long way. The May field trip to Mark Twain National Forest in Missouri produced some incredible druze quartz including many large pieces, which were carted off the hillside using David's hand cart and Dana's new wagon. The member's experiences, participation and esprit de corps on field trips are a joy to be part of and a tribute to our club.

The May rock swap was attended by over twenty-five people. Mark you calendar for June 14 rock swap at Dennis Sanders. As we are collecting crystals in May and June we will have another "Round the Rock" discussion on cleaning crystals.

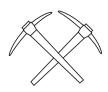
Congratulations to the MAGS' geology girls. Kelly Baldwin was named the Junior Rockhound of the Year for the Southeast Federation. Jennifer Baldwin was runner-up. Emily and Abby Randolph received certificates of participation. The requirements are fairly extensive and it would be challenge to our most veteran rockhounds. This is the second year in the row a MAGS' junior, Kelly Baldwin, has swept the region and validates that we have the best juniors program in America. Special thanks to those parents who are committed and willing to be involved in their children's events.

DIRECTORY ADDITIONS

Please add these to your 2003 MAGS directory:

- Hill, Charles & Emily Hill [Steven Walker & Lisa Walker] 1070 Park Swain Road • Grand Junction, TN 38039 • 731-764-2753 • hunter3006@aol.com
- Beckum, Jon, Nola, Shelby & Kelsey 416 E. Woodlawn Brighton, TN 38011 901-475-4294 • 1lilith@concentric.net
- [3] Bethune, Rick, Allyson & Hayley 6338 Braybourne Place Olive Branch, MS 38654 • 662-890-7214 • hockeynut@hotmail.com

Note: The 2003 MAGS directories are available. If you have not received yours, or if you cannot pick up your directory at a MAGS meeting, please send \$1.00 [to cover postage and shipping] to Bill Scheffer, 2959 Sky Way Drive, Memphis, TN 38127 and he will mail it to you.



MAGS FIELD TRIP MT. IDA/JESSIEVILLE, AR

SATURDAY JUNE 28 - SUNDAY JUNE 29, 2003 FIELD TRIP LEADER, DAVID MCILWAIN, 901-456-7388

COLLECTING SITE: The Sweet Surrender Crystal Mine, owned by Stuart Schmitt and operated by Randy Skates, located near Mt. Ida, Arkansas. And Jimmy Coleman's Crystal Mine, located near Jessieville, Arkansas.

MINERALS: We will be collecting quartz crystal at these sites.

MOTEL ACCOMMODATIONS: Colonial Motel, 5403 Hwy 270 East, Mount Ida, AR 71957 • (870) 867-2431, Fax (870) 867-0159 E-mail: crystals@ipa.net • 11 units, pets extra, located eleven miles east of Mount Ida on Hwy. 270. A group rate of \$41.95+tax for 2 full size beds (based on double occupancy), add \$5.00 for additional person, will be available for all MAGS members. No in room telephone available. Please make your reservations ASAP!

MEETING TIME/PLACE: Each day at 8:30 a.m., at Crystal Inn Restaurant, 3489 Hwy. 270 East, Mount Ida, AR 71957; (870) 867-2643. Six miles east of Mount Ida on Hwy. 270 near the Mount Ida/Bearce Airport. Please come earlier if you plan to have breakfast. We will be leaving promptly at 9:00 a.m., for the collecting site.

DRIVING DIRECTIONS: From Memphis take I-40 West towards Little Rock, then take the I-440 South, exit number 159, towards Arkadelphia/Texarkana. I-440 becomes I-30 South, them take AR-270 West exit number 98B, towards Hot Springs. Continue on AR-270 West around Hot Springs to Mt. Ida. Allow approximately 5 to 5-1/2 hours driving time.

TOOLS: Bring leather gloves, buckets and small rake or small garden tools for going through tailing piles. For the serious rockhound, bring shovel and pry bar, also rock hammer and chisels for breaking crystal vanes. Also, bring newspapers for wrapping crystal specimens, to keep crystals damage free and beautiful.

