# Wayne County Gem and Mineral Club News

January, 2015

Always Looking for Places to Dig!





Linda Schmidtgall assists Cheyenne Daniels as she polishes an agate slab at the December club workshop (see page 6 for more pictures).



Website http://www.wcgmc.org/





WCGMC Holiday Party: food, fun and minerals for all (see page ).

### **Upcoming Events**

### Club Meeting, Friday January 9<sup>th</sup> 7 PM

Park Presbyterian Church, Maple Court, Newark, NY

### Program by Stephen Mayer

"Stratigraphy and Paleontology of the Jaycox Shale Member, Hamilton Group of the Finger Lakes Region of New York State"

**Abstract**: Everyone that has ever found a fossil has felt the excitement of seeing an ancient creature that once lived on planet Earth. Moreover some may even know that New York State has some of the best Devonian rocks and fossils in the world. But what makes it so special. The presentation will start by looking at the regional geology of the area as well as site specific localities in NY. This will be followed by studying some significant fossils of the Jaycox Shale Member which facilitated detailed correlations of specific units across western and central New York. Finally we will discuss some paleoecological interpretations of the environment that existed 385 million years ago in western New York.

A GemFest show committee meeting will precede the club meeting on January 9<sup>th</sup>. If you are interested in helping join us at 6 PM in the church meeting room.



### Club Workshop, Saturday. Jan. 10<sup>th</sup>

The club has established a workshop combining equipment previously owned with new equipment donated during the summer of 2014. We held a trial event in December for members present at the November club meeting (see page 6). This next workshop is open to paid club members.

When: 10:00 AM til mid afternoon, Sat. Jan. 10<sup>th</sup> Where: "The Weiler's Barn and Workshop 6676 E. Port Bay Rd, Wolcott, NY

Rules: BYOR (Bring your own rocks) to saw, grind, polish or even facet). Training on equipment is available. Eye protection is recommended.

### Club Meeting, Friday February 13<sup>th</sup>, 7 PM

Presbyterian Church, Maple Court, Newark, NY

### Program by Fred Haynes

"WCGMC field trips and events of 2014, A Review in Pictures" If you attended any trips in 2014 come see yourself or the minerals/fossils you collected. If you did not attend any 2014 trips or events come see what you missed!

WINTER WEATHER: An e-mail note will be sent to members if a Friday meeting must be cancelled. Or call Bill Lesniak (315-483-8061), Fred Haynes (585-203-1733) or Glenn Weiler (315-594-8478)





Plenty of desserts!

Wayne County Gem & Mineral Club Gem Fest 2015 Sat. June 6 10-5 Sun. June 7 10-4

#### **NEW LOCATION**

Greater Canandaigua Civic Center 250 N. Bloomfield Rd, Canandaigua

Soapstone Carving, Wire Wrapping, Sluice Vendors, Exhibits, Free Prizes, and much more

UV Bob's Ultraviolet Show

Gems, Minerals, Fossils, Beads & Jewelry

visit http://www.wcgmc.org/ for details

WCGMCHoliday Party: December 12<sup>th</sup>

42 members sharing an evening of food, friendship and minerals. And didn't Linda do an excellent job wrapping up all those gifts and preparing a little game for us to enjoy once our tummies were full.

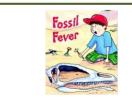


Two avid mineral collectors hired a pilot to fly them into the outback where exceptionally large garnets had been found. They were very successful in their venture and had 20 buckets full of garnets when the pilot returned 4 days later as scheduled. They started loading their gear into the plane, including the twenty buckets. But the pilot objected and he said, "The plane can only take ten of those buckets; you will have to leave the rest behind."

They argued with him; the year before they had filled 20 buckets and the pilot had allowed them to put all aboard. The plane was the same model and capacity. Reluctantly, the pilot finally permitted them to put all the buckets aboard. But when they attempted to take off and leave the valley, the little plane could not make it and they crashed into the wilderness.

Climbing out of the wreckage, one collector said to the other, "Do you know where we are?"

"I think so," replied the other collector. "I think this is about the same place where we crashed last year."

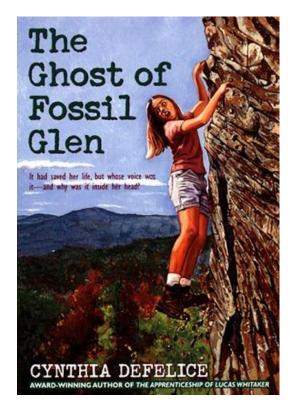


Fossil Fodder by Fred Haynes



### Winter Reading

The cold has arrived and the snow has covered our favorite collecting sites, but that does not mean that we cannot read about them. There are even novels written about some of the fossil-rich sites in western New York. In this case, a children's novel, set in the prized fossil location, Kashong Glen.



