

The BULLETIN

OF THE NEW YORK MINERALOGICAL CLUB, INC

**Volume 132 No. 3
March 2018**

Minerals
Gems
Meteorites
Gifts
Lectures
Geodes
Publications
Books
Jewelry
Crystals
Minerals for Kids
Supplies
Fossils
Legendary
Fluorescents
Door Prizes

**Spring 2018 New York City
Gem, Mineral & Fossil Show**
March 3-4, 2018
Watson Hotel (Formerly Holiday Inn)
440 West 57th Street, New York City

**Mineral Show Information
See pages 7-8!**

Incorporated by Escaflour Mineral Corp., Charlottesville, VA
Hosted by the New York Mineralogical Club, New York, NY



**ERIC
RAMPELLO**

**SPRING NYC GEM &
MINERAL SHOW**

**PEROVSKITE &
THE INTERNET**

HUGE BOULDERS

NAMIBIA

**MEMBERSHIP
RENEWAL FORM**



**March 14, 2018
Legends &
Folklore of
GEMS**

America's Oldest Gem & Mineral Club
Founded 1886 ♦ Incorporated 1937

Bulletin of the New York Mineralogical Club

Founded 1886 ♦ New York City, New York ♦ Incorporated 1937
America's Oldest Mineral & Gem Club

Volume 132, No. 3

March 2018

March 14th Meeting:

Eric Rampello: Legends, Myths & Folklore of Gems

NYMC Meeting Lecture
Legends, Myths & Folklore of Gems
Eric Rampello
NYMC Member and Collector
Wednesday, March 14, 2018
Watson Hotel – 6:00 p.m.

In 1913, one of the Club's founders, gemologist George F. Kunz, authored the book (still in print!) *The Curious Lore of Precious Stones*. At the March meeting, member **Eric Rampello** will stand on Kunz's earlier shoulders with additional information about this same topic.

Since the beginning of time, mankind has been fascinated by the allure and beauty that lies in gemstones and minerals. However, equally as interesting are the legends, myths and stories that display in many ways the curiosity and fascination with these beautiful stones. In this lecture, we will further discuss these stories in greater length and detail.

Eric, a resident of Long Island, is a very engaging speaker. His most recent talk to us was in September of 2016 when he gave us a presentation about his suggestions about how to form a good mineral collection.

Join us to hear some of your favorite classic tales re-visited or get to know and love them for the very first time.

Have an idea for a story?
Write for the Bulletin of the NYMC.
You'll be glad you did!

Spring NYC Mineral & Gem Show is March 3-4, 2018

By Mitch Portnoy

The eagerly-anticipated Spring New York City Gem & Mineral Show will take place on **March 3-4, 2018 (Saturday & Sunday)** at the **Watson Hotel** on 57th Street between 9th and 10th Avenues.

The New York Mineralogical Club will continue its **mutually beneficial partnership** with the Show's promoter, Excalibur Mineral Corporation (Tony Nikischer, *President*), and host this event.

There is a **discount ticket** on the last page of this bulletin. The NYMC **website** also contains a downloadable PDF with more tickets, show posters and other information.

A list of the **diverse dealers** that will be selling their fine wares at the show can be found on page 7. On that same page you can also see the **lecture program**, one on each day of the show.

Since we have no direct commercial interest in the show, we do ask each dealer, however, for a **donation to the Club's June Benefit Auction** as a token of thanks for all the work we do to help promote the Show. These items tend to be the best lots in the entire auction so please come and patronize these top-quality dealers.

The **Club's booth** will be in its regular location (to the left as you enter the show). There you can obtain a free souvenir card (pictured on this page), a 2018 club meeting calendar, or just say hi to your fellow NYMC friends. We will decorate it with the club's many vinyl banners plus some of the colorful posters created for this event.

The most important function of the booth, except for directing the public to a

requested dealer, is to re-sign unrenewed members and, additionally, to try to attract new members.

Also, we hope to **raise some money**, mostly to cover our show expenses, by **selling various club products** and publications such as:

- (1) Gem & Mineral Note Card Sets;
- (2) NYMC CD-ROMs & Videos;
- (3) NYMC Drawing Backpacks;
- (4) Gemstone Pens & Pencils.
- (5) Recommended Mineral & Gem Guidebooks and other publications.

We have **two lectures** scheduled, one on each day. On Saturday, Howard Heitner will present an Introduction to Minerals; On Sunday, Roland Scal will present Inside Gems.

We do ask that you remember a few important things:

- (1) You can ask for discounts but be reasonable – most of the dealers have prices that are already more than fair;
- (2) **You are a representative of the New York Mineralogical Club. Please conduct yourself accordingly.**

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Fossils
Lapidary
Rawides
Fluorescents
Beer/Pizzas

Sponsored by Excalibur Mineral Corp., Charminovite, Inc.
Hosted by the New York Mineralogical Club, New York, NY

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President's Message

By Mitch Portnoy

Important NYMC Calendar Changes

Starting in 2019, we will move our annual **Benefit Auction**, traditionally held in the month of June, to May. This was decided because of scheduling "density" of having both the Auction and the new Summer NYC Gem & Mineral Show in the same month. Having these activities in different months will alleviate all the planning, logistical and communication conflicts.

