



Mid-Ohio Mineral and Fossil Club

The LITHNICS

Volume 61 Issue 3

July 2023

THE LITHNICS



A QUARTERLY PUBLICATION OF
THE MID-OHIO MINERAL AND FOSSIL CLUB
MANSFIELD, OHIO



CURRENT OFFICERS

PRESIDENT	Tom Kottyan
VICE-PRESIDENT	Jim Baumgartner
PAST PRESIDENT	Bill Byrley
RECORDING SECRETARY	Pat Everly
TREASURER	Pam Kottyan
TRUSTEES	Jason Larson + Joel Likins + Lawrence Hull

CURRENT COMMITTEE CHAIRS

DOOR PRIZE	Pam Kottyan
EDUCATION	Tom Kottyan
FIELD TRIPS	Brad Wagner + Jeff Murray
GORMAN CENTER LIAISON	Tom Kottyan
HISTORIAN	Jason Larson
HOSPITALITY	Joel Likins
MEMBERSHIP	Pam Kottyan and Jason Larson
SHOP	Walt Upchurch
SHOW	Tom Kottyan and Jason Larson
SPECIAL INTERESTS	Joyce Kish, Susan Mathews, Bryan Summer
VIDEO/BOOK LIBRARY	Carolyn Kelly
LITHNICS EDITOR	Bryan Summer

1290 Fairview Ave
Galion, OH 44833
bryansummer1@gmail.com

OUR CLUB

PURPOSE: The purpose of the Mid-Ohio Mineral and Fossil Club, is to create an interest in and study of the earth sciences and all lapidary arts and to afford an opportunity to share knowledge and working techniques with others.

MEETINGS:

General club meetings are at 7:00 pm on the first Monday of the month at:

Gorman Nature Center, 2295 Lexington Avenue, Mansfield, Ohio.

If the first Monday falls on a holiday we meet one week later.

Visitors are always welcome.

Special Interest Group (Classes) meetings are held September through May at 7:00 pm on the second Monday of the month. See Special Interest Chair, Mike McCullough.

CANCELATION OF A MEETING

If for any reason the club officers feel that a meeting should be canceled you will be notified by email as soon as possible. If Mansfield schools are closed so are we. If for any reason you don't feel safe to drive to a meeting, please, please stay home.

Annual dues are:



Adults	\$ 15.00
Children under 16	\$ 5.00
Family	\$ 20.00

Dues are due Jan. 1st of every year. Whether you join in January, December, or any month in between, the cost is the same. Everyone's dues are due again the next January 1st .

LITHNICS: Our quarterly newsletter.

Permission is hereby granted to use any original **LITHNICS** articles, whole or in part, as long as proper recognition is noted with the reprint.

Club members are encouraged to make contributions to the LITHNICS.

Contact: Bryan Summer (bryansummer1@gmail.com)

The Mid-Ohio Mineral and Fossil Club

Message from the President Tom Kottyan



Fellow Mineral and Fossil Club Members,

I wish to thank all of the club members that helped the club put on a successful show. It definitely takes a village to put on a show that our regular customers look forward to attending. Thanks to Joyce Kish for providing the food for the setup day. There are just too many people who stepped up and helped to list them all. We again had great displays show cases. This is something that has continued to fade at most other shows. Our cases are just always the best. The cooperation among the members to get the excellent job done is not something you see at many clubs. Again thanks to all as you are a very important part of our show. This is why our club continues to grow in numbers as all of you help to mentor and foster people wanting to be part of our club.

I look forward to next year's show and hope we continue to grow. Next year's theme is Calcite!

