

Wayne County Gem and Mineral Club News

January, 2017

Always Looking for Places to Dig!



The theme for the Christmas party was snowmen. We wondered what Linda was going to do with all those lake stones she was collecting in November.



<http://www.wcgmc.org/>



Despujolsite
(see page 3)



Bob (left) gets help making his first sphere from the club sphere-making guru. Look to page 5 for some of Glenn's creations.

Next Club Meeting

Friday January 13th, 7:00 PM

Presbyterian Church, Maple Court, Newark, NY

PROGRAM: Our Trip to the National Parks of the Southwest
Stephen and Tammy Mayer

Last June Stephen and Tammy visited the National Parks of the desert southwest and they took their camera! Come see what they saw. Oh, and they did some fossil and mineral collecting also.



Saturday, January 14th

WCGMC JANUARY Workshop

When: 10:00 AM til mid afternoon

Where: 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 on equipment is available. Eye protection is recommended.
\$5/adult to offset maintenance costs



WCGMC 2016 Christmas Party

If you missed it, we will have another one in about 345 days. Linda Schmidtgall is already starting to plan the entertainment for next year. More pictures on page 5

WEATHER: Yes, it is that time of year: An e-mail note will be distributed 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).

Mineral Musings

by Fred Haynes

Everyone likes to classify things: by shape, by color, by cost, by size. You name something to sort by, and someone is busy classifying with it. So, it should be no surprise that geologists get classified. And perhaps the first way they get labeled is as either a soft rock geologist or a hard rock geologist. No, it has nothing to do with the character of their head (although some might disagree) and it has nothing to do with their taste in music. Rather it relates to the type of rocks they study.

Soft rock geologists study sedimentary rocks. Some aren't particularly soft when they have been cemented and lithified (anyone trying to collect fluorite in the dolostones at Walworth knows this), but they were all pretty much deposited first as a soft sediment. Geologists who study the deposition and/or erosion of lake (lacustrine) or stream (fluvial) deposits, and those studying coral reefs, are soft rock geologists. They might focus on aspects of hydrology (most underground aquifers are hosted by sedimentary rocks). Paleontologists who study fossils and prehistoric life are soft rock geologists. So are those exploring for hydrocarbons.

On the other hand, another set of geologists spend their waking hours studying the so called "hard rocks". These are rocks born of fire (igneous) or those generated from other rocks when deeply buried in the earth's crust (metamorphic rocks). These folks are more likely to study plate tectonics or volcanology, or be involved for the search for natural resources resulting from magmatic activity or the hydrothermal processes associated with just about all subsurface processes.

In the beginning (i.e. college) I was a hard rock geologist. The copper deposits I studied in Arizona were generated around a granitic intrusive. I spent time looking for gold (notice the verb is not finding) in the volcanic terrain of Nevada. But sanity set in (i.e. the desire for a stable paycheck) and I flipped to the

soft rock side and career in the oil industry. I will take credit for finding some of that! Anyway, oil and gas are born in sedimentary basins from decaying organic material almost all of which resides in the pore spaces of sedimentary rocks. Geologists in that industry are generally of the soft rock variety.

It seems the same dichotomy exists in the rock hound world. There are fossil collectors and there are mineral collectors and then there are some of us who enjoy both. Perhaps the dual nature of my career is why I now find hunting for fossils in the Devonian shales of western New York just as entertaining and satisfying as digging terminated minerals out of a pegmatite. You could say that this makes me bi-stonal (that's a made up word, say it out loud). Or perhaps the best way to express it is that I am HR-SR (hard rock-soft rock), equally excited, motivated, and otherwise energized by geologic activity in either domain. The resultant corollary would be that I am not very selective about what I pile into my car and accumulate in the basement and backyard. In that regard, I know I am not alone.

So where do you fit in the rock hound classification scheme? Are you a soft rock, fossil collecting maniac? Or are you a hard rock, crystal seeking lunatic? There is no correct answer and you can be both.

Next month, perhaps we should classify accountants, or lawyers, or maybe politicians. Probably not, huh.



Shiprock, NM: Soft rock or hard rock? Come January 13th and Stephen Mayer will tell us.

MINERAL GROUPS YOU'VE NEVER HEARD OF

Part I: Fleischerite Group

by Fred Haynes

Happy New Year! Last year those who read this distinguished journal learned a bit about birthstones each month. This year we are going deeper into the bowels of mineralogy. Together, we are going to learn a bit about lesser known Mineral Groups.

Minerals are grouped by their composition and crystal forms. There are groups, supergroups and subgroups based on variations in either chemistry or structure. Some groups are well known to collectors, garnet, tourmaline, mica, and pyroxene to name a few. Many may recognize groups like scapolite or spinel or maybe even eudialyte. But for all the groups we know there are literally dozens of others that seldom appear at the sales table and are not found in our collecting region. It is time to learn a bit about some of them.

