



Volume 57 ♦ Number 08 ♦ August 2011 ♦ A monthly newsletter for and by the members of MAGS

Sheffield Ruby Mine

Charles Hill



Editor's Note: Last month Charles Hill proposed a once-a-year field trip to interesting sites farther from Memphis than the places we usually go. This article continues that theme.

This is the next installment for the North Carolina trip. The featured site is the Sheffield Ruby

Mine. If you watch The Travel Channel you may have seen this mine as one of their places to seek treasure. I had hunted at this mine before this show aired. Sheffield is one of a few bucket mines I like. I have worked most of the bucket *Continued, P. 3*

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BEAUTY IN EVERY GRAIN: SAND UNDER A MICROSCOPE

The July issue of MAGS Rockhound News had an article on what two scientists learned by placing sand from Omaha Beach (one of the D-Day landing sites) under a microscope. This picture shows what Gary Greenberg of University College London found when he looked at sand with a magnification of



250 times. Greenberg uses an acupuncture needle to find the best specimens, and creates images of this type. He had to develop a special technique to make pictures with sufficient depth of field. MAGSters can see more examples by going to Greenberg's website, sandgrains.com.

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Coming Soon

The August meeting will be the annual indoor rock swap and picnic. But we'll be back to the normal meeting format in September. We can look forward to two good programs.

The adult program will be "PETRA: the mysterious city in the Valley of the Crescent Moon," presented by Dr. Thomas R. Paradise of the University of Arkansas Department of Geosciences. The presentation will address the classical history, geology, archaeology, architecture, as well as Dr. Paradise's fieldwork over the past 20 years.

MAGS member Charles Hill will present the Junior program, on crystals. Charles will show lots of examples, and the Juniors are encouraged to grow some crystals before the meeting and bring them in.

Another September event will be the Falls Fossil Festival, at the Falls of the Ohio State Park, Clarksville, Indiana. It's a little bit of a drive, but it looks to be a fun event. The park features 390-million-year-old fossil beds that are among the largest, naturally exposed Devonian fossil beds in the world. The festival will have vendors and food, children's activities, fossil and mineral dig, fascinating speakers, free resources, door prizes, special fossil bed hikes, and more!



*See you at the August 12
Indoor Picnic & Rock
Swap. Food! Games!
Surprises!*

DON'T FORGET: Door prizes every 15-30 minutes.
YOU MUST BE PRESENT TO WIN!

Editor's Note: August 15 is the deadline for submissions to the September newsletter. Send pictures, articles, suggestions to lybanon@earthlink.net, or call (901) 757-2144.

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Continued from P. 1 mines in North Carolina; and, for many reasons, this is my favorite. First, Sheffield, for the most part, has unsalted natural dirt. I have watched their staff bring a front end loader full of dirt from the mine to fill the buckets. The rubies one might find are encrusted with granite, have never been tumbled in a moving channel of water, and will have never been seen until they are removed from your screen. I have a thirty-five carat star ruby, among others, that I found there. This mine was once owned by Tiffany's, for good reason; the rubies and sapphires are star rubies and star sapphires. Stars are found in only a few places throughout the world.



The flume area is clean and well maintained. Half of the flumes are covered, and half are not. The employees are friendly and helpful. They will patiently help you understand what you are looking for and the best method of finding them. Go to the Sheffield website for more information. That web address is sheffieldmine.com.

Now for the nuts and bolts: The mine opens at 10am and closes at 5pm, seven days a week. Due to hard winters, the mining in North Carolina is seasonal. The mine is open from April 1st thru October 31st. April Fool's Day to Halloween. Wow! The phone number is (828) 369-8383. The fees: \$15.00 entrance fee for anyone between 15 years of age and 60, and \$10.00 for everyone else. With your fee, you get two free buckets of the native soil or two buckets of rainbow soil or any combination of the two. The rainbow soil is buckets for the kids

mainly. The rainbow buckets are salted and have a lot of rocks and minerals that that are fun for the kids when they get bored.



I will run a later piece on star sapphires and rubies. Also, I will be writing pieces on other sites I plan to see on this field trip a year from now. If you can go that week, you won't be disappointed. If you can't come for the entire week, come for part of it. The next place I will highlight will be Chunky Gal Mountain.

