

# Wayne County Gem and Mineral Club News

January, 2021

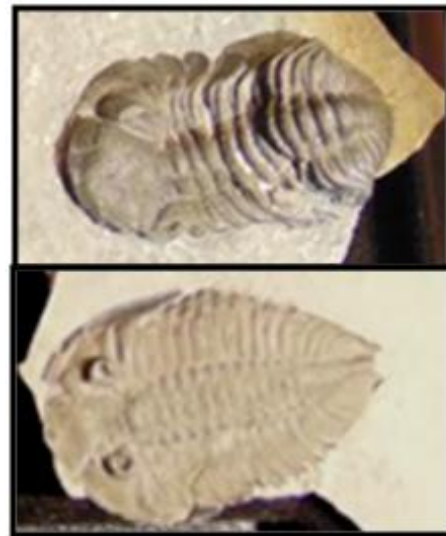
Always Looking for Places to Dig!



See Heidi's story (page 3)



<http://www.wcgmc.org>  
**FACEBOOK link**



Trilobites (page 7)

## Upcoming WCGMC Workshops

**January 16<sup>th</sup>,  
February 13<sup>th</sup> & 27<sup>th</sup>**

***We have scheduled 3 workshops during the first two months of 2021. As in the final months of 2020, we will limit attendance to allow for social distancing Call Linda Schmidtgall to reserve a spot.***

When: 10:00 AM until mid-afternoon

Where: The Weiler's Barn /Club Workshop  
6676 E. Port Bay Rd, Wolcott, NY

Rules: Bring your own rocks.

**A mask must be worn when inside the shop.**

Training on equipment is available.

Eye protection is required.

\$5/adult to offset maintenance costs.

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It remains unclear when we can resume our monthly meetings in Newark. We will not meet in January or February for sure.

## **A big thank you to the contributors to this month's newsletter**

Heidi Morgenstern shares her life-long love of rocks, a story most of us can certainly relate to. Jim Reinhardt continues the ongoing saga on iron mining and hematite in Wayne County with his successful effort to make red barn paint and use it to "paint a barn". Stephen Mayer shares some of his favorite fossils with us. Yep, you guessed it. They are trilobites.

And I'd also like to thank Kate Clover and Leo Kenney for allowing us to share stories and photographs from their 2021 Splendid Sands Calendar. We'll do that all year and learn about some unusual sand grains and the exotic places where they were obtained.

So, who out there can contribute next month? Just send me your thoughts or a picture or two. Your fellow rockhounds would love to see the geology on your bookcase or mantle. It can be something you have collected, purchased, created, or even something you saw and wished you had. Who knows, someone might just have an extra one for you!

*Fred*



## President's Message

Linda Schmidtgal



Finally, 2020 is history and a new year has arrived. Soon we can get back to meeting and rockhounding and everything else we enjoy about this hobby. Or so I hope.

Given my eternal optimism, I am in a good mood. Therefore, I am going to extend my offer of last month into January. Anyone who sends me an e-mail ([lees@tds.net](mailto:lees@tds.net)) any time in January will receive a WCGMC gift whenever we do meet again. The new deadline is Groundhog Day, February 2<sup>nd</sup>. After all that is when we learn when winter will end and when the rock collecting season can begin. We can call it the New Christmas. If there has to be a new normal, then there can be a New Christmas!



**New rocks for the club! See anything you like?**

We were fortunate this fall to acquire a new collection. Fred went to an estate sale and came back with three boxes containing a diverse set of rocks and minerals that can (and will) be used as gifts, door prizes at future meetings, and at our highly anticipated auction events. It is always nice to have something new and different. Now we just need to be able to meet so we can share them.

*Linda*

## WCGMC December Workshop



**Fred**



**James**



**Teresa**

**Karen**



**Linda**



OK, no rocks in this picture, but your editor thought it was clever.





