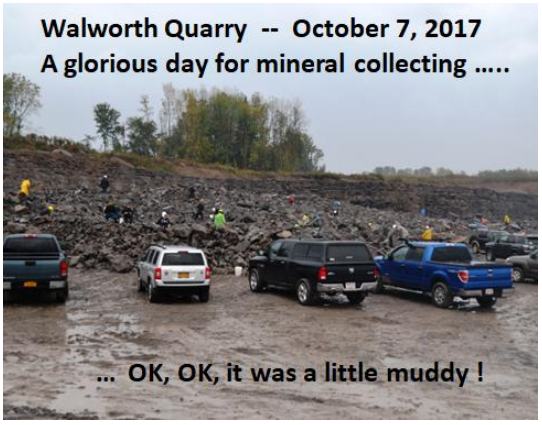
Wayne County Gem and Mineral Club News

November, 2017 **Always Looking for Places to Dig!**



October means Walworth fluorite. Did you get yours?

http://www.wcgmc.org/

FACEBOOK link

The free table at the October workshop had a couple dozen of Bill Lesniak's apples right alongside Glenn's wavellite!

Next Club Meeting
Friday November 10th, 7:00 PM

Presbyterian Church, Maple Court, Newark, NY

PROGRAM: IGNEOUS ROCKS

Igneous rocks are those "born from fire", from magma that crystallizes to rocks either on the Earth's surface (i.e. from lava) or while deep underground.
Extrusive igneous rocks form from magma at the surface: think volcanic rocks like basalt, rhyolite, obsidian and pumice. They can host agates, zeolites and many other minerals we like to seek.
Intrusive igneous rocks crystallize at great depths allowing larger crystals to grow: think rock names like granite, gabbro, anorthosite, and pegmatite. Lots of gems form in some intrusive igneous rocks and very large crystals can grow.

The club will bring some of its igneous rocks and minerals to share and discuss and we ask you to bring anything along that has an igneous origin and perhaps special meaning to you.

We will share a hot night with once hot rocks.

Dave Millis Teaches Mineral Cleaning

We were dealt a bit of a lemon when we learned in early October that our normal meeting site was not available for our October meeting. But like all successful organizations, we made lemonade. We thank Dave Millis, our speaker for the evening, for going along with our impromptu decision to hold the meeting in Linda Schmidtgall's garage. Of course, we thank Linda also.

Linda's garage provided a grand venue for our October meeting. It may appear that no one is paying attention to Dave, but actually everyone is looking at the piece he has just cleaned as it is projected to the right. Technology has arrived in Wayne County!

Dave Millis brought his dirty rocks, his chemicals, and his wisdom from multiple decades of cleaning rocks and minerals and demonstrated all his tips to us right there beside the club inventory. He showed us how to correctly use muriatic acid for carbonates and how to heat oxalic acid bath to remove iron staining from garnets (see below). He demonstrated trimming with chisels and with small picks. Lots of folks were taking notes.

Mineral Musings

By Fred Haynes

Once in a while I like to combine my two primary hobbies, philately (stamp collecting) and mineral collecting. This is "once in a while" version 2017. This summer I participated in two separate week-long trips to Ontario to collect minerals: once with the Niagara Peninsular Geological Society of St. Catharine's, Ontario and once on the annual Wayne County Gem and Mineral Club Canada trip. Now back home and with October baseball on TV, I decided to revisit my mineral finds and pictures from those trips and mix in a bit of philately. This first installment focuses on the historic mining district of Cobalt, Ontario, a site visited on both trips.

In 1978, the Canadian Postal Service honored the historic Cobalt Mining District with a stamp depicting air drilling in the hard rock that hosts the rich silver veins.

It was 1903 when silver was discovered by railroad workers some 500 kilometers north of Toronto. Just five years later the region around Cobalt, Ontario was the largest producer of silver and cobalt in the world and the population had swelled to over 7000. The district was suddenly at the center of Canada's economic growth. However, it was a short run in terms of major mining districts with production peaking at 30 million ounces of silver in 1911 and dropping to a trickle by the mid-1930s. In total the famous district yielded more than 600 million troy ounces of the precious metal.

Fast forward to 2017, when just over 1000 now call Cobalt home and tourism and fishing are the primary sources of income. Oh, the evidence of past mining remains ubiquitous from the mining museum in town to the literally hundreds of mine dumps scattered throughout the district. The former informs visitors of the rich history of the district and displays spectacular silver specimens. The latter attracts modern fortune hunters seeking that special silver piece that eluded the miners a century ago. I guess that is where I came in!