Cynthia DeFelice, a nationally known writer of children's books, attended William Smith College in Geneva and never left the area. She was a school librarian in our club's home town of Newark in the 1980's and now claims she does most of her writing from a second floor room in her home in Geneva overlooking Seneca Lake. She has authored over 30 children's books including a series of ghost stories featuring Allie Nichols, who is a 6<sup>th</sup> grader when she encounters a ghost in Kashong Glen near her home. About "<u>The Ghost of Fossil Glen</u>", and from the author's website: "I loved reading ghost stories when I was a kid – and I still do. So I thought it might be fun to write one. I was inspired by a place right near my house in Upstate New York called Kashong Glen. It is a beautiful and mysterious place, perfect as the setting for a ghost story. It can be dangerous too: a stream runs through the center of it, surrounded by steep, high cliffs that contain fossils of ancient marine creatures."

In the opening scene, Allie Nichols is exploring Fossil Glen (aka. Kashong Glen) when she discovers a complete trilobite, a beauty, the prize specimen of her collection. Yep, we have all been there, haven't we? But then she is stuck on a cliff face above the falls and cannot get down. Maybe some of us have been there also? Just when things get scary, she is assisted by a ghost (I guess I have not been there yet), and the theme of the book is born. The story revisits the creek and glen on several occasions and also has a scene in the local cemetery, presumably the small cemetery along Kashong Rd. north of the creek.

For all you aspiring readers, the book seems to be available at most of the area libraries and can also be purchased inexpensively online. You don't have to be a preteen to enjoy it. Trust me!



The Upper Falls in Kashong Glen is capped by the Menteth Formation of the Moscow Formation. Fossils can be found in both the Deep Run Member behind and beneath the falls and in the Kashong Member above the falls.

Kashong Creek and its waterfalls are on private property, multiple owners in fact, if one is to access the location from either the top of the bottom. Permission to collect on the privately owned drainages into the Finger Lakes is required, and unfortunately, not always obtainable.



# SITE OF THE MONTH

# **Hampton Corners Mine**

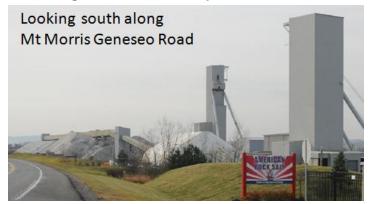
### The Salt of the Earth By Fred Haynes

This month we will talk about a local mineral location, but not a collector site. It is in our backyard. Well perhaps more appropriately, it is in our cellar. The rocks and the minerals it contains do not crop out, but they are everywhere. And none of us could live without them.

OK, admit it, you have not heard of the Hampton Corners Mine? But maybe you know where the largest salt mine in the United States is located? Yes, it is the Hampton Corners Mine, and it is near that blue dot on the map of New York. You drive by it just outside Mt. Morris if you are headed to, or from, Rochester on 390. For a moment when you drive past you may even wonder what they do in that strange looking building just east of the highway.



Two views of the Hampton Corners Mine. Above: looking east across 390, with the shafts to the left and the stockpiled salt to the right. Below: the shafts are in the foreground and the stockpiles are behind.



The Hampton Corners salt mine was opened by American Rock Salt in 1998 to replace the flooded Retsof Mine of Livingston County just 6 miles north. After over 100 years of continuous mining, the catastrophic 1994 flooding event in the Retsof Mine left the region with a demand for low cost road salt, but no local source. American Rock Salt stepped into that void as local businessmen purchased the property near Mt. Morris and established a new mine. In fact they established the only new salt mine in the United States in the last 40 years.

With production levels exceeding 15,000 tons/day, American Rock Salt's mine in Mt. Morris is the largest producing salt mine in the United States. The mine provides 50% of the road salt required for New York roads and supplies 12 other states in the northeastern United States as well. At those production rates, there is enough known resource for the mine to remain active for over 80 years.

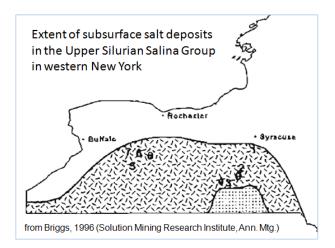
The salt units of the southern tier region of New York State are Upper Silurian in age, and were deposited in a large intercontinental sea during arid times some 415 Million years ago. Similar seas in the areas of Michigan and from Ohio to Indiana lead to similar deposits in those areas. One salt unit beneath Detroit is more than a kilometer thick. A cyclic process of seawater influx into these landlocked seas and subsequent evaporation led to the development of thick evaporate sequences. The closest modern analog may be the Dead Sea in Israel, where restricted circulation in an arid environment generates a hypersaline seaway with salt deposition in the lower parts of the basin.