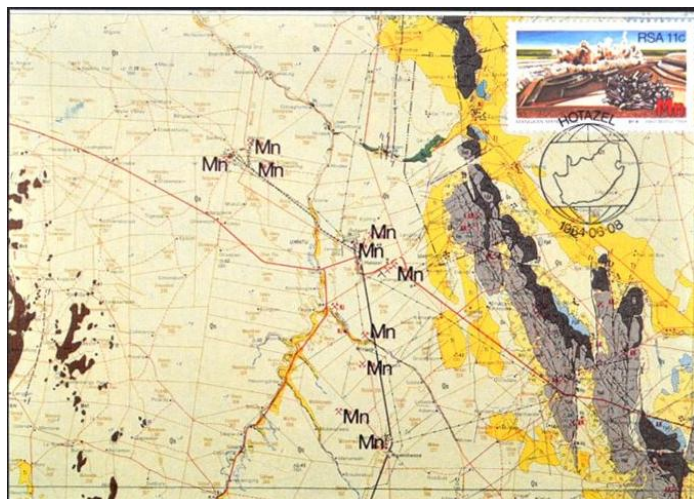
Despujolsite, Mallestigitite, Schaurteite,

Genplesite: OK, if you are honest with yourself you will admit you have never heard of these minerals. I hadn't. And therefore you would not know that they are all hexagonal sulfates within the **Fleischerite Group** of minerals. But naturally there is even more about them you do not yet know but should!

The group is named for the first of the five current accepted group members to be identified. Fleischerite was described and accepted as an official mineral in 1960 after its discovery in the mineral-rich, dolomite-hosted, karst breccia plug of the Tsumeb deposit in northern Namibia. Like other members of the group, fleischerite crystals form as dihexagonal dipyrramids. While seldom large, they are definitely a worthy addition to anyone's micromount collection, particularly if they can be documented to be from the type locality of Tsumeb. When calcium occupies the larger position in the

lattice, the mineral is schaurteite, another mineral discovered at Tsumeb.

The most collectible of the Fleischerite Group minerals is undoubtedly despujolsite. No one who collects sulfate minerals should be without one! It takes manganese (Mn) to grow despujolsite. Although the type locality is in Morocco, the world's best crystals come from the N'Chwaning Mines of the Kalahari manganese field in South Africa. This locality is best known for its world class deep red rhodochrosite (MnCO_3), but it is also the host for a significant number of rarer manganese minerals. Most were formed about 1.3 billion years ago when manganese-rich sedimentary rocks over 2 billion years old were cooked at temperatures approaching 475°C by hydrothermal fluids.



This is what is known in the stamp collecting world as a Maxicard, basically a postcard that is issued at the same time as a stamp with a theme related to the stamp. Here, the postcard depicts a geologic map of the manganese mining district in Hotazel and the South African stamp depicts a blast at one of the mines. The postmark notes the date and city of issue, June 8, 1984 in Hotazel.

<u>Mineral Name</u>	<u>Chemical Formula</u>	<u>Approved</u>	<u>Type Location</u>
Fleischerite	$\text{Pb}_3\text{Ge}(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$	1960	Tsumeb, Namibia
Schaurteite	$\text{Ca}_3\text{Ge}(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$	1967	Tsumeb, Namibia
Despujolsite	$\text{Ca}_3\text{Mn}(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$	1968	Tachgagalt Mine, Morocco
Mallestigitite	$\text{Pb}_3\text{Sb}(\text{SO}_4)(\text{AsO}_4)(\text{OH})_6 \cdot 3\text{H}_2\text{O}$	1986	Carinthia, Austria
Genplesite	$\text{Ca}_3\text{Sn}(\text{SO}_4)_2(\text{OH})_6 \cdot 3\text{H}_2\text{O}$	2014	Oktyabr'skoe, Siberia, Russia



Despujolsite from N'Chwaning II Mine, Kuruman, Cape Province, South Africa. Crystals are 0.6 centimeters in length.

Despujolsite is a brilliant green color and forms tabular ditrigonal dipyramids that are often found standing against iron-stained reddish matrix. Most specimens are small (micromounts to thumbnails), but you can expect to have to part with several Ben Franklin's to obtain one with crystals approaching a centimeter. Which I guess is why most of us settle for selenite, celestine, and barite to satisfy our need for sulfate minerals.

Mallestigitite is a secondary mineral formed in the lead-antimony mines of south central Austria. Clear white acicular crystals spray into open vugs in the host limestone, but micromounters only for this one.

And finally, genplesite is the newest approved member of the group, receiving official mineral status

just two years ago. Genplesite is the only recognized tin sulfate mineral. I could find no picture of this mineral which was found in the tin deposits of far eastern Russia.