I love rocks. I have since I was a kid, collecting along the shoreline of Lake Ontario since I was very young. I was forever searching for the special shape or color or combination of colors. I would bring home paint buckets full of stones and sort them. My parents thought I was crazy, but I guess they got used to it. My grandmother encouraged me to try to learn about what I had collected.

Then, I grew up, and went to college. I took a geology course and also archeology and I enjoyed them both, but life went a different direction for a while. But a few years ago, when Tristan and Lorna were old enough, I sought out a rock club. I found WCGMC with a google search and immediately fell in love with the group and the activities. I was excited to go on trips to the Adirondacks with friends who enjoyed rocks as much as I did. I only wish I could go on more of the longer trips. But I can and do attend the workshops and the meetings. I listen and learn at every one of them.

So what have I learned? Well first, I never knew that those red spots in many of the rocks on Lake Ontario were garnet and that those rocks were carried to New York by glaciers. I learned that they are metamorphic rocks and that they are even prettier when they are cut and polished. I knew what a fossil was, but I sure did not know that the long straight ones in the gray rocks were cephalopods. Now, I am always on the lookout for those while walking the beach. Imagine that, 400 million year old squids.

At my first workshop visit back in 2018, I was fascinated by all the polished spheres laying around the room. Glenn Weiler told me to find a rock I liked and he would help me make one. I searched through all my lake stones and picked out the one with the most and biggest garnets. It took several visits to the workshop, and I am indebted to Glenn for helping me all along the way, but now I have a sphere from a rock I collected. Imagine my feeling

when I entered it into the 2019 club contest and actually won "Best Mineral/Rock from New York!"

**WCGMC 2019  
Best Mineral/Rock  
from New York State**

**Heidi Morgenstern**

polished garnet gneiss  
sphere is ~3" in diameter



Recently I moved on to green rocks. One day, I found several and with my growing knowledge of minerals I wondered if they might be olivine, epidote, or serpentine, or even something else. Fred Haynes told me olivine was very unlikely along Lake Ontario and that epidote was most likely. He saw them at a workshop this fall and confirmed that all are likely epidote. I particularly like the small one above the clothespin where it appears that the epidote in melted and folded into the stone like batter. Fred tells me that is a product of the metamorphism that generated the epidote. I now want a green sphere to go with my red one.



**Green Rocks from Lake Ontario shoreline**

Yes, I enjoy every aspect of our club and am so glad I found WCGMC. Everyone is so friendly and there is so much knowledge coming from such a diverse group of people. I can't wait for this pandemic to end so we can meet regularly again and go on field trips. I will probably have several paint buckets of rocks to show and share and learn about when we do.

**Editor's note:** The picture in the title box is from 2019. Since returning to the workshop in October, we all wear masks 100% of the time in the workshop

## Hematite-based Paint by Jim Rienhardt

The recent WCGMC articles by Glenn Weiler on the iron foundry adjacent to this home in Wolcott ([October 2020](#)) and Fred's article on the local paint factory ([December, 2020](#)) inspired me to obtain some of the red hematite powder from the mill in Ontario, New York. I began learning to paint in April of 2019 and have, even before then, had an interest in the pigments of paint and how paints were made.

I figured that this was my chance to test making paint from a local pigment. Until reading the recent articles and doing a little research of my own I was not aware of the iron mining history in Wayne County. I never would have guessed that iron discovered in 1811 caused forges such as the one in Wolcott to spring up across Wayne County ([Wayne County Times, October 2013](#)). Unfortunately, richer ores and larger ore bodies were found elsewhere and the mines were closed later in the 19<sup>th</sup> century.

But, early in the 1900s, hematite mining was revived in the region when it was discovered that powdered hematite could be used as a paint pigment when mixed with linseed oil. Mixing the iron oxide mineral with other materials produces the bright red paint used on barns. The paint mill was successful until synthetic pigments were developed that could be produced more economically. The mill in Ontario closed and the open pits were filled with water. One of these is now the long linear lake at Casey Park.



