



Volume 70 ♦ Number 01 ♦ January 2024 ♦ A monthly newsletter for and by the members of MAGS

# January Program

*Lou White Takes Us Along On An Expedition Through History*



Long-time MAGS Member Lou White will present the January program, “Oh, My Goodness, What’s Under Your Feet?” Lou has talked before about things you can find in the local area: coins, rocks, minerals, fossils, antiques, old bottles, Civil War relics—things a

prospector would look for.

Lou’s talk is based on quite a few years of collecting. Those who have heard Lou talk about this subject before know that he’s a real authority as well as an entertaining speaker. Don’t miss it.

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## CHAMPION PROJECTILE POINT FINDER DOES IT AGAIN!

DAVID NEW

Abigail New (with her father—me) struck again this month (December) and found this Morrow Mountain type point in a Marshall County, Mississippi, creek. This point is made from chert with embedded fossils (fossiliferous).

This makes 10 whole points this year (along with several tools and broken points)



we have found in this location. They range from early to late Archaic periods. Photos of the recent find and of all ten of our 2023 points are shown on P. 3.

**Editor’s Note:** *The Morrow Mountain point (named for a mountain in North Carolina near the Type site) is a medium (36 to 50 mm average total length) triangular point with* *Continued, P. 3*

# MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

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## 2024 MAGS BOARD

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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.org](http://memphisgeology.org)

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](mailto: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](http://www.amfed.org/afms_news.htm)
- ➔ SFMS: <https://www.southeastfed.org/>



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*Champion Projectile Point Finder ...  
Continued from P. 1*

*a contracting stem. The cross section is elliptical. The blade is primarily ex-curved (curved outward or away from a central part). Morrow Mountain points date to the Middle Archaic period, 5100 to 4500 BCE.*

Mississippi archaeologists remark that the site was used over thousands of years. It is in a very good location with high flat ground over the convergence of several small creeks.

## President's Message *Thanks, Jim*

Years ago, I first noticed how hard and persistent a worker Jim Butchko is as I watched him dig a long, heavy piece of petrified wood out of a 4-foot-deep hole on a hillside near Brilliant, Alabama. Alabama dirt can be a tad harder than concrete. Jim got that wood out and brought it home. Getting the job done was Jim's way.

We saw that as he served the club and show in a variety of ways. He served as Show Chair, Vice President for Programs, and Youth Director. His "best work" was serving as Show Chair. The Show is not a four-day job, but requires all-year work on the administrative and logistical components. I would surmise in a given year Jim moved tons of rocks to make sure on Saturday morning that when a kid showed up for the gem dig it was packed and ready to go. Now Jim is ready to go as he retires and heads to Ohio to take care of his dad. So, the club, Show, and thousands of kids say "Thank You."

W.C.



Photo Credit  
David New

DATE	MEMBERSHIP MEETING AND PROGRAM	EVENTS INCLUDING FIELD TRIPS	OTHER EVENTS
<b>Saturday, January 13, 10:00-12:00</b>	Adult/Junior Program: Lou White, "Oh, My Goodness, What's Under Your Feet?" Lou has decades of exploring and collecting artifacts, rocks, and fossils. Come see and hear about his collection and experiences. Be sure to ask him about the Cat Show.	January 20: DMC/MAGS Field Trip, Dale Hollow Lake. Information available via email or at the meeting.	
<b>Saturday, February 10, 10:00-12:00</b>	Adult/Junior Program: "Going to the Tucson Show Without Breaking the Bank." Includes video and displays the greatest shows on earth. May include some auction items.	February 17: MAGS Field Trip. Ryan Pudwell will take us to Nonconnah Creek.	
<b>Saturday, March 9, 10:00-12:00</b>	Adult/Junior Program: To be announced	Field trip to be announced	
<b>April</b>	Look for Rendezvous at the Storage Shed.		April 8: Total eclipse. April 25-29: Show & work days.

Encore

# Fabulous Tennessee Fossils

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

## Christmas Cheer



**Editor's Note:** We told you last month that, after 105 consecutive monthly articles, **Fabulous Tennessee Fossils** is taking a breather. Dr. Gibson has retired from the University of Tennessee at Martin and is in the midst of a move. A new series of articles will be starting soon. In the meantime, **MAGS Rockhound News** will repeat some articles from this valuable resource, starting with the very first January **Fabulous Tennessee Fossils** article, from January 2016.