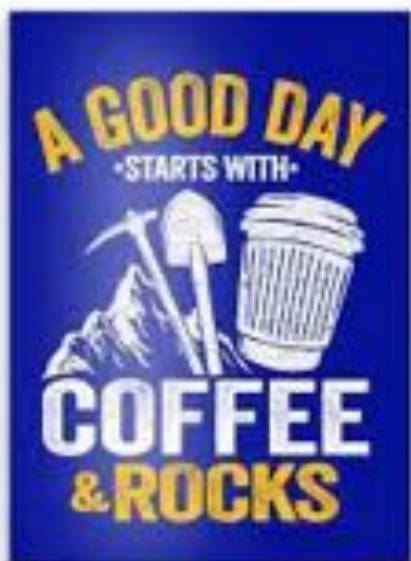
Tom Kottyan, Club President and Show Chair

Tom Kottyan

Mid-Ohio Mineral and Fossil Club President

Upcoming Meetings – all meetings are at the Gorman Nature Center at 7:00 pm
Continue to watch for information about future meetings in your email.

- Monday, July 10 7:00 Meeting Gorman Nature Center
- Monday, August 7 7:00 Meeting Gorman Nature Center
- Monday, Sept. 11 7:00 Meeting Gorman Nature Center
- Monday, October 2 7:00 Meeting Gorman Nature Center
- Monday, November 6 7:00 Meeting Gorman Nature Center
- Monday, December 4 5:00 Christmas Dinner at Golden Corral



Special Area Events

1. Gold Rush Days
2. Flint Ridge Fall Knap-In

Sept 2 + 3

Sept 1 - 3

2023 Mid-Ohio Mineral and Fossil Show

Mid-Ohio Mineral and Fossil Club
**GEM, MINERAL, JEWELRY,
BEAD, & FOSSIL SHOW**
Trilobites
JUNE 10 + 11, 2023
Saturday 10 - 6 and Sunday 11 - 5



Richland County Fairgrounds - Fairhaven Hall
750 North Home Road, Mansfield, OH

Fossil Cases at the Mineral Show







Sand Grains from Around the World

Sand can be one of the most interesting materials when viewed through a microscope!



Gobi Desert sand: *Highly rounded sand grains from the Gobi Desert of Mongolia. Wind-blown sand sustains repeated tiny impacts as it bounces along Earth's surface. These impacts gradually abrade sharp protrusions from the grains and give their surface a "frosted" luster. The width of this view is approximately 10 millimeters. Photograph by Siim Sepp.*

Thinking About Sand

Sand is a common material found on beaches, deserts, stream banks, and other landscapes worldwide. In the mind of most people, sand is a white or tan, fine-grained, granular material. However, sand is much more diverse - even beyond the pink sand beaches of Bermuda or the black sand beaches of Hawaii. These are just a few of the many types of sand.

What is Sand?

The word "sand" is actually used for a "particle size" rather than for a "material." Sand is a loose, granular material with particles that range in size between 1/16 millimeter and 2 millimeters in diameter. It can be composed of mineral material such as **quartz**, **orthoclase**, or **gypsum**; organic material such as mollusk shells, coral fragments, or radiolarian tests; or rock fragments such as **basalt**, **pumice**, or **chert**. Where sand accumulates in large quantities, it can be lithified into a **sedimentary rock** known as **sandstone**.

Most sands form when rock materials are broken down by weathering and transported by a stream to their place of deposition. A few types form when the shell or skeletal materials of organisms are broken up and transported. A few rare sands are formed chemically from materials dissolved or suspended in sea water.



YOU CAN
shake THE SAND
FROM YOUR SHOES
but it will
• *Never* LEAVE YOUR •
SOUL ★

Geology of Great Sand Dunes National Park

By [Geology and Ecology of National Parks](#)



Sand Dunes National Park
Mosca, Colorado, USA

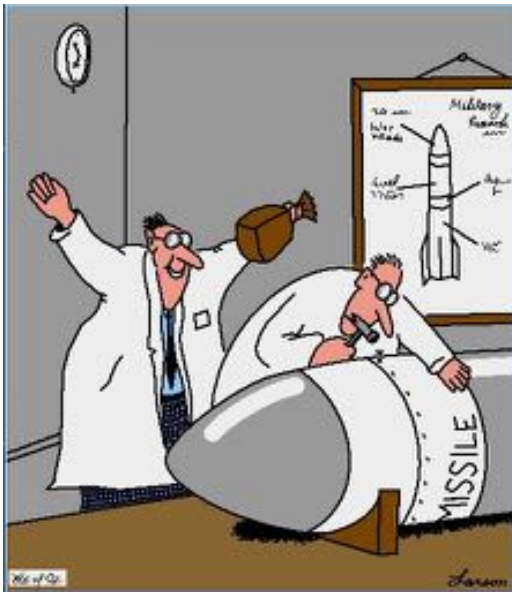
The tallest dunes in North America are the centerpiece in a diverse landscape of grasslands, wetlands, forests, alpine lakes, and tundra.

