Wayne County Gem and Mineral Club News

July, 2017

Always Looking for Places to Dig!

A drill core xylophone showed up at GemFest: Glenn's creation using dense diabase cores from Cobalt, Ontario.

http://www.wcgmc.org/

FACEBOOK link

..... *for more pictures, see page 3*

Annual WCGMC Picnic
Saturday August 5th 10:00 AM til ??

Club Workshop/Weiler Home in Wolcott

Club will provide: meat, salt potatoes, and drinks
Members should bring: a dish to pass, lawn chairs

Bring your rocks as the workshop will be open. There will be prizes for all, barrel rides and games. This is one of the year's highlight events. Don't miss it.

If you did not sign up for the picnic at our June meeting or since, then please send your name and a count to Eva Jane Weiler (gwexterior@gmail.com).

We will not hold a Friday night meeting or a workshop in July. It is the month for family activities and club collecting trips. There is a combined collecting trip and picnic on July 15th and many of us are escaping to Ontario later in the month for a week or more of collecting adventure.

For current schedule of club activities, see page 7

Gem Fest

The 24th annual WCGMC GemFest, and the third consecutive at the Greater Canandaigua Civic Center, proved to be our largest yet. With a 20% increase in attendance from last year (to over 1000) we continue to grow. This would not have been possible without the help of so many club members, the fine assistance provided by the GCCC, and, of course, our wonderful group of dealers. We hope everyone who attended had fun; it was sure gratifying to see all those kids running around working on the scavenger hunt, operating the sluice, carving up soapstone and just plain enjoying the hobby we all love so dearly.

We are already planning for next year (mark June 2-3 on your 2018 calendars).

Mineral Musings

Basalt Porphyry "flowerstone"

by Fred Haynes

The door prizes at the June club meeting consisted of a bucket of miscellaneous unpolished slabs from the club collection. Linda Schmidtgall had scoured the club collection and accumulated a wide variety of colorful and unique pieces. She set them in water for folks to make their selection. When my number was called I picked out a unique volcanic rock slab. It was an end cut, which meant one surface was raw.

I broke it into three pieces and polished the smaller one the following day at the workshop. The upper two pieces have rough natural surfaces.

As many know, I collect interesting rocks which tell a geologic story, with a bias towards so-called "hard rocks", both igneous and metamorphic. Fortunately I already knew a bit about this rock. On the joint WCGMC-NPGS summer trip to Thunder Bay in 2016 we met a couple from British Columbia. They had collected similar rock in their home province and they traded pieces with each of us (see photo in next column). But all I truly knew was that the unique porphyritic rock came from Vancouver Island, British Columbia and that it had been collected on a beach.

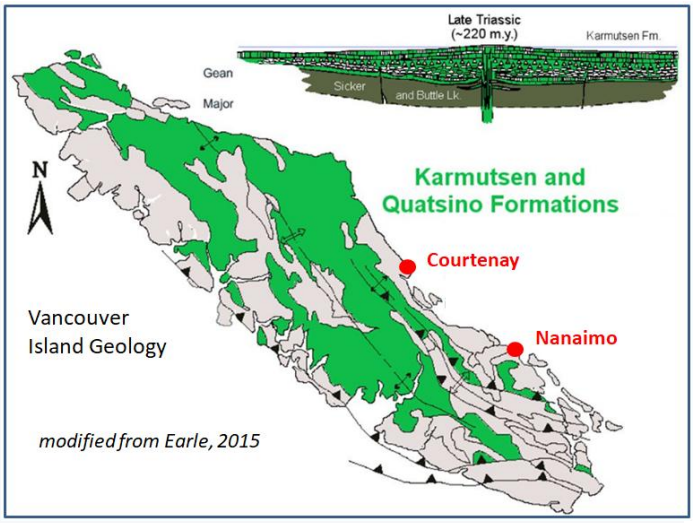
Now with multiple samples I wanted to know more. Could I learn the composition of the groundmass to name the rock properly? What age was it? How did the unique snowflake or flower character of the feldspar phenocrysts originate. Naturally, I turned my computer on and began to investigate. Turns out it was not that simple. I found the rock variously labeled as porphyritic gabbro and basalt porphyry. OK, which is most appropriate? Is this best classified as an extrusive or intrusive rock? The groundmass is quite fine grained, but one can see other crystals besides the flowery feldspars.