And yes, fleischerite is named after Mike Fleischer, the mineral chemist who published the first 7 editions of "Fleischer's Glossary of Mineral Species". He was also the co-founder of the International Mineralogical Association (IMA), the governing body on accepting new mineral species.



Fleischerite (left) from Tsumeb, Namibia and Mallestigitite (right) from Austria. Field of view in both photos is less than 0.3 mm, true micromounts.

References:

Fleischer's Glossary of Mineral Species, 2014th, 11th Edition, published by Mineralogical Record.

Mindat sites for all noted Fleischerite Group minerals

Webmineral.com entry for Fleischerite Mineral Data



George Persson (1938 – 2016)

The mineral collecting world of New York State has lost a dear friend. On November 26, George Persson, caretaker for the Benson Mines Property in Star Lake and a friend to all who knew him passed away at age 78. For the past several years, our club and others would journey to Star Lake and George would be there to guide us around the property, and to share his wealth of historical knowledge with all who visited.

George taught Industrial Arts at the Clifton-Fine Central School before retiring to his wonderful shop, his caretaking for the mine just outside town, and his role as a Renaissance man, an inventor, a visionary, a story teller, a superb craftsman, a local history buff, and so much more to all who knew him.

DECEMBER WAS A MONTH FOR WORKSHOPS AND A GRAND OLD PARTY



New Equipment for WCGMC: No, Bill Chapman is hardly new, but the club has a brand spanking new 6 wheel Cab King polishing machine. Bill, in uniform, is just getting started on the coarse grinding side.



A collection of Glenn's spheres on the left. And Gary Thomas' first sphere, from garnet gneiss collected in November along Lake Ontario.



Some people were very busy in December.



Others, not so much! Spheres seem to polish themselves,



There was food aplenty !



There were gifts from the WCGMC collection



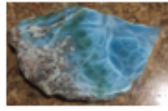
Thanks Santa, er.. Linda



There was music !!
Thanks Kathleen



Larimar



At our December workshops (and we had two!), Robert Webster arrived with some beautiful larimar to cut, grind and polish. After his successful work he posted pictures of several of his creations to our club's [Facebook Group page](#).



Raw, cut larimar (left) and some polished pieces. All prepped at the WCGMC workshop in December. Specimen and photos by Robert Webster, extracted from his post to our Facebook group site.

Larimar is actually a varietal form of the mineral pectolite, a sodium calcium silicate mineral found in some syenites, and within cavities in basalts and diabases. Pure pectolite is white/gray and generally unworthy of lapidary attention. However, the pectolite found in vugs within the volcanic rocks of the Bahoruco Mountains of coastal Dominican Republic contains small amounts of copper replacing the calcium in the mineral lattice. This copper imparts a unique and attractive blue color and the presence of healed fractures in the otherwise massive mineral adds an appealing texture to a polished surface.



Pectolite with needle sprays of the zeolite natrolite from the Millington Quarry, Somerset Quarry, New Jersey can be collected as mineral specimens.

[Photo from John Betts online Mineral Museum](#)

Larimar has a modest hardness, 4.5-5 on the Moh's scale. Not hard enough to be a valuable gem in jewelry, but certainly hard enough for standard cabochon work. And what color!

A mere two days after Robert's post had appeared on the Facebook page in mid-December, my January 2017 copy of Rock & Gem magazine arrived. And wouldn't you know it, larimar was the featured stone in Russ Kaniuth's "What to Cut" column.

Robert's had noted that the beautiful blue stone had been rather difficult to work and this notion was repeated by Kaniuth who wrote:

"Larimar has a notorious love/hate relationship with lapidary artists: love of its beauty and hate for the difficulties of working with this material. It tends to fracture, chip, flake, and break."

It seems that the same healed fractures that give the mineral its appeal also provide weak points that can fail at the most inopportune time when working with the stone. If you subscribe to Rock & Gem you can learn a bit about the history of larimar, and more importantly read Kaniuth's suggestions on how to best work with larimar. If you do not receive Rock & Gem and are interested, perhaps you should subscribe!