It is the Christmas season, so naturally I wanted this month's *Fabulous Tennessee Fossils* article to somehow relate Tennessee fossils and Christmas, but alas I am at a loss to do so, but have vowed to scour the fossil record from Tennessee for the proper connection for next year! I do have fossil tie-ins for other holidays, especially Valentine's Day, Easter, and Halloween. So I turned to my dual enrollment geology class at Westview High School in Martin for help, as this was the last day of their semester and we were celebrating the pending holidays. I have a talented group of kids eager to graduate and move into the "real world," as we say. So I challenged them to use their creativity and to have the opportunity to publish that creativity to share with my MAGSter friends. They were given instructions to be creative, involve fossils or geology, within the context of the Christmas holidays, and to make the reader smile. I also gave them only thirty minutes to get the job done. As extra motivation, the winning efforts would receive a Subway gift card. On the right are the best three of the submissions, placed in final winning order by our illustrious editor! Enjoy and Merry Christmas from UT Martin!



### Now—Let's Write Some Sparkle!

Linda Jaeger, AFMS Editor

**Editor's Note:** Every month I ask for contributions to the next issue of **MAGS Rockhound News**. And sometimes I get some good ones. But some people are afraid that they can't write well enough. Here's help. It's a great article, reprinted with permission from the December 2023 issue of the

**AFMS Newsletter** (Linda says it's excerpted from her "Quick Tips" article in the **AFMS Newsletter**, January 2010).

There is really no formula for writing great articles, but when we let our personalities shine through our writing, we get readable articles that will sparkle. Here are some suggestions for adding pizzazz.

- 1. Remember your audience.** Are you writing for kids? For all club members? For a specialized group? Adjust sentence length and vocabulary just for them.
- 2. Vary the length of your sentences,** making some short and some compound. Ask a question to introduce a topic.

Continued, P. 5



Now—Let’s Write Some Sparkle!  
Continued from P. 4

- 3. **Keep paragraphs fairly short.** Reading is easier on the eyes if there is a nice amount of “white space” within and around an article.
- 4. **Make your reader laugh** by using humor or irony. It’s okay to poke some fun at yourself!
- 5. **Use the “active voice”** by turning “being verbs” into “doing verbs.” Instead of writing, “Metamorphic rocks *were formed* from the pressure of our hands on colored pieces of playdough,” write: “We *made* metamorphic rocks by pressing colored pieces of playdough into a ‘rock’ with our hands.”
- 6. **Write as if you were talking to a friend** about the subject. This makes your article “friendly” and easier to read.
- 7. **Use positives** instead of negatives. Instead of saying *I did not remember*, say *I forgot*. Many times, the positive is shorter and easier to understand than the negative.
- 8. **Be specific.** This gives your reader a “mind” picture of what you said.
- 9. **Leave out repetitions** of the same idea and unnecessary words (i.e.: in fact, in other words). A good sentence will get your idea across to the reader in one try. Leaving out unnecessary words keeps the reader from having to hunt for the idea.
- 10. **Use a short, attention-getting title.** This grabs the reader’s attention by making him curious about your subject. You can start with the title or come up with it

after you have written your article.

**References:**

Strunk, William Jr. and White, E.B. *The Elements of Style (illustrated)*, New York. Penguin Books. 147 p.

“Passive Voice.” *The Writing Center, University of North Carolina at Chapel Hill.* 25 Nov. 2009. <<http://www.unc.edu/depts/wcweb/handouts/passivevoice.html>>.

Wagner, Dr. MaryJo. “Write with Pizzazz or How to Keep Your Readers Reading.” 2009. 1 Jan. 2010. <<http://www.articlemarketing-withpizzazz.com>>.

Culbertson, Howard. “Writing with pizzazz – How you can communicate clearly and persuasively.” 20 Nov. 2007. 1 Jan. 2010. <<http://home.snu.edu/~HCULBERT/pizzazz.htm>>.

Cretaceous–Paleogene (K–Pg) extinction event, also known as the Cretaceous–Tertiary (K–T) extinction. There are other examples.



