



Volume 70 ♦ Number 04 ♦ April 2024 ♦ A monthly newsletter for and by the members of MAGS

Grab Bag Packing Event

April 6 Membership Meeting

W.C. McDaniel



Editor's Note: The MAGS shed is at Cooper & Cooper Moving, 5161 Wilfong Road in Memphis. That's just off Raleigh-Lagrange Road, two blocks east of Covington Pike.

GRAB DAY

- Grab a good night's sleep.
- Grab a bite to eat.
- Grab your work and play clothes.
- Grab some snacks and spare rocks.
- Grab your keys and head to the Membership Meeting.

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LAST THINGS—MAGS GOES TO THE MOVIES

MAGS was invited to a screening of a movie about evolution, extinction, and time, told mostly from the perspective of a documentary about geology. Except geology has never looked, or felt, quite like this.

Last Things is an award-winning film that has appeared in several film festivals,



MATTHEW LYBANON, EDITOR and has been shown at Lincoln Center and many other places in several countries. It made it to Memphis on March 27. Thanks to Indie Memphis, some MAGSters got to see the movie—at a discounted ticket price—at the Malco Studio on the Square. If you missed it, you missed a good one.

MAGS had a table in the lobby *Continued, P. 4*

MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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

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MAGS AND FEDERATION NOTES

Memphis Archaeological and Geological Society,
Memphis, Tennessee

The objectives of this society shall be as set out in the Charter of Incorporation issued by the State of Tennessee on September 29, 1958, as follows: for the purpose of promoting an active interest in the geological finds and data by scientific methods; to offer possible assistance to any archaeologist or geologist in the general area covered by the work and purposes of this society; to discourage commercialization of archaeology and work to its elimination and to assist in the younger members of the society; to publicize and create further public interest in the archaeological and geological field in the general area of the Mid-South and conduct means of displaying, publishing and conducting public forums for scientific and educational purposes.

MAGS Membership Meetings are at 7:00 P. M. on the second Friday of each month May-October, and 10:00 A.M. on Saturday after the second Friday November-April. The meetings are held in the Fellowship Hall of Shady Grove Presbyterian Church, 5530 Shady Grove Road, Memphis, Tennessee.

MAGS Website: memphisgeology.com

MAGS Show Website: <https://earthwideopen.wixsite.com/rocks>



Please contribute articles or pictures on any subject of interest to rockhounds. The 20th of the month is the deadline for next month's issue. Send material to mlybanon@yahoo.com.

Go to <https://www.southeastfed.org/sfms-field-trips/dmc-field-trip-program> for the DMC field trip schedule and other information.

Links to Federation News

- ➔ AFMS: www.amfed.org/afms_news.htm
- ➔ SFMS: <https://www.southeastfed.org/>

MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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Grab Bag Packing Event Continued from P. 1

Meeting schedule (all times are approximate)

- 9:00. Meeting at the storage shed to move material to the church.
- 10:00. Trucks and cars head to church.
- 10-10:30. Move stuff to the church.
- 10:30. Unload, organize and start packing.
- 10:30 until finished. Pack and organize bags.
- Lunch.
- Packed bags back to shed.
- Clean up and go home.

1. Fun, food, prizes
2. A couple things we need
3. Have any material to donate? Bring
 - Snacks to share.
 - Need boxes such as the fruit/vegetable boxes from Lowe's/Sam's. Banana boxes are too big and heavy.

President's Message

The pictures show different aspects of the Show. Check out who is coming to the Show this year on the floor map, top right.

The schedule

Thursday, April 25

1. Table vendors move in—Help needed early afternoon for final table layout.
2. Rockzone/exhibition layout (new design).

Friday, April 26

1. Vendors move in.

Rockzone and Exhibitors Moved to Entrance Hall

DEALERS	Booth Number
Amber America	28
Belle and Wolf	19
Boxed Rocks	15A
Caveny International	14
Cosmic Artillery	9
Crystal Kid Andy	16
Custom Creations	10
DB-Opals	27
Duncan Lapidary	5
Dwaven Stonelap and Lapidary	11
Earthcrafts	18
Elemental Earth	6
ERS	17
Fall Creek Enterprises	26
Fantastic Stone	13
Geode Gallery	3
Imperial Gems	21
Jacob's Stone Impressions	31
Javed	22
Katt and Associates	8
McNeil Minerals	1
Mintaka Design Group	30
Old Fairview	12
One of Kind Designer Cabs	4
Primal Exinct	24
Randy Gentry Stones	29
Rock Barrell	7
Southern Rocks	23
Volunteer Gems	2
Wind N Things	20
Xingyn Creations	15B
Xquizit Minerals	25

