UPCOMING SHOWS

2015- 2016

December 4th	***Set-up for show***
December 5-6	***Suffolk Gem & Mineral Club Annual Show***
	Our Lady of Mt. Carmel
	North Ocean Ave., Patchogue
March 12-13	***Island Rock Hound***
	Old Bethpage Village- Barn

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

December 2015

THE CONGLOMERATE

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

Monthly Club meetings held at the Bay Shore-Brightwaters Library, Montauk Highway, Brightwaters starting at 8:00pm.

Refreshments served at 7:30 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**
Secretary –	**Kerry Ann Hilliard**	**631-277-0994**	**Director –Rebecca LaBarca**	**516-768-4438**
Liaison –	**Cheryl Neary**	**516.449.5341 cell**	**Historian –Kerry Ann Hilliard**	**631-277-0994**

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!

Marty Besso

Bivona Riley

Carolyn Narvquea

Gary Vorwald

Nominating Committee News:

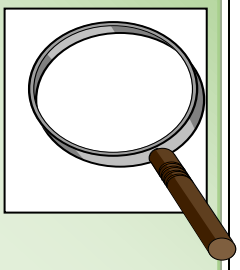
Slate of Officers:

President	**Cheryl Neary**
Vice President	**Kerry Dicker**
Treasurer	**Roberta Besso**
Assist. Treasurer	**Joe La Barca**
Secretary	**Kerry Ann Hilliard**
Director	**Elaine Casani**
Director	**Rebecca LaBarca**
Director	**Lucy Jackson**
Director	**John King**
Liaison	**Cheryl Neary**
Historian	**Kerry Ann Hilliard**

UPCOMING MEETINGS & EVENTS:

2015-2016

December 5-6: Annual Rock & Gem Show
December 21-Chinese Auction
January 3rd 2016- (Sunday)
Holiday Party at Olive Garden
Bay Shore: **Time: 2:00pm**
With Live Auction
February 22nd -Annual Meeting
and Lecture (Chris Visco)
March 21st Hands-On with Kerry
April 18th – Lecture – John Pesek
May 16th – Gem Trees with Carol Pesek
June - Annual Bragging Rights



This month we are hosting:

Chinese Auction!

Open to the public!

Please join us For an exciting Evening – *Night at the Chinese Auction*

There will be beautiful rocks & minerals, an assortment of jewelry, fossils and lapidary magazines – most gift boxed just for that special person you have in mind for the holidays! (or for yourself!!)
Something for all and a great fundraiser for the club!

Tickets will be on-sale starting at 7:00pm
Auction starts at 7:30pm
Also new this year- a Sales table- Bring $$

Please **consider donating a holiday dessert** to share with fellow members and guests!

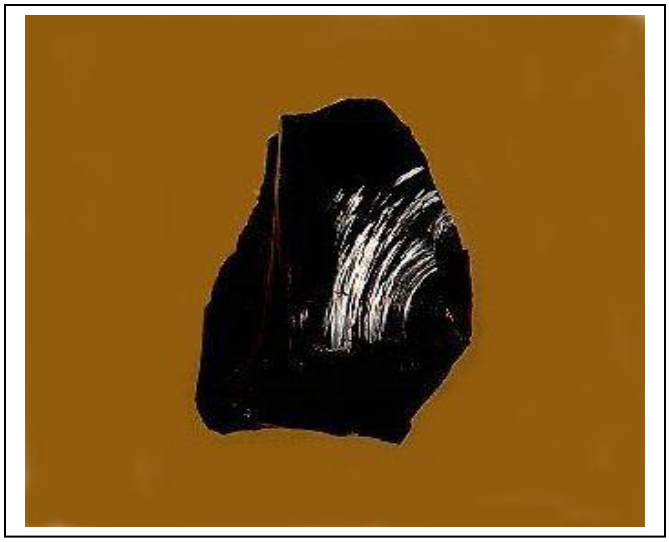
Let the Adventures Begin!