A more controversial decision (at last in my opinion) was the agreement by the membership not to have a full-length lecture at the **2018 Carnelian Banquet in October**. In the past few years I began to feel that having a lecture as the last part of the party forced us to rush through the dinner and complicate the overall setup. I also felt the amount of work to have this lecture exceeded the benefit.

Therefore, the banquet this year will be **more "party" and less "meeting"**. I do promise you, however, that we will come up with many ideas, activities and presentations to fill the now available time with lots of fun!

Priceman Donation Sale Results

Last year a portion of Alla Priceman's wonderful collection was generously donated to the Club by her family, according to her wishes. Most of the minerals were offered for sale to members at a special benefit sale on Sunday, February 18, 2018. The impressive amount of \$4,800 was raised which I am sure would have pleased Alla immensely!

*** FINAL NOTICE *** Send in Your 2018 Club Dues

It is time to send in your 2018 club membership dues! All memberships run from January 1 to December 31 of each year (with a few exceptions). If your mailing label says "2017" or we contacted you via email, you owe your 2018 dues. Please take the time now to mail in your dues in order to prevent uninterrupted delivery of your bulletin. A handy form appears on page 12. Dues are \$25 for individual, \$35 for family. Mail to: Membership Coordinator, N.Y. Mineralogical Club, P.O. Box 77, Planetarium Station, NYC, NY 10024-0077.

Renew Online with PayPal!



Club Meeting Minutes for February 14, 2018

By Vivien Gornitz, *Secretary*

Attendance: 47

President Mitch Portnoy presided

Announcements:

- ◆ Rather than the normal raffle, this meeting featured a Chinese Auction. There were 30 assorted lots. Forms with 25 chances were \$5 each. Tables were set up in Mezzanine B as last year and Mark Kucera selected the winning tickets from the cups. The impressive amount of \$245 was raised.
- ◆ Mitch reminded everyone that it was 2018 dues time; The *Pederneira!* MinRec will be given as a gift to new members and renewers while the Movie Night magazines last.
- ◆ He also reminded everyone about the February benefit sale of minerals from the Priceman donation.
- ◆ The last remaining Amethyst Calendars were distributed (hooray).
- ◆ A website update was given: Mitch noted several of the videos that have been uploaded, especially the Movie Night overview.
- ◆ The day's historical events and special "holidays" were listed.
- ◆ A game about minerals with a gray streak was played.
- ◆ After going over the items available for sale and for free, an update was given about the two NYMC Special Publications in the works: "The Songbook" and "The 100".
- ◆ A quick update of the upcoming meeting lectures and NYMC events was given; details about the March NYC Mineral Show were provided.
- ◆ The Annual Benefit Auction will be moved from June to May in 2019 so as not to be in the same month as the Summer (June) NYC Mineral Show.
- ◆ The evening continued with a song "Our Members' Showcase" with new lyrics written by Mitch to the tune of "That's Entertainment!"

Special Event: "Members' Showcase"

- ◆ **Eric Rampello** (our March 2018 lecturer) began the evening by first relating to us his recent first-time Tucson experiences. He then showed five of his recent acquisitions. All were highly aesthetic and gemmy; the highlight was probably a huge pink Alpine fluorite crystal!

(Continues on page 6)

Members in the News

- ◆ **Lenore Weber** appeared on the front cover of the January 28, 2018 Metro Section of the New York Times in an article about collecting postcards.
- ◆ **Tony Nikischer** is a featured speaker at the 45th Rochester Mineralogical Symposium (April 19-22, 2018).
- ◆ **Howard Heitner** gave a presentation at the Bruce Museum (Greenwich, CT) on February 4, 2018 on the importance, properties, and structure of minerals.
- ◆ **Alan Bronstein** was quoted in a New York Times article in the Business Section entitled *A Battle Over Diamonds: Made by Nature or in a Lab?* on February 9, 2018.
- ◆ **Mitch Portnoy** will be presenting his *Minerals in Popular Culture* lecture to the Stamford Mineral Society on March 13, 2018.

Congratulations to **Luca Katzen**
(granddaughter of **Naomi Sarna**)
on the occasion of her Bat Mitzvah.
January 27, 2018

Welcome New Members!

Julie Cohen & Family . . . Oceanside, NY
Michael Freedman Jericho, NY
Sumate Jimjitpolchai Flushing, NY
Anna Rasche Brooklyn, NY

Coming In April

NYMC Meeting Lecture

The Joys of Pearls

Renée Newman

Author and Gemstone Authority



Wednesday, April 11, 2018
Watson Hotel – 6:00 p.m.

The NYMC recently was pleased to make a donation to benefit the Boston Mineral Club in memory of their past president, **Nathan C. Martin**.

The World of Minerals

The *World of Minerals* is a monthly column written by Dr. Vivien Gornitz on timely and interesting topics related to geology, gemology, mineralogy, mineral history, etc.



Swiss Mystery Rock from the Depths

Rocks are like the pages of a mystery book that unlocks hidden secrets for those that can read the language. A pretty green and red rock from an unlikely place tells one such story.