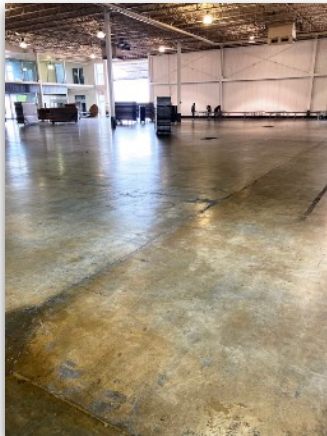
Memphis Mineral, Fossil & Jewelry Show
April 27 & 28, 2024

EXHIBITS & DEMONSTRATIONS

- Memphis Stone & Gravel Company
- Delta State University
- University of Mississippi
- Central Arkansas Gem, Mineral & Geology
- Wire Wrapping, Jewelry making
- Flint Knapping & Indian Pottery
- North Mississippi Gem & Mineral Society
- Rock Food Table
- Nonconah Conservancy
- Touch Me Tables
- Wolf River Conservancy
- Fluorescent Minerals
- Chucalissa Museum

ROCKZONE

- Palling Around with Rocks.
- Rocks Around the Clock
- Grab Bags
- MAGS001 Rocks



Before the big move

2. Shed material delivered.
3. Rockzone/exhibition area organized.



Dealer table from 2023 Show

4. Friday afternoon—time to be determined. Pack the pails and other Rockzone activities.



Patrons arrive to look and buy



2024 Grand Door Prize

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MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

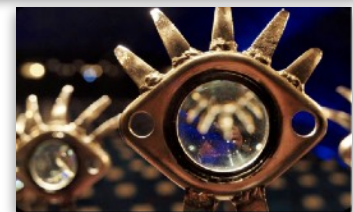
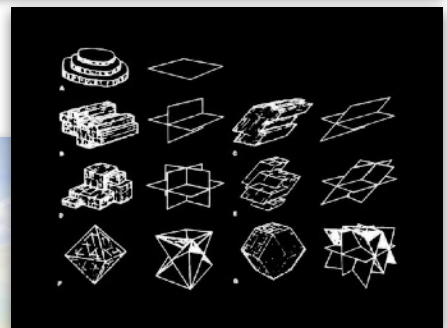
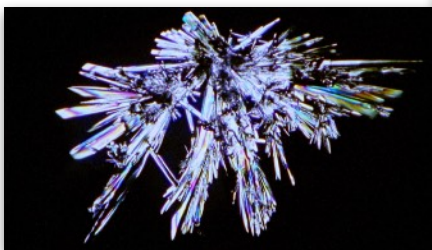
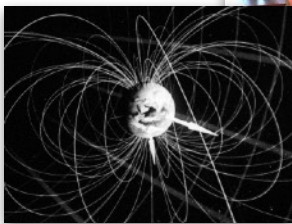
MAGS Rockhound News ◊ A monthly newsletter for and by the members of MAGS

Last Things displaying a variety of minerals and fossils. W.C. McDaniel brought a collection that intrigued moviegoers (people were particularly impressed by the 2 billion-year-old Stromatolite). MAGS Members fielded questions.

Last Things looks at evolution and extinction from the perspective of the rocks and minerals that came before humanity and will outlast us. It takes the viewer back billions of years to the formation of the first rocks on Earth and the construction of our atmosphere. Featuring dialogue from experts, quotations and illustrations from various texts, and some immersive cinematography, this is a film that makes you think while you're enjoying the stunning images (from microscopic forms to vast landscapes). Every image rolls into the next quietly, but the process holds your attention.

Deborah Stratman, a Professor in the School of Art & Art History at the University of Illinois, made *Last Things*. The musical backdrop is by Brian Eno (a producer, writer, and multi-instrumental musician; he was a frequent producer for U2) and Okkyung Lee (a South Korean cellist, improviser, and composer). The dialog (in several languages—but there are subtitles where necessary) comes from a number of scientists and other experts.

It was a nice way to spend an evening.



