MAGS Rockhound News

Volume 60 ◊ Number 08 ◊ August 2014 ◊ A monthly newsletter for and by the members of MAGS

Indoor Rock Swap/Picnic

August 8 MAGS Meeting—Great Food, Fun Prizes, Great Things to Buy



The annual MAGS Indoor Picnic and Rock Swap will take the place of the August 8 Membership Meeting. The picnic will be potluck. To make sure we have a good variety of good food, please bring a dish based on the initial letter of your last name: A-J @ Entrees

K-S Desserts

T-Z Appetizers or Side Dishes

This event will also be a rock swap, so bring your own table if you have things to

Continued, P. 3

In this issue

Indoor Rock Swap/	
Picnic	Р. 1
Discovery Park of	
America Field Trip	Р. 1
MAGS and Federation	ı
Notes	P. 2
July DMC Field Trip	
Report	P. 3
Paleontology Meets	
Memphis Business	P. 3
Upcoming Field Trips	P. 4
June Board Minutes	P. 4
101 Things You Can Do	
With A Geode	P. 6
Gem, Mineral, &	
Fossil Show	P. 6
Moving Sale	P. 7
June DMC Field Trip	
Report	P. 7
Extinct Ants In Ambe	rP. 7
Jewelry Bench Tips	P. 8
Granite On Mars?	P. 8
Father, Son Kickstarting	
Mineralogy	P. 9
Board Elections	P. 10
Calendar	P. 10

DISCOVERY PARK OF AMERICA FIELD TRIP

On Saturday, July 12th, MAGS had a field trip to Discovery Park of America in Union City, Tennessee. It was everything the speaker said it would be at the meeting.

I grabbed a ride with Bob and Bonnie
Cooper. Nine of us showed up: W. C. and
Cornelia, me, Bob and Bonnie, Mike and
Sherri Baldwin, and a young couple I don't know very

KIM HILL

well yet. W. C. quickly got our tickets and we went inside. If you could see my face you would see I still have a smile on it just thinking about all the sights we saw. From the humongous reproduction of a cave bear greeting us just as SOON as you walk in—hard to believe he was a vegetarian—to the giant shark jaws. It was a great photo op!!

Continued, P. 4

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MAGS AND FEDERATION NOTES

Greetings to the rockhounds near and far. Spring weather in July; what a break! I'm sure everyone has enjoyed the local cool spell. I even got the opportunity to collect fossils on Crooked Creek and Pyatt, Arkansas, at the bridge on Highway 412. I found some neat shell and crinoid fossils and some banded chert.

The August meeting is the annual indoor rock swap with a raffle of an amethyst specimen. Whatever you want to swap or sell, bring it to the August 8th meeting. Bring snacks, a side dish, or dessert to share with friends. This is a fun event and who knows what treasure you may find at the rock swap. I went to the Tulsa Rock Show and saw some spectacular displays and met some great people. Even got to watch engraving, polishing, and other lapidary arts. That was really a must-see show.

> Origin-ally yours, W. Paul Sides

MAGS General Membership Meetings and MAGS Youth Meetings are held at 7:30 P. M. on the second Friday of every month, year round. The meetings are held in the Fellowship Hall of Shady Grove Presbyterian Church, 5530 Shady Grove Road, Memphis, TN.

MAGS Website: memphisgeology.org

Please contribute articles or pictures (everybody likes pictures) on any subject of interest to rockhounds. If it interests you it probably interests others. The 15th of the month is the deadline for next month's issue. Send material to lybanon@earthlink.net.

August DMC Field Trip

WHERE: Gruetli-Laarger, TN

WHEN: Saturday, August 16, 8:00 A. M.-2:00 P. M.