SPECIAL NOTE: While in the mines, all children and junior members must be supervised by an adult member at all times. This is a requirement of The US Forest Service. **DIFFICULTY LEVEL:** 1 to 3 on a scale of 1 (easy) to 10 (hard). Please be advised that

there is always a possibility for injury and/or poisonous snakes at these sites. **SATURDAY'S AGENDA:** We will be collecting at The Sweet Surrender Crystal Mine. This is a fee pay mine, \$20.00 per person and \$5.00 per children (ages 10-15) and children under age 10 are free. You keep all the crystals you can dig. If you are not satisfied with your experience, you can leave your crystals and Sweet Surrender will

refund your money. Around noon, we will break for lunch. Please bring a sack or picnic lunch, as we will be traveling about 10 miles from the nearest restaurant.

SUNDAY'S AGENDA: We will be collecting at Jimmy Coleman Crystal Mine. This is a fee pay mine, \$10.00 per person, and children under age 10 are free. You keep all the crystals you can dig. Around noon, we will be leaving and heading for home. **FIELD TRIP LEADER**: David McIlwain: Home: (901) 465-7388 • Cellular: (901) 266-1446 • email: davidmcilwain@netscape.net. If you sign up and cannot go, please contact David ASAP.

Please Note: This field trip is open only to MAGS members and their guests.



June Birthstones are ALEXANDRITE, MOONSTONE and PEARL

- 4 Ruth Young
- 5 Allen Thom
- 6 Sandra Ann Swink
- 7 Edward DeVoe, Jr.
- 13 Sherri McCalla
- 15 Matthew Huber
- 16 Don Givens
- 16 Ann Williams
- 17 George Fulghum
- 17 Robert Williams
- 19 Norman Daniels
- 20 Melissa Johnston
- 20 Vivian Sharpe
- 21 Allen Helt
- 25 Doris Johnston
- 27 Allyson Bethune
- 29 Jennifer Baldwin
- 29 Cornelia McDaniel
- 30 Sean DeVoe
- 30 William Sanford



CORNELIA McDANIEL-Our thoughts and prayers are with Bill, Raynee, Casey, Emily and Abbey Randolph after the recent loss of Bill's father.

The Memorial Day weekend field trip to Missouri yielded many very nice specimens of druse quartz, but at a cost. Several pulled muscles and strained backs resulted from moving and lifting all those oversized specimens. May all of your strains and pains leave you soon. After all, there are Arkansas quartz crystals waiting for you to bring them back to Memphis this month.

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

SPACE NOTES BROUGHT TO YOU BY M³ A NEW WAY TO EXPLORE THE SURFACE OF MARS

LANGLEY RESEARCH CENTER: MAY 13, 2003: Students from North Carolina State University (NCSU) are helping NASA expand the exploration of the surface of Mars. The team of students and researchers has designed a wind-powered rover that can be blown, like tumbleweed, across the surface of the Red Planet collecting atmospheric and geological samples at multiple locations.

In the Aerospace Design class at NCSU, the team of nine students and their faculty advisor researched concept and prototype development, studied wind tunnel testing, and performed actual field-testing with the tumbleweed rover. The idea to study a "Mars Tumbleweed" for the class project was initiated by team leader David Minton, while working as an intern at NASA Langley Research Center in the summer of 2002.



The students studied how the tumbleweed harnesses the wind for movement using its intricate lightweight branch structure. By imitating the way the prairie plant operates in nature, the team was able to apply their knowledge to designing the rover concept.

The Mars Tumbleweed Rover Photograph by NCSU Space Senior Design Class

The students constructed a prototype rover called the Tumbleweed Earth Demonstrator (TED), scaled for use on Earth and based on NASA Langley concepts. The student-built rover will aid the Mars exploration effort at Langley, by providing preliminary data that will influence future tumbleweed design concepts.