Glass

Glass is made from sand- yes, the same sand you see at the beaches on the north and south shore of Long Island. Sand is comprised of silicon dioxide, which when melting at the high temperature of 1700°C (3090°F) it changes its state to a liquid. When the liquid begins to cool the inner structure becomes changed and it becomes known as an **amorphous solid**. It's like a cross between a solid and a liquid with some of the crystalline order of a solid and some of the molecular randomness of a liquid. **Amorphous is** from the Greek: *a*, without, morphé, shape, form. Amorphous or non-crystalline **solid** is a **solid** that lacks the long-range order characteristic of a crystal, with molecules arranged in an irregular pattern. In some older books, the term has been used synonymously with glass.

There are other amorphous solids, for example amorphous ice and solar cells are often composed of amorphous silicon. Other examples of amorphous materials are: granular fault gouge in earthquake faults, thin film lubricants, colloids, emulsions, foams and even biological tissues.

A natural form of glass is Obsidian. Obsidian is usually an extrusive (solidifies above the earth's surface) igneous rock. However, it can form in a variety of cooling environments, such as, at the edges of a sill or a dike (intrusive). It is produced when felsic lave extruded from a volcano cools rapidly with minimum crystal growth. It is an amorphous material known as a "mineraloid". Obsidian is a volcanic glass with a smooth uniform texture that breaks with a conchoidal fracture.



Outside The Box

Last month, participants enjoyed creating their own jump ring- **glass** bead bracelets
Thanks to Kerry Dicker for instructing us

Also, her demonstration using the shower curtain hooks as the jump ring and ping pong ball as the bead made the instructions easy to follow!

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!

A conchoidal fracture is a curved breakage that resembles the concentric ripples of a mussel shell. It often occurs in amorphous or fine-grained minerals such as flint, opal or obsidian, but may also occur in crystalline minerals such as quartz. Obsidian is most commonly found in the color of black. However, it can be brown, tan or green. Mahogany Obsidian is the combination of black and brown colors swirled together. Cristobalite crystals form radial clusters of white or gray within the obsidian due to the chemical instability of the glass obsidian. When cut and polished these cristobalite crystals are referred to as snowflake obsidian. Cristobalite is an odd form of silica and is composed of the same elements as Quartz but has a different crystal structure, making it a separate mineral. Cristobalite is found in volcanic sources and usually forms in vesicles and gas pockets of obsidian - the natural glass rock.

Glass is manufactured by melting together several minerals, such as soda ash and limestone, with sand at very high temperatures. Other minerals can be added to produce a variety of colors or properties. For example, iron and chromium based chemicals are added to make green-tinted glass. By adding boron oxide to the molten mixture, oven-proof borosilicate glass is formed. Lead oxide added to the mixture creates a fine crystal glass that can be cut more easily. Cut lead crystal sparkles with color as it refracts the light passing through it. Glass can be coated, heat-treated or engraved.

Glass can be recycled a number of times without degradation of quality, strength and functionality. In fact, less energy is needed to melt recycled glass than to melt down the raw materials. Recycling also reduces the need for raw materials to be quarried.

Archeologists have found evidence of man-made glass which dates back to 4000 BC, in the form of a glaze over stone beads. Around 1500BC the first hollow glass container was made by covering a sand core with a layer of molten glass. By the First Century BC, glass blowing became the most common way to make glass containers. However, up until the First Century BC, the glass was highly colored due to the impurities of the raw material. It was in the First Century that colorless glass was produced and then colored by the addition of minerals.

Glass blowing was highly guarded by the Romans. With the collapse of the Roman Empire glass making spread through Europe and the Middle East. The Venetians were known for their technical skill in the making of glass bottles.

George Ravenscroft invented lead crystal glass when he attempted to counter the clouding effect that occurred in blown glass. The new glass proved to be softer and easier to decorate, with a higher refractive index adding to its brilliance. This introduction of lead into the glass mixture proved to be invaluable especially in the optical industry – including microscopes and telescopes.

Traditional mouth-blowing to semi-automatic process glass making occurred by the late 1880s with the introduction of a machine capable of producing 200 bottle per hour, three times quicker than the previous production methods in England by H. M.Ashley.