Native silver is hard to find on the dumps at Cobalt. But I did find a few specimens including the specimen above from the Lawton Mine dump which has been much improved by dissolving calcite that virtually obscured the silver. Native silver has not been featured on a Canada stamp, but the German Democratic Republic did feature wire silver from the famous Freiberg District in 1969. And in 1998, Norway featured minerals from the Kongsberg Silver District, another unique and famous district where native wire silver and cobalt/nickel arsenides are associated with calcite in hydrothermal veins.

The Norway stamps feature the characteristic wire form of silver on the domestic rate stamp and the arsenide mineral cobaltite on the foreign rate stamp.

Interestingly, the limited edition first day cover with these same stamps (shown on the next page) also includes a headframe and a commerorative coin featuring Rorøs, another famous Norwegian mining district. Rorøs is known as the copper capital of the Scandinavian country.

Commerorative first day cover honoring Norway's mineral heritage issued on June 18, 1998

The cobalt arsenide minerals (cobaltite, safflorite, etc) often oxidize at the surface to erthyrite. This cobalt arsenate mineral is easy to spot on the mine dumps and can signal underlying arsenide minerals with associated silver. It typically occurs only as a film or botryoidal coating on the Cobalt mine dumps, nothing like the fine purple-pink crystals found in drier arid regions. However, it was an important mineral for prospectors in Cobalt as its presence was a signal for silver nearby. The early miners called the pink/purple secondary mineral "cobalt bloom".

Erthyrite (pink) coats massive cobalt aresenides. These specimens were found at the Beaver Mine at Cobalt. The green mineral is annabergite, a nickel arsenate. Two countries have depicted crystalline erthyrite on stamps: Somalia in 1995 and the German Democratic Republic in 1969. The German piece is reported to be from Schneeberg, a silver-cobalt district that dates back to the 13th century!

Another thing we like to collect from the dumps in Cobalt is old drill core .Because many of the silver veins had limited exposure they were hard to find. The mineralized veins were best found by core drilling in the underground workings. Cores that did not penetrate vein material were simply discarded. Much of the host rock is a very dense diabase (or dolerite if you are British). The plagioclase laths and pyroxene in the mafic igneous rock are generally well interlocked and the cores generate wonderful ringing tones when suspended in air and struck. Afars and Issacs depicted diabase's texture when they issued a stamp depicting a thin section view.

Upper: Collecting drill cores on a mine dump in Cobalt. **Lower left:** A diabase drill core xylophone constructed from Cobalt cores. **Lower Right:** Afars & Issacs 1991 stamp depicts diabase (dolerite) as viewed in a thin section through the microscope.

Next time I decide to merge hobbies, perhaps I can focus on garnets, or fluorite, or maybe NY minerals!

Emeralds aplenty: This fine matrix piece weighs 794 pounds and was unearthed earlier this year at the Carnaiba Mine in Brazil. WCGMC is considering making a bid to buy this piece. We think it would be a nice attraction to have this "rock" on display near the entrance to GemFest 2018 next June. To date, we have collected ~~$27.45~~ $31.85 (thanks Bill) towards this effort. Experts predict the piece may fetch around 300 million dollars, so we probably need a bit more to be considered serious bidders. Or maybe they would accept some Herkimer diamonds in trade? If we cannot acquire this particular specimen, perhaps we can go to Brazil and collect our own? *Photo and news from GeologyIn.com, Sept. 29, 2017*

SITE OF THE MONTH:
MANHAN MINE, LOUDVILLE, MA
BY FRED HAYNES

Sometimes the history of a mining/mineral location can be as interesting as the mineral collecting itself. Loudville, and the Manhan Mine, is one such example. The mineralization at this historic location in western Massachusetts was discovered by Robert Lyman in 1678. When lead was first recovered two years later, the site became the first lead mine in North America. Lyman is said to have traded information on the location to Marshall Pynchon for one cow, and Pynchon worked the mine for about 20 years. It was during this time that the oxidized ore (with the prized pyromorphite and wulfenite) was thrown aside on the dumps. Only the primary sulfide ore, rich in galena, could be processed.

About 100 years later, at the end of the 18th century, the Manhan River mine site was reopened. This time much of the work was done under the leadership of Vermont patriot Ethan Allen of Fort Ticonderoga fame. The lead produced was used to cast bullets for George Washington's Continental Army. Yale chemistry professor Benjamin Silliman, for whom the mineral sillimanite is named, studied the property in 1810 describing the six to eight foot wide vein as "magnificent", both for its ore potential and for the "perfect and beautiful" crystals that could be found "among the rubbish of the dump" (Green and Marshall, 2015).