COLLECTING: Mississippian and Pennsylvanian fern

and tree bark fossils

INFORMATION: Jack Weaver (423) 596-0640 or

Charlie Jones, (423) 563-4479

Links to Federation News

- AFMS: www.amfed.org/afms news.htm
- SFMS: www.amfed.org/sfms/
- DMC: www.amfed.org/sfms/ dmc/dmc.htm

PAGE 2 AUGUST 2014

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Indoor Rock Swap/Picnic Continued from P. 1

sell or swap.

This will also be your last chance to buy tickets for the amethyst cathedral ring raffle (see last month's issue for a picture and more details). Tickets cost \$1 each or 6 for \$5. The raffle will take place at the indoor picnic/rock swap.

Even if you don't win the amethyst cathedral ring, there will be plenty of door prizes. Among them will be signed Grizzlies T-shirts and towels, lots of fun pooka shell necklaces, four pairs of tickets to the Brooks Museum, and possibly more.

The Rocks Around the Clock game will also be there. Everyone will get a ticket for a spin to win a prize.

If you like fun, this will be the place to be. See you there.

Field Trip Report

July DMC Field Trip

Several MAGS Members attended the July 26 Dixie Mineral Council field trip to Bayou Pierre River in Copiah County, Mississippi. The Mississippi Gem and Mineral Society had things well organized at the meeting point (the traditional field trip meeting location: a Walmart parking lot). After we signed in we caravanned to the hunt site.

The weather was beautiful (it was a typical Mississippi July day: hot) and so was the site. As the



picture below shows, the collecting site was huge. There was plenty of room for the large group of rockhounds, some from as far away as Georgia.



The site was a very large gravel bar. The gravel contained similar materials to those found on Nonconnah Creek in Memphis: corals, agates, chert, petrified wood, and other minerals and fossils. We enjoyed our visit.



Carol didn't satisfy her need for petrified wood, so she had to go to the Petrified Forest in Flora.

Paleontology Meets Memphis Business

Thanks to David Day for calling our attention to a report on how Memphis-based Federal Express handled a very unusual shipment.



(Courtesy Museum of the Rockies)

It's been 65 million years since the last of the dinosaurs roamed the earth, yet this April the Wankel T. rex, a Tyrannosaurus rex from Bozeman, Montana, made an incredible cross-country journey. It traveled 2,300 miles in just 48 hours, and along the way picked up another nickname: "the Nation's T. rex."

The Nation's T. rex was discovered in 1988 by Kathy Wankel at a Montana wild
Continued, P. 5

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Continued from P. 1

Discovery Park of America Field Trip We made plans to meet up for lunch in case we got separated and started wandering around. I soon realized I

was alone but that was OK. The dino reproductions were awesome, and there was one fish-I would never ever want to be in a ocean that monster lived in!!

The cars were so beautiful, so very shiny and the colors were radiant.

Then there was the arrowhead room. WOW, this was the room we all wanted to see! There were arrowheads and spearheads, knives, and

items I didn't even recognize (the one thing I would have liked to have seen was more info on them: where they came from, how old, what tribes, and just what are they?). All in all it was a great room. I went back to it a couple of times.

It was definitely one of our normal July days—hot and muggy, so I didn't get outside to see as much as I would have liked. I did see the settlement and the mill, but didn't make it to the tractors or the gardens. If you have a day and want something to do, I would recommend driving up to Union City. Take the family, the kids—everyone will have fun.

If you want to see my tour (lots of pictures) go to my YouTube site:

https://www.youtube.com/watch?v=ljznd7 TyyU&feature=youtu.be

Upcoming Field Trips

- ✓ August 9, Belz Museum, Memphis, TN
- ✓ September 27, Vulcan Quarry, Parsons, TN
- ✓ October 11, Memphis Stone & Gravel Co. Mine
- ✓ November 8, Vulcan Quarry, Black Rock, AR
- ✓ November 29, Richardson Landing
- ✓ December 13, Hedger Aggregate, Jonesboro AR

For more information contact Field Trip chair W. C. McDaniel at (901) 274-7706.

