

October 2022



OCMS SHALE MAIL



**Join us at Sterling Hill! Saturday
October 15th, 2022 at 10:00 am!**

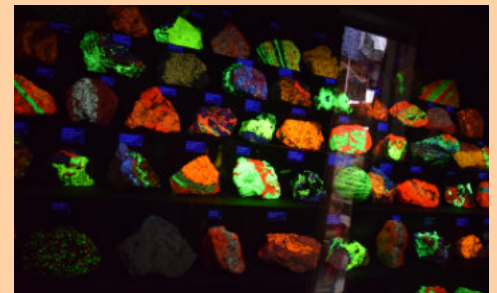
See you at:

30 Plant St, Ogdensburg, NJ 07439

[CLICK FOR MAP](#)

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2022 Calendar

Oct 15-Saturday Sterling Hill Museum, Ogdensburg NJ.

Nov 11-Meeting, Senior Center

Dec 09-Meeting, Holiday, Pot Luck Dinner & Mineral Chinese Auction.

Mailing Address:

254 Rt. 17K, Suite 204, Newburgh, NY 12550-8300

President's Message & Minutes of the Meeting!

By: Mike Tedford

Meeting, field trip with collecting, business meeting and mine tour in October!

Welcome OCMSNY members to our special October 15th live meeting at [Sterling Hill Mine and Museum](#) combined with optional collecting specimens and an optional mine tour. The business meeting will be free and take place at the museum from 12 - 12:30 pm. Bring your lunch to this meeting. There are snacks and drinks for purchase there.



OCMSNY members voted at our September meeting to pay the members admission fees to the collecting and tour. OCMS will pay the members admission fee for the collecting at the mine grounds

to start at 10 am, prior to the business meeting. The \$2.00 per pound collecting fee (5 pound minimum) will be paid by the member. OCMS will pay the mine tour fee for the members. Our tour will leave the business meeting promptly by 12:30 pm to begin our private special tour ahead of the regularly scheduled tours.

Thank you to Gary Kerstanski who arranged this combination event at Sterling Hill. He spoke about the site, facilities and events and answered questions quite extensively at our rock barbecue in September. Also worthy of mention is that ultraviolet lamps are present at the collection sites and also for sale in the shop there at [The Sterling Hill Mining Museum](#). Our previous speakers, Alex Kerstanski, Doug Francisco and Ken Daubert might also be there.

Thanks to all the OCMSNY members who joined in the rock barbecue at the Chester Pavilion. We enjoyed sharing some wonderful potluck dishes in addition to the OCMS sponsored eggplant parmesan, burgers, hot dogs, sausage and peppers.

Past predicts future!

Liquid water is the key ingredient to life itself, it is the genesis of the formation of stalagmite and stalactites. This surface water runs through organic material dissolving carbon dioxide along the way, creating a weak carbonic acid.



Water percolates through the limestone roof of the cave collecting carbon dioxide and other minerals along the way. The liquid water carries this dissolved calcite through the cave roof, however, once this calcium bicarbonate is exposed to the air in the cave some of it returns to calcium carbonate. As this calcite forms around the crack, the solution trickles through the roof creating a slow precipitation, leaving calcite behind, this forms thin hollow tubes called soda straws.

Over time water flows along the outer edges of these soda straws dropping calcite along the way creating the icicle shape of a stalactite. Very slowly the stalactite will widen and grow at a rate of about one quarter inch to one inch every century. Stalactites and stalagmites are usually found in pairs, why? Because stalagmites are usually created by the drip of the stalactite although they have on occasion been created from other objects as well. As water drips off the stalactite it deposits calcium in a mound on the floor. Eventually, creating a cone like shape. Stalagmites grow up from the floor and can be narrow, wide, tall or short. They can grow right up to the ceiling and can even connect to the bottom of the stalactite above and the two of them together can become an extraordinary natural pillar.

Past predicts future - Cont.



Stalagmites and stalactites are so closely related that it's hard to remember which is which so, I have found an easy way to differentiate the pair. Stalac**t**ites hold **t**ight to the ceiling whereas, stalag**m**ites **m**ight grow up to the ceiling.

Limestone caves are mainly composed of calcite. Calcite is a common mineral found in sedimentary rocks which connect directly to the formation of growth rings. In the same manner that the layers in sedimentary rocks are formed the growth rings are formed in stalactites and stalagmites. In stalactites these growth rings are less prominent due to the run off of the water, However, when the drips fall onto the stalagmites the impact degases the water and lessens the acid which accelerate the precipitation of the calcium carbonate. Therefore stalagmites contain more pronounced growth rings.

Each year a new growth ring will appear as climatic changes affect their growth rate. For example in years with an abundance of rain or snow the ring will be larger whereas, a year of drought will create a much smaller ring. In the past these growth rings were treated like tree rings. Stalagmites were cut into cross sections exposing the rings which researchers would then count to de-

termine their age.

Illustration by Michael Payne



However, with our scientific community always making improvements, a new technique was developed in the 1990's. This Uranium-Thorium Radiometric Technique uses the ratio of uranium 234 to thorium, 230 to determine a very accurate age within a few hundred years. To calculate the stalagmites age using this method the ratio of uranium 234 must be calculated to its parent isotope uranium 238 as well.

