

Island Rock Hounds, Inc.

ROCK BOTTOM FACTS

March – April 2018

Website: www.islandrockhounds.org
 email: islandrockhounds@hotmail.com

BOARD OF DIRECTORS

PRESIDENT	
Janice Kowalski	(516) 319-8883
VICE-PRESIDENT	
Cheryl Neary	(516) 449-5341
RECORDING SECRETARY	
Irene Stern	(631)327-8627
TREASURER	
Mary Haugh	(917) 647-4003
CORRESPONDING SECRETARY	
Nancy Colburn	(516) 334-4398
MEMBER AT LARGE	
Nancy Colburn	(516) 334-4398
FIELD TRIPS	
Roberta Besso	(631) 666-8023
Cheryl Neary	(516)449-5341
BULLETIN EDITOR	
Cheryl Neary	(516) 449-5341
ciervo.neary@gmail.com	
WEBMASTER	
Janice Kowalski	(516) 319-8883

EXECUTIVE COMMITTEE

SHOW CHAIRPERSON	
Cheryl Neary	(516) 449-5341
DEALER CHAIRPERSON	
Cheryl Neary	(516) 449-5341
MEMBERSHIP	
Janet Zenk	(631) 669-1728
EDUCATION	
OPEN	
HISTORIAN	
Nancy Colburn	(516) 334-4398
PROPERTY	
Jennie Cascio	(516) 221-5335
HOSPITALITY (Monthly by members)	

Bellmore Memorial Library
 2288 Bedford Avenue
 Bellmore, NY 11710

President's Message

Hello Fellow Rockhounds,

Well so they say Spring is in the air! Hopefully, it is around the corner!

This month we will be identifying your rocks – some be sure to bring to the meeting a rock or two you are trying to identify.

We have the auction around the corner as well- bring in your items so we can determine what is needed to make the auction a success!

April 14th is our bus trip to Sterling Mines – this is a great trip and I hope we have many participates for the trip. I was informed that Russ may possibly be the bus driver again! Pat O'Rourke is planning on meeting us there as well!

Anyone interested in being a part of the Board of Directors? Please see either Cheryl or me.

See you on Wednesday, April 11th !

Janice Kowalski
 President, Island Rock Hounds

Inside This Issue

Upcoming Events/Birthday Wishes/ Misc Info.....	Page 2
Between a Rock & a Hard Place.....	Page 3
On The Road Again	Page 4
DEC News.....	Page 7
Field Trip.....	Page 9

UPCOMING EVENTS

Date	Event	Location
May 19-20 10am-5pm	Celinka Show	Our Lady of Mt. Carmel 495 North Ocean Ave., Patchogue
June 9 th 1 9am – 4 pm	6 th Annual Rock Swap & Sale – Rain or Shine –	31 Kent-Cornwall Rd. Kent , CT
Sponsored by Connecticut Antique Machinery Association and the Danbury Mineralogical Society to benefit the Connecticut Museum of Mining and Mineral Science Swapping only \$10.00 Swap/selling \$30.00		
June 23-24	Summer NYC Gem, Mineral Jewelry & Fossils	Grand Ballroom, Watson Hotel, NYC
2019 May 31- June 2 nd	EFMLS Convention	Monroe, NY

For Other Gem & Mineral shows visit: www.amfed.org/EFMLS/calendar.htm

Upcoming Field trips:

1. Plum Island Field Trip – Friday, July 13, 2018
(pending authorization)
2. Sterling Hill Mine– April 14, 2018 (Bus trip)
3. Suffolk Gem & Mineral Club:
Bus trip – American Museum of Natural History
Sunday - 4/22/18 Cost - TBD



*Happy Birthday to our
March & April Babes!*

**Roberta Besso
Howard Cohen
Kathy Kerrigan
Walter Schoendorf
Janet Zenk**

Johanna Kramer

Wildacres

Spring Session May 21-27
Fall Session September 3-9

“Indulge your passion for minerals, gems, jewelry and craft.
Join entry and intermediate level short classes.
Enjoy programs from our great Speakers-in-Residence.
Form new friendships and deepen old ones.

Do it all at Wildacres – a beautiful retreat
center atop the Blue Ridge Mountains –
What could be better!”

BETWEEN A ROCK & A HARD PLACE:

A SYNOPSIS OF FEBRUARY & MARCH MEETINGS:

The February meeting discussed the love stones – amethyst and rose quartz!
In March we discussed the geology of Sterling Hill Mines in New Jersey

The April meeting will be:

Identify your Rocks!

Bill Gangi will be discussing how to identify rocks and minerals. Bring in your specimen and we will work as a team to identify your treasure!