June Board Minutes

Carol Lybanon

The MAGS Board of Directors met June 5 at St. Francis Hospital, 5959 Park Avenue. The meeting was called to order at 6:35 P. M. Present were: Ron Brister, James Butchko, Bonnie Cooper, Amber Dunn, Charles Hill,

Carol Lybanon, Matthew Lybanon, W. C. McDaniel, Paul Sides, and Bob Cooper.

Secretary: The minutes were accepted as presented.

Treasurer: The Treasurer wasn't present but sent his report, which was approved as submitted, subject to audit.

Membership: President Paul Sides nominated Bob Cooper to fill the vacant Membership Director position until the end of 2014. The Board approved his nomination; Bob Cooper is the new Membership Director.

Field Trips: Charles reported on the field trip to the Coleman mines. It was a good trip with good attendance, though the Ron Coleman mine was a little disappointing. 24 people attended the Black Rock field trip on May 31. On June 21 there will be a combined MAGS/NMGMS trip to 20 Mile Creek. On June 28 there will be a stepping stone workshop at the McDaniels's residence. In July we will go to Discovery Park of America, and in August we will go to the Belz Museum. The remainder of the year is

unscheduled, but Black Rock, Parsons, Memphis Stone & Gravel, Arkansas gravel pit, and Richardson Landing are being considered.

Adult Programs: Ron said the July program will be given by a representative from Discovery Park of America. Ron personally visited Discovery Park and said it was a great experience. There was some discussion about the new policy of paying half of entry fees for field trips to expensive museums. A motion to authorize this was passed in August 2013. We will honor this policy for the July and August field trips. Since there is some question about the cost to the club, we will revisit this issue at a later meeting. In June Dr. Nina Baghai-Riding will give the program. The August program will be the indoor rock swap.

Junior Programs: The June program will be Native American art work and crafts.

Show: Jim reported that the 2014 Show is wrapped up. Matthew reported that all big big bills are paid, and he will pay the deposits for the 2015 and 2016 Shows

before the end of Continued, P. 5

PAGE 4 AUGUST 2014

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Paleontology Meets Memphis Business Continued from P. 3

life refuge. Nearly 85 percent complete, it is one of the most intact skeletons of its kind ever found. It's specially exciting for scientists: the nearly complete skull may provide new insights into how it lived—and how it ate.

For years, this remarkable specimen had been housed in the Museum of the Rockies, displayed in its "death pose," a recreation of how it was discovered in the ground. Now it's ready for the big leagues: The T. rex is on loan to Smithsonian's National Museum of Natural History for the next 50 years.

But first it needed to get there. The museum's staff needed a way to securely transport this priceless cargo while maintaining a carefully regulated atmosphere and seamless security.

June Board Minutes June. The Board Continued from P. 4 will decide on donations after

profits are turned over to the club. The Board decided to raffle the repaired amethyst circle. We will sell tickets at the June, July, and August Membership Meetings, and draw a winner at the August meeting. Raffle ticket prices are \$1 each or 6 for \$5. Tickets must be present at the Indoor Rock Swap to win. All proceeds will be donated to the Show. W. C. said that he sent a draft of the Show Manual to the Board. He would like to be finished with it in August. He prepared this manual in order to make the Show Chair position easier.

Library: Ron reported that two boxes of books were donated at the last Membership Meeting. He was not there so he doesn't know who donated them. Ron plans to thin out

FedEx to the rescue! The FedEx Custom Critical team often ships rare and unusual items—everything from other dinosaur fossils to part of the Titanic's hull—and handling these shipments with special care and unique considerations is second nature to them.

The main crate was equipped with SenseAwareSM powered by FedEx, a device that monitors conditions in real time, providing 24/7 access to information like location, humidity, interior temperature, barometric pressure, shock and light exposure. Thanks to this technology, sensors were on constant alert so that conditions could be immediately adjusted—if, for example, the crates got hotter or colder than the Smithsonian's recommended room temperature.