Bye for now,

Charles

A Few Pictures From Our Mt. Ida Field Trip In May

Photos By Bob and Bonnie Cooper

May 28 & 29,
2011



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MAGS Presents the Ninth Annual

“A Midsummer Night’s Indoor Picnic and Rock Swap”

Friday, August 12 ◊ 7:30 P. M.
Regular Membership Meeting

For the picnic (potluck) MAGS will provide the table covers, plates, and cutlery.

Board members will provide the drinks.

Members: Bring a dish or two to share—see below.

Sell, swap, or buy. Sellers, bring your own tables.

Other events and activities ◊ Games ◊ Door prizes every 15-30 minutes ◊ Surprises
Rocks Around the Clock

Bring food to share. So that we can have a balanced picnic, we request members to bring an item in one of the three areas as determined by your last name. We encourage you to bring other items.

Entrees ◊ Last names A-J

Side Dishes ◊ Last Names K-S

Desserts ◊ Last Names T-Z

Fluorite Hunting In Marion, Kentucky

Pictures From June Field Trip (thanks to Bob and Bonnie Cooper)



We enjoyed the museum and show, too—they were air-conditioned.

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CHUCALISSA

(Choctaw word meaning
"Abandoned House")

Mike Baldwin

The ruins of this native American town sit on the Mississippi bluff five miles south of downtown Memphis.

At one time the population of Chucalissa could have been a thousand to fifteen hundred.

The town existed into the seventeenth century, when its townspeople left and never returned. Hence, the name Chucalissa. Since most native Americans north of the Rio Grande never developed a written language, we can never know the town's real name.

MAGS involvement in the development of Chucalissa

"In December, 1951, the Memphis Archaeological and Geological Society received the formal invitation from Mr. L. G. McLean, State Naturalist, to initiate and take charge of the excavations at the T. O. Fuller State Park site preliminary to its establishment as a State Archaeological Park."

"These mounds were first called to the attention of the University of Tennessee in 1940 when the CCC project began clearing this area. During the summer of that year extensive testing operations were carried out to determine the nature of the site and its suitability for development into an exhibit. At this time, the National Park Service came into the picture, and plans were completed for a Natural Museum. All these plans and efforts were cancelled by World War II."

"After the war years, the Memphis Archaeological and Geological Society made repeated efforts to reactivate the program but with only moderate success until 1955, when Governor Clement granted a small appropriation which enabled the entire project to be resumed on a small scale." Actual work began in 1955. "The first actual archaeological work was started in July 1955. This work exposed the method by which this area was originally built up and gave a hint to the earlier period of occupancy of this site." Later visitors to the site could tell from this first excavation that there had been intense activity here by the Middle Mississippian Indians over a long period of time. "Pottery seriation at this site revealed that this site was occupied from the earliest Mississippian period until the final disappearance of the Mississippian culture on the Mississippi River."

By November 1955, a substantial amount of material had been removed from the site and the "lab" work of treating and cleaning specimens and skeletal remains had begun. At this point findings included ten pottery vessels and the burial remains of six individuals (two adults, one juvenile about twelve years old, and three infants). The early years were a huge success! On November 26, 1955, several members of the society began work on one of the Indian houses. An area fifteen feet square was leveled for the structure. The next step was to cut and set the wall poles, then bend them inward to form the roof. After three more sessions in December, 1955 and early 1956, society members had

completed work on the house by weaving cane mats for the walls and plastering them with clay.

Work on the earthlodge exhibit area and the pyramidal mound continued through 1956. Among the artifacts found in the burial sites were a toy effigy pot found in the infant graves, and the skeleton of a coon, with the arrow still in him, lying in a red and white bowl. Visitor attendance at the "far-from complete" Chucalissa Archaeological Museum during July and August of 1956 was in excess of 15,000. It was a huge success!

Compiled from reports and newsletter articles found in the MAGS archives

Metal Museum Classes

The Metal Museum is pleased to announce its new class schedule for 2011-2012. Guest instructors include Sarah Perkins, Tom Madden, Susan Younger and many more! Here is a list of the courses:

2011-2012 Classes

- ★ Basic Blacksmithing I
- ★ Basic Blacksmithing II
- ★ Fireplace Tools I
- ★ Enamel on Copper (with Sarah Perkins)
- ★ Welded Garden Sculptures from Found Objects
- ★ Candle Holders and Luminaries
- ★ Knitting with Wire (with Susan Younger)
- ★ Bottle Opener Mini-Workshop
- ★ Garden Stepping Stone (10" square)
- ★ Bronze Bowl (6" diameter, 2.5" depth)

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Can You Identify This Person?

