

UPCOMING SHOWS

2017

November 11 10:00 am -6:00pm
12 11:00am – 5:00pm

NYMC – Watson Hotel (formerly Holiday Inn)
440 W57th St., NYC

December 2 & 3 10:00am -5:00 pm

SGMC – Our Lady Of Mt. Carmel
No. Ocean Ave., Patchogue

EFMLS Convention & Show

The 2017 (66th) EFMLS Convention will be held in conjunction with the 45th Annual Gem and Mineral Show in Bristol, Connecticut, hosted by the Bristol Gem and Mineral Club. The dates for the convention and show will be Friday, October 20 to Sunday, October 22. The Double Tree by Hilton Hotel is the convention "hotel," located in Bristol, about 3 miles from the show location.

For other Gem and Mineral shows: <http://www.amfed.org/EFMLS/calendar.htm>

www.suffolkgem.com

P. O. Box 302
Bohemia, L.I., NY
11716



To promote cultural, educational, and scientific interest in mineralogy, and develop member's skills in lapidary arts and jewelry crafts

October 2017

THE CONGLOMERATE

The Monthly Bulletin of the Suffolk Gem & Mineral Club, Inc.

Monthly Club meetings held at the Bay Shore-Brightwaters Library, Montauk Highway, Brightwaters starting at 7:00pm.

Refreshments served at 7:00 pm.

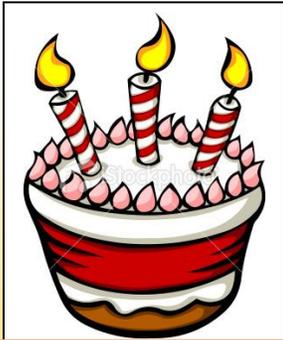
OFFICERS

*The Conglomerate Editor - Cheryl Neary
Club Webmaster - Kerry Dicker*

President –	Cheryl Neary	516.449.5341 cell	Director - Elaine Casani	631-567-3342
Vice President –	Kerry Dicker	631-277-0994	Director – Lucy Jackson	631- 289-2328
Treasurer -	Roberta Besso	631-666-8023	Director - John King	631-775-7035
Asst. treasure	Joe LaBarca	631-242-5290	Director –Debbie Winston	516-238-8370
Secretary –	Rebecca LaBarca	516-768-4438	Director –Pat Seostrom	631.654.0746
Liaison –	Cheryl Neary	516.449.5341 cell	Director – Michael Jung	631.698.3018

Cell phones are to be turned off during all Club meetings.

More importantly, there should be no disturbances during any guest presentations.



Happy Birthday Wishes!
May Your Year Be Filled
with Hugs & Kisses!

UPCOMING MEETINGS & EVENTS: 2017

*October 16th - Lecture
November 20th - Hands- on
December 18th - Auction
January 2018 - Holiday Dinner
February 5, 2018 - Trivia Night*



Septembers (with my apologies!)

Barbara Bruce	Kathy Guerreri
Caryn Bosak	Elizabeth Klecak
Tom Dicker	Joseph Kuri
Paul Engelhardt	Marlene Rust
Johanna Engelhardt	Debbie Winston

October-

Josephine Buttacy	Kandy Miller
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Pumpkins, like other squash, are thought to have originated in North America. The oldest evidence, pumpkin-related seeds dating between 7000 and 5500 BC, was found in Mexico. The word *pumpkin* originates from the word *pepon* (πέπων), which is Greek for "large melon", something round and large. The French adapted this word to *pompon*, which the British changed to *pumpion* and to the later American colonists became known as *pumpkin*.

From Wikipedia

Message from the Prez:

This month you are in for a real treat! Or is it a trick? The only way you will find out is to be at the meeting on Monday, Rocktober 16th !

Plan on signing up for the show! We need volunteers for:

- Admissions - see me
- Set-up (Friday Food) – see Lucy Jackson
- Break down – see Michael Jung
- Security – see Rebecca or Joe LaBarca
- Club Table – see Kerry Dicker

Lastly- we need a nominations committee to choose our slate of officers for next year. We need at least one member from the general membership to volunteer to help plan the future. Please see Pat Seostrom or John King.

Cheryl Neary
Ciervo.neary@gmail.com

Let the Adventures Begin!

Last Chance!
Field Trips for 2017:
October 14th - Bus Trip
Island Rock Hounds is sponsoring a bus trip to High Falls /
Rosendale NY –

More information to follow:

Cost – Bus \$ 35.00

Dinner - \$ 25.00

Spring 2018 – Plum Island - TBD

Any suggestions????

WHY THE SEA IS SALTY

by Anne Marie Helmenstine, Ph.D.

Updated August 04, 2017

Have you ever wondered why the ocean is salty? Have you wondered why lakes might not be salty? Here's a look at what makes the ocean salty and why other bodies of water have a different chemical composition.