Slab acquired in trade during the summer of 2016 from BC collectors.

Furthermore, Vancouver Island has a complex geology and there are at least two ages of volcanism that produced dark volcanic rock, Devonian and Triassic. The technical papers on the various rocks did not seem to include a description of the phenocrysts; the lapidary/rock hound references referred to the rock affectionately as "flowerstone", but contained insufficient geologic input.

I did find an excellent summary of the geology of the Island by a professor at Malaspina University, which is on Vancouver Island. So, I wrote to Dr. Steven Earle and he replied promptly with the following:

"I believe that most of the "flower" porphyritic rock of Vancouver Island is from the Triassic Karmutsen Fm. There are feldspar porphyries in the older (Devonian) Sicker Gp. rocks, but I've never seen any flower patterns in those. I would call this basalt porphyry because most of the rock is sufficiently fine-grained to be volcanic. I am not certain of the origin of the flower texture, but my recollection is that it has something to do with electrostatic attraction between feldspar crystals in the magma. The feldspars are plagioclase which tend to the anorthite end member"



Geologic map of Vancouver Island showing the extent of the Triassic Karmutsen Fm.

I also learned that "flowerstone" can be collected on the beaches between Nanaimo and Courtenay on the east side of the island (Burnett, 2015) and there are other smaller islands in Vancouver Sound where it has been found. However, Vancouver Island is 2900 miles via US roads (or 4700 km across Canada!) from Rochester, New York. I've decided that is a bit too far for a field trip so I am very happy to have acquired my specimens from a collector and from the club. And now I am equally happy to be able to label them properly!

References:

Burnett, S., 2015, Vancouver Island rockhounding tips, website

Earle, S., 2015, The Geology and Geological History of Vancouver Island, website presentation

Note: Although so-called "chrysanthemum" stone from China appears similar it has a sedimentary origin and is both mineralogically and geologically distinct from British Columbia basalt porphyry.

A **porphyry** is an igneous rock consisting of large-grained crystals such as feldspar or quartz dispersed in a fine-grained matrix or groundmass. The larger crystals are called **phenocrysts**.

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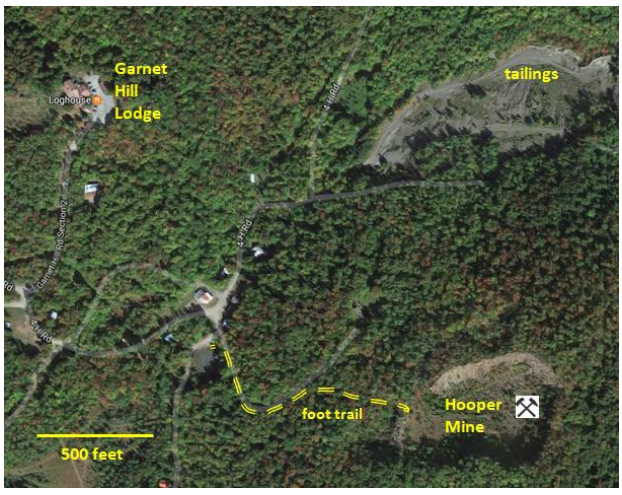
SITE OF THE MONTH

Hooper Mine Garnets by Fred Haynes

Garnet mining in New York State dates back to the late 19th century when the Barton Mine first opened in 1879. Henry Barton experimented with garnet as a harder and more durable abrasive than simple sand and after a fisherman friend told him about the prolific garnets in the Adirondacks he staked his claims and went into production (Kelsey, 2015)

Two decades later, in 1898, Frank Hooper started excavating garnets from a hill slope one mile east of Thirteenth Lake. Unfortunately, his garnets were not as large and not as concentrated and he could not compete with the Barton Mine. Story is that Hooper ended up working at the Barton Mine. Although the Barton Mine area was moved to adjacent Ruby Mountain in 1982, Barton Mines Inc. has been continuously producing industrial grade Adirondack garnet for over 130 years.