Halite (NaCl) from the American Rock Salt mine in Mt. Morris. Specimen is about 4" across.

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In New York, thick Upper Silurian salt extends from the northern end of the Finger Lakes to the Pennsylvania border. Because the Paleozoic units in western New York dip south gently, the unit is closest to the surface near its northern extent (~500' below in Livingston County) and deepest (~4000' below the surface) near the Pennsylvania border (see section at the base of this page).



Naturally the shallower locations provide better economics for mining. It is interesting to note that while the bedded salt deposits of New York are thinner than the massive salt deposits in the Gulf of Mexico region they are much more laterally continuous and easier to follow and mine. Halite was the principal mineral deposited in the Upper Silurian Salina Group deposit. With little impurity present to lessen its effect in reducing the freezing point of water, it is an excellent source of road salt.

There are two very different mining methods for salt, conventional mining and solution mining. American Rock Salt deploys conventional mining where the salt is removed as a rock. However, unlike most underground mining operations, the crushing at the

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SUBSURFACE

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TOP OF MAIN SALT BED

Retsof Mine" ON TARIO

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Hampton Corners Mine is done underground and the final product is sent up the shaft on a conveyor belt where it can be either bagged or immediately loaded onto trucks for delivery to salt bins throughout the northeast.



Miners work in the room and pillar mining method deployed in conventional salt mining at Hampton Corners. The rock that has been removed here is generally 95% halite. A sufficient number of pillars (see right) are left to hold the mine open.

In solution mining, a liquid is pumped into the base of a water soluble salt-bearing formation and the resultant brine is extracted and the salt is recovered at the surface by evaporation. Most salts used in foods and in other applications where purity is required are recovered by solution mining. Solution mining is currently deployed at five locations in Schuyler and Wyoming Counties in New York.

#### References:

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SCHUYLER

Alling, H.L., 1928, The Geology and Origin of the Silurian Salt of New York State, NTSMB Bulletin #275.

American Rock Salt, 2014, website at www.americanrocksalt.com

**Briggs, P.S., 1996**, Salt Mining in New York, Solution Mining Research Institute Mtg. paper, 13 p.

Figure 14 from Alling, 1928 Note all the salt operations active at the time.

Halite from the American Rock Salt Mine in Mt. Morris



### The Wayne County Club in action: When you cannot dig, you saw and polish !



From left to right: Gary, Ed, Ken and Sue work their rocks.



Cheyenne watches her turtle stone be cut. Glenn watches Cheyenne.



Sue and Bill prepare dop sticks.



Ed teaches Gary how to facet. In the background, Scott watches Glenn adjust a slab in the polisher.

Seventeen club members convened for a day of sawing, polishing, faceting, and camaraderie in December. If you have rocks you'd like to cut, polish or even pound on, or even if you don't, plan to join us for our next workshop on January 10<sup>th</sup>. The club thanks Glenn and Eva Jane Weiler for converting their barn in Wolcott into a rock and lapidary workshop. We now know where Glenn spends many of his winter evenings!



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amazonite



## **Albany Mineral Show**



Feb. 14-15 10AM-5PM <sup>\$5/day</sup> <12 free

New York State Museum 260 Madison Ave., Albany

<u>Co-Sponsored by:</u> Capital District Mineral Club New York Academy of Mineralogy

### Wayne County Gem & Mineral Contacts

Glenn Weiler - President gwexterior@gmail.com 315-594-8478 Jerry Donahue – VP <u>Chester145322@yahoo.com</u> 585-548-3200 Eva Jane Weiler - Secretary gwexterior@gmail.com 315-594-8478 Bill Lesniak - Treasurer/Webmaster Dirtman300@aol.com 315-483-8061 Board of Directors Ken Rowe gotrox88@localnet.com 315-331-1438 Susie Hoch smhrockfinder@rocketmail.com 585-794-7287 Linda Schmidtgall lees@tds.net 315-365-2448 Laurie Frey Lmcfaul328@aol.com 315-483-9894

Bill Chapman – Field Trip Chair	
batnpill@empacc.net	607-868-4649
Fred Haynes – Newsletter Editor	
fredmhaynes55@gmail.com	585-203-1733

Club meets 2<sup>nd</sup> Friday of each month starting in Sept. Mini-miner 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. Send to WCGMC, P. O. Box 4, Newark, NY 14513

First Class: Dated, Meetings & Time Valued





Wayne County Gem and Mineral Club P.O. Box 4 Newark, New York 14513