In 1866 Josiah Arnall, Ferrybridge England postmaster submitted an idea to Edgar Brefitt for the mechanical production of glass bottles. Twenty years later, the manager of the iron foundry in Ferrybridge, H.M. Ashley went to reside with Arnall. Together they patented the device which became known as the “plank machine” because the early machinery was attached to a wooden board.

In the early 1900s, Michael Owens introduced the first fully automated machine, which was capable of manufacturing 2,500 bottles per hour. Michael Owens, born in 1859, was from a poor Irish family and began working at a very young age in the coal mines of West Virginia.

When he was injured in a slate fall, the family moved to Wheeling, West Virginia where he was employed in a glass factory at the age of 10. This was the beginning of a life-long career in glass production by stoking coal into the "glory hole" of the furnace used to re-soften glass during the several stages of the hand-formed process at the Hobbes-Brockunier glass works. At this early age he performed dangerous child labor work required to make glass containers by hand. At the age of 15, he became a skilled glassblower and worked with craftsmen two or three times his age. Although he had little formal education, he enjoyed reading, and rose rapidly in trade union ranks and became an officer in the American Flint Glass Workers national organization. His reputation as a diligent worker and leader was the reason that he was hired by Edward Drummond Libbey to manage the ailing Libbey Toledo, Ohio factory in 1888. The factory produced high-quality cut glassware, which Michael Owens demonstrated at eh company's exhibit during the World's Columbian Exposition during1893 in Chicago. Not only did Owens rescue the Libbey operation, he began experimenting with technological developments that would revolutionize the ancient hand methods of glass production, which included patents for blowing tumblers, light bulbs and lamp chimneys. He had already began experimenting with a piston-pump to first suck molten glass into a mold to gather a correct measure of the material and then to transfer to a second mold into which it was blown by reversing the pump. His mechanization of the glass-blowing process eliminated child labor from the glass-bottle factories.
The most important invention was the automatic bottle blowing machine consisting of over 9,000 separate parts. Owens had 49 patents. He helped to produce continuous flat sheet glass. He was associated with multiple companies including Libbey-Owens-Ford, Owens-Illinois and Owens Corning.

News Fromt Wildacres:
by Steve Weinberg…….
Hi everyone!,I'm delighted to be able to share with you the dates for our 2016 EFMLS Workshops at Wildacres plus the names of our two invited speakers-in-residence.

Session #1 will be May 9 – 15 (Monday - Sunday) and will feature a return engagement by renowned glyptographer (gem carver) Helen Serras-Herman. She's an excellent and passionate speaker and warm and lovely individual who will be "on the mountain" with her husband Andy. You can view her work at gemartcenter.com

Session #2 will be September 5 – 11 (Monday - Sunday) and will feature a return engagement by renowned mineral collector and dealer Alfredo Petrov. He's an interesting fellow who spends his time traveling between Japan, the United States, Europe and South America either selling minerals at important mineral shows or hunting for mineral treasurers.

A listing of our spring 2016 classes and their descriptions will be in the December issue of EFMLS News which was sent to all clubs yesterday and will be uploaded to the EFMLS Wildacres website shortly. The fall class schedule will be available in the January EFMLS News and on the website sometime in December.

Note from the Editor:
Although I wish I could be at both sessions, which will not be the case for 2016 (don't you hate it when work intervenes!) Anyway-..

I am planning on the September session this year! If you remember former members Sue Melazzi and Kathy Kerrigan, both who now leave out of state, they too are planning on that exciting week in the mountains of North Carolina!

Please consider spending the week on the mountain!
I guarantee you will want to go back! Just think – you will partake in classes, enjoy lectures, meet new friends, renew friendships, breathe fresh air and be entertained by the sunrises and sunsets, the people and the place!