The mine was periodically worked for both lead and a small amount of silver during the first half of the 19th century, but the mine never reached the potential that was assigned to it by many who visited at that time. The last mining was in 1865, when the Manhan Silver Lead Mining Company filed for bankruptcy.

Today, the location is on conservation land, part of the Hartnet-Manhan Memorial Forest owned by the New England Forestry Foundation (NEFF). The ancient dumps can be found on both sides of the Manhan River and the locations where collecting is allowed are well marked. Upon entry, a large sign outlines the "rules" for collectors. I liked the number one rule, "be safe and have fun", it read.

Linda Schmidtgall and I visited the site on our reconnaissance of western Massachusetts locations in September. We spent time digging and collecting on both sides of the river, which, at that time, could be crossed on rocks without getting wet (my method) or by wading through ankle to knee deep water (Linda's method). The site is easy to find after a short walk downhill to the banks of the river.

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The Manhan River in Ludville, MA. Dump material is on both sides. You can see a bit of it on the right side of this picture in the sunlit area.

So how did we do? Well, the site is heavily collected and digging is required to find much of anything. But we did find significant galena with its brilliant metallic luster and distinctive cubic cleavage. Pieces were smallish and hosted mostly by massive quartz. They will make for nice teaching pieces and I will cherish my best pieces as representative of 17th century ore from my home state of Massachusetts. I actually grew up less than 20 miles from the Manhan Mine, although I was blissfully oblivious of its existence, much less its resource significance.

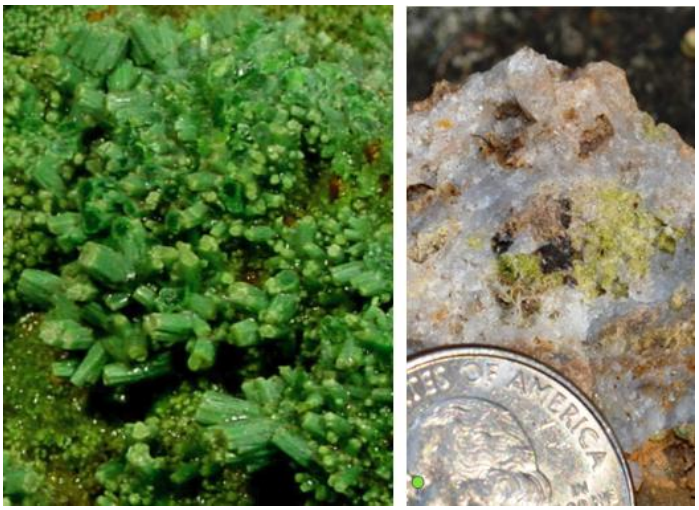
Galena (PbS) in quartz from the Manhan Mine dumps.

In addition to the galena we did encounter and collect several quartz points on matrix and numerous other quartz pieces that probably will be grab bag additions come next June at GemFest. I found one piece with small pyromorphite crystals (1-2mm set in a small vug) and Linda noticed several equally small

panes of wulfenite in a dirt-filled vug once she got home and started to clean. She wonders how many she broke during cleaning before noticing the tiny yellow wulfenites clinging to the base of the hole. The hole appeared cubic and might have been the site of a galena crystal before it was oxidized.

We did not find a prize to rival this one discovered in 1999, 6" across and covered with wonderful pyromorphite crystals. *photo from Green and Marshall, 2015*

Pyromorphite is a secondary lead phosphate mineral ($Pb_5(PO_4)_3Cl$). that forms in the oxidation zone of lead deposits along with its "cousins" vanadinite ($Pb_5(VO_4)_3Cl$) and mimetite ($Pb_5(AsO_4)_3Cl$). The barrel-shaped or spindly crystals are hexagonal and often form interesting aggregates or clusters. Typically green or yellow green, the individual crystals are often etched or hoppered. Interestingly, pyromorphite was not described until 1748, well after it was dug at Loudville and it was not an accepted named mineral until 1813.



Manhan pyromorphite: A cluster of 2.5mm pyromorphite from the Green and Marshall 1999 find on the left. A few tiny pale green pyromorphite in a vug from my 2017 find. My piece does have more quartz than their piece. Just saying!

I think we would have had to dig deeper and probably stayed longer to find any collectable secondary minerals. Luck might have played a role also. If you wish an interesting read, check out the story on the 1999 discovery (Green and Marshall, 2015 from the link below).