While on vacation southern Switzerland, the writer spotted several colorful rocks in a jeweler-craftsman's shop in the old part of Locarno on a rainy day. The craftsman was busy at work fashioning attractive, one-of-a-kind (and rather pricy) rings and necklaces, using fairly common semi-precious gemstones from around the world, such as lapis lazuli, amethyst, garnet, topaz, opal, turquoise, as well as this unusual red and green stone. When asked, he claimed that the rock was *eclogite*, collected by a local rockhound from a nearby locality—Gorduno, near the town of Bellinzona, Ticino (Tessin), Switzerland. By coincidence, the writer had visited this town the day before to explore its world-famous medieval castles. (Bellinzona is a UNESCO World Heritage site).

A specimen of the “eclogite” purchased at the shop measures roughly 6.3 cm by 5.5 cm across. Small raspberry-red garnet crystals (2-3 mm across) are scattered across the greenish rock. The largest garnet crystal measures around 1 cm across. On closer inspection, the rock appears to consist of two different types of pyroxene, one a darker forest green (enstatite?); the other, a brighter green (diopside?) scattered and in clusters surrounding the large garnet. Smaller, granular grains of very pale yellow olivine occur throughout. One or two small emerald-green crystals are also present (Cr-diopside?), as are a number of opaque grains. Based on sight identification, literature survey, and comparison with photographs of specimens from this locality, the rock was tentatively identified as a *garnet lherzolite*, rather than eclogite.

Garnet lherzolite is an ultramafic igneous mantle rock—a type of garnet peridotite, which consists of olivine, ortho- and clinopyroxene, pyrope garnet, with lesser chromite, sulfides, and accessory hornblende. According to mineral lists in Mindat, the German Mineralienatlas Lexicon, and several technical articles, minerals from Alpe Arami, Gorduno include: forsterite, enstatite, diopside, chromian diopside, pyrope, amphiboles, such as edenite-pargasite, chromite, ilmenite, geikielite, humite, omphacite, and spinel. One study (Ernst, 1981) reports an average mineral assemblage consisting of around 47% olivine, 13% orthopyroxene, 16% clinopyroxene, 5.6% pyrope, 2.3% spinel, and 6.9% amphibole (Ernst, 1981). The garnet is 71% pyrope (other components not given).

Both garnet lherzolite and eclogite occur in close proximity at Alpe Arami, and also look somewhat similar; hence a plausible misidentification by the collector. The Alpe Arami eclogite

contains predominantly garnet and omphacite (a Ca, Na, Mg, Al pyroxene), with lesser amounts of rutile. These primary minerals have been partially replaced by later-stage hornblende, kyanite, clinozoisite, plagioclase, and occasionally, biotite and chlorite. In contrast to the garnet from the lherzolite, the eclogitic garnet from this locality is composed of 39% almandine, 37% pyrope, 23% grossular, and 1 % spessartine. Omphacite averages 43% jadeite, 49% diopside, and 8% hedenbergite.



At Alpe Arami, outcrops of garnet lherzolite are surrounded by narrow lenses of eclogite within a gneissic complex that also includes amphibolites and granitic rocks. In contrast to most other outcrops of lherzolites from the western Alps, these lherzolites contain pyrope instead of the more widespread occurrences of spinel. The presence of pyrope suggests a much greater depth of origin that does spinel, as will be shown below.

Alpe Arami lies within the Pennine Alps, and its history is closely linked to that of the Alps. By the mid-to-late Cretaceous period, shifting plate motions began to close a narrow seaway—Tethys—that had once separated the European plate in the north from the Southern Alpine plate. During ensuing stages of plate collision, oceanic crust was subducted deep beneath the European plate, while slivers of continental sedimentary and metamorphic rocks were crumpled and thrust over the downgoing slab, ultimately forming the Alps. As plate collision continued, the rocks that had been dragged down to great depths were subsequently uplifted, exhumed, and returned to the surface. Outcrops of mafic and ultramafic rocks (such as lherzolite) delineate the zone where subducted oceanic and upper mantle rocks had collided with continental crust, and were subsequently upthrust.

Attempts by geologists to sample mantle minerals and rock types firsthand have proved unsuccessful to date. However, nature has provided earth scientists with free mantle samples, thanks to plate collisions that formed mountain belts like the Alps (and also thanks to kimberlite pipe eruptions¹). The garnet lherzolite from

¹ The two rock types present at Alpe Arami—garnet lherzolite and eclogite—also happen to be the primary host rocks of diamond in kimberlite pipes. Kimberlite merely acts as a kind of elevator that carries these gems to the Earth's surface. Needless to say, the geologic environment of Alpine peridotites and eclogites and that of these two diamond host rocks in kimberlitic xenoliths is totally different. No occurrences of gem diamonds have been reported to date from the Alps.

Alpe Arami furnishes one such sample. Based on pressure-temperature stability relations between co-existing minerals, the Alpe Arami garnet lherzolite formed at depths in excess of 60-80 kilometers and temperatures around 950°C.