The AFMS Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.
I will keep informed on all laws, regulations of rules governing collecting on public lands and will observe them.
I will to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
I will use no firearms or blasting material in collecting areas.
I will cause no willful damage to property of any kind - fences, signs and buildings.
I will leave all gates as found.
I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.
I will discard no burning material - matches, cigarettes, etc.
I will fill all excavation holes which may be dangerous to livestock.
I will not contaminate wells, creeks or other water supply.
I will cause no willful damage to collecting material and will take home only what I can reasonably use.
I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
I will cooperate with field trip leaders and those in designated authority in all collecting areas.
I will report to my club or Federation officers, Bureau of Land management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
I will appreciate and protect our heritage of natural resources.
I will observe the "Golden Rule", will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and Public "image" of rockhounds everywhere.

Dues are Due…

Please plan on paying your dues for the club- they are to be paid prior to the February meeting:

Individuals $ 15.00
Family $25.00

Rocks Are Cool Too

by Gary E. Lohman, Junior Activities Chair

EFMLS member clubs have long served as local hubs for education, sharing, and fellowship among people of all walks of life with common interests in the earth sciences and lapidary craft. Field trips, guest speakers, and hands-on experiences have long been the hallmark of club activities and meetings.

While it is no secret that today, many clubs struggle with fewer collecting sites, more restrictive collecting laws, and aging member populations; it is heartening to see the number of clubs with very active youth programs of varying forms. Today's youth are tomorrow's leaders and decision-makers, who will in no small part help shape future attitudes towards the hobby, including establishing policy regarding future amateur collecting. The litigious fears combined with profit-motivated exploitation of raw resources that increasingly edge out scientific study and amateur collecting in both policy and practice will almost certainly continue if we do not instill the scientific curiosity and appreciation for the earth in today's youth.

In the words of Albert Schweitzer: "As soon as man does not take his existence for granted, but beholds it as something unfathomably mysterious, thought begins." Through our personal efforts to expose children to rocks, minerals, and fossils over the past two decades, both my wife and myself have repeatedly seen a couple of notable trends.

First, there is an almost magical draw that kids have to specimens that they can touch, hold, and examine. We all seem to start life with a natural curiosity for the earth. By combining a specimen with the story behind it that connects it to the larger understanding of earth's history and significance to our lives, children seem to quickly enjoy experiencing the earth sciences and develop a hunger for more. With the right charismatic story-telling, rocks and fossils can become as addictive as a video game. Second, our modern lifestyle dominated by self-indulgence, social media, and messages conveyed within 140 characters or less appears to squelch this natural curiosity through a combination of fast-paced and high-tech over-stimulation that relegates rocks, minerals, and fossils witnessing earth's existence to the more "taken for granted" mundane part of life. In our schools, the combination of larger class sizes with often less hands-on and more scripted experiences that are part and parcel with more uniform, structured teaching focused on preparing students for standardized test-taking, can downplay the importance of the traditional experiencing and inquiring at the core of true learning.

At the same time, while a growing emphasis on more virtual and simulated exposure through computer interaction and video programming may be beneficial, it shouldn't replace self-discovery of real experiences. In a modern world increasingly obsessed with safety, political correctness, and fear of lawsuits, the world of field trips, unstructured exploration of our environment, and first hand "touching & feeling" that our generation grew up with, is not the same as the world in which today's youth are immersed. Moreover, many of today's young parents are already products of this fast-paced, "take the earth for granted" environment. With chock-blocked schedules, the time for hobbies and corresponding clubs like ours are easily edged out, both with these young parents and with their children.

While this likely explains in part the aging membership of many clubs today as well as the challenge of grabbing the attention of today's youth, "rock clubs" with active youth programs seem to echo a common theme: once the kids are hooked, many tend to stay active, with a life-long interest and appreciation have been cultivated. Over the past several years of doing rock shows, county fairs, and even having a small rock shop, we have been heartened by seeing that natural interest rekindled in kids bringing in their small collections for identification and even saving up their allowance or birthday money to buy specimens and books.

Equally interesting is the number of grandparents that purchase the rock and fossil kits with books that we assemble and even specimens just to have around their house to share with the grandchildren when they visit. There is still hope! It is therefore imperative that we as an organization continue to come up with creative and innovative ways of reaching out to today's youth to bring both the hands-on experience of the hobby to them as well as captivate their imagination with the stories of the unfathomably mysterious" earth, above the "noise" of their fast-paced, over-stimulated environment