Current Mars rover models are very complex and expensive, and their ability to traverse rough terrain is limited. Landing sites must be carefully chosen to ensure the safety of the vehicle and the ability to carry out the mission. Therefore, many scientifically interesting Martian sites are now inaccessible. A future mission scenario could disperse multiple Tumbleweed rovers to roam the surface of Mars carrying instruments with unique sensors to search for water or investigate climate. For more information about the Mars Tumbleweed student project at NC State University, visit: http://www.mars-tumbleweed.org

Press Release: Kimberly W. Land, Langley Research Center, Hampton, VA; May 13, 2003

MAY M³ MEETING

NOTES FROM MAGS MICRO-MOUNTERS

JENNIFER BALDWIN–Roger Van Cleef, Nancy Folden, Idajean Jordan, George Fulghum, Sherri Baldwin, Mike Baldwin, Jennifer Baldwin, and Kelly Baldwin attended the May 15th M³ meeting at the home of Roger Van Cleef. We took at look at a variety of specimens under the microscope. They included [1] green prehnite druse crystals; [2] black basalt vugs from the National Capital area of Virginia; [3] clear tabular selenite crystals; [4] otoliths--fossil fish ballasts that look like little barite roses; [5] calcite crystals from the inside of a crinoid bulb which Roger cracked open; [6] unidentified bluegreen amorphous crystals; [7] pumice in dried lava soap which George brought with him; [8] Nancy's sand from the Frankstown MS Fossil Park--containing fish coprolite; [9] blue slag from an iron furnace--reminded me of something from Pluto; [10] coquina--shell conglomerate from Florida; and [11] a monstrous-looking gnat! Thanks to George Loud for providing specimens from the Micromounters of the National Capital Area. Micromounters--remember to bring safety glasses to the M3 meetings. Also, you might want to purchase some mineral tack for mounting your specimens. Our next meeting will be June 19. See you there!

EARTHQUAKE HISTORY OF WEST TENNESSEE

windows were broken. The total felt area was about 1 million square kilometers. The shock was strongly felt in Knoxville and caused considerable alarm but did no damage. It was also sharply felt in Nashville.

An earthquake in the Mississippi Valley region caused damage in Tennessee and Arkansas on May 7, 1927. It was strongest at Jonesboro, Arkansas, where some chimneys fell (intensity VII). However, the felt area indicated that the epicenter was farther to the east, in Tennessee. Damage there was limited to the shattering of window panes and breaking of dishes in the Memphis area. Many people were awakened by the early morning (2:28 AM) rapid rocking motion; in addition, surface and subterranean sounds were heard. The shock was also felt in parts of Alabama, Illinois, Kentucky, Mississippi, and Missouri, an area of about 337,000 square kilometers.

A sizable area in western Tennessee was affected by a fairly strong earthquake centered near Covington on **November 16, 1941**. Cracks appeared in the courthouse at Covington, where the tremor was noticed by everyone (intensity V-VI). At Henning, it was felt by many, and an explosive noise preceded the trembling. The shock was also felt at Dyersburg, Frayser, Memphis, Millington, Pleasant Hill, and Ripley.

(continued from page one)

Dyersburg was the center of another disturbance on **July 16, 1952**. The press reported numerous cracks in a concreteblock structure. The earthquake was felt by nearly all, and many persons were frightened (intensity VI). It was also felt at Finley and Jenkinsville. A weak aftershock was felt by a few people.

An earthquake centered near the Arkansas-Tennessee border (near Finley) awakened many residents on **January 25**, **1955**. The 1:24 AM shock broke windows and damaged plaster walls at Finley, where it was felt by all (intensity VI). The total felt area, including points in Illinois and Kentucky, covered about 75,000 square kilometers.

An early morning shock (3:02 AM) on **March 29, 1955**, was felt by everyone in Finley (intensity VI). Plaster was cracked in one home. A roaring noise and violent shaking were reported. The tremor was felt by many at Caruthersville, Missouri.

Minor damage occurred at Covington from a **January 28, 1956**, earthquake. Chimneys and walls were cracked (intensity VI). Many were awakened at Covington, and the press reported some residents left their homes at Henning. The shock was also felt in Arkansas and Missouri.