Overruling previous heated debate on the subject, more recent findings demonstrate an even deeper mantle source for these rocks. One line of evidence comes from tiny, oriented rods of ilmenite (and spinel) within olivine. The crystallographic orientations of the inclusions relative to their host strongly implies exsolution of ilmenite and spinel from an older generation of slightly impure Cr, Fe, Al, and Ti-bearing olivine. These foreign elements had once been dissolved in olivine at pressures corresponding to mantle depths over 300 kilometers. As pressures lowered during ascent to the surface, the solubility of these impurities dropped and ilmenite and spinel precipitated out. The presence of clinopyroxene lamellae within diopside inclusions in garnet or surrounding garnet may point to a similar breakdown of majorite garnet, $Mg_3(Fe^{+2}, Al, Si)_2(SiO_4)_3$, which is stable only at depths exceeding 300 kilometers. Silica rods and needles in omphacite from accompanying eclogites reinforce this viewpoint. The needles in omphacite could also represent exsolution from a silica-rich clinopyroxene that is only stable at much higher pressures, but this line of evidence is not as firmly nailed as that of the ilmenite.

Both Alpe Arami garnet lherzolites and eclogites show signs of having been transported upward from great depths within the mantle during the main phase of Alpine deformation. While garnet lherzolite is an important mantle rock type, eclogite generally forms during high-pressure metamorphism of oceanic basalt and gabbro, as oceanic crust descends deeper into the mantle and enters high pressure-temperature regimes. Eclogite, being denser than average mantle rock, sinks and drags down associated continental crust. Exactly how these rocks make the return trip back to the surface is not that well-understood. The conveyor system is "...a very different geological elevator from the one that carried up the only other rocks known to have arrived from the deep mantle, the bits of mantle rock that bear diamonds²."

A leisurely walk through a rain-drenched southern Swiss town yielded an unexpected treasure—an exotic rock that tells a fascinating tale of survival after an arduous journey from the base of the upper mantle, near the transition zone some 300 to 400 km deep, and back up to the surface, transported by the tectonic forces that built the Alps.

Further Reading

Alpe Arami.

https://www.mineralienatlas.de/lexikon/index.php/Schweiz/Tessin/Bellinzona/Bezirk/Ticino/Kres/Gorduno/Alpe_Arami

Arami Alp, Gorduno, Bellinzona, Riviera, Ticino (Tessin), Switzerland.

<https://www.mindat.org/loc-72012.html> (accessed 9/12/2017).

Bocchio, R., De Capitani, L. and Ottolini, L., 2004. New chemical data on the clinopyroxene-garnet pair in the Alpe Arami eclogite, Central Alps, Switzerland. *The Canadian Mineralogist*. 42:1204-1219.

Ernst, W.G., 1981. Petrogenesis of eclogites and peridotites from the Western and Ligurian Alps. *American Mineralogist* 66:443-472.

Garnet peridotite (partly serpentinized).

https://commons.wikimedia.org/wiki/File:Garnet_peridotite.jpg (accessed 2/8/18).

Green, H.W., Dobrzhinetskaya, and Bozhilov, K.N., 2010. The Alpe Arami story: triumph of data over prejudice. *Journal of Earth Science* 21(5):731-743.

Kerr, R.A., 1996. Minerals in rock mass hold clues to 400-kilometer ascent. *Science* 271:1811.

Scientists Discover 'Miracle' Mineral That Could Make Internet 1,000-times Faster

By Trevor Nace

A rare mineral discovered in Russia in the 1830's could hold the key to boosting internet speeds 1,000 times faster than today. The mineral, perovskite, has a number of incredible properties, many of which scientists are now realizing.



Perovskite ($CaTiO_3$) is a calcium titanium oxide mineral, but the magic lies in this mineral's ability to house many different cations in its physical structure, giving engineers the ability to modify the mineral as they see fit. While scientists have known about the mineral for quite some time, originally discovered in the Ural Mountains in Russia in 1839,

researchers continue to find useful characteristics of this mineral.

Perovskite is found in Earth's mantle has been mined in Arkansas, the Urals, Switzerland, Sweden, and Germany. Each variety has a slightly different chemical makeup, allowing for different physical characteristics. One such useful characteristic discovered in 2009 is perovskite's ability to absorb sunlight and generate electricity, a natural form of a photovoltaic cell (solar cell). The mineral is currently under development for use in solar cells, displays, and catalytic converters.

Next Generation Terahertz Data Transfer

Now, scientists have discovered the mineral's ability to use the terahertz spectrum in transferring data. The specific type of perovskite used is both inorganic and organic and can be thinly layered on a silicon wafer. The system's unique ability is that it uses light instead of electricity to transfer data, allowing transfer speeds 1,000 times faster than current technology.

The terahertz band lies in between infrared light and radio frequency (100 to 10,000 gigahertz). This compares to the 2.4 gigahertz range most cellphones use today. The layered perovskite mineral can transfer data through light waves in the terahertz band using a simple halogen lamp. Using a halogen lamp, the research team found that they can modify the terahertz waves as they pass through the perovskite. This allowed the research team to encode data in the waves and transfer data 1,000 times faster than traditional electronic data transfers.