But this is about the Hooper Mine, the lesser known, overgrown escarpment/quarry where Mr. Hooper tried his hand at mining over 100 years ago. The site is on state land, but is best accessed from the parking lot area of the Garnet Hill Lodge. The proprietors at the lodge are happy to allow visitors access via their system of cross-country ski trails that crisscross the hillside. Just check in at the lodge first; they even can provide directions and a map. It is about a 1200' walk up a gentle slope to the mine. Translation, it is downhill when carrying garnet to the vehicle.



This May, ten WCGMC members made this trek on a wonderful spring day full of sunshine and black flies. The former was most appreciated; the latter were a complete nuisance. With buckets, backpacks and insect repellent we made our way up to the manmade escarpment in search of garnet treasure. Once at the old quarry site, there is no problem finding garnets. They are literally everywhere and most any rock you turn over or peck with a hammer is full of 1-3 centimeter sized garnets.

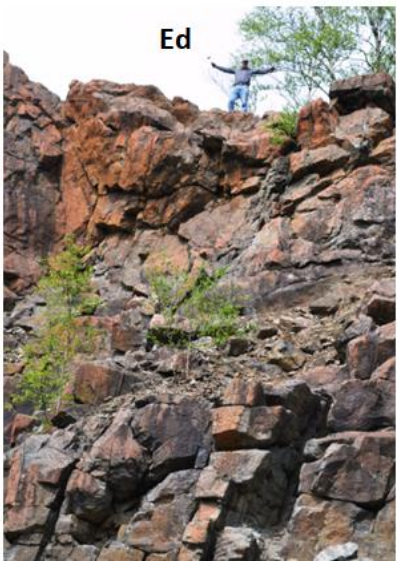
At the mine site Photos by Teresa Ferris

The problem becomes distinguishing pieces worthy of the downhill carry from all the *leaverite.* Want a nice twenty pound metamorphic rock with multiple large garnets for your garden? Well, there it is, heck there they are, just carry them out. Want 200 tennis ball sized specimens of garnet gneiss to give to youngsters or to fill club grab bags? Just pick them up and put them in your bucket. But if you want a shiny dodecahedral one inch garnet on matrix then you may be there a while looking. Museum pieces are few and far between. In fact, they may not exist.

The garnets of the Hooper Mine are hosted by two primary metamorphic rock types. A dark hornblende-rich rock called amphibolite (right) and, to a lesser extent, attractive banded gneiss (left) where there was sufficient feldspar for the colorful banding to form around the one inch garnet porphyroblasts.

Warren County garnets are generally considered to be of almandine composition, with iron and aluminum occupying the cation positions in the lattice, but there is appreciable pyrope content (magnesium replacing iron) and also some grossular (calcium) component. For a full description of the chemistry and mineral structure of garnets, see Garnets Galore in the January 2016 WCGMC newsletter.

Although the garnet surfaces are typically altered and the large crystals themselves are internally fractured they still make for attractive rocks given the size and color of the garnet. Although one of the primary minerals in the Hooper Mine host rock is hornblende, the garnets at the Hooper Mine do not have the attractive black hornblende halo that is associated with the large garnets from the Barton Mine.