What are sand dunes?

Sand dunes are created when wind deposits sand on top of each other until a small mound starts to form. Once that first mound forms, sand piles up on the windward side more and more until the edge of the dune collapses under its own weight. The collapse begins when the angle of the dune becomes too large to support the weight. This is called the angle of repose and is usually around 30-34°, but depends on factors such as grain size, wind speed, and roundedness of the individual grains. As these dunes collapse they move in the same direction as the wind, and if there is no wind moving in the opposite direction or any obstacles in its path, barchan dunes are formed. These dunes are rare in the park as there are typically vegetation and complex wind patterns from multiple directions that prevent them from forming. As more barchan dunes are formed, they can move together and line up. This creates a transverse dune which is orientated perpendicular to the direction of wind and is one long ridge made up of many smaller barchan dunes. Another type of dune that travels is the parabolic dune. This dune type is similar to barchan dunes but instead forms around vegetation where the arms of the dune are anchored in place. In this park, parabolic dunes are scattered around the sand sheet slowly traveling toward the main dune field. Nebkha dunes are essentially parabolic dunes before traveling. They form when sand is trapped at the base of a plant and are able to build taller using the rigid plant structure as a strong foundation. The most complex dune type which the park is known for is star dunes. These dunes form when complex wind patterns alternate direction and change the way sand is piled onto the dune. By changing wind direction, the sand piles up on multiple sides of the dune and is unable to reach the angle of repose so the dune never collapses. This is how the tallest dune at the park, known simply as the Star Dune, reached over 750 feet in height.

Weathering and Erosion

Nothing has a greater impact on the landscape around us, especially in the Great Sand Dunes, than the processes of weathering and erosion. Typically seen as interchangeable words, these are actually two distinct processes in the world of geology. Weathering is the physical and/or chemical breakdown of surfaces due to wind, water, or ice. Erosion is the process of moving the broken down material from one place to another via wind, water, or gravity. At Great Sand Dunes National Park, erosion is responsible for recycling escaping sediments back into the main dune field and bringing in new sediments from the surrounding mountains. Alluvium, or sediments deposited by bodies of water, is the source most of the sand in the dunes.



Our Club's Craft Program

Our Club's craft program is headed up by Nancy Matthews and Bryan Summer. We are looking forward to starting some craft classes in the Fall.

Ohio Rockhound

A useful website focusing on Ohio minerals, including collecting sites.

1. Mark J. Camp, [Roadside Geology of Ohio](#) (2006).
2. June Culp Zeitner, [Midwest Gem, Fossil, & Mineral Trails: Great Lakes States](#) (Rev. ed., June 1999 – first published in 1955).
3. June Culp Zeitner, [Midwest Gem Trails: Field Guide for the Gem Hunter, the Mineral Collector, and the Tourist](#) (3d. Rev. ed., 1964 – originally published in 1956).
4. James Martin Monaco & Jeannette Hathway Monaco, [Fee Mining & Mineral Adventures in the Eastern U.S.](#) (2d ed. 2010).
5. Kathy J. Rygle & Stephen F. Pedersen, [Northeast Treasure Hunter's Gem & Mineral Guide](#) (4th ed. 2008).