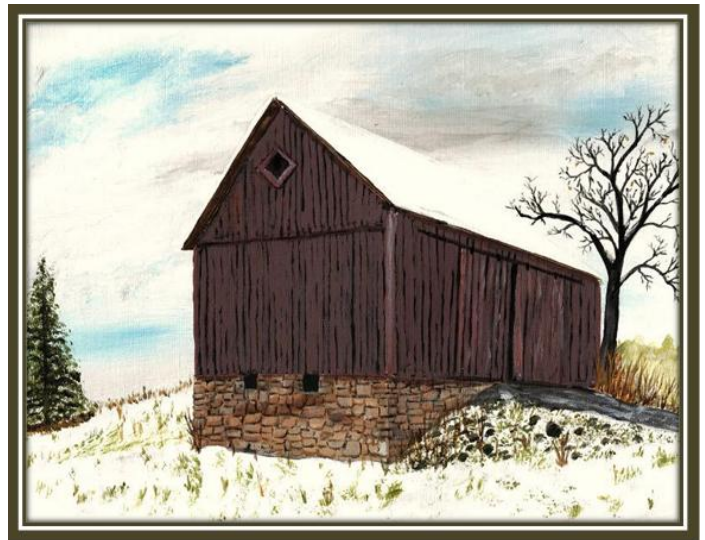
I wanted to see what would happen when I tried to use the iron powder to make a paint. The raw powder (left) is a dark red brown color. Adding water brightens it somewhat, but not much.

The results of several experiments I tried are shown at the top of the next column. I added clay which made the paint slightly more red and then varied the amount of water. While these are all pleasing earth colors, none of them produced a bright red barn paint. I also tested the iron mixed with some binders, Gum Arabic, Polyurethane, and Acrylic Titanium White.



**Paint Experiments:** 1-Clay + water, 2-Hematite + water, 3-Hematite and Clay + water 2:1, 4-Hematite + water, 5-Hematite and Clay + water 1:1

Once I determined that the hematite powder and Gum Arabic mixture produced a usable paint, I decided that I should try to paint a barn: or should I say make a painting of a barn.

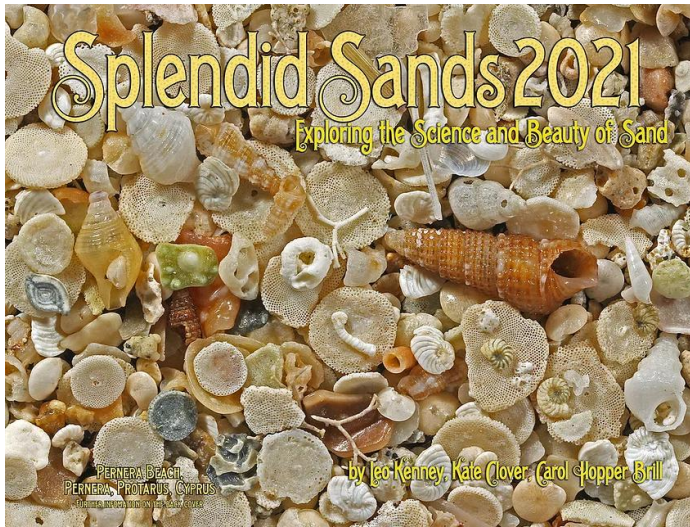


**My wintry barn painting is 12" by 9".** The barn boards of the painting are the iron pigment, which comes out a nice brown with a reddish tint. In the right light the barn shows a metallic sheen and looks more gray.

There is one paint manufacturer in upstate New York that I know of in New Berlin. Golden Artist Colors, Inc produces oils, water colors and acrylics. There is also at least one specialized artist paint manufacturer in New York City, which is Guerra Paint. It would be interesting to visit these places someday and see the process. There are also videos on YouTube on making your own pigments from natural materials: just Google search for "making paint pigments".