Hooper Mine, North River, NY May 23, 2017

Photos by F. Haynes

References:
Garnet Hill Lodge website
Kelsey, M., 2015, Mine Ramblings in the Adirondack Park's Garnet Woods, blogsite

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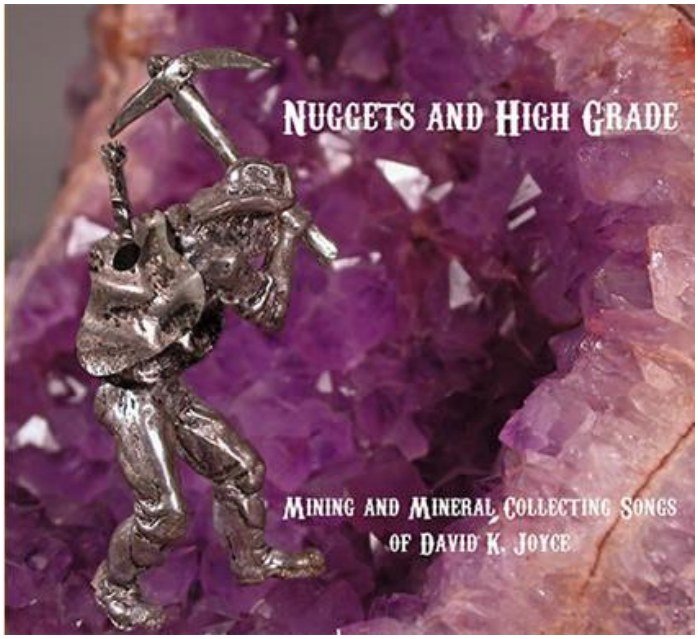
Out and about this past month Photo Credits: SM – Stephen Mayer, HM – Heidi Morgenstern, FH – Fred Haynes, BW – Beth Webster

Music Review: Nuggets and High Grade

A music review in the WCGMC Newsletter? Well, if you are a rockhound (and you must be if you are reading this), and you like music (who doesn't) then this might be just for you. With song titles like *"The Crystals that I've Known", "Agate Lickers", "Gold is Where you Find it", "The Mineral Dealer", and Damn the Glaciers"* how could you possibly not be interested in a music CD entitled "**Nuggets and High Grade**"?



Cover from David Joyce's Mineral Collecting CD

David Joyce is a long-time mineral collector and mineral dealer from New Market, Ontario. But he has been a musician and a songwriter for even longer. You will not only find his lyrics musically entertaining, but also technically correct as he depicts mineral collectors, mineral collecting, and mining through his music. The stories behind the songs are Canada centric, but those of us who ventured past the "*Miner's Home*" in Cobalt two summers ago or along "*Highway 17*" north of Lake Superior last summer can certainly relate. And when he follows up "diggin' in a hole" with "feeling like a mole", everyone is brought back to a special collecting experience somewhere.

"Crystal Systems" is another personal favorite. Dave's affinity for "simple, succinct, and understandable" isometric minerals and their "visual geometric symphony" is clear just as is his disdain for the monoclinic where "crystals are lopsided and uneven". He covers all systems and if folks are not encouraged to go learn what pinacoids and pedions and twinned disphenoids are after listening, then they haven't much intellectual curiosity. I know my Science Olympiad students next winter are going to listen to this while they are learning about dodecahedral and trapezohedral garnets and those triclinic crystals where "a single point defines the symmetry and everything about it's out of whack"..

Here's a snippet from "*The Crystals That I've Known*"

> "*Size counts in tourmalines,*
> *and dinner plate sized sphenes*
> *Apatites that look like logs,*
> *Zircons the size of dogs*
> *But, unfortunately,*
> *My mineral encounters*
> *Are mostly tiny crystals*
> *fit for micro-mounters"*

But if you want to hear the lyrics or listen to the wonderful accompaniment from a number of other artists performing with a varied and wonderful assortment of instruments then you must go online to check out Dave's songs.

Are you wondering why Dave writes and sings a song entitled "*Damn the Glaciers*"? Well, you can check out all the lyrics and even play all 12 songs by visiting his website and clicking on the music link. While you are at it, you can also learn a great deal about many of the famous Canadian mineral localities by reading his articles written over years of collecting at some of Canada's premier mineral sites. And, of course, once online you can order the CD for $15 plus shipping, and also peruse his minerals and rocks & ores pages for pieces to add to you collection. Or, better yet, you can visit Dave next time you are travelling through New Market, Ontario in route to Bancroft, Cobalt or points further north! If Dave is not off "diggin' in a hole", then he'd be happy to see you.