Amazing YouTube Videos



1. The Amazing Life of Sand by Deep Look
2. Geology of Great Sand Dunes National Park by Jay Chapman
3. The Geologic Oddity in New Mexico; White Sands National Park by Geology Hub
4. The Strange Fields of Sand Dunes in Alaska, A Geologic Oddity by Geology Hub
5. How a grain of sand rewrote our ocean's history by Andrew Wheeler - Ted Talk

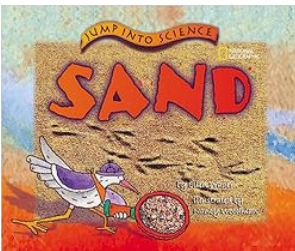
Geology Books



A Grain of Sand: Nature's Secret Wonder

by Gary Greenberg

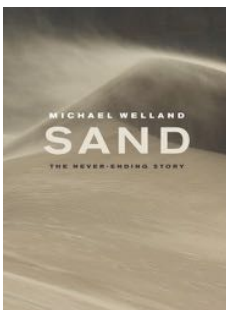
A Grain of Sand uses incredible micro-photographic techniques to present you with high-resolution glimpses of the strange and wonderful world that each grain of sand contains.



Jump Into Science: Sand

by Ellen J. Prager

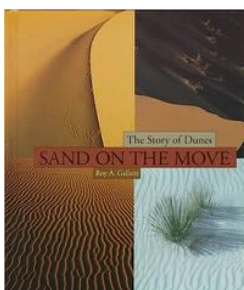
What is sand? How is it formed? Where does sand come from? How does it get to the beach? Why is it different colors? Let the sandpiper sleuth show you the answers to these questions in this lively, collage-style look at a familiar substance that's never been so fascinating: sand.



Sand: The Never-Ending Story

by Michael Welland

From individual grains to desert dunes, from the bottom of the sea to the landscapes of Mars, and from billions of years in the past to the future, this is the extraordinary story of one of nature's humblest, most powerful, and most ubiquitous materials.



Sand on the Move: The Story of Dunes

by Roy A. Gallant

Discusses the different types of sand dunes, how they form and move, the destruction they can cause, and the animal and plant life they support



Interesting Web Sites

1. Mineralogy4kids
 - a. <https://min4kids.org>
2. Minerals by Name
 - a. <http://www.galleries.com/Minerals By Name>
3. Ology - the science website for kids from the American Museum of Natural History
 - a. <https://www.amnh.org/explore/ology?channel=earth>
4. Fascinating Geology for Kids
 - a. <https://littlebinsforlittlehands.com/geology-for-kids/>
5. Geology for Elementary Schools
 - a. <https://study.com/academy/topic/geology-for-elementary-school.html>
6. Elementary School Science
 - a. <https://www.elementaryschoolscience.com/lesson-plan-intro-rocks-minerals>

Upcoming Events and Rock Shows – (Ohio and close to Ohio)

Check the Midwest Federation of Mineralogical + Geological Societies for Calendar Updates

August

18 - 20 **South Bend, IN Annual Show** St Joseph 4-H Fairgrounds 5117 S. Ironwood Road
 Cloverleaf Villas, South Bend IN Fri Noon - 7, Sat 10 - 6 Sun 11 - 5

September

1 - 3 **Flint Ridge Knap-in** **Cochocton County Fairgrounds**
 724 South 7th Street Cochocton, OH Fri 9 - 5 Sat 9 - 5 Sun 9 - 2

- 8 - 10 Toledo Gem Show + Black Swamp Festival** Pratt Pavilion, County Fairgrounds
13800 W. Poe, Bowling Green, OH Fri 12 - 8 Sat 10 - 6 Sun 11 - 5
- 16 - 17 Livingston Gem and Mineral Show** Hartland Educational Support Services
Building, 9525 E Highland Road, Howell, MI Sat 10 - 6 Sun 10 - 4
Site of the Midwest Federation Annual Convention Sep 15 - 17

October

- 13 - 15 Detroit, MI Mineral Show (Fluorites)** Macomb Community College Expo Center
14500 E 12 Mile Road Warren, MI Fri 9 - 6 Sat 10 - 7 Sun 11 - 5
- 20 - 22 Mason MI Mineral Show** Ingham County Fairgrounds 700 E Ash St. Mason, MI
Fri 10 - 6 Sat 10 - 6 Sun 11 - 4
- 28 - 29 Summit Lapidary + Akron Mineral Society Gemboree** Emidio Expo Center
48 East Bath Road, Cuyahoga Falls, OH Sat 10 - 6 Sun 10 - 5

American Federation of Mineralogical and Geological Societies Convention (August)

The convention of the American Federation of Mineralogical and Geological Societies is in Billings, Montana in August. There are a number of fantastic field trips planned post-convention that you don't want to miss.