Oceans have been around a very long time, so some of the salts were added to the water at a time when gases and lava were spewing from increased volcanic activity. The carbon dioxide dissolved in water from the atmosphere forms weak carbonic acid which dissolves minerals.

When these minerals dissolve, they form ions, which make the water salty. While water evaporates from the ocean, the salt gets left behind. Also, rivers drain into the oceans, bringing in additional ions from rock that was eroded by rainwater and streams.

The saltiness of the ocean, or its salinity, is fairly stable at about 35 parts per thousand. To give you a sense of how much salt that is, it is estimated that if you took all the salt out of the ocean and spread it over the land, the salt would form a layer more than 500 feet (166 m) deep! You might think the ocean would become increasingly salty over time, but part of the reason it does not is because many of the ions in the ocean are taken in by the organisms that live in the ocean. Another factor may be the formation of new minerals.

So, lakes get water from streams and rivers. Lakes are in contact with the ground. Why aren't they salty?

Well, some are! Think of the Great Salt Lake and the Dead Sea. Other lakes, such as the Great Lakes, are filled with water that contains many minerals, yet doesn't taste salty. Why is this? Partly it is because the water tastes salty if it contains sodium ions and chloride ions. If the minerals associated with a lake don't contain much sodium, the water won't be very salty.

Another reason lakes tend not to be salty is because water often leaves lakes to continue its trip toward the sea. According to an article in Science Daily, a drop of water and its associated ions will remain in one of the Great Lakes for around 200 years. On the other hand, a water droplet and its salts may remain in the ocean for 100-200 *million* years.



Outside The Box

Synopsis of Last Month's Meeting:

Last month we were treated to a Night about Opals – thanks to both Mitch Portnoy and Dr. Vivien Gornitz.

Despite our technological difficulties – the evening was both enjoyable and educational.

Mitch started out the evening with Trivia questions and had prizes to share with us!

What is a Member in Good Standing?

One that:

- **Attends (4) Meetings**
- **Contributes Time to Club Show or the Celinka Show-at the Club Table**

(If you are unable to attend the show, there is other show activities you can volunteer for- please see Elaine or Cheryl!)

Participates in Club Fundraisers

Remember-this is your club!

This club needs you to participate, in order for the club to grow-

If you have any suggestions for a program, please speak to one of the Board members listed above. If you have an idea for a field trip, please speak to a Board member as well!

Ask what else you can do!

If you know of any child interested in joining a ebbles Pup Club

Please have them contact either

Robin Wiley at rcwiley@optonline.net

Or Cheryl Neary at ciervo.neary@gmail.com

Caldwell Stone Quarry and the Walker Vein of Boyle County-

So to continue with our Kentucky field trip.... the group, which consisted of at least 30 vehicles, caravanned to our first day of collecting at the Caldwell Stone Quarry in Danville, Boyle County. The Quarry is an active business and we were fortunate to be able to have access to the site, thanks to James (and maybe Onyx?) I understand the site was closed to collectors for many years because some person abused the privilege of collecting and defaced the owner's property. There is a valuable lesson to be learned and that is the action of one can affect negatively others. Therefore; pay respect to the collecting guidelines set forth by the American Federation of Mineralogical Societies (AFMS) - Code of Ethics. If you are unaware of them, you can either check with your field trip director or go on-line (<http://www.amfed.org/ethics.htm>).

The quarry, which is located a few miles southeast of Danville on old Highway 150, produces and delivers crushed stone.

There is a modern crushing on-site allowing for the stone to be over a dozen sizes, and used for the various applications, such as aggregate for concrete; construction aggregate for uses in infrastructures, erosion control and asphalt pavement; and aglime used to neutralize the acidity in soils.

The Quarry is in the Middle Ordovician Lexington Limestone, a major rock unit exposed in the Inner Bluegrass region of east-central Kentucky surrounding Lexington. The Lexington Limestone is mostly fossiliferous limestone with minor amounts of shale. The rocks of the Lexington Limestone were deposited in tropical latitudes in shallow marine water on a shelf that sloped gently northward. Many found numerous fossils at the quarry. The Lexington Limestone ranges in thickness from 200 feet to over 320 feet. In the area of Danville the Lexington Limestone is approximately 220 feet. The Lexington Limestone is composed of twelve (12) members, which are limestone lithofacies (the rock record of any particular sedimentary environment , including physical and organic characteristics), within the overall thickness; however, in the vicinity of the quarry the Perryville Member is prevalent. This member ranges from 0-50 feet thick and contains silicified mollusks and brachiopods. The Perryville Limestone Member is present in the southwestern portion of the Inner Bluegrass region forming a wedge that thickens from the area approximately 5 miles northeast of Harrodsburg to Danville with the thickness of 50 feet. The Perryville in turn consists of two major rock types: a brownish-gray calcisiltite (A fine-grained limestone consisting of silt-sized (but not clay-sized) carbonate particles) in rough-surfaced beds, with mollusks, tabulate corals and stromatoporoids dominating the fauna; and a light gray calsilutite (mud-grade limestone), containing tubiform burrows. The Perryville member was deposited in quiet, restricted water in the lee of a bank of calcarenite bars (a type of limestone composed predominately of more than 50% of detrital (transported) sand-size carbonate grains. The grains consist of corals, shells, ooids, intraclasts (irregular grained sediment formed by the re-deposition of material eroded from an original deposit) and pellets, fragments of older limestones and dolomites).