Over the next two days a husband-and-wife duo drove the precious cargo from Bozeman to

some of our holding and sell them at meetings.

Newsletter: Matthew asked Board Members to give him schedules for three months.

Webmaster: No report.

Historian/Rock Swap: No report. **Old Business**:

- W. C. and Paul each submitted proposals for a new Standing Rule to specify a reimbursement policy for Member expenses. A motion was made and carried to accept W. C.'s proposed Standing Rule.
- Paul needs to find out if Bill sent a check to the Ben E. Clement Mineral Museum for the donation that the Board approved at the April 2014 Board Meeting.
- Carol said we need a new plan for hospitality at Membership Meetings. Bonnie suggested that we ask

Washington, D. C., with a twoperson security team escorting them in a chaser vehicle the entire way.

The Nation's T. rex arrived safe and sound on April 15, and the bones will be displayed in the Smithsonian's "Rex Room" until October. It will then travel to Canada, to have the bones mounted in a lifelike position. By fall 2019, the Nation's T. rex will be back in the States in time to be the star attraction of the Smithsonian's brand-new dinosaur hall.

For the first time in over 65 million years, the Nation's T. rex will stand tall—with help from scientists, museum officials, and FedEx.

More information: smithsonianscience.org/2014/04/ smithsonian-welcomes-nations-trex-washington-d-c/

Nannett to accept this job permanently, and that she (Bonnie) would be glad to fill in when Nannett is not available.

New Business:

- ➤ Carol and Matthew will represent MAGS at the Orpheum's showing of Indiana Jones and the Temple of Doom on June 13. We will set up a table in the lobby.
- Matthew read a letter about the AFMS raffle to raise money for their endowment fund. They would like us to sell raffle tickets at our meetings and donate items to be raffled. The Board thinks it is too late for this year because the raffle is in July. We will consider it for 2015. Paul reminded the Board that the Federation meeting will be in Tulsa.
- W. C. reminded the Board that July 3 might not be a good date for our *Continued*, *P. 6*

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Gune Board Minutes next Board

Continued from P. 5

Meeting. A motion was made and carried to hold the next Board Meeting at 6:30 on July 11, before our Membership Meeting.

Paul needs to make sure he has a person to turn off the lights and lock the building after each Membership Meeting. It should not be assumed that whoever is there last will do it.

Meeting adjourned at 8:30 P. M.

101 Things You Can Do With A Geode

W. C. McDaniel



I recently found a 2006 posting on EBAY titled "101 Things You Can Do With A Geode." It was published by "Hillbilly Rocks" I have selected some of my favorites and not so favorites.

- How about this...a see-saw Counterweight for lonely children
- 2. Bug squasher
- 3. Hillbilly boat anchor
- 4. Wheel scotch, also known as the Hillbilly Parking Brake
- 5. Snowball Stuffers
- 6. Leave geode out in the hot sun all day, and you have an all natural energy efficient solar bedwarmer
- 7. If you have a gopher problem,

- plug the gopher holes with geodes, they will be forced to tunnel their way over to your neighbors yard
- 8. Hillbilly iron. A heavy geode presses things very nicely
- Hillbilly can opener, fishing lure, rolling pin, meat tenderizer, Door Knocker, pompoms, nut cracker, or packing peanuts
- 10. Hillbilly Ninja--take 2 three pound geodes, put each one in an old sock and sew the open ends together, then wield your Hillbilly Num-chucks proudly
- A large geode makes a great trash can lid latch
- 12. If you're shy, get yourself a geode collection, they are great ice breakers
- 13. Speaking of breaking the ice, always keep a geode near your cattle pond to break through the ice in the winter so your cattle can drink
- 14. Mountain lion kitty litter
- 15. Make some worry stones for your kids. My kids have some that say Spare the Rod and Spoil the Child, and Just Wait Til Your Father Gets Home
- 16. Buy several pairs of geodes and become a geode farmer
- 17. If you are overweight, carry some around to help you lose those unwanted pounds
- 18. If you happen to be underweight, carry some geodes in your pockets to keep the wind from blowing you away
- Geodes make great sling shot ammo
- 20. Also, great catapult ammo,