Midwest Federation of Mineralogical & Geological Convention (September)

Sept 16 - 17 at the Livingston Gem and Mineral Society Annual Show Sat 10-6 Sun 10-4
Hartland Educational Support Service Center 9525 E. Highland Rd. Howell, MI 48843

Livingston Gem and Mineral Society presents
The Rockhound's Dream Show 2023

*Minerals, Gems,
Rocks, Jewelry
and Kids Table!*

48th Annual Show - Sept. 16 - 17
Hosting the 82nd Convention of the
Midwest Federation of
Mineralogical & Geological
Societies

2023 Flint Ridge Knap-In

Spring Knap-in Dates
Friday, May 26 9 - 5
Saturday, May 27 9 - 5
Sunday, May 28 9 - 2

NEW LOCATION!
Coshocton County Fairgrounds
724 South 7th Street
Coshocton, OH

Fall Knap-in Dates
Friday, Sept 1 9 - 5
Saturday, Sept 2 9 - 5
Sunday, Sept 3 9 - 2

Sand

Sand at the beach,
Sand at the shore,
Sand in the ocean
On the ocean floor.

Sand in the desert,
Sand on the ground,
Sand in a sandstorm
Blowing around!

Sand from rock that has
Crumbled into grains
Sand in a sand dune
Shaped by winds and rains.

Sand on an island,
Sand in the sea,
Sand in a sandbox
For you and me!

by Meish Goldish



Sandcastle

(J. Patrick Lewis)

I build a house
One afternoon
With bucket, cup,
And fork and spoon,

Then scooped a shovel-
ful of shore
On top to add
The second floor.

But when the fingers
Of the sea
Reached up and waved
A wave to me,

It tumbled down
Like dominoes
And disappeared
Between my toes.

[The Midwest Federation of Mineralogical + Geological Societies](#)

You can check out all the Shows and Events in our Midwest Region (Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska) at the Midwest Federation of Mineralogical + Geological Societies [Web Site \(https://www.mwfed.org\)](https://www.mwfed.org)





The U.S. Geological Survey Youth and Education in Science (YES) Team.

Revamped their web presence to better assist with online and home learning.

The new USGS learning from home portal for lesson plans and activities, grades K – 12.

www.usgs.gov

Students of all ages can always tap into the USGS Resources for Teachers for over 140 years of USGS research in the natural sciences in the form of lesson plans and activities, maps, podcasts, online lectures, videos and animations, and much more. Browse thousands of ideas for using these resources in elementary, secondary, university, and informal education settings

Meeting Minutes

April 2023

Tom opened meeting. Minutes & Treasurer's reports were read.

Walt U said shop is open & ready for use just call before you come so he can be sure the door is open.

Hospitality - Nancy R & Susan have refreshments tonight. May will be our potluck.

Field Trips - Brad advised there are 10 spots left for the trip to Penn Dixie on Saturday to search for Trilobites & Diamond Mtn in Little River, NY to search for Herkimers on Sunday. Our club had voted not to renew our Herkimer claim in Fontana, NY.

Jason & friends went to Fantasia Mining, Massillon, OH and had a good time looking through all the rough minerals for sale.

Lithnics - Bryan S said the Lithnics was sent today, April 3, 2023, via email.

Programs - Tonight Jason L will be discussing Fluorites

May - Jillian Kaufman will be giving a program about her Junior Naturalist after school program - Pebble Pups!

Tom noted there are sign-up sheets for the cases (22) and various volunteer jobs (ticket taker, security, set-up, clean-up, etc). The Grand Prize is a Trilobite from Russia.