This research builds on the previous discovery of modulating waves in perovskite. However, that required expensive and high-powered lasers which made it commercially too expensive. The new discovery utilizes simple inexpensive halogen bulbs. In addition, the team found that they can specify the color of the light to modulate data simultaneously on different frequencies. Hence, not only can they transfer data 1,000 times faster using terahertz waves, they can simultaneously activate multiple data transfers using different colored lamps.

This technological breakthrough opens the door to using terahertz data transfer in future generation computing and communication. At a thousand times faster, this inexpensive and simple way to transfer data presents a multitude of opportunities to transform our digital lives. Unfortunately, we'll have to wait at least 10 years until it becomes commercially ready according to the authors. When that time comes, this could present a step change in computing and communication.

Source: Forbes.com from November 27, 2017

² Kerr, 1996.

Is the Moon for Sale?

By Bill Shelton

Several years ago I saw a piece of stony material for sale at the Tucson show. It was said to be from the Moon and had a price tag of \$1 million – I think it went unsold. The real questions in my mind revolve around two issues. (1) Was this really a piece from the Moon? (2) Can an individual actually own such a thing? I once heard that the Moon rocks from the NASA trips were all government property and you can't own one, at least legally. Well, let's see what we can find out about these questions.



On the Internet, you can search for answers – it seems to me that you can get a meteorite with a Moon origin but not a rock, since they are only available from NASA and a few Russian trips to obtain such things. It has been said the Russians sold a few bits to private individuals but it is not necessarily true. NASA has not sold even one sample but they have allowed a number of museums to borrow samples for public display. Notice that I differentiate a rock from a meteoric sample – whether this is an issue is a matter of opinion.

In a similar vein, Mars has meteorites and they may be seen for sale at times. We have never collected a rock on Mars and brought it back to the earth.

There is at least one place that claims to have examples of chips from a Moon meteorite for about \$40 which seems like it might be very reasonable – especially if it really is what it is claimed to be! You probably will not be able to positively determine whether the item is indeed genuine. I am not sure that you can perform any of the necessary tests to say with certainty that the little bit you receive is indeed a piece of the Moon.

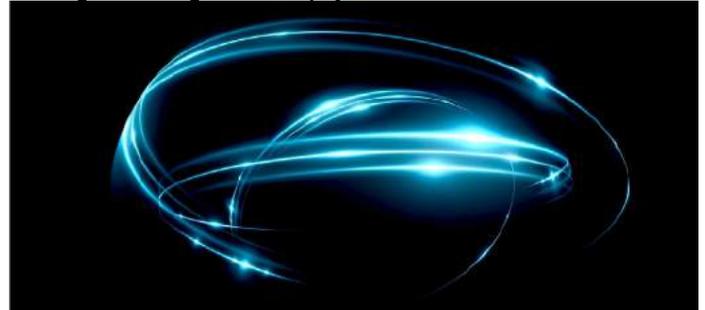
Wikipedia is one place you may want to visit because they have several stories about stolen pieces, scams and missing samples. They claim about 100 pieces are unaccounted for. Also, a claim that fraud may be encountered in this area. One and maybe more investigations have been done by the Federal Government regarding the sale of bogus Moon rocks. I can't say they are interested in possible sales of fake meteorites from the Moon but the possibility should be a factor in deciding to ever buy an item like this.

So, in my opinion, you cannot buy a real Moon rock; you will not get the real item at any price despite the explanations that are offered to you. A meteorite is, I think, possible but the fact remains that you can't be positive if it is in fact a real piece of the meteorite from the Moon.

Puzzle of Atomic Mass Continues to Persist

By Alfredo Carpineti

Measuring the mass of atoms is a difficult job and in the last few years, things have gotten a bit harder. Several high-profile, high-precision measurements started to give slightly different values. This had scientists scratching their heads. Is there something wrong in one (or more of the experiments)? Or are we missing something about the physics?



The discrepancy has taken the name of the helium-3 mass puzzle since researchers have been struggling to find a single correct value for the mass of this particular isotope. A paper appearing recently in Physical Review A has once again confirmed such a discrepancy. Researchers at Florida State University (FSU) used a method called penning trap, which uses magnetic fields to measure properties of stable ions (atoms that have lost some of their electrons). They confirmed the findings that started this whole saga a few years ago.

Back in 2015, the FSU team looked to obtain precise mass measurements of tritium and helium-3. They used their penning trap alongside cyclotron frequency ratios, where mixtures of different ions are accelerated so that heavier ones stay behind and lighter ones come upfront. This approach allowed them to obtain their measurements.

But a follow-up study from a different team at the University of Washington, which used a different deuteron (a proton and neutron bound together) and helium-3, obtained different results. The mass of helium-3 differed by less than a billionth between the two experiments. This might not seem like much but it's big enough in such high-precision experiments.

This was enough to get scientists wondering what was going on. Usually, in this case, the fault lies somewhere in the system. The FSU instrument was tweaked and improved over the last two years and the measurements were taken again.

But the fault might lie in what the "established" values for the proton and deuteron are. For example, last July researchers in Germany were able to obtain the most precise value for the mass of the proton yet. This value was used in the latest paper from FSU which did reduce the discrepancy between the helium-3 mass measurements, although not enough for a single value to be accepted.