President's Message
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Saturday April 27

1. Show opens to the public 9:00 A.M., closes at 6:00 P.M.
2. Lots of volunteers are needed

so be sure to sign up.

Sunday April 28

1. Show opens to the public 10:00 A.M., closes at 5:00 P.M.
2. Lots of volunteers are needed so be sure to sign up.

3. Show breakdown and cleanup —need lots of help.

How you can help

1. Post it to all social media.
2. Email your friends.

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President's Message
Continued from P. 4

- 3. Distribute postcards/ show announcements.
- 4. Club Show Tickets.
- 5. Volunteers sign up.
- 6. Bring drinks and snacks to share.

W. C.

Thanks Again, David

Matthew Lybanon, Editor

MAGS Member and champion artifact finder David New has done it again! He recently found the gorget (The dictionary gives several uses of the word, but the general idea is a pendant worn around the neck and hung from a string.) or boatstone (a stone artifact that is shaped like a dugout canoe and is thought to have been an atlatl weight) shown in the photos at right at a creek site in Marshall County, Mississippi. Archaeologists he consulted are not sure which of the possibilities the artifact is, but they agree that it's a rare find. The photos show both sides of the artifact.



MAGS Show Volunteers

Debbie Schaeffer

The MAGS Show will be here before you know it and we still need lots of volunteers on both Saturday and Sunday, April 27 and 28. Volunteers are needed for front desk/ticket sales, information, kids zone, setup/breakdown, and also

just to "help where needed". Please use the SignUp Genius link below, or the QR code, to sign up for as many shifts as you can!

<https://www.signupgenius.com/go/30E0A4FAAA72FA64-48186062-mags#/>



♪ Show

April 27 & 28: Open to public.
See P. 3 for more details.

♪ Adult Programs

April 6: Show (grab bag packing)—
NOTE DIFFERENT DATE
May 10: Dr. Julie Johnson, Earth Science
June 7: TBD

♪ Junior Programs

April-June: Same as Adult Programs.

♪ Field Trips

April: No field trip
May 4: 20 Mile Creek
June: TBD

♪ Rock Swap

May 25: At Lou White's residence

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Fabulous Tennessee Fossils

Dr. Michael A. Gibson,
University of Tennessee at Martin

FTF 109

Specimen Labels & Taxonomic Nomenclature, Part 3: Hypotypes & Coated Specimens

In the past couple of essays, I have shared some of the concepts and situations related to specimen labeling and taxonomic status of specimens. Figure 1 is another specimen of Devonian brachiopod that I have on-loan from the Peabody Museum at Yale University, which I will use to illustrate a couple more concepts related to curated specimens and about codes that often come with specimen labels (you may wish to refer back to FTF 107 & 108).

Notice that there are three specimens of *Amphigenia curta* (Meek and Worthen) in this box (Figure 1). It is listed as a “hypotype”, which means these are specimens that were referred to in a publication that extended or corrected this species from an earlier study. It appears that Dunbar may have done this in 1919, according to the specimen label. Also notice the Meek and Worthen in parentheses after the genus and species name. In a complete and proper use of Linnaean nomenclature, the order of names in the entire sequence are *Genus* (first letter capitalized), *species* (first letter lower case), authors, date. The genus and species are italicized or underlined always. The authors are the people who named the new taxon and the year it is named. In this case the authors were Fielding B. Meek (1817-1876) and Ferdinand V. Worthen (1829-1887). Meek became the first full-time paleontol-



Figure 1. Specimen box with labels for the brachiopod *Amphigenia curta* from the Carl O. Dunbar “type” collections at Yale’s Peabody Museum of Paleontology. See text for discussion of labeling details. Two of the specimens were stained black to allow for photography using ammonium chloride. (Photo Credit: MAG, 2019).

ogist at the Smithsonian. They worked together often and participated in several expeditions to the “western territories” to explore and map the lands, producing a large collection of fossils for the Smithsonian in the process and naming many new taxa, especially brachiopods. In “shorthand” usage, the author and date are sometimes omitted and only the genus and species names used. The parenthesis around the author’s name is commonly encountered and occurs when the original name

is later changed during a revision by someone else. The original author’s name for the species will always follow the species, but any modifications are indicated by the parenthesis. Perhaps the species is moved to another genus or something similar.