Dealers are almost all paid for their spot.

If you have items for the silent auction, please bring to the next meeting (May 1st), or, to Tom's house, please call first. There is a 20 piece limit for the silent auction.

Upcoming shows:

Gemboree Gem & Mineral Show, Cuyahoga Falls, OH April 22nd & 22rd

Miami Valley Gem & Mineral Show, Troy, OH April 29th & 30th

Flyers for our show are on the back table.

Old Business - none.

New Business -

The will be a upcoming date for putting together kiddie grab bags for the show.

Skeeter noted that Flint Ridge will be held in Coshocton, Ohio this year for both the Memorial Day & Labor Day Holidays.

Jason noted the Richland County Park District has their first ever levy on the May 2nd ballot this year.

Personal Exhibits:

1. Kristin & Mark have pictures of their trip.
2. Kristin E brought a beautiful necklace of silver & enameling she designed.
3. Rob L & Troy brought some slabs for folks.
4. Kim B - Flint she wire wrapped.
5. Pat E - Fluorite chunk from Mexico.
6. Roger - brought pcs from AZ & NM.
7. Mike & Lawrence melted Bismuth which forms crystals.
8. Bob K - Scrapers & beads.
9. Joyce - Brought 2 seed books for free.
- 10.Carolynn K - Son, Ryan, bought her a Fossil Crab.

Door Prize: Kim Balliett won a Fluorite from Clay Center.

Meeting adjourned for refreshments & program on Fluorites by Jason L.

May 2023

Tom opened meeting & welcomed everyone to the MOM&FC annual potluck. Approximately 55 members & guests were in attendance. Joel Likins gave the blessing & the feast began with a variety of wonderful mouth watering tantalizing dishes from which to choose.

Reminders were given about signing up for various duties at our upcoming June show.

After our meal was finished, club member Jillian Kaufman gave a short, but very enlightening, program about how she has used materials donated from the club to educate her Junior Naturalist after school program - Pebble Pups!

Door Prize: Robin won a nice Calcite from Mexico.

Meeting adjourned, clean-up began, & well-fed members left the building.

June 2023

Tom opened meeting, minutes & treasurers reports for May were given.

Pam K gave a report on 6 & 12 month CD's.

Rob L stated the Kids Zone will be closed from 1-2pm only on Sunday for our show speaker.

Thursday June 8th is set-up tables & chairs for the show beginning at 4pm.

Friday June 9th is case set-up from 10am-8pm.

Dave G said there will be refreshments via the Fairground ladies.

Friday June 9th there will be show-case set-up food consisting of spaghetti, bread, salad & some desserts.

Tom announced there will be some new dealers. He also noted members may bring in consignment pieces for the silent auction, limit of 20 items/member.

Jason L noted the Facebook video regarding the show is trending nicely.

Joel Likins needs papers for the geode breaking. Tom K volunteered some left over bags.

Robin H wondered about doing a scavenger hunt during the speaker's discussion for the kids. This was a welcomed idea and she noted members might come up with a question that could be answered by the kids visiting the cases.

Skeeter said the Memorial Day Flint Ridge Knapp-in that was held in Coshocton went very well. They had 84 vendors at the Knapp-in.

Members decided to hold the July meeting on July 10th rather than July 3rd as some members will be traveling for the holiday weekend.

There will be a summer picnic at Monroe Falls on August 26th for their mineral/fossil club. Members from other clubs are welcome. Please bring a covered dish to share and a gift for bingo.

Jason Larson said with the passing of the Richland Park District Levy there will be exciting things happening. A bigger parking lot & better lighting outside were two items mentioned.

Door Prize was won by Bonnie Wilson - a Tiger Eye carving of a lizard.

Meeting adjourned for refreshments followed by a mini silent auction.

Don't Forget to Check Out our Website for Club Information
www.rlls.webs.com



The Lithnics

If you have any club news, articles you would like share with members, updates on your committee, etc. please email info to:

Bryan Summer – bryansummer1@gmail.com

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