FULL REFERENCE:

Joyce, D. K., Nuggets and Nigh Grade: Mining and Mineral Collecting Songs, Early Iris Music, SOCAN

http://www.davidkjoyceminerals.com/pagefiles/music.asp

Review by Fred Haynes

Wayne County Gem and Mineral Club Field Trip Schedule - last update June 27, 2017

Items listed in bold print are pretty much set, those not in bold print are considered tentative. We have multiple leaders and a busy schedule. Inquire if information here is not complete. Contact leaders for details.

July 8: Hunting Herkimers at Crystal Grove *(call Bill Chapman (607-868-4649) for details)*
July 15 (Sat.) Indian Creek for fossils (9 AM, 5475 E. Lake Rd., Romulus) followed by Potluck Picnic at Mayer's home. Bring meat, a dish to pass and a lawn chair, Mayer's to provide drinks, utensils, grill, and Seneca Lake. If you did not sign up at June meeting, please RSVP to flexy50@yahoo.com or 585-943-5058
July 17-22 (Monday-Saturday) – CANADA (Bancroft, Ontario, etc.) *Leaders – Fred and Linda*

August 5 – CLUB PICNIC (*at Weiler's in Wolcott, workshop will be open)*
August 6 (Sunday) - Green's Landing fossil site (with RAS) - *Leader – Stephen Mayer*
August 26-27 - St. Lawrence County Show (Field Trip Opportunities to Powers and Bush Farm)

Is anyone interested in:

- Another long weekend in September in St. Lawrence County (Benson Mines maybe?)
- A 7-10 day trip to Arkansas and more the first week of November?
- Another day trip to a Herkimer site in mid-August or perhaps later when it is cooler?

Please let us know if these (or something else) might be for you.

We continue to try to plan a day trip to Seneca Stone Quarry and will also work in a trip to Deep Run and likely other area fossil sites in late summer or early fall. If you know of a site you would like to visit or would like us to schedule a second visit contact any of us. **WCGMC is always looking for a place to dig.**

FOUR UPCOMING SHOW OPPORTUNITIES

July 8-9: Gem City Mineral Show, Erie, PA (JMC Ice Area) Sat. 10-6, Sunday 1-5
visit http://www.gemcityrockclub.org/ for details

July 15-16: Gemworld 2017 Hosted by Gem and Mineral Society of Syracuse, SRC Arena and Events Center, 4585 W. Seneca Tpke., Syracuse, Sat. 10-6, Sun 10-5, visit this link for details

July 22-23: Herkimer Diamond Gem Show & Festival, Herkimer County Fairgrounds, Frankfort, NY
visit http://www.herkgemshow.com/ for details

August 25-27 – **St. Lawrence County Rock & Mineral Club Annual Show**, Canton Pavilion (90 Lincoln St.),
visit http://stlawrencecountymineralclub.org/show_1.html for details

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This is the WCGMC crew of 14 that took on Paradise Falls in search of Herkimers on May 31st. I believe they huddled in the shade for this picture so we could not see how dirty they were: except, of course, for Bill Chapman on the right, who was more than willing to show off his dirt.
Photo by D. Leszczenski

Seavey Quarry in Gouverneur: Stop 1 of 8 on the June trip to the western Adirondacks. More on this trip in next month's newsletter (or check out our Facebook page).
Photos by T. Ferris

Wayne County Gem & Mineral Contacts

ELECTED OFFICERS

Glenn Weiler – President gwexterior@gmail.com
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Jerry Donahue – VP Chester145322@yahoo.com
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@twc.com 315-331-1438
Linda Schmidtgall lees@tds.net 315-365-2448
Gary Thomas gfthomas956@gmail.com 585-489-2162
Fred Haynes fredmhaynes55@gmail.com 585-203-1733

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

APPOINTED POSITIONS

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