Hint 1: He is a current MAGS member.

Hint 2: This picture is related to an article in this issue.



Contact the editor if you think you know.

The answer will appear in the September issue.

June 2011 Board Minutes, Marc Mueller

The MAGS Board of Directors met June 2 at the St. Clare Room in St. Francis Hospital, 5959 Park Avenue. The meeting was called to order at 6:30 P. M. Present were: Paul Sides, Carol and Matthew Lybanon, Marc Mueller, Alan Schaeffer, W. C. McDaniel, Nannett McDougal-Dykes, Doris Jones, Charles Hill, Neville Mayfield.

Secretary: May minutes were approved as corrected.

Treasurer: Approved as submitted, subject to audit.

Field Trips: Trip planned for Memorial Day Weekend, May 28 & 29 to Fiddler's Ridge Mine. Highly recommended by the Arkansas club. For June, trip planned to Marion, KY Fluorite mine June 4 & 5.

Adult Programs: Paul Sides: The June program will be given by Mike Howard, subject quartz. July 8, Ryan Parish-Dover Chert. August, Indoor Rock Swap.

Junior Programs: In June Carol Lybanon will present a program on coal/fossil fuel. In July W. C. McDaniel will present a pro-

gram on megalodons. In August the juniors will join the adults for the indoor picnic. Needs help for Sept.-program on crystals.

Show: Attendance at the show was 1,850, compared to 2,100 for 2010 and 2,600 for 2009. Ticket income was \$8,200, Information income, \$1050, and Rock Zone \$1039. A donation to Ronald McDonald House will be \$2,100. About \$4,000 will go to the club.

Library: No report.

Newsletter: Matthew Lybanon: Newsletter is improved due to contributions, which are much appreciated. August newsletter will be late due to July trip.

Webmaster: No report.

Historian/Rock Swap: Nannett McDougal-Dykes has arranged for the first rock swap of the year. It will be on June 18, 9:00-1:00, at the McNeill home.

Old Business: None.

New Business: Nannett needs material for Rocks Around the Clock. All board members need to bring at least two items to the June Meeting to give to Nannett.

Charles Hill is writing a proposal to make a long range field

trip out west. Something at least a week.

June 2011 Membership Meeting Notes, Marc Mueller

The MAGS Membership Meeting was held at Shady Grove Presbyterian Church on June 10, 2011. Lou White called order at 7:30 PM

Neville Mayfield introduced the guests: 40 members were in attendance and one guest, Patricia Allen.

Trips: Marc Mueller reported on the trips to the Fiddler's Ridge crystal mine in Mount Ida and the Marion, KY, Fluorite mine and rock show.

Rock Swap: June 18, 9:00-1:00, at the McNeill home in Olive Branch. Please bring a side dish.

Juniors adjourned to attend the Coal/Fossil Fuel class.

Mike Howard gave a lecture on the history of Arkansas quartz crystals. World War II and the need for crystals in radio tuners created the first big boom in crystal mining. Geologic surveys and government licensing resulted in large commercial mines. Later, the new age crystal

Continued, P. 7

Continued from P. 6 movement created a second boom and crystal prices rose, resulting in a doubling of mines in the Mount Ida area. Today, there are a few commercial mines remaining, like the Coleman and Fiddler's Ridge mines.

Juniors Corner

Carol Lybanon

Hi, Juniors,

In August you will join the adults for our annual Indoor Rock Swap and Picnic. I hear there will be lots of prizes. I will be away, but will return for the September program.

In September Charles Hill will talk about crystals. I hope that will be a fun program with several prizes. Before the September program maybe you could grow your own crystal. Do you remember Mr. Mike Howard, from the Arkansas Geological Survey? On his website you can find good instructions for how to grow crystals:

<http://rockhoundingar.com/growcryst.php>

There are many other recipes online. And you could also check for books in the Memphis Public Library. One example is **Growing Crystals** by Ann Squire (call number 548.5 S774g). Other books close to that call number may also be good. Largest crystal will get a prize, so give it a try

In October Dr. Robert Connally will present "Stone Tools—More Than Just Arrowheads." We are still looking for a title and presenter for November.