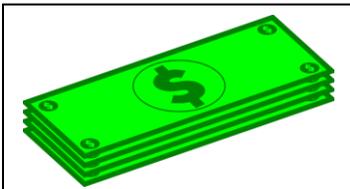
Calling all Items for Auction!

If anyone wants to donate to the Annual May Auction – please bring items to the meeting -
Thanks!

AS A REMINDER:

Please wear your IRH badge at the meetings! We have new members and it would help everyone with matching the names with the faces! Also, as an incentive, if you wear our badge you will be eligible for an additional chance to win the monthly raffle.

If you misplaced your badge, the cost of the replacement badge is \$1.00. Please speak to Janet Zenk (Membership).



Dues are Due!
\$15.00 Individual
\$25.00 Family
See Janet Zenk

Need volunteer to be on
Nominating Committee!
Please see Cheryl

Cheryl Neary

Editor, Island Rock Hounds Bulletin

ciervo.neary@gmail.com

On the Road Again- Taming the Landscape: Bridges & Tunnels

Basics of Tunnels

Tunnels can be created naturally, through erosion and other natural processes. We will speak about these types of tunnels in a future newsletter. Today we are discussing the basics of tunnels that are manmade through the process of excavation using one or more methods described below.

In designing a tunnel or bridge, statics must be considered; how the following forces interact to produce equilibrium on structures:

Tension – expands or pulls on material

Compression, shortens or squeezed material

Shearing- causes parts of a material to slide past one another in opposite directions

Torsion- twists a material

In order for tunnels to remain static, the tunnels must be able to withstand the loads placed on them. Dead load refers to the weight of the structure itself; live load refers to the weight of the vehicles moving through them.

Ancient Romans engineered a network of tunnels, sloping structures called aqueducts to carry water from the mountain springs to the various cities and villages. Underground chambers were built, along with arch structures to carry fresh water into the city and wastewater out. It has been estimated that nine (9) aqueducts carried 85 million gallons of water a day from the mountain springs to the city of Rome in 97AD.

Mine tunnels are used to extract ores deep inside the earth. A tunnel is horizontal passageway; unlike a shaft that is vertical and usually shorter.

In the 17th century, tunnels were being constructed for canals when the water highways were the best way to haul freight long distances. One of first and longest tunnels in the United States was the Paw Paw Tunnel, built in West Virginia between 1836 and 1850, as part of the Chesapeake and Ohio Canal. The tunnel length is 3,118 feet long.

During the 19th & 20th centuries with the development of the railroad and motor vehicles, longer and better tunnels were being built. The Holland Tunnel, completed in 1927, was one of the first roadway tunnels and is still considered one of the world's greatest engineering project.

Today, with advancements with tunnel construction, engineers have bored through mountains, under rivers and the ocean and beneath cities.

But how do you build a stable tunnel? The first step is excavation followed by support for any unstable ground and then the lining of the tunnels.

How a tunnel is built is based on the material it must pass through. Geologists must conduct thorough analysis to determine the type of material to be tunneled through; engineers assess the risks involved for the different media:

Soil and rock types

Bedding zones - Faults and shear zones

Groundwater – flow and pressure

Special hazards- heat, gas and fault lines

There are three major types of tunnels:

Soft ground tunnels – typically shallow used as subways, water-supply system and sewers, with use of a tunnel shield. The tunnel shield is one of the most effective method for digging in soft ground, such as beneath a city. The shield is a sharp-edged cylinder that cuts through the earth, squeezing the earth at the face of the shield. As the muck and dirt enter the shield, workers place the excess soil on conveyor belts out of the tunnel. The cylinder supports the sandy soil while the workers construct the lining inside the cylinder. The cut and cover technique is another way to build a shallow subway-tunnel beneath a city.

Rock tunnels – typically utilized as railways or roadways through mountains. At one time, the mountains were subjected to blasting with dynamite. Today, a tunnel boring machine (TBM) is utilized. The TBM is an approximate 200-ton machine with a round cutter head studded with titanium teeth which grinds the rock. Conveyor belts are utilized to carry the rock shaving through the TBM and out the back of the machine.

In a typical mountain tunnel (rock tunnel) the opening of a tunnel is a portal. The roof of the tunnel, the top half of the tube is known as a crown; the bottom half as the invert. Due to the tremendous pressure from all sides that the tunnels must withstand, the continuous arch is an ideal shape.

Underwater tunnels – As we spoke about in previous On the Road article (October 2017), at one time pressurized excavation chambers were used to prevent water from gushing into tunnels. Today, Immersed Tube technique is used - prefabricated tunnel segments, floated into position, sunk and attached to other sections are used. Dredging machines cut a trench in the riverbed and one by one the preassembled, watertight tubes are floated out and lowered into place over the trench. Divers bolt each segment together to form the complete tunnel, which is then covered with a steel and concrete casing to proven the tunnel from floating and to also protect the tunnel from possible damage from passing ships. San Francisco's Bay Area Rapid Transit tunnel was built utilizing this technique.