References:

Kaniuth, R., 2016, What to Cut: Caribbean Larimar, Rock & Gem, January, 2017, p. 54

Wikipedia pages for Pectolite and Larimar

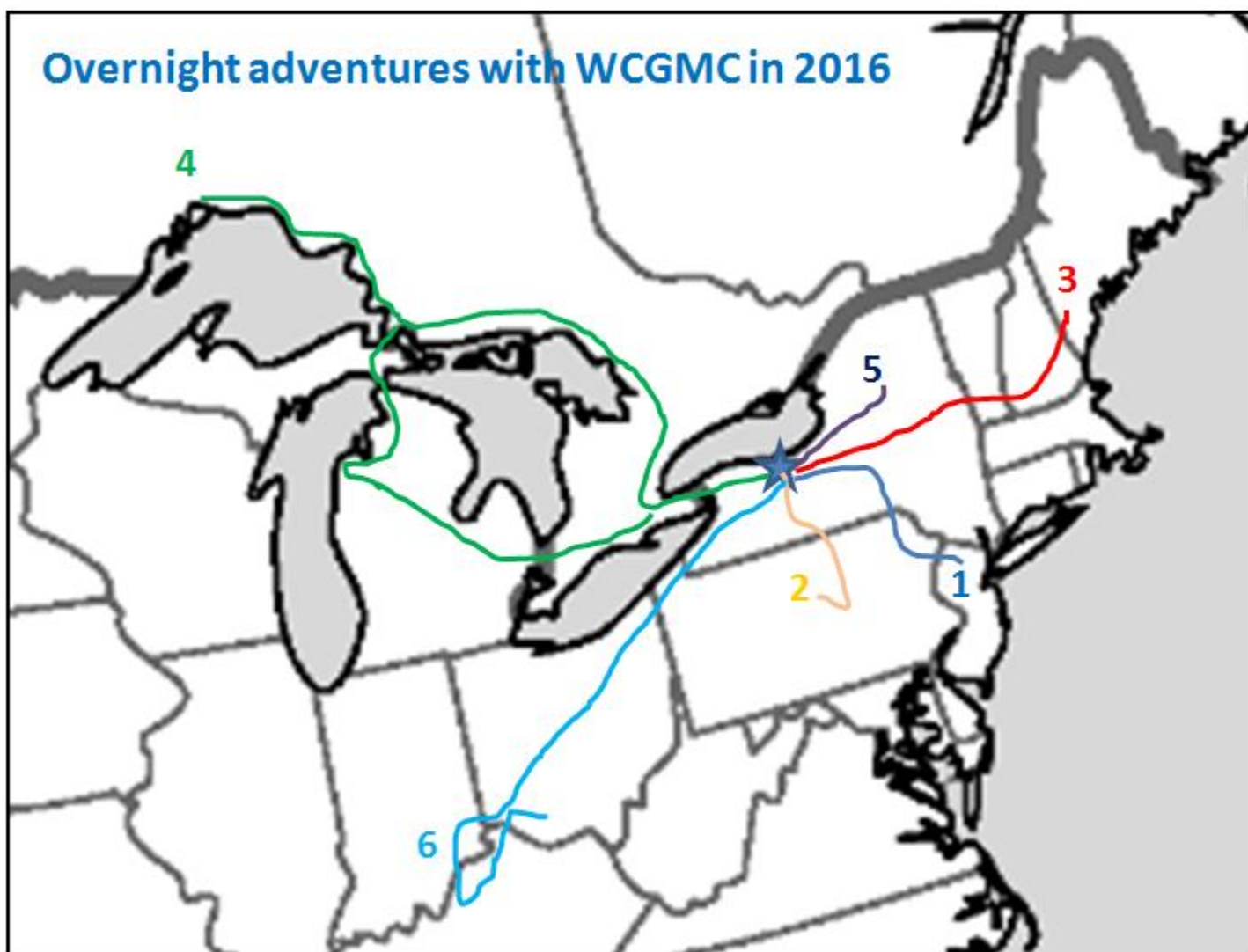


Robert Webster at work on one of the grinding wheels at the WCGMC workshop in December.

The WCGMC 2017 Field Collecting Season is Fast Approaching !

It is time to put on those thinking caps and think about the next field collecting season. Spring and summer of 2017 is just around the corner. Where would you like to go? Do we want to return to Bancroft area of Ontario after skipping that area last year? Should we plan an Arkansas quartz trip with fossil stops in the Cincinnati Arch along the way? Who would go where and when can you go? In the past two years we have waited until September to visit the Adirondacks. This has been a popular trip, but perhaps we should try an earlier trip there? Does anyone know of a new location we might try? Do any of our friends from other states and clubs have a suggestion for us? We thoroughly enjoyed trips with the Niagara Peninsula Geological Society in Ontario and the Burlington Gem and Mineral Club in Vermont in 2016. Remember, WCGMC is always looking for new places to dig. Don't be bashful.

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1. Sterling Hills Super Dig and Scranton (April) 2. Mt. Pleasant Mills and Red Hill (May)
3. New Hampshire and Maine (June) 4. Thunder Bay and more, 2800 miles in 10 days (July with NPGS) 5. Adirondacks (Sept) 6. Cincinnati area fossils (Sept. with BGS)

Wayne County Gem & Mineral Contacts

ELECTED OFFICERS

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Visit us on Facebook:

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

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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

The Public is always welcome
First Class, Dated, Meetings & Time Values



Wayne County Gem and Mineral Club
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