The importance of the helium-3 mass is related to another important measurement of mass, the mass of the electron antineutrino. Measuring this mass is being attempted by an international collaboration through the experiment KATRIN, which uses the decay of tritium (a hydrogen with two extra neutrons) into helium-3. The particular decay releases an electron and an electron antineutrino, so researchers are hoping to work out the mass of the antineutrino in this way.

Source: IFLScience.com on January 10, 2018

Museum Trip Report

By Mark Kucera

Treasure of the Earth:

Mineral Masterpieces form the Robert Wiener Collection The Bruce Museum, Greenwich, Connecticut November 11, 2017 – April 1, 2018

With the American Museum of Natural History mineral hall under renovation and the weather below freezing for a sustained period I search for a museum caliber mineral display to warm me up. The Wiener Collection currently on display at the Bruce Museum certainly fits the bill.



The collection on loan is around one hundred pieces. All are spectacular. Most items are very large cabinet size pieces. World-wide in scope, the collection well represents the best of what has been available over probably the last forty years. Many of the items show atypical associations. Many are also the largest I've seen for the species, including other museums.

Although the Wiener Collection is only on display through April 1, the permanent mineral display is also worth the trip to Greenwich. The Bruce Museum's website is: brucemuseum.org. There is frequent Metro-North train service to Greenwich Station with a 5 minute walk to the Bruce Museum.

Another Historically Huge Diamond Found

By Amanda Woods

A massive diamond the size of two golf balls and worth an estimated \$40 million has been unearthed in Africa, according to reports.

The 910-carat gem — the fifth-largest gem-quality diamond ever found — came from the Letseng diamond mine in Lesotho, British-based Gem Diamonds tweeted early Monday.



“This exceptional top-quality diamond is the largest to be mined to date,” Gem Diamonds CEO Clifford Elphick told Fin24.

The diamond, which weighs a little less than half a pound, is the largest discovered at the mine since 2016, when the 603-carat Lesotho Promise stone was unearthed, the site reported.

The gem is a D color type IIa diamond — which means it is colorless and free of imperfections — and could fetch a huge price, The Independent reported.

“The pricing of diamonds is hugely variable and driven by a multitude of factors,” Ben Davis, an analyst at Liberum Capital Markets, told the outlet. “But assuming that there are no large inclusions running through the diamond, we initially estimate a sale of \$40 million.”

Gem diamonds hasn't named the newly discovered gem or said what it plans to do with it.

The Letseng mine is famous for its humongous, high-quality diamonds — which have the highest average selling price in the world, according to The Independent.

Source: nypost.com from January 16, 2018

2018 Member's Showcase

(Continued from page 2)

- ◆ **Mark Kucera**, a species and thumbnail collector (among MANY other categories), followed by showing his IMPRESSIVE specimen of the rare mineral **wittichenite**. You can even see a picture of his specimen in the *Mineralogical Record*, Vol 44/#2 (Mar/Apr 2013), Figure #17 on page 141.
- ◆ **Evie Durgin-Bruce**, one of our youthful members, talked about her attending fossil camp in Virginia and passed around a box that displayed some of fossil collection.
- ◆ **Paulette Wasserman**, a lapidary and jeweler with an eye for the beautiful, showed us several groupings of Montana agates. (She also donated one to the evening's Chinese auction!)

(Continues on page 10)

Spring 2018 Show Dealer Roster *(Subject to change)*

1	New York Mineralogical Club, Inc. , New York City Excalibur Mineral Corp. , Charlottesville, VA (Promoter)
2	Alan's Quality Minerals
3	Amazon Imports , Williston Park, New York
4	Amber J. I. N. Corporation , Canada
5	Aurora Mineral Corp. , Freeport, New York
6	AYS International , Floral Park, New York
7	Bary Gems , Hollis, New York
8	China South Seas, Inc. , New York City, New York
9	Crystal Circle , Cincinnati, Ohio
10	Crystal Passion , Woodcliff Lake, New Jersey
11	Exotic Russian Minerals , Moscow, Russia
12	Gangi Multisensory Arts , Franklin Square, New York
13	Gems Art Studio , Brooklyn, New York & Moscow, Russia
14	Highland Rock & Fossil , Highland Park, New Jersey
15	Khyber Gemstones , Lyndhurst, New York
16	Mahalo Minerals , Takoma Park, Maryland
17	Malachite & Gems of Africa , Rochester, New York
18	Petrov Rare Minerals , Desert Hot Springs, California
19	Raj Minerals , Jersey City, New Jersey
20	Rocko Minerals , Margaretville, New York
21	Howard Schlansker , Marshfield, MA <i>(Wholesale Only with Relevant Credentials)</i>

Show Lecture Titles & Schedule

Spring 2018 NYC Gem & Mineral Show

Show Lecture Introduction to Minerals

Dr. Howard Heitner
*Scientist, Collector & Member,
New York Mineralogical Club*

Saturday
March 3 at 1:00 p.m.