- and excellent cannonballs
- 21. And, I think that might be how David killed Goliath
- 22. A good sized geode makes an excellent home network repair wizard Hillbilly Weather Instrument—if your geode is wet, it's rainin'. If it's wet, and cold, and covered with white stuff, it's snowin'. If its dry, and warm, odds are it's gonna be a nice day
- 23. Biscuit can whacker
- 24. A well shaped geode makes an excellent wig holder
- 25. Turkey Bowling!
- 26. Picture frame for really handsome geode lovers (this one made it 102)

Gem Mineral, & Fossil Show



The Ozark Earth Science Club will hold their 2014 show August 23 and 24 in the Van Matre Senior Center, 1101 Spring Street (Cooper Park), Mountain Home, AR 72653. Hours will be 10:00 A. M.-6:00 P. M. on Saturday and 10:00 A. M.-4:00 P. M. on Sunday. Admission is \$1; scouts in uniform and children under 12 get in free.

The show will feature gems, minerals, and fossils, a spin & win game, and unique crafts and jewelry. There will be drawings for prizes (the grand prize winner doesn't need to be present to win).

For more information call (870) 424-0956 or (870) 481-5697.

MAGS Rockhound News & A monthly newsletter for and by the members of MAGS

Moving Sale (Bon Voyage, Doris)

Long-time MAGSter Doris Johnston is moving. She'll be leaving for Pennsylvania soon. But before she leaves she'd like to lighten her load.

Doris is putting a collection accumulated over 50 years up for sale. Included are minerals, jewelry grade slabs, and tumbled agates. Equipment includes

a Diamond Pacific cabbing machine, a 6 inch trim saw, and other jewelry making equipment and tools. There are also some collecting tools.

The sale will take place 7:00 A. M.-2:00 P. M. on Saturday, August 16. The address is 409 Bradford Trail Cove, Collierville, Tennessee. If you would like more information call Doris at (901) 832-0437.

June DMC Field Trip Report—Little Pine Garnet Mine

Ken Reed, President, Forsyth Gem & Mineral Club, Winston-Salem, North Carolina

On June 21 23 collectors gathered at the Little Pine Mine for a day of collecting garnets. Attendance was considerably less than anticipated, the questionable weather, I suspect, being the major factor. Some attendees ventured into the mine adit and chiseled garnets from the walls, while others collected on the dumps and in a small stream which runs thru the collecting area. Many garnets were recovered, some loose and some in matrix. FGMC's Alex McGilvary was intensely collecting on the stream bank while Al Gaskill worked in the stream itself. See photos at right. All were pleased with their finds.









Extinct Ants In Amber

Recently, Philip Barden, a fourth-year graduate student in the American Museum of Natural History's Richard Gilder Graduate School, and Curator and Professor David Grimaldi, his graduate advisor, discerned nine "new" species of extinct ants preserved in Burmese amber. Ph. D. candidate Barden is not alone in describing new species: more than 30 new species have been described by RGGS students since the program was founded in 2008. While Barden and some of his peers find

new animals on field expeditions that take them all over the world, these new amber-ant finds were made inside the Museum, in specimens on loan for research purposes.



These amber-entombed ants are from Kachin State, the northernmost state in Myanmar (Burma), which has been known for its amber from as early as 600 BC in the form of ornate carved pieces. Though ants are hypothesized from DNA evidence to have evolved approximately 120–130 million years ago, the specimens uncovered in this batch of amber are, at about 99–100 million years old, among the oldest found to date.