Ref: M. Zirbes; Abridged from *Earthquake Information Bulletin*, Volume 9, Number 2, March-April 1977; USGS National Earthquake Center; http:// neic.usgs.gov/neis/states/tennessee/ tennessee_history.html; 05 April 01. Information gathered for educational purposes under the provisions of the "Fair Use Act of 1976".

FRIENDS OF CHUCALISSA MEMPHIS WORLD MUSIC FESTIVAL

The 1st Annual Friends of Chucalissa Memphis World Music Festival will be held in early September, 2003 at the Shell in Overton Park, Memphis. If you are interested in working on the committee putting together this festival, please contact Guy Weaver at 901-452-7554 or email at gweaver@weaverassociatesllc.com.

RECENT QUAKES IN THE MID-SOUTH

MAG	DATE	LOCATION
1.7	05.27.03	Tiptonville, TN
1.6	05.27.03	Ridgely, TN
2.0	05.27.03	Ridgely, TN
1.5	05.26.03	Ridgely, TN
1.2	05.26.03	Ridgely, TN
1.5	05.25.03	Ridgely, TN
1.7	05.21.03	Tiptonville, TN
1.7	05.19.03	New Madrid, MO
1.8	05.16.03	Tiptonville, TN
1.8	05.15.03	Caruthersville, MO
1.8	05.13.03	Ridgely, TN
1.6	05.06.03	New Madrid, MO
2.7	05.01.03	Canalou, MO
1.3	05.01.03	New Madrid, MO
1.6	04.30.03	Madrid, MO
1.5	04.30.03	New Madrid, MO
4.0	04.29.03	Blytheville, AR
1.7	04.24.03	Tiptonville, TN
2.0	04.21.03	New Madrid, MO
1.5	04.18.03	New Madrid, MO
2.2	04.17.03	Ridgely, TN
1.7	04.09.03	New Madrid, MO
1.8	04.07.03	Dyersburg, TN
1.6	04.05.03	Matthews, MO
1.7	04.05.03	New Madrid, MO
1.5	03.31.03	Parma, MO
1.7	03.30.03	New Madrid, MO
1.1	03.29.03	New Madrid, MO
1.7	03.28.03	Tiptonville, TN
1.2	03.27.03	New Madrid, MO



4.0 Magnitude earthquake occurred near Blytheville, Arkansas [55 miles north of Memphis] on April 29, 2003. Map and information above provided by CERI, University of Memphis, May 28, 2003. Visit http://folkworm.ceri.memphis.edu/index.html.

SFMS CLUBS SHOWS/EVENTS

JUNE 7-8, 2003 • 9am-5pm **30th Annual Tannehill Gem, Mineral, Fossil & Jewelry Show** • Alabama Mineral & Lapidary Society • Tannehill State Park, Birmingham, AL • Exit 1 off I-459 • Contact Rick Kittinger: jo_rick@bellsouth.net

JUNE 13, 2003 • 10am-8pm JUNE 14, 2003 • 10am-6pm JUNE 15, 2003 • Noon-5pm **7th Annual Asheville Gem Fest** • Colburn Museum at Pack Place, Asheville, NC • Contact

Linda Wilson (828) 254-7162 JUNE 20-21, 2003 • 9am-6pm

JUNE 22, 2003 • 9am-5pm Gem and Mineral Show Harrison County Gem & Mineral Society. Inc. • Rice Pavilion, Intersection of U.S.90 and Highway 49, Gulfport, MS 30501 • Dealer Chairman: Billy Wood 228-863-6312

JULY 23-26, 2003 • 10am-6pm JUNE 27, 2003 • Noon-5pm **July Gemboree** • Gem and Mineral Society of Franklin, NC • Macon County Community Facility, US 441 S., Franklin, NC • Contact: Fred Plesner, 565 Riverview Heights Street, Franklin, NC 28734: email willa@dnet.net

LODESTAR EDITOR

John Watkins, SFMS Editor, will not be able to continue in that position past the end of this year. If you are interested in being *Lodestar* editor, please contact John at 865-458-5292 or email riesling4@aol.com.