## The WCGMC Sand Page



I plan to do something different this year with the WCGMC “Sand Page”. The page will feature the “sand of the month” from the Splendid Sands calendar (cover pictured above) that Leo Kenney, Kate Clover, and Carol Hopper Brill have published since 2008. The picture and the following descriptive material are from their colorful and educational calendar.

### Splendid Sands, January 2021 Dr. Von D. Mizell-Eula Johnson State Park, Dania Beach, Florida



Photo by Leo Kenney

At the end of the 1800s, several Chicago families of Danish descent became the city’s first residents, and they named it Dania Beach. Just north of Hollywood on Florida’s Atlantic Coast, this town’s attractions

include casinos, the International Billfish Association’s headquarters, and a 310-acre State Park. The park is named for two civil war rights activists who fought to establish the beach for African-Americans, then to desegregate county beaches in the 1950s and 1960s. Part of the long, thin barrier island, the park represents the last undeveloped coastal ecosystem in the county.

Offshore are sandy shallows and three reef systems at ~300 yards off, nearly half-mile, and over two miles out. Beach contents are mostly dredged material from Pleistocene sources offshore. Biogenic grains include forams, coralline algae, sandy worm tubes, barnacles, micromolluscs, and interesting button-like bryozoans (see top and bottom views, lower center). Background grains are tiny quartz grains.

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The authors of the Splendid Sands calendar state on their webpage that they are:

*“educators with scientific backgrounds and a curiosity for the natural world. We enjoy collecting sand, analyzing the bits within, and sharing our art and discoveries.*

*For twelve years, we have collaborated to write and photograph an annual sand calendar. Individually or together, we have led workshops, written papers and books, illustrated posters, textbooks and articles and traded a lot of sand with friends around the world.”*

Anyone interested can order their own Splendid Sands Calendar for 2021 by visiting [SplendidSands.com](http://SplendidSands.com)

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The sand on the cover of the calendar (upper left) is from Perner Beach, Protarus, Cyprus, a resort at the southeast corner of the Mediterranean island nation. Although the island is comprised of mountains of tectonic origin, the beaches are dominated by biogenic grains. The flattened disc-shaped grains are *Amphisorus* foraminifera. There are delicate branching coralline algae grains, multiple species of gastropod micromolluscs, and echinoderm remains from sea urchins.

*How many different species can you find in these two biogenic components from two very different locations?*



## Peanut Wood

by Fred Haynes



Peanut wood from Western Australia

The polished slabs Linda brought to raffle off to participants at the October workshop (above) are called peanut wood, but they actually have nothing to do with peanuts. Yes, they are petrified wood, so that part is correct, but the white-cream ovoid-shaped markings inside the wood have a rather unique origin.

The wood is generally from conifer trees that were carried by rivers into a shallow near-continental sea off of western Australia some 100-120 million years ago, arriving there as larger pieces of driftwood. Nothing particularly unusual yet, but then things got interesting. At that time, there was a marine clam in the Australian marine waters that liked to eat wood. The clam larva would attach themselves to the driftwood and start munching. As the clams grew they developed sharp valves that they could use to shave off small pieces of wood, eventually excavating chambers inside the wood that, you guessed it, are shaped like peanuts.

But a water-saturated log with holes isn't enough to generate an attractive hard rock like peanut wood. A second biologically-driven event is needed. Radiolarians are tiny planktonic organisms that secrete a siliceous shell. These protozoan organisms

were living in the seawater above the decaying logs. In addition to delivering the logs to the delta region, the rivers delivered a constant supply of the nutrients that radiolarians require. A perfect storm, you might say, for creating peanut wood. When the tiny protozoans died their siliceous shells accumulated as a white sediment known as radiolarian ooze. Some of this entered the holes in the wood, filling them with a siliceous paste on the seafloor.