Using high-resolution X-ray CT scans and light Continued, P. 8

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Extinct Ants In Amber microscopy
Continued from P. 7 in the Museum's imag-

ing laboratory, the researchers were able to discern that these ancient ants resemble modern species anatomically—for instance, they have petioles, a thin body segment between their thorax and abdomen, as well as a gland that, in modern ants, emits antimicrobial fluids. But while living ants have bent or "elbowed" antennae, in these older fossil ants the sections of antennae that emerge from their heads, or "scapes," are far shorter than those found in living forms. In earlier papers, Barden and Grimaldi described three other new species—and one new genus—also from Burmese amber.

Jewelry Bench Tips by *Brad Smith*

SETTING A RIVET

Many sources tell you to use a small cross peen hammer for riveting, but I've found for me it's a lot easier for me to hit the rivet wire when using a small ball peen. The smaller the better. I'm using one now that's about 3/8 inch diameter on the back of a chasing hammer, but I've been thinking that a 1/4 inch ball might be even better.

SHEET WAX WITH ADHESIVE

While shopping in the Los Angeles jewelry district for supplies for our class, I found a new product that may interest some of you. Often I want to increase the thickness of a model by adding a layer of wax on the back side. For instance, models like a leaf or a flower petal do not cast well unless you add a little extra thickness. Problem is trying to apply a coating of wax that's smooth and even.

The new product I found is a soft sheet wax with an adhesive coating. This lets me easily add thickness to a very thin model. For instance, press it onto a leaf, trim the wax to the leaf shape, and then gently bend the sandwich to the contour you want. The wax is available in a number of different thicknesses from about 26 ga to 14 ga.

If interested, my supplier is Jewelry Tools & Supplies 412 W. 6th Street #1011 Los Angeles, CA 90014 213 624-8224 jtstech@sbcglobal.net

Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on <u>Amazon</u>.

Granite On Mars?

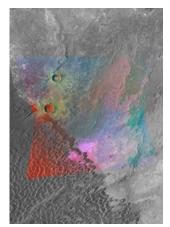
Researchers now have stronger evidence of granite on Mars and a new theory for how the granite could have formed there, according to a new study. Large amounts of a mineral found in granite, feldspar, were found in an ancient Martian volcano.

Further, minerals common in basalts that are rich in iron and magnesium, ubiquitous on Mars, are nearly completely absent at this location. The location of the feldspar also provides an explanation for how granite could have formed on Mars. Granite, or its eruptive equivalent, rhyolite, is often found on Earth in tectonically active regions such as sub-

duction zones. This is unlikely on Mars, but the research team concluded that prolonged magmatic activity on Mars can also produce these compositions on large scales.

"We're providing the most compelling evidence to date that Mars has granitic rocks," said James Wray, an assistant professor in the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology and the study's lead author.

For years Mars was considered geologically simplistic, consisting mostly of one kind of rock, in contrast to the diverse geology of Earth. The rocks that cover most of Mars's surface are dark-colored volcanic rocks, basalt, a type of rock also found throughout Hawaii for instance. But earlier this year the Mars Curiosity rover surprised scientists by discovering soils with a composition similar to granite, a light-colored, common igneous rock.



In this NASA Reconnaissance Orbiter image of a volcanic caldera, bright magenta outcrops have a distinct feldspar-rich composition.

The new study bolsters the evidence for granite on Mars by using remote sens
Continued, P. 9

MAGS Rockhound News & A monthly newsletter for and by the members of MAGS

Granite On Mars? ing tech-Continued from P. 8 niques with infrared

spectroscopy to survey a large volcano on Mars that was active for billions of years. Most volcanoes on Mars are blanketed with dust, but this volcano is being sandblasted by some of the fastestmoving sand dunes on Mars, sweeping away any dust that might fall on the volcano.

"Using the kind of infrared spectroscopic technique we were using, you shouldn't really be able to detect feldspar minerals, unless there's really, really a lot of feldspar and very little of the dark minerals that you get in basalt," Wray said.