SFMS FEDERATION NEWS



Dixie Mineral Council Field Trip: Hosted by Forsyth County Gem and Mineral Society 8:00am-Noon [EST], Saturday, June 21, 2003 Morganton Quarry, Morganton, NC

SITE NAME: Vulcan Materials Company's Morganton Quarry [Burke County], Morganton, NC

COLLECTING: This quarry has several rock types, which include augen gneiss, chlorite biotite gneiss, amphibolite, and pegmatite. The following collectable minerals have been found at this location: garnet, golden beryl, black tourmaline, apatite, sphene, feldspar, biotite and muscovite books, and siderite. The majority of these minerals are found in the pegmatite zones. Garnets are almandine variety and have been found up to silver dollar size. However, the majority of them are 1/8" to 1/4" in diameter imbedded in the pegmatite.

SPECIAL CONDITIONS: This is an operating mine. All persons attending the field trip will be required to sign a hold harmless agreement, take 15 minute hazardous training, and wear the required safety gear at all times. This includes a hard hat, safety glasses, and steel-toed boots. We will meet at the quarry office at 8 a.m., sign releases, receive instructions on boundaries and safety, and be lead into the collecting area. We must leave the quarry by 12 noon! In addition, all persons are asked to stay away from the quarry walls. There is plenty of material loose on the quarry floor. Vehicles will be permitted inside the quarry on this trip! Children over 12 years old can attend if supervised closely by parent or guardian. Must wear appropriate safety gear. No pets. BRING: Hard hat, safety glasses, rock hammer, and something to carry/wrap samples. DIRECTIONS AND WHERE TO MEET: We will meet at the quarry at 8:00 am and be allowed to collect until 12:00. Quarry phone number is (828)437-2616. From Interstate 40, take Highway 18 North at exit 105. At the fourth traffic light, turn right on Fleming Drive. Continue to end of road at Route 64/70 (dead end at Bi-Lo Food Store). Turn left on Route 64/70, travel under the railroad bridge. Immediately after crossing under bridge, at the Viscotec plant, turn right on Kirksey Drive. Make another right on Quarry Road. Quarry entrance is 1/4 mile off Quarry Road. **DRIVE TIME:** This is approximately a 1-1-2 hour drive from Winston-Salem, NC. INFORMATION/SIGN-UP: Jim Stroud, (336) 744-2940 • email stroudj@vmcmail.com. MAGS-if you need additional information, please contact MAGS member, Mike Baldwin.

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!

WILDACRES UPDATE

POLLY CARMAN, REGISTRAR, WILDACRES WORKSHOPS–Regarding August 18-24, 2003 classes: *Beginning Silversmithing and Beginning Wirecraft* are both full. Places are available in all other classes, with most needed in *Casting, Beginning Intarsia* and *PMC 1*. Regarding September 22-28, 2003 classes: *Beginning Wirecraft* is full. All other classes have spaces available. Applications with checks must be sent to the Registrar via regular mail. Any questions or inquiries may be directed to the Registrar by email: carmanrp@telsurf.net or telephone: 321-632-5739. Please help us fill our classes and keep our Wildacres Workshops.

MAGS REVIEW

BOARD MEETING April 3 2003; 6:30pm

RAYNEE RANDOLPH: MAGS April board meeting of MAGS held 04/03/03 at Blue Plate Café, 5469 Poplar Avenue. Present were: Mike Baldwin, Nancy Folden, Idajean Jordan, W.C. and Cornelia McDaniel, Raynee Randolph, Bill Scheffer, Roger Van Cleef, and Lou White **TREASURER**: Audit for 2002 has been completed. The treasurer is to be commended on outstanding record keeping.

FIRST VP: Field trips will be May 24-26, Potosi MO; calcite and druse and Hamilton, IL for geodes. June will be to Mt. Ida.

SECOND VP: Our program will be presented by Dr. R.P. Major. He will discuss the effect hurricanes have on island sand shoals. May, the program will be the process of gold mining; June will take us into cretaceous gastropods and July we will learn about Eocene fossils.

MINI-MAGS: Articles needed for *Explorer* newsletter. Maybe interview "Junior of the month". **MEMBERSHIP:** New members–Muir and Lybanon.