See you in September.

Carol

And Did You Know?

... how many minerals are in our homes and other buildings?

- ▶ Drywall is made from gypsum,
- ▶ Concrete in the foundation is made with limestone and aggregate reinforced with steel rebar,
- ▶ Bricks are made from clay,
- ▶ Titanium oxide is used to make paint,
- ▶ Silica is used to make windows,
- ▶ Electrical wiring is made from copper,
- ▶ Iron and copper are used to make pipes for plumbing, and
- ▶ Faucets contain various combinations of iron, chromium, nickel, and molybdenum combined to make stainless steel.

The site is not far from the Arkansas Geological Survey headquarters in Little Rock. After we left the highway, we ended up on a different kind of road. As all of you know, rockhounds are used to this.



Following are a few examples of the collecting phase of this field trip.



It was a good trip.

A Look Back To Last Year

Thanks to Kim Hill for sharing these pictures from our field trip to Granite Mountain (near Little Rock) in May 2010.

Before we got started we met with field trip leader Mike Howard.



MAGS Member Excels

MAGS member Dr. Nina Baghai-Riding of Delta State University presented a poster paper (jointly with Dr. Carol Hotton of the National Institutes of Health, National Library of Medicine) at the Botanical Society of America Conference (Botany 2011), St. Louis, Missouri, July 9-13, 2011. The paper's title was "Regional Climatic Signals Complicated by Local Factors in Late Jurassic Morrison Palynofloras."

Delta State University has also promoted her to full Professor in the Division of Biological and Physical Services. MAGS Rockhound News is proud to offer hearty congratulations to Nina. And thanks to Cornelia McDaniel for passing along the information.

Falls Fossil Festival

Located on the banks of the Ohio River in Clarksville, Indiana, about a 5.5 hour drive from Memphis, is the Falls of the Ohio State Park. The 390-million-year-old fossil beds are among the largest naturally exposed Devonian fossil beds in the world. The park features an Interpretive Center overlooking the fossil beds that contains an exhibit gallery and video presentation. The Interpretive Center is open year round, except Thanksgiving and Christmas.

The "Falls" was originally a series of rapids allowing the Ohio River to drop 26 feet over a distance of two and a half miles. This was the only navigational hazard over the 981-mile-length river formed by rock outcrops. Today much of the original falls have

been flooded behind the McAlpine dam.

Coming up soon (September 17 & 18) at the Park is the annual Falls Fossil Festival. Here is the publicity release for the event:

"Vendors sell fossils, minerals, books, food and jewelry; children's activities, fossil dig, mineral dig, fascinating guest speakers on geology topics, free brochures from almost every fossil park in North America, teachers can sign up and win a 50, 75 or 100 piece geology collection, guided outer and Indiana shore fossil bed hikes, and more! Free rock and fossil identification—bring in your unknowns!"

More information is available from the organization's website, <http://www.falloftheohio.org/FallsFossilFestivalProgram.html>

Gem, Mineral, & Fossil Show

August 27 & 28, 2011
Van Matre Senior Center
1101 Spring Street (Cooper Park)
Mountain Home, AR 72653

Sponsored by Ozark Earth Science, Gem, Mineral, & Fossil Club

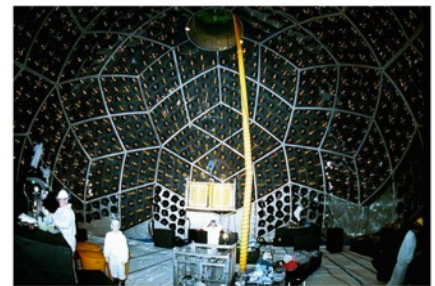
Call (870) 424-0956 or (870) 481-5697 for more information.

Earth Is Still Cooling

Earth may have formed more than 4.5 billion years ago, but it's still cooling. A new study reveals that only half of our planet's internal heat stems from natural radioactivity. The rest is primordial heat left over from when Earth

first coalesced from a hot ball of gas, dust, and other material.

Itaru Shimizu, a particle physicist at Tohoku University in Sendai, Japan, and his colleagues, placed sensors deep inside Mount Ikenoyama. Between March 2002 and November 2009, they detected 841 neutrinos. After accounting for neutrinos produced by nuclear reactors and sources such as cosmic rays, they estimate that only 111 of the neutrinos were associated with natural radioactivity within Earth.