Spring 2018 NYC Gem & Mineral Show

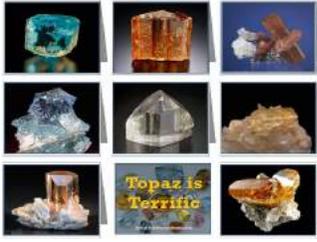
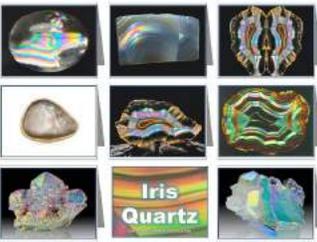
Show Lecture Inside Gems

Dr. Roland Scal
*Educator, Collector & Member,
New York Mineralogical Club*

Sunday
March 4 at 1:00 p.m.



10 (Relatively) New Note Card Sets Available!

 <p><i>Russian Minerals</i></p>	 <p><i>Topaz</i></p>
 <p><i>Apatite</i></p>	 <p><i>Kunzite</i></p>
 <p><i>Iris Quartz</i></p>	 <p><i>Phenomenal Gems</i></p>
 <p><i>Labradorite</i></p>	 <p><i>Yellow Gems</i></p>
 <p><i>Pearls</i></p>	 <p><i>Pederneira</i></p>

**Free!
NYMC Annual 2018 Calendar!**

2018 NYMC Calendar

Details

Jan 16 Movie Night: Polaroid Crystal Club & David Grayson
 Jan 17 Special Club Benefit Event
 Feb 14 Event: Members' Dinner & Fall Dinner Auction
 Mar 14 Spring 2018 NYMC Mineral & Gem Show
 Apr 14 Lecture: Legends, Myth & Folklore of Gems (Eric Ranzaglio)
 May 11 Lecture: Pearls (Renee Newman)
 May 12 Lecture: NYMC 20th Anniversary Dinner (Wish Patron)
 Jun 13 Annual Club Benefit Auction
 Jun 25-28 Summer 2018 NYMC Mineral & Gem Show
 Jul 11 Lecture: Collecting Type Locality Minerals (Karen Seaton)
 Jul 12 Annual Officers' Meeting
 Aug 10 Open House - (Location / Date TBD)
 Aug 12 Lecture: The Moon
 Oct 17 125th Anniversary Banquet!
 Theme: "Celebrate"
 Lecture, silent auction, awards, games, prizes, gifts, wine & MORE!
 London Lecture 19th
 Nov 14 Fall 2018 NYMC Mineral & Gem Show
 Dec 12 Lecture: The Moon
 New York Mineralogical Club, Inc.
 Founded 1888
 America's Oldest Mineral & Gem Club

The New York Mineralogical Club, PO Box 77, Planetarium Station, New York, NY 10024-0077 Website: <http://www.newyorkmineralogicalclub.org>

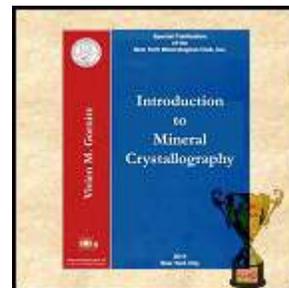
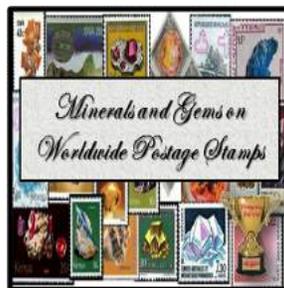
**They're Still Here!
Floaty Gemstone Pens
For Sale at the Show – \$5 each**



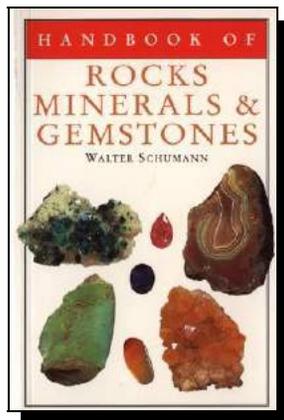
**For Sale at the Show – \$2
Miniature Rock Collection® Pencils**



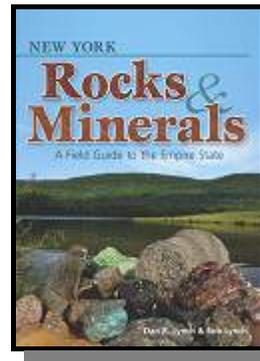
**Award-Winning
CD-ROMs – \$5**



Informative Books for Sale



\$20.00



\$10.00

**For Sale at the Show – \$5
NYMC Drawstring Backpack**



Pen & Pencil Sets – \$8



Topics in Gemology

Topics in Gemology is a monthly column written by Diana Jarrett, GG, RMV, based on gemological questions posed to her over the years by beginners and experts alike. Contact her at diana@dianajarrett.com.



Namibia's Ghost Town

The year is 1908. The place—the arid and very ancient deserts of Namib, where less than 10mm (0.39 in) of annual rainfall affects this barren landscape. The nearest port town of Lüderitz, Namibia lies 10 kilometers to the west. Winds off the Atlantic Ocean press down hot air forming distinct clouds and dense early morning fog resulting in a phenomenon of life-giving moisture to flora and fauna native to the forsaken terrain.