SUNSHINE: Card has been sent to the Butchko's.

SHOW: Volunteers needed for food and the Gem Dig. There will be a workday at the McDaniel's April 19th. If you come to work, they will feed you lunch.

OLD BUSINESS: Budget for 2003 was presented, discussed and accepted.

NEW BUSINESS: [1] A suggestion was made to purchase Christmas gifts at the show. [2] Rock swap schedule is as follows: May 10–Carolyn Hayes; June 14–Dennis Sanders; Aug. will be in house; Sept.20–tentative; Oct.–Alan Parks, fish fry. [3] May board meeting we will select 3 new goals from our five year plan. [4] Suggestion that club table be offered to a club members for half price for 2004 Show if they volunteer for four hours. Meeting adjourned at 8:27pm

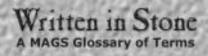
GENERAL MEETING April 11, 2003; 7:40pm

RAYNEE RANDOLPH: MAGS April General Membership meeting, held at Shady Grove
Presbyterian Church, was called to order by President W.C. McDaniel at 7:40pm on Friday,
April 11, 2003. There were 63 members and 7 visitors. Visitors were Rick Majors, Rick and
Haley Bethune, Howard Kerr, Jim Yantes, Mac Swope, Aimee Chris and Max Whitley.
SECOND VP: [1] April field trip will be to Memphis Stone and Gravel, Desoto. Meet there at
8:30, bring a sack lunch. See newsletter for more details. May's field trip during Memorial
Day weekend will be in Potosi MO for druse quartz and calcite. Monday travel to IL for
geodes. Make reservations ASAP if you are going. See the newsletter for more details.
SUNSHINE: Card was sent to the family of Joe Devine.

SHOW: Volunteer sign-up sheets will be on the tables for signing. There is a food sign-up sheet for the dinner Friday evening. This show is run entirely by YOU THE VOLUNTEERS. Your names can be on more than one sheet. Sign often, we need you! There will be 2 gorgeous door prizes. A collection of American minerals, and jewelry pieces with the jewelry box. Chances on the door prizes will be \$3.00. T-shirts are on sale; you have two color choices. Great for field trips and the show. We may have access to the Pipkin building on Thursday. If you can help Thursday afternoon, please let W.C. know. The gem dig cannot be set up until after dinner Friday evening, so stay a while and lend a hand if you can. April 19 will be a workday at the McDaniel's RAIN OR SHINE. We will be sorting rocks, making grab bags, repairing and cleaning display cases, etc.

PROGRAM: Professor Rick Major tonight will give our program; "The effects of hurricanes on the sand shoals of the Great Bahama Bank".

DISPLAYS: Lou White–Druse quartz; W.C. McDaniel–Memphis Stone and Gravel material **DISPLAY WINNER:** Lou White **DOOR PRIZES:** Howard Kerr, Mike Baldwin, Jim Parsons Meeting adjourned at 8:45pm followed by refreshments.



This month's glossary terms are from *Merriam-Webster Online Language Center*, http://www.mw.com/home.htm; 28 May 2003.

AMORPHOUS: having no real or apparent crystalline form; uncrystallized

HEXAGONAL: relating to or being a crystal system characterized by three equal lateral axes intersecting at angles of 60 degrees and a vertical axis of variable length at right angles

LODE: an ore deposit

QUARRY: an open excavation usually for obtaining building stone, slate, or limestone

QUARTZ: a mineral consisting of silicon dioxide occurring in colorless and transparent or colored hexagonal crystals or in crystalline masses

SEISMIC: 1: of, subject to, or caused by an earthquake; also: of or relating to an earth vibration caused by something else (as an explosion or the impact of a meteorite); 2: of or relating to a vibration on a celestial body (as the moon) comparable to a seismic event on earth

TABULAR: having a flat surface

VUG: a small unfilled cavity in a lode or in rock

If you have entries [5 or 6 glossary terms] that you would like to see included in the MAGS Glossary, email them to editor@memphisgeology.org or mail them to Mike Baldwin, 367 N. Main Street, Collierville, TN 38017. Send as many entries and as often as you like. Don't forget to include your sources.