Throughout history a number of variety of other methods have been utilized to build tunnels which include:

Fire-Setting

An ancient technique in which the tunnel wall is heated with fire, then cooled with water. In the right conditions, the rapid temperature change causes the wall to break off in chunks. This method was used around 2000 BC to mine copper and gold from Egyptian mountains. This method was used to build Rome's oldest sewer tunnels, Cloaca Maxima. It appears that Roman slaves built the huge and impressive tunnel that when Emperor Augustus toured it – it was in a ship. It is believed that thousands of slaves died building the tunnel due to toxic fumes generated and from the intense heat. This was the standard method for over 2,000 years.

Hand Tools

Workers used hand tools to carve tunnels as far back as 2000 BC to mine copper, gold and salt from mountains in Belgium, France, and Portugal

During the Middle Ages, medieval armies attacked enemy castles by digging tunnels through sandy soil under moats using crude hand tools. The men dug tunnels not only to gain entrance to a castle, but to destabilize and topple it. They supported their tunnels with timbers, which they then burned to collapse the tunnel -- and hopefully the castle as well.

Explosives

The use of gunpowder, nitroglycerin, and dynamite allowed tunnel diggers to blast through mountains much faster than ever before. Gunpowder was first used in 1679 in the building of a 515 foot Canal du Midi, a canal connecting the Atlantic Ocean and the Mediterranean Sea. Nitroglycerin, was first used in North Adams, Massachusetts to excavate the Hoosac Tunnel in 1867. Swedish physicist Alfred Nobel patented dynamite in 1867 – a substance based on nitroglycerin but much safer to handle.

DEC Proposes New, Day Use Permitting System for Visitors to the Blue Hole

No-Cost Permits Will Protect Popular Blue Hole Area and Reduce Overuse Issues
Proposal Would Require Permits on Weekends and Holidays DEC Accepting
Comments on Blue Hole Proposal through May 28, 2018

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos today announced a proposal to establish a no-cost, day use permitting system requiring visitors to obtain a permit to access the Blue Hole, located in the Sundown Wild Forest of the Catskill Park in the town of Denning, Ulster County, on summer weekends and holidays. This proposal is designed to allow DEC to strike a balance between ensuring State lands are open and accessible to the public, reducing environmental damage, and enhancing public safety. DEC is accepting comments on the proposed permitting system through May 28, 2018.

"The Blue Hole is a unique and special place in New York and the proposal released today is designed to keep it that way for future generations," said Commissioner Seggos. "DEC encourages the use of our state lands, but this tiny area has been drawing up to 1,000 visitors a day. This is simply too much traffic for this postage stamp-sized area. DEC is actively working to preserve the Blue Hole and protect visitors while reducing trash, damage to vegetation and trees, and soil erosion. We want visitors to continue to enjoy this incredible resource safely and responsibly for generations to come."

Under the proposed, no-cost permit system, visitors to the Blue Hole would need to obtain a permit on weekends and holidays from May 15 through October 15. DEC would issue up to 40 permits per day and each permit would allow entry for up to six individuals, including children, allowing for a maximum of 240 people to access the Blue Hole each day. DEC is proposing the new permit system by amending the Peekamoose Valley Regulations, and as the regulations are finalized, DEC will share additional information about how to obtain permits with the public.

Existing State Regulations to address overuse at the Blue Hole will remain in effect and include: restricting hours the area is open to one half hour before sunrise to one half hour after sunset; requiring the use of portable restroom facilities; prohibiting all fires and grills and the use of portable generators; limiting parking to designated parking areas; and prohibiting glass containers, radios, and other audio devices.