Despite the small number, the measurements allow them to estimate the radioactive flux through the Earth's surface. David Stevenson, a planetary physicist at the California Institute of Technology, says the findings reveal how much heat Earth is losing now and the rate at which it lost heat in the past. The data may provide insights into how the speeds at which Earth's tectonic plates have moved—movements powered by the planet's heat—may have changed through time.

The planet is now cooling about 100°C every 1 billion years, so eventually, maybe several billions of years from now, the waning rays of a dying sun will shine down on a tectonically dead planet whose continents are frozen in place.

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Dixie Mineral Council Field Trips **The Southeast Federation of Mineralogical Societies, Inc**

DMC Program of the SFMS Field Trip Committee - Copyright © All rights reserved.



An Official Field Trip of The Columbia Gem and Mineral Society, Inc, Columbia, SC (HOST)
An Official Field Trip of the Memphis Archaeological & Geological Society

9:00 AM, Saturday, August 13, 2011 Thermal City Gold Mine – Union Mills, North Carolina **Fee Area**

The Columbia Gem and Mineral society, NC. would like to extend an invitation to fellow DMC clubs to join us panning for gold for genuine placer mining site in Rutherford County, NC. Thermal City Gold Mine consists of one mile section of the Second Broad River and about 80 acres of Placer Gravel Deposits, having one of seven veins from the mountain supplying it. Panning material is brought from the river by backhoe for you to pan. The gravel is not “enhanced or enriched”. The gold found in the natural state; right where nature deposited it. Gold found as flakes and maybe small nuggets. Ample shade, parking and instruction in panning are always available when needed.

FEE AREA: The fee is \$5.00 to pan all day. The fee is \$50.00 for a front-end load.

CHILDREN: Children under adult supervision are welcome. Rocky Rockhounds with leader are welcome.

PETS: Pets are allowed on a leash.

COLLECTING: We will be collecting gold.

WHAT TO BRING: Shovels and pans are furnished or you can bring your own. Other equipment is available for rent or Purchase For additional information on the site, including details about a “front-end Road” or overnight stay, contact the mine at 828-286-3016 or visit the website at <http://www.thermalcitygoldmine.com>”.

HISTORY: This is an unsalted site and many people have had success finding gold here. The mine's aim is to provide an authentic experience. The mine is located on the actual site of the earliest placers in Rutherford County. It opened in 1839 and has produced gold ever since then.

SPECIAL CONDITIONS: Camping facilities with full hook-ups to primitive on a first come first serve basis. Call 828-2863016. No drug, alcohol or fire arms are allowed. The grounds are almost level and a short distance from panning to camping to restrooms.

DIRECTIONS FROM ASHEVILLE, NC: From Asheville take I-40 east to exit # 85 (Marion/Rutherford); proceed south on US-221 for 8.5 miles to the Rutherford County line; the entrance to the mine is on the left (look for signs along the way). The mine address is: 5240 US-221 N Hwy, Union Mills, NC 28167. Travel time should be about one hour from Asheville.

Metal Museum Classes (continued)



Continued from P. 5

- ★ Damascene: The Original Velcro (with Tom Madden)
- ★ Petticoat Blacksmithing
- ★ Blacksmith Tools and How to Make Them
- ★ Knitted Wire Bracelet Workshop
- ★ Introduction to Sand Casting

Visit the Metal Museum's website,

<http://www.metalmuseum.org/>

for course descriptions and to register. Limited availability. Museum members get a discount. Join today! You can also call the museum at (901) 774-6380 for more information.

*National Ornamental Metal Museum,
374 Metal Museum Drive, Memphis,
Tennessee 38106*

The National Ornamental Metal Museum is the only institution in the United States devoted exclusively to the preservation and promotion of fine metalwork.

Calendar

August 4, 2011

Board Meeting, St. Clare Room, St. Francis Hospital, 6:30 P.M.

August 12, 2011

Membership Meeting/Indoor Rock Swap and Picnic, Shady Grove Presbyterian Church, 7:30 P.M.

August 27 & 28, 2011

Gem, Mineral, & Fossil Show, Mountain Home, AR

September 17 & 18, 2011

Falls Fossil Festival, Falls of the Ohio State Park, Clarksville, IN

Memphis Archaeological and Geological Society
2019 Littlemore Drive
Memphis, TN 38016