SIXTH ANNUAL MISSOURI MINES ROCK SWAP JUNE 13-15, 2003

Missouri Mines State Historic Site • Park Hills, Missouri • South Side of Hwy. 32, 1.5 miles west of US Hwy. 67

SWAP – SELL – BUY MINERALS – FOSSILS – ROCKS – JEWELRY/ CRAFTS

MORE INFO: Missouri Mines State Historic Site [573-431-6226]; Lloyd /Betty Marlar [573-431-2951; Allys Bell [573-756-7710]; or Willis Smith [314-521-8896]

SPONSORED BY: Mineral Area Gem and Mineral Society, the Greater St. Louis Association of Earth Science Clubs, Missouri Mines State Historic Site, and the Missouri Department of Natural Resources

ROCK SWAP

MAGS Rock Swaps are times for members to come together to eat, visit and talk about, sell, buy and swap rocks. Come join us. You do not have to have material to swap in order to come to the swap. It's a picnic, minus the ants, but with plenty of rocks, fossils and materials.

Saturday, June 14, 10-2 p.m. • Dennis Sanders, 2261 Scenic View Dr., Nesbit

MAGS provides all the cutlery, plates and napkins. Members bring a potluck dish to share, drinks, lawn chairs and a table [if you plan to swap rocks]. We eat around noon. At 1:00 p.m. we will have a round table discussion "Cleaning Methods for Crystals" where club members will be asked to talk about and show examples of material that they have changed/modified using some type of product from the home, hardware store or grocery store. Share your experiences and knowledge.



To get to the home of Dennis Sanders from Memphis, take I-55 South. At Exit 287, turn right on Church Road west. Turn left on Tulane Road, cross Star Landing Road, then turn right on Scenic View Drive. 2261 Scenic View Drive is 15.9 miles from the intersection of I-55 and I-240. Map by Mike Baldwin

STUDYING REAL-TIME SEISMIC ACTIVITY

UC-Boulder: May 15, 2003: A University of Colorado at Boulder-led team has shown for the first time that satellite signals from the Global Positioning System are a valuable new tool for studying seismic activity. CU-Boulder Associate Professor Kristine Larson of aerospace engineering sciences said seismic waves from a 7.9 magnitude earthquake in Alaska's Denali National Park in November 2002 were detected using Global Positioning Satellite, or GPS, receivers as far away as 2,350 miles from the event. The quake was also picked up by scores of GPS receivers in Canada and the United States. GPS is a constellation of satellites originally designed by the U.S. military to provide precise positions of ships, tanks, airplanes, other military equipment and even people. Currently there are 27 GPS satellites orbiting Earth at roughly 12,500 miles above the planet.

The seismic signals were large enough to be recorded by GPS receivers as far away as Colorado Springs, Colorado. A paper on the subject was published electronically by *Science* magazine on *Science Express* May 15. In addition to Kristine Larson, coauthors include Paul Bodin from the University of Memphis and Joan Gomberg from the U.S. Geological Survey's Memphis office.

"The nice thing about GPS is it's great versatility," said Larson. "In this study we were able to track seismic waves that traveled from Alaska through Canada to Washington, Montana and Colorado." For a sense of how big the seismic waves were, a GPS receiver in eastern Washington moved nine inches horizontally in just 10 seconds, even though it was 1,500 miles from the Denali earthquake.

Press Release: Kristine Larson, University of Colorado-Boulder; EurekAlert.com; http://www.eurekalert.org/pub_releases/2003-05/uoca-srs051403.php; 15 May 03.

TRILOBITES: WHERE DID THEY LIVE AND HOW DID THEY GET AROUND?

Kids, join us on June 13, and explore the world of trilobites. Idajean Jordan will show you some amazing things about these little bug-like creatures that lived millions of years ago.

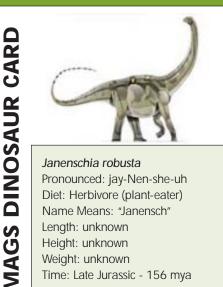
COLLECTOR'S CARDS: Cut out the Dinosaur Card, and the Specimen-of-the-Month card, fold on the dotted lines, tape them closed and add them to your collection.