The location of the feldspar and absence of dark minerals inside the ancient volcano provides an explanation for how granite could form on Mars. While the magma slowly cools in the subsurface, low density melt separates from dense crystals in a process called fractionation. The cycle is repeated over and over for millennia until granite is formed. This process could happen inside of a volcano that is active over a long period of time, according to the computer simulations run in collaboration with Josef Dufek, who is also in the School of Earth and Atmospheric Sciences at Georgia Tech.

This process is sometimes referred to as igneous distillation. In this case the distillation progressively enriches the melt in silica, which makes the melt, and eventual rock, lower density and gives it the physical properties of granite.

Another study published in the same edition of Nature Geoscience by a different research team offers another interpretation for the feldspar-rich signature on Mars. That team, from the European Southern Observatory and the University of Paris, found a similar signature elsewhere on Mars, but likens the rocks to anorthosite, which is common on the moon. Mars hasn't been known to contain much of either anorthosite or granite, so either way, the findings suggest the Red Planet is more geologically interesting than before.

"We talk about water on Mars all the time, but the history of volcanism on Mars is another thing that we'd like to try to understand," Wray said. "What kinds of rocks have been forming over the planet's history? We thought that it was a pretty easy answer, but we're now joining the emerging chorus saying things may be a little bit more diverse on Mars, as they are on Earth."

Ref: J Wray, et al. "Prolonged magmatic activity on Mars inferred from the detection of felsic rocks." (Nature Geoscience, 2013) dx.doi.org/10.1038/NGEO1994.

Father, Son Kickstarting Mineralogy

We're trying again on Kickstarter to raise awareness for mineralogy and mineral collecting! Please, if you value mineral collecting, you won't have to put in much effort at all to help out a bunch!

Kickstarter.com is a crowd

funding website, where projects are submitted and approved by the staff to get a much needed funding boost from people all over the world. Two years ago we launched a project that failed to get the funding we needed, but we're not ones to roll over and give up!

Sadly, mineral collecting is an interest that is dying out and we want desperately to breathe some new life into this great pastime. There are practically no young faces at swap meets, in local clubs and at conferences and if we don't do something fun and entertaining to grab some new interest now we'll lose an entire branch of scientific study.

There's no better bunch to put a comical spin on some educational awareness about minerals right now than a goofball father/ son team with an extensive mineralogy background. Over the years we've been members of the Nittany Mineralogical Society, Kyana Geological Society, the Georgia Mineral Society, the Coon Creek Non-Meetings in Arkansas, the Montgomery Gem and Mineral Society, Alabama Mineral & Lapidary Society, Friends of Mineralogy Midwest, FM Southeast, the Northern California Mineralogical Association and Southern California FM! Our project deadline is August 28th, 2014. Please help us Kickstart an entertaining and informative series about gems, minerals and mineralogy!

Our project on Kickstarter.com:

https://www.kickstarter.com/projects/jbarwood/minerals-or-bust-season-one-episode-one.

MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Board Election



It's happened again: Two years have gone by, and it's time again for the MAGS Board election. In November of each even-numbered year we hold an election, and the new Board takes over in January.

The Nominating Committee will start its job of coming up with a slate of candidates in August and

present its recommendation to the Members at the October meeting. That gives everyone a month to think about the slate before the election.

Being on the Board is the easiest and best way to get involved in MAGS. The jobs are not hard but they are important. How about stepping up to the Board, Members? Another way to be a part of the process is to be on the Nominating Committee. If either of these options appeals to you, contact President Paul Sides or any Board Member. Contact information is on P. 2 of this (and every) issue of *MAGS Rockhound News*.

Calendar

July 31, 2014

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

August 8, 2014

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

August 9, 2014

MAGS Field Trip, Belz Museum

August 16, 2014

Doris Johnston's Moving Sake

August 16, 2014

DMC Field Trip, Gruetli-Laarger, TN

August 23 & 24, 2014

OESC Show, Mountain Home, AR

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