A “modern” example of this impact exception is the Barringer Crater (image above), located 37 miles east of Flagstaff in the northern Arizona desert. Although it formed around 50,000 years ago, the impact site is remarkably well-preserved, thanks to its arid surroundings. Analyzing this impact crater by creating various computer simulations, scientists from Brazil’s University of Campinas determined that the iron/nickel-rich meteor was likely spinning fast when it struck the Earth during the late Pleistocene. It was also probably composed of clumps of smaller rocks loosely held together by gravity.

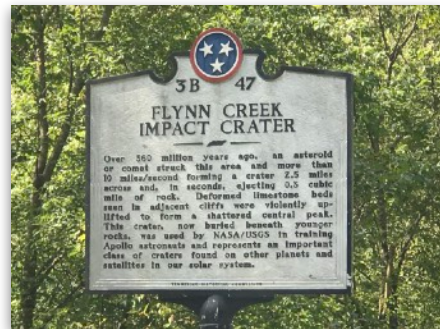
Some impact craters are deep and narrow (with various formations within the crater itself) while others, such as Barringer Crater, are wide and shallow. To determine how meteors form these different-shaped holes, the researchers created simulations with virtual projectiles that were clusters of 2,000 tiny spheres. This digital space detritus was then “dropped” on a grainy layer that stood in for Earth’s surface.

What the researchers discovered in doing this is that rapidly rotating asteroids created wide and shallow sites, just like the one at *Continued, P. 6*



**A Different Spin**

*Matthew Lybanon, Editor*



Earth doesn’t have nearly as many impact craters as the Moon or Mars—thanks to the Earth’s mesosphere, which protects the planet from large meteoroids—but that doesn’t mean impacts aren’t possible. You probably think immediately of the Chicxulub crater buried underneath the Yucatán Peninsula, which is thought to be at least partly the cause of the

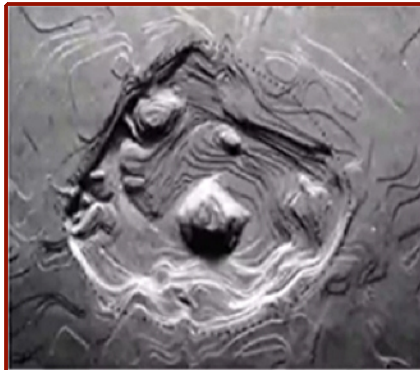
*A Different Spin* Barringer  
*Continued from P. 5* Crater. Further calculations showed that fast-spinning asteroids could create deeper craters, but the components need to be tightly bound, unlike at Barringer Crater.

There is a similar crater much closer to Memphis. Gainesboro, Tennessee, is a small (population 920) town in Jackson County, around 80 miles east of Nashville. Five miles south of Gainesboro is Flynn Creek Crater.

Here's a description found online: 'impact structure is about 3.8 km in diameter, and is exposed at the surface. The surface expression is substantial, but heavily weathered. The impact occurred about  $360 \pm 20$  million years ago in a very shallow marine setting. It is a complex crater with a central uplifted peak.' Another description: 'the Flynn Creek structure of north-central Tennessee resulted from a Devonian asteroid impact that produced a crater of 3.6 km diameter and a 150 m depth in the flat-lying Ordovician carbonates.'

From a 2022 news report that mentions the Flynn Creek structure: 'When you look underneath, the rocks paint a clear picture. Dr. Jana Ruth Ford, an assistant professor with the Department of Physics and Astronomy at Middle Tennessee State University marvels at its geology.

"Look how closely it resembles the Pythagoras Crater on the moon," Dr. Ford pointed out. "You have the central uplift area. You have the terracing. You have the relatively flat floor."



Left: Topographic Model of the Flynn Creek Crater based on field work by Roddy (1968b: 303; courtesy of the Planetary and Space Science Centre, University of New Brunswick, Fredericton, New Brunswick, Canada).

Right: The lunar crater Pythagoras (courtesy: European Space Agency).