The final step towards generating the attractive lapidary stone is to bury the logs and convert them into petrified wood. The presence of all the silica provided by the radiolaria helped to stabilize chalcedony and enable silicification of the remaining wood. Uplift since the Cretaceous has brought the Cretaceous rocks hosting the petrified wood to the surface in the Kennedy Mts., which are now 100 miles inland in western Australia.



**There are modern equivalents to those Cretaceous wood-eating clams.** They are universally hated by ship-builders as they will eat and destroy any wood that man places in sea water. They are often called shipworms as the long and slender body protected by the razor sharp shell is worm-shaped



**In the Philippines, modern shipworms are called tamilok and they are eaten as a delicacy, often raw and marinated in vinegar or lime juice.**

### References:

King, H.M., [Peanut Wood](#), Geology.com

various Wikipedia sites: Radiolarian, Tamilok, shipworms

## The Salt Mine is Ready: Are You?

The All-American Salt Mine in Mount Morris, New York is the largest producing salt mine in the United States. Opened in 1997, the mine is now capable of producing between 10,000 and 18,000 tons of rock salt each and every day. This salt is distributed to over 15 states throughout the northeast for use on highways. The New York Thruway Authority uses about 180,000 tons of All-American Mine salt each year which they store in 38 salt bins strategically located along the 496 miles of roadway.


The salt is from the Upper Silurian (415 million year old) Salina Group. Currently the mine extends some 16 square miles underground around the central shaft reaching depths of over 1200 feet. Salt reserves are estimated at over 200 million tons.



**All-American Salt Mine:** This picture was taken on November 1, 2020 when over 600,000 tons of road salt were stacked and ready to be distributed by truck and by train throughout the northeast.

from *ILoveTheFingerLakes.com* Facebook page  
Drone Photo by John Kucko

For more on the salt mining history and unique geology of western New York salt deposits, check out the [January 2015 WCGMC newsletter](#).



These are all New York State trilobites that Stephen Mayer has collected over the past few decades. Stephen has just recently been fully prepping his collection with an air abrasive unit.

A-D, K-M and P-V are all *Eldredgeops rana*  
 E- *Bellacartwrightia* sp.  
 F, G- *Monodechenella macrocephala*  
 H - *Pseudodechenella rowi*  
 I, N - *Triarthrus eatoni*  
 J - *Greenops boothi*  
 O - *Dalmanites limulurus*



## Wayne County Gem & Mineral Contacts

### ELECTED OFFICERS

President - Linda Schmitdgall  
[lees\(at\)tds.net](mailto:lees(at)tds.net) 315-365-2448  
Vice-President - Fred Haynes  
[fredmhaynes55\(at\)gmail.com](mailto:fredmhaynes55(at)gmail.com) 585-203-1733  
Secretary - Debbie Breeze  
Treasurer - Bill Lesniak

### Board of Directors

Gary Thomas  
Bob Linderbery  
Heidi Morgenstern  
James Keeler

Past President - Glenn Weiler

Visit us on Facebook:

<https://www.facebook.com/groups/1675855046010058/>

### APPOINTED POSITIONS

Bill Chapman – Field Trip Chair

Fred Haynes – Newsletter Editor  
[fredmhaynes55\(at\)gmail.com](mailto:fredmhaynes55(at)gmail.com)

Bill Lesniak – Website Coordinator  
Glenn Weiler – Workshop Coordinator

Linda Schmitdgall – Collection Curator  
Eric Elias: GEMFEST Show Chair

Fred Haynes – Facebook Administrator  
Jim Rienhardt – Sand Chapter

Club meets 2<sup>nd</sup> Friday of each month starting in Sept.  
Social meeting at 6:30 PM Regular meeting at 7:00 PM  
Park Presbyterian Church, Maple Court, Newark, NY

Website – <http://www.wcgmc.org/>

Dues are only \$15 individual or \$20 family for a full season  
of fun. Renewal is in October. Send to:

**WCGMC, P.O. Box 4, Newark, NY 14513**