Two of the specimens are black in color—why coat the fossils and obscure their natural appearance? Prior to the digital age of photography, there were very strict guidelines and procedures for how photographs of fossil specimens were to be taken for illustration in journals. For example, in the *Journal of Paleontology*, the convention was for the lighting used to highlight a fossil in an image should be directed from the upper left corner so that shadowing occurred to the lower right. Additionally, photos were to be in high grain quality black and white film with as much detail visible as possible and with the entire specimen displaying uniform texture. There are a lot of techniques that are used on the copy stand and in the darkroom when taking and printing illustrations to get this uniformity. While digital photographs today can have high pixel values, old-fashioned black and white film is in many ways still superior. The move to digital photography has resulted in most of these techniques being lost and not all modern digital photographs are better than the

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Fabulous Tennessee Fossils “old way”.
Continued from P. 6

The two black specimens in Figure 1 were coated black on purpose, which is permanent. The coating provided a uniform texture and dark background to the entire specimen. After the “blackening” was added, the specimen would be coated with an even coating of a very fine-grained powder, such as ammonium chloride, that was “blown” onto the specimen to provide a uniform gray surface color. The powder was so fine that it infiltrated nearly every crevasse in the fossil, no matter how small. The specimen was then photographed with high-quality black and white film that would produce images with fine details (“high contrast”) enhanced. The lighting could be directed onto the specimen at various angles (but from the correct direc-

tion for publication) to produce shading on the specimen surface that accentuated fine details such as ribs or spines. The process is much like seeing how the texture of a rock surface or sidewalk changes during the day as the Sun changes angle. A lower angle of lighting usually produces more detail (higher contrast), which is why early morning and late afternoons are the best times to photograph rocky outcrops (rather than in the direct, low-contrast, “washout” sunlight of mid-day).

As a side note on professional training “in the old days” to become a paleontologist, usually, the paleontologist would do their own photography, including not only shooting the film, but also development of negatives and printing to make the publication plates that we all use to identify our fossils. Yes, paleontologists were

trained semi-professional photographers as well and most had well-stocked darkrooms as part of their labs. Black and white photography training was a normal part of a paleontologist’s formal education and I fondly remember my days as a darkroom geek. As you know from your own fossil collections, coloration of fossil specimens can vary tremendously. The three-dimensional nature of specimens (“high relief”) can also cause unwanted shadow effects from the directed lighting. In the case of these *Amphigenia* specimens, the black coating could not be removed (the ammonium chloride coating was temporary and sublimated in humid air or was washed off after photography). As the black coating is permanent, it is good to avoid using a holotype specimen for this, so syntypes or platotypes are often used.

MAGS Notes
Continued from P. 5

🎵 **April Birthdays**

- 11 Pam Papich
- 19 Donna Budynas
- 27 Kathy Bullard
- 29 Jacob Brown

March Meeting

Cathy Justis of the Wolf River Conservancy presented the program at the March 9 MAGS

Membership Meeting. Her presentation covered the history (including the geological history) of the Wolf River, and about the Conservancy: what it is, what it does, and plans for future activities.

The 105-mile long Wolf River rises in Baker’s Pond, located within the Holly Springs National Forest in Northern Mississippi. It runs northwest through Tennessee and through our city limits before

merging into the Mississippi River.



In 1985, the Wolf River Conservancy was formed as a non-profit local land trust (a nonprofit organization that, as all or part of its mission, actively works to conserve land) in order to be able to protect lands along the Wolf River as a public natural resource.

W.C. also told Members about plans for the Show. See P. 3 of this issue for more details.



MAGS At A Glance

April 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
31	1 	2	3	4 Zoom Board Meeting, 6:30 P.M.	5 NOTE DATE → CHANGE	6 Membership Meeting, 9:00 A.M.
7	8 Total solar eclipse, time dependent on location	9	10	11	12	13
14	15	16	17	18	19	20 DMC Field Trip
21	22 	23	24	25 MAGS Show—Start move-in and Rockzone/exhibition area layout	26 MAGS Show—Vendors move in, shed material arrives, finish setup	27 MAGS Show—Open to the public 9:00 A.M.-6:00 P.M.
28 MAGS Show—Open to the public 10:00 A.M.-5:00 P.M.	29 MAGS Show—Finish cleanup	30	1	2	3	4

Volunteer to help at the Show.
See P. 5.

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