There was a report that I found on the website by Kentucky Paleontological Society (KPS) on one of their field trips to the quarry. The following is an excerpt from the report: (<http://www.uky.edu/OtherOrgs/KPS/pages/danville.html>)

“The KPS trip to Danville provides some of the best fossil collecting around. The Caldwell Stone Quarry in Danville has provided some spectacular fossils. The KPS has had field trips there (with permission) to explore the upper Ordovician Lexington Limestone (Sulphur Well member) and the lowest layers of the Clays Ferry formation. A crinoid garden (*Ectenocrinus*) was found, but has since been destroyed by the quarry. Whole trilobites (*Isotelus*), both stretched out and enrolled, have been found in the Clays Ferry. Perfectly preserved *Rafinesquina* brachiopods covered with *Cornulites* worm tubes have been found.

In the Sulphur Well, hundreds of well preserved (some perfect) edrioasteroids (*Cystaster stellatus*) have been found in one layer. The Sulphur Well also yields bryozoans with borings in them. On Rt. 127, a roadcut exposing Ordovician Lexington Limestone (Perryville Member) yields many well preserved silicified clams, 4 different gastropods, and several brachiopods. The clams even show the muscle scar attachment sites.”

Associated within the limestone of the quarry is the Walker Vein. The vein is a low temperature hydrothermal vein. It is associated with the Kentucky River fault zone in central Kentucky, also known as the central Kentucky mineral (Fluorsoar) district, which is different from the fluorspar district in the western part of the state – the Illinois-Kentucky fluorspar district.

What is a low temperature hydrothermal vein you ask? Veins are mineral deposits which occur in preexisting fractures or fissures within the host rock. Typically, the deposition of minerals is performed by circulating aqueous solutions, which carry various elements migrating through the fissures in the rock and precipitating onto the fissure walls. Hydrothermal deposits are categorized according to the depth and temperature at which they were formed: hypothermal deposits are formed at great depths and high pressures; mesothermal deposits at intermediate depths and pressures; and epithermal deposits at the shallowest of depths and relatively low temperatures. Hence the Walker vein is a epithermal deposit formed at shallow depths under relatively low temperatures and pressures. Some of the minerals found in this type of deposit include quartz, opal, calcite, aragonite, dolomite, fluorite and barite.

The rather large rock in front of the office at Caldwell Stone Quarry is a magnificent example of the barite and fluorite that were deposited.

It is important to remember that the mineralogy of the vein deposits is based on the chemistry of the fluid and physical conditions, such as, temperature and pressure at the time of mineralization. The chemistry of the fluid is dependent on its source (for example: magmatic waters, meteoric water or connate waters) and the chemistry of the rocks through which the waters travelled through. In a later article, mineralization will be discussed in more detail.

There are approximately 120 vein deposits associated within the area of Central Kentucky, which range from less than a foot to a maximum of 12 feet in width and approximately 100-1,000 feet in length.

Although the Walker vein is found in the quarry, Caldwell Stone quarry does not mine the minerals and fortunate for us, we were allowed an opportunity to collect!

So I was wondering why the vein in this quarry was named Walker. Since I started reading various material about Kentucky for this series of articles, I was wondering which Walker it may have been named after. In my research I found two notable Walkers – Walker Daniel and Dr. Thomas Walker.

Dr. Thomas Walker is noted as the first white man to see Kentucky and the first to write his account of his travel through what is now known as the Cumberland Gap. There will be more about Dr. Walker in a future article.

Walker Daniel, a native of Virginia and an attorney, moved to Kentucky in 1781. Three years later he was slaughtered and scalped, a casualty of the frontier. A year prior to his untimely death, he was appointed attorney general for the newly-created District of Kentucky. As attorney general, he oversaw the

construction of a log courthouse and jail on the land he had personally acquired. He also informed the Virginia Governor Benjamin Harrison that the District of Kentucky was interested in forming a separate state from Virginia, noting that the casualties on the frontier from the Indian tribes made the pioneers wish for separation because they then expected everyone in power would be equally interested in securing a friendly intercourse with the Indians.

In 1787, Walker Daniel was commemorated and the act establishing the village noted “ whereas Walker Daniel in his lifetime, laid off part of seventy-six acres of his land, in the county of Mercer (now Boyle), into lots and streets, and sold and conveyed them to the purchasers...and thus the town was named Danville in his honor. (<http://explorekyhistory.ky.gov/items/show/114>)