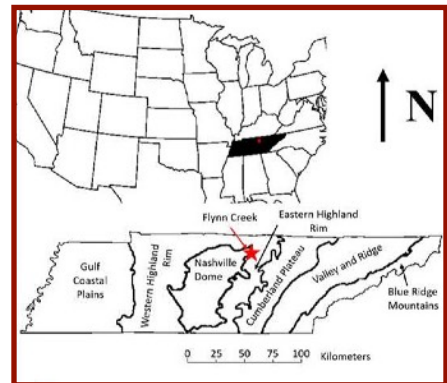
MAGS has already taken several field trips to towns near there: Cookeville and Livingston. Maybe this is another destination. Geoscience students from Tennessee Tech, in Cookeville, visit Flynn Creek. Here's a field trip report: <https://tntechsedgeology.org/2019/04/08/field-trip-to-flynn-creek-crater/>

Here's a final tidbit (from Ref. 3): 'Hawkins Impact Cave is the only cave in the world known to have formed inside the central uplift of a complex impact crater. Discovered in 1989 by landowner Michael Hawkins (namesake) and mapped in 2003, HIC lies in the core of the central uplift of the 3.8 km diameter Flynn Creek impact structure ( $36^{\circ}17'N$ ,  $85^{\circ}40'W$ ) in the Highland Rim physiographic province of north-central Tennessee'. We don't have to travel far to find interesting geology and paleontology (don't forget Coon Creek) sites.

Link to a good summary of scientific information:

<https://craterexplorer.ca/flynn-creek-impact-structure/>

**Refs:**



1. *Carvalho, Douglas D. Lima, Nicolao C. and Franklin, Erick M., Impact craters formed by spinning granular projectiles, Phys. Rev. E 108 (5), 054904, Nov. 2023, doi = {10.1103/PhysRevE.108.054904}, url = {https://link.aps.org/doi/10.1103/PhysRevE.108.054904}.*

2. *Adrian D. R., King D. T. Jr., Ormö J., Petruny L. W., Hagerty J. J., Gaither T. A., Jaret S. J. 2016. Analysis of drill core FC77-1 from the Flynn Creek impact structure, Tennessee USA (abstract #2953). Abstracts of the 47th Lunar and Planetary Science Conference.*

3. *Milam, Keith A. et al. "From the Inside of a Central Uplift: The View from Hawkins Impact Cave." Lunar and Planetary Science XXXVII (2006).*



## Party Pictures

Our December 9 Membership Meeting was another great holiday party. Here are a few photos.



*Photo Credits*  
Christine Anderson  
Carol Lybanon  
Matthew Lybanon  
W.C. McDaniel



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## Adult Programs

*January 13:* Lou White, "Oh, My Goodness, What's Under Your Feet?"

*February 10:* "Going to the Tucson Show Without Breaking the Bank."

*March 9:* TBD

## Junior Programs

*January-March:* Same as Adult Programs

## Field Trips

*February 17:* Nonconnah Creek

*March:* TBD

## January Birthdays

- 3 John Clower
- 13 Khloe Webster
- 16 Francis Miller
- 18 Ricky Waters
- 19 Carcy New
- Presley Robinson
- 21 Richard Gunter
- 24 Dr. Jon Stanford
- 26 Amber Gonzalez
- 31 Teresa Noyes

## Jewelry Bench Tips by Brad Smith

### CUTTING MOLDS

Cutting molds is easier and



more precise with a sharp blade. A new Xacto blade is sufficient for cutting RTV molds but is usually not sharp enough for vulcanized rubber molds. For that it's best to use scalpel blades available from most jewelry supply companies. The #11 blade is triangle shaped, and the #12 is hawksbill shaped. I find the hawksbill is particularly nice for cutting the registration keys of the mold.



### USING YOUR THUMB

When using multiple bits in a Freedom, we often have to deal with several different shaft sizes - the usual 3/32 inch burs, the larger 1/8 inch shafts sizes and of course the many different sizes of drills. For some reason I really dislike having to turn the key multiple times to open or close the jaws of the handpiece chuck.

So I have two ways to speed up that task. For opening up the jaws, I just remember "four", the number of turns I have to make to

open the chuck just enough from the 3/32 bur shaft size to the larger 1/8 bur shaft size.

For closing the jaws around a smaller shaft, there's a neat trick. Hold the new bit in the center of the open jaws of the chuck, put your thumb lightly onto the outer toothed collar of the chuck, and gently start up the Freedom. As the chuck turns, it will naturally tighten the jaws around the bur shaft or the drill bit. Then all you have to do is a final tightening with the key.

### Smart Solutions for Jewelry Making Problems

<https://amazon.com/dp/BOBQ8YVLTJ>

## November Board Minutes

*Josh Anderson*

Zoom meeting called to order 6:32pm. Present: W.C. McDaniel, Christine McManus, Joshua Anderson, Nannett McDougal-Dykes, Melissa Koontz, Jim Butchko, Bonnie Cooper, Matthew Lybanon.