Did You Know . . .

Janenschia

Janenschia is the oldest of the giant titanosaurs, and it may have been the largest. Unfortunately, only part of one leg has ever been discovered. Based the bones that were found, however, scientists have estimated that it may have been more than 100 feet (30 m) long and it would have weighed more than 70 tons (63,000 kilos).

This dinosaur has gone through a number of name changes since its discovery in 1907. Originally called Gigantosaurus because of its size, it was later called Tornieria and finally named Janenschia in 1991.



Janenschia robusta Pronounced: jay-Nen-she-uh Diet: Herbivore (plant-eater) Name Means: "Janensch" Length: unknown Height: unknown Weight: unknown Time: Late Jurassic - 156 mya

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Did You Know . . .

No gemstone is more creatively striped by nature than agate, chalcedony quartz that forms in concentric layers in a wide variety of colors and textures. Each individual agate forms by filling a cavity in host rock. As a result, agate often is found as a round nodule, with concentric bands like the rings of a tree trunk. The bands sometimes look like eyes, sometimes fanciful scallops, or even a landscape with dendrite trees.

Agate was highly valued as a talisman or amulet in ancient times. A famous collection of two to four thousand agate bowls which was accumulated by Mithradates, king of Pontus, shows the enthusiasm with which agate was regarded. Agate bowls were also popular in the Byzantine Empire.

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Fortification Agate



Composition: SiO₂ Hardness: 7 Crystal form: trigonal-trapezohedral Cleavage: Indistinct Fracture: conchoidal Streak: white Color: brown, violet, gray, yellow Location: Memphis, TN

M&M's WHAT'S UP WITH THE KIDS

JUNIOR OF THE YEAR:

In May, the winner of the Southeast Federation Junior of the Year was announced. Congratulations to our own Kelly Baldwin for winning the honors. Now it is time for you to consider participating in the 2003 contest. The deadline for applying in February 1, 2004. The winner will receive a plaque and a very nice mineral or fossil specimen as a prize. This is a very prestigious individual award and we hope that many of you will take the challenge and enjoy acquiring points in order to win. Any junior MAGS member [age 8-18] is eligible to participate. The activities listed in the application must take place between January 1, 2003 and December 31, 2003. Applications can be acquired from MAGS President W.C. McDaniel. The requirements will be listed in the June MAGS Explorer. You can get your copy at the MAGS meeting or online at http:// www.memphisgeology.org/images/ explorer0603.pdf.

WEB STATISTICS

Here's a brief look at our website (www.memphisgeology.org) from 01.21.02 through 05.27.03: Visits* 63,913 Top pages in May Explorer0203.pdf 499 hits RockNews0203.pdf 371 hits Geology219 hits Average visits per day in May 234 * visit=every time someone comes to the site ** hit=every page viewed on the site

LONG LIVE AMERICANS

MIKE BALDWIN-Here's some great news — Americans are living longer than ever before! According to the Centers for Disease Control and Prevention, life expectancy for Americans has reached an all-time high. In 2001, life expectancy for men reached 74.4 years and for women 79.8 years. This means that Americans can now expect to live an average of 77.2 years.

Compare these current life expectancies to those of the past. A century ago, in 1900, the average American man could expect to live to about 40.4 while the average woman lived around 43.1 years. Fifty years later, in 1950, life expectancy for men was 62.6 and for women was 67.4. And in 1980, life expectancy for Americans had increased to 68.2 for men and 76.1 for women. Americans have nearly doubled life expectancy in 100 years.

Information courtesy of http://www.socialsecurity.gov Note from MAGS President, W.C. McDaniel: Add five years to that life expectancy if you're a rockhound!

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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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MARK YOUR CALENDAR

Board Meeting June 5

General Meeting June 13

MAGS Rock Swap June 14

> M³ Meeting June 19

DMC Field Trip June 21

MAGS Field Trip June 28-29