References:

Green, E. and Marshall, J.,2015, Collecting Loudville Pyromorphite: The Story of an Extraordinary Boulder Unearthed at Manhan River Mine, Easthampton, Massachusetts, published on Treasure Mountain webpage Mineral Collecting Stories

October was a really busy month for WCGMC members

The days were shorter in October, but the weather during those days was spectacular and WCGMC members took full advantage. The month could easily be renamed Octoborocks.

The month started with a rock sale from the club collection on October 1. It was a bigger hit than we thought with over 40 attending and with over $1100 of raw rock being purchased from the club inventory.

The first full weekend of October took us to Walworth Quarry for the annual dig hosted by Dolomite Products. WCGMC provided the donuts and the quarry provided all with an opportunity to find that elusive fluorite.

On Saturday Glenn operated the saw. On Sunday Bill took over. Many fluorites, some sphalerite, a few fossil corals and of course, lots of dolomite left the yard during the two day event. As with previous years, we thank Dolomite Products for their hospitality.

Four of us (Linda, Ed, Bob, and Fred) ventured to central Connecticut for 3 days of pegmatite collecting Oct. 15-17. We encountered glorious weather, lots of leaves, buckets of muscovite and quartz, a few small beryls, and some neat staurolites in schist.

There must be something interesting at the outdoor work table as members convene during the October workshop. It will not be this easy come February, but we will be there every month nonetheless.

Like clockwork, WCGMC made its annual fall trek to Herkimer land. Lots of camaraderie, lots of sunshine, and enough herkimers to keep everyone happy. The whole Webster clan was there!

Wayne County Gem and Mineral Club Upcoming Schedule - last update Oct. 27, 2017

Halloween is here. Hope you all have your rocks ready to hand out to all those unsuspecting trick or treaters. I guess November truly means that the collecting season is winding to a close. About a dozen of us are headed south to Arkansas and North Carolina for one final 2017 trek with our hammers, but there is not much else on the calendar. If weather permits, we'll probably check out Lake Ontario shoreline before it is covered with snow and ice. But it is not all bad news. We will hold a workshop and a meeting in both November and December, and, of course, you want to mark our December party event on your calendar.

November 4 (Saturday)– Workshop Day - 10:00 AM til mid afternoon
The Weiler's Barn and Club Workshop, 6676 E. Port Bay Rd, Wolcott, NY
Rules: BYOR (Bring your own rocks) to saw, grind, polish or even facet. Training is available. **Eye protection is required**. $5/adult to offset maintenance costs

November 10 (Friday evening) – Monthly Meeting in Newark – Program TBA

November 11-19 – We are planning a 9 day trip to Arkansas and other southern locations. Arkansas for quartz, maybe wavellite, NC for pegmatites TN for fossils, and more? Logistics and sites will be determined by those who have interest. We need commitment very soon to permit proper planning. *Talk to Linda or Fred*.

December 2 (Saturday) - December Workshop Saturday

December 8 (Friday evening) Christmas Party - For new members, this is a big event for us which is held on the standard meeting date at the church in Newark. Pot luck dinner, games, mineral prizes and lots more. Details will follow.

========== Some other neat finds this past month ==========

***Hydnoceras bathense*:** Bill Chapman noticed a pile of rocks near Bath, NY and naturally he had to investigate. And look what he found! A sponge! The somewhat elevated nodes identify it as a *Hydnoceras bathense*, likely in Upper Devonian West Falls Group. Bill thinks it came from one of the Bath quarries.

Green glass or obsidian: Scott Jones thinks it is green glass he has found in the club collection, but also worthy of a picture (or maybe two?!). *Photo(s) taken at the October club rock sale.*

Walworth sphalerite: The picture to the left comes from one of our long distance Facebook members, collector Debbie Vai from Connecticut. It is sphalerite that she collected at Walworth in October. The pair of sphalerite crystals are only mm in size, but note the crystal form. Sphalerite is isometric, but you seldom see such perfect hexahedrons. And it is hard to see, but the large whiter crystals to the right are rhombohedral dolomites and the transparent small crystals in with the sphalerite are calcites with distinctive scalenohedral (or dogtooth) habit: pretty neat micromount piece and photo.

Wayne County Gem & Mineral Contacts

ELECTED OFFICERS

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Visit us on Facebook:
https://www.facebook.com/groups/1675855046010058/

APPOINTED POSITIONS

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Bill Lesniak – Website Coordinator
Glenn Weiler – Workshop Coordinator
Linda Schmidtgall – Collection Curator
Eric Elias: GEMFEST Show Chair
thecrystalnetwork@hotmail.com
Fred Haynes – Facebook Administrator

Club meets 2nd 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