**Secretary:** Minutes submitted via email, presented to Board, and approved.

**Treasurer:** Report approved.

**Membership:** One new Member.

**Field Trips:** November & December TBA.

**Youth Programs:** November, Rock Sculptures. December, Holiday Party.

**Library:** No new books.

**Editor:** Need pictures and articles for next year.

**Rock Swaps:** None.

**Adult Programs:** Need speakers for new year. Will get with W.C. for possible candidates. October, Tour de Rocks. November, Josh Anderson, A Geologist's Trip to Ancient Yemen.

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*November Board Minutes* **Show:** 19 dealer contracts already for 2024. Five more verbal commitments. Will be full soon. Let W.C. know about helping with the Show. Chair and/or committee personnel needed. WC is planning a trip to Agricenter this week. He will advise time for those who want to meet to start planning layout for 2024 Show. W.C. introduced a QR code idea to be made for flyers/media for

the 2024 Show.

**New Business:**

1. Holiday Party
  - Proposed to change time from 10am-12pm to 11am-1pm.
  - Proposed Friday evening decorations and move-in for party.
  - Inventory to be taken at Saturday 11/11 meeting for party supplies.
  - MAGS will buy/prepare turkey and ham along with drinks, plates and knives.

- MAGS will request members bring side dishes and desserts.

2. 2024 Officers Positions—discussion concerning new officers for next year’s term. MAGS needs volunteers.

**Old Business:**

1. Website—W.C. inquired about updating website with Bonnie Cooper.
  - Pat coming in December to assist.
  - Will be WixSite.

Adjourned 7:23pm.

## SFMS Federation Week

**William Holland**

**June 2, 2024–June 8, 2024**

SFMS Week is different from the normal weeks at William Holland. During SFMS Weeks top priority is given to members of the SFMS. SFMS members are scheduled before anyone else. That makes it easier to schedule the class you want! In fact, you are encouraged to suggest classes for the next year in order to secure the best instructors possible.

The topics at the SFMS Federation Week are listed below. For more details go to <https://www.sfmsworkshops.org/william-holland-classes>.

<b>Cabbing 1</b> with Jack King. This is a fun filled week of working with stones to create beautiful cabochons.	<b>Cabbing 2</b> with John Wild. This is a course for experienced cabbers.	<b>Casting</b> with Bill Harr. This class will teach silver casting for beginner and intermediate silversmithing.	<b>Moovin Metals</b> with Cindy Moore. Come and explore some of the many techniques using a hydraulic press and rolling mill.
<b>Silver 1+</b> with Jason Hamilton. This class will teach Silver-smithing (Plus) for beginners and intermediate skill levels.	<b>Faceting</b> with Tom Mitchell. This class is open to faceters of all experiences.	<b>Intarsia I &amp; II</b> with Bill Boggs. This is a class for beginners and advanced students.	<b>Leather &amp; Bi-Metal Bracelet</b> with Wayne Parker. In this course, we will use multiple disciplines & skills to create a new concept cuff bracelet.
<b>Gem Trees I+</b> with Jerri Heer. This class will start advance from basic and intermediate skills of gem tree making.	<b>Stone on Stone</b> with Michael Bateman. Learn to make your cabochons pop!	<b>Stained Glass</b> with Stephanie Danz. In this class we’ll explore the art of stained glass using the Tiffany method.	<b>Acid Etching &amp; Enameling</b> with Kristi Ross & Stephanie Savic Polk. Learn to apply images and color to copper.
<b>Metal Clay</b> with Susan Brooks. Fine Silver (.999FS) metal clay and its multitude of uses in the jewelry world.	<b>Wire I</b> With Judi Wild. For the new wire-wrapping student, but it’s also a great refresher class.		

# MAGS At A Glance

## January 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
31	1 	2	3	4 Zoom Board Meeting, 6:30 pm	5	6
7	8	9	10	11	12	13 Membership Meeting, 10:00 am, Lou White, "Oh, My Goodness, What's Under Your Feet?"
14	15 	16	17	18	19	20 DMC Field Trip
21	22	23	24	25	26	27
28	29	30	31	1	2	3

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