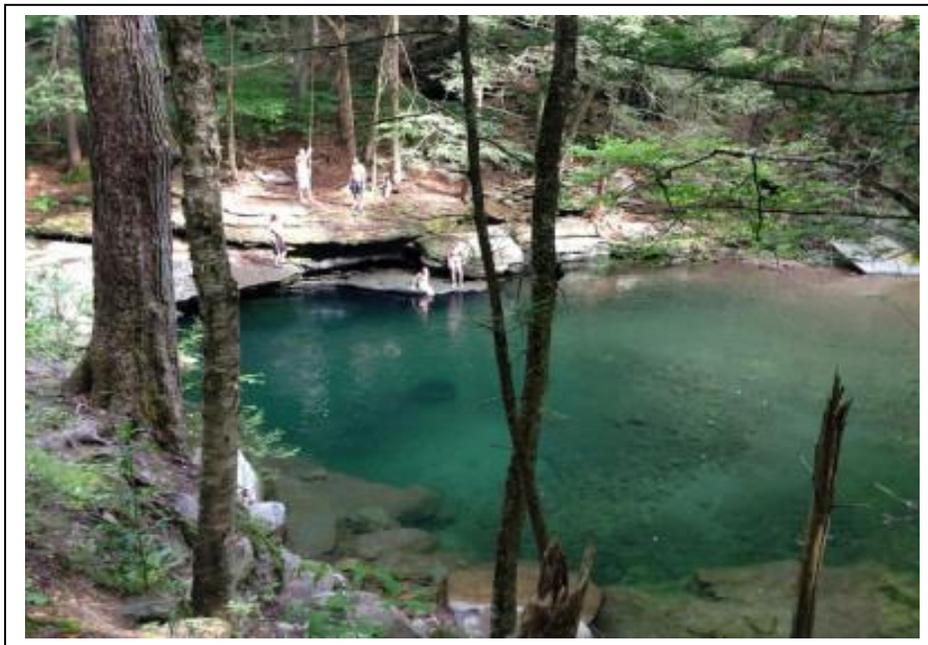
Despite these regulations, visitor use and interest in the Blue Hole has continued to increase and necessitated DEC to propose this new permitting system.

Additional actions taken by DEC to address overuse include using social media to notify the public of the issues and recommend alternative areas and maintaining a law enforcement presence on weekends. DEC continues to work with Leave No Trace and other partners to reduce overuse impacts at the Blue Hole. The Leave No Trace Center for Outdoor Ethics is a national organization that protects the outdoors by teaching and inspiring people to enjoy it responsibly.

Comments on the proposed day use permitting system are being accepted until May 28, 2018, and may be submitted to DEC by email R3.UMP@dec.ny.gov or in writing to: NYSDEC, Attn: Blue Hole Comments, [21 South Putt Corners Road, New Paltz, NY 12561](http://21.SouthPuttCornersRoad.NewPaltz.NY.12561).

Visitors can find out more information on these and other destinations in the Catskills by contacting or visiting the Catskill Interpretive Center at [5096 Route 28](http://5096.Route28) in Mt. Tremper, NY, 12457 - phone: [845.688.3369](tel:845.688.3369) or visit [Catskill Interpretive Center](http://CatskillInterpretiveCenter) website (leaves DEC webpage).

Peekamoose Blue Hole



The Peekamoose Blue Hole is located in Sundown Wild Forest, set within the secluded wilderness of the Catskill Forest Preserve. The Blue Hole is a depression in the streambed rock of the Rondout Creek, a unique natural feature formed by sand and swirling gravel in an ancient whirlpool. The creek is part of the New York City drinking water watershed.

The Upper Rondout Creek watershed is located in the southern Catskill Mountain region of southeast New York State. The name “Rondout” comes from a fort which once resided at the mouth of the creek. The Upper Rondout Creek flows from the headwaters near Shandaken, running about 13 miles before entering the Rondout Reservoir in Neversink. The 48-square-mile watershed falls primarily in the towns of Denning in Ulster County, and Neversink in Sullivan County. A large portion of the Upper Rondout remains densely forested, mainly due to its status as New York State-owned preserve land; yet streamside areas in both towns are developed for a mix of purposes including municipal, residential and institutional.

Sterling Hill Mine Bus Trip Date: April 14, 2018

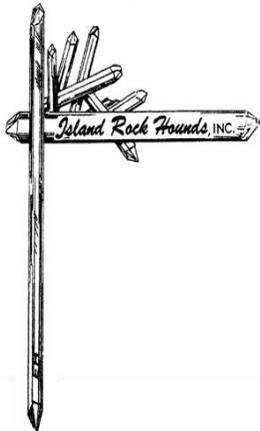


**Pick up: Bohemia Bed & Bath @ 7:00 am
Hofstra Parking Lot @ 7:30 am**

\$35.00 (Bus fee)

More details to follow

Island Rock Hounds
PO Box 405
Carle Place, NY 11514



Email address: islandrockhounds@hotmail.com
Affiliate Member of:

Eastern Federation of Mineralogical & Lapidary Societies



Federation of Mineralogical Societies

American



Purpose and Objective

The purpose and objectives of the Island Rock Hounds, Inc. are to conduct a non-profit, non-political organization to provide the members opportunities for work study and stimulate in the public and membership, scientific and educational interest in geology, mineralogy, paleontology, archaeology and related earth sciences, as as lapidary craftsmanship, gemology, and related subjects, and to offer a cultural and social exchange for persons interested in the aforementioned.

General Membership Meetings

Bellmore Public Library
2288 Bedford Avenue Bellmore, NY 11710

Meetings are held on the second Wednesday of each month (except July & August) at 7:45 PM