A Single Shiny Stone

On a seemingly uneventful day much like every other one in this remote outpost, railroad worker Zacharias Lewala spies a sparkly bit while working in the area. Showing it to his supervisor, German railway inspector August Stauch, they soon discover it to be a dazzling diamond crystal. The particular region was already thought to be rich in diamonds. And with this single serendipitous find, German miners began settling there. A single diamond crystal launched a bustling entrepreneurial community amongst the sandy dunes of Namibia.



What's In a Name?

The town became known as Kolmanskop (Afrikaans for Coleman's hill). The young inland village east of the port town of Lüderitz was named after a transport driver, Johnny Coleman who, during a sand storm, abandoned his ox wagon on a small incline near the village site.

A diamond-rich boomtown sprang up almost overnight nestled amongst the towering sandy ridges of the Namib desert. Much of it reflected the architectural style of a German town since most of its inhabitants were German miners. Comfortable amenities included a hospital, ballroom, power station, school, theatre, sport-hall, casino, and even this extravagant luxury—an ice factory. It boasted the first x-ray-station in the southern hemisphere, as well as Africa's first tram. A railway linked Kolmanskop's residents back to the larger civilization of Lüderitz.



A Prosperous Buzz

For decades, this wealthy village hummed with prosperity thanks to its diamondiferous soil. Kolmanskop was a lively and very social community rising in stark contrast to its remote inhospitable backdrop. Over time though, the diamond fields began showing signs of depletion as less crystal recovery occurred each year. After World War I, the mines were giving out and global diamond prices were on the decline. In 1928 some 270 km to the south of town, several wildly-rich diamond deposits along the beaches of the Orange River were discovered. By the 1930s the curious diamond town was all but over.

The Next Big Thing

And just like the furious stampede to Kolmanskop created that thriving diamond hub decades earlier, the inhabitants now rushed down to the Orange, leaving fine homes with all their possessions, and never looked back. The new diamond find was an easy one by contrast to Kolmanskop. Miners simply scouted the beaches along the South Atlantic seaboard as opposed to the more arduous task of underground mining.

Bye Bye Boomtown

Kolmanskop was ultimately abandoned in 1954. It did not take long for the prehistoric desert to reclaim the once vibrant community. Blowing in sand upon sand each day on its once prized structures, building doors fell off and windows flew open to welcome the desert dust. Unsurprisingly, the now ghost town was used occasionally as a filming site. Today, the area owned by Namdeb (Namibia De Beers) allows tourists to enter the town by permit. Tours help visitors to understand the history behind these silent ruins that will likely still be standing a hundred years from now.

Diamonds are an ancient mystery of nature, and mesmerizing to the observer. But the stories of diamond's discovery, like that Kolmanskop village a century ago prove to be even more spellbinding.



Extraterrestrial Stone Contains Compounds Not Found Anywhere Else in Our Solar System

By Michelle Starr

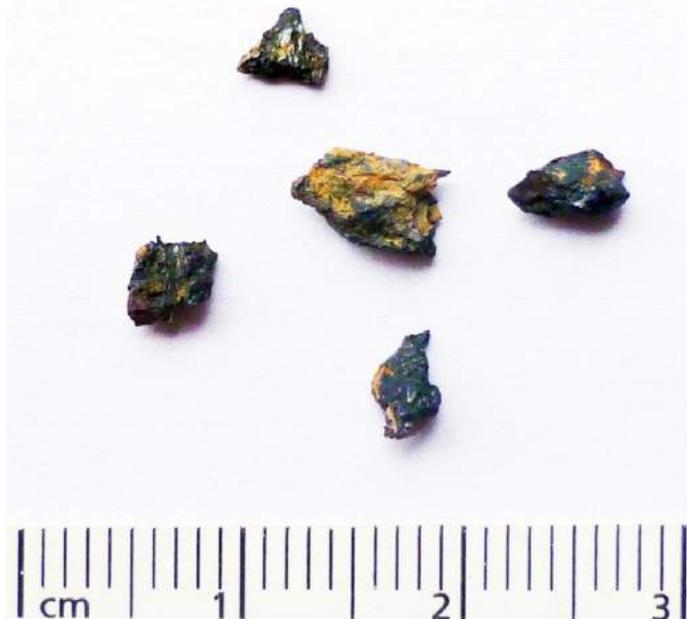
Whoa!

A small pebble found in Egypt is decidedly Not From Around Here.

The Hypatia stone, as it is known, is not only extraterrestrial in origin. It contains micro-mineral compounds not known to occur anywhere on Earth, not found in any other meteorites, and not known to occur anywhere in the Solar System.

It's a discovery that raises some questions about the formation of the Solar System.

In 2013, researchers announced that the Hypatia stone, found in south-west Egypt and named for the 4-5th century CE scientist Hypatia of Alexandria, had not come from Earth.



Subsequent analysis revealed that the diamond-filled stone was not from any known comet or meteorite - its combined features were unique among known extraterrestrial materials.

One hypothesis proposed that it might be a fragment of comet nucleus, shocked on impact, and another found that it was formed in a cold environment.

Now a team of researchers from the University of Johannesburg have analysed the carbonaceous matrix of the stone, and found a lack of silicate matter that sets it apart from other interplanetary material that has