Each annual growth ring can shed some light on historic local environmental conditions for a particular year. These rings can tell the tales of paleoclimatic events such as severe drought and floods. So, by continuing to advance the techniques in this field and by studying the environmental changes of the past our researchers may one day be able to predict future environmental events. Such as, what is causing our climatic changes and how long will it last? By predicting future regional climatic changes they may one day be able to modify them creating a better environment for all.

October meeting at Sterling Hill!

^{ib} Having a dig in lieu of a meeting what could be better than that!

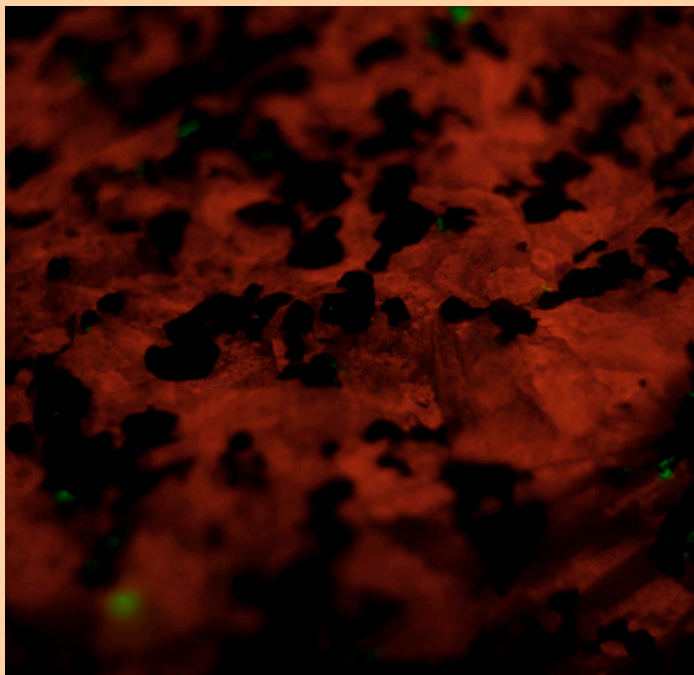
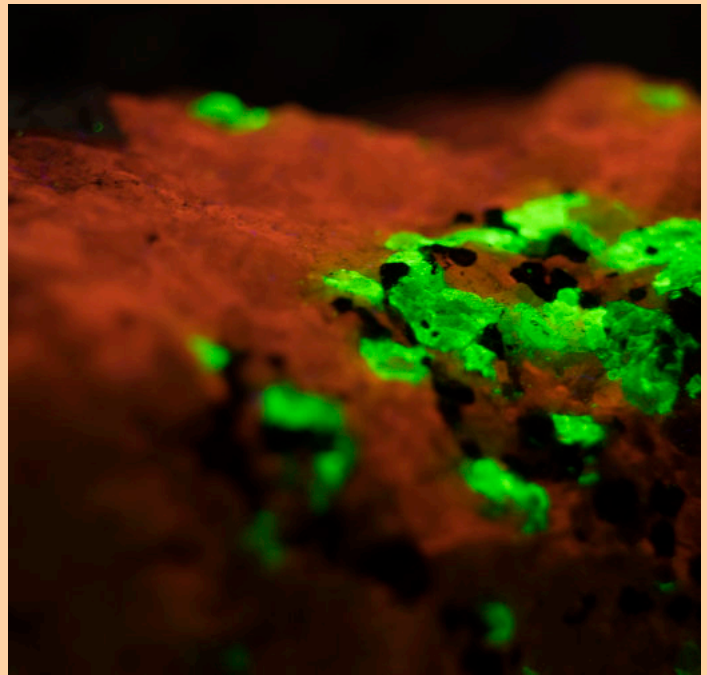
Mark your Calendars!

This special event will take place on Saturday, October 15th with a rain date of Sunday October 16th. **There will be no meeting Friday, October 14th.**

There are **costs** associated with this very special meeting but they promise to be well worth it.

The dig will start at 10:00 AM followed by lunch. You may want to bring a lunch they do serve hot dogs and chips etc. at the lunch room at Sterling Hill.

You can participate in the dig without going on the tour and vice versa. However, we do need 15 people for the tour. For all those who are interested in attending the tour please contact Gary Kerstanski. His contact email is on the last page of this newsletter.



The Fees involved are:

- **Tour Costs:**
 - Adult 13 - 64 \$ 13.00
 - Senior 65+ \$ 12.00
 - Child 4 - 12 \$ 10.00
- **Dig Costs:**
 - Per Person \$ 5.00
 - Per lb rock \$ 2.00

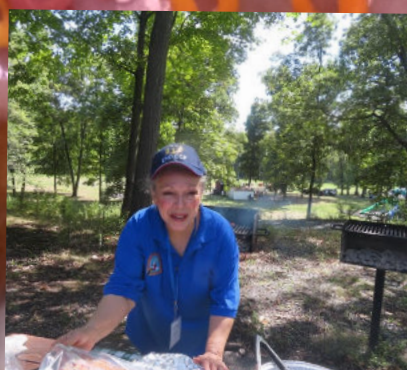
(With a 5 lb minimum)

For more information check out the website at: sterlinghillminingmuseum.org

ROCK BBQ - COLLAGE!



ROCK BBQ - COLLAGE!



OCMS members are covered by Society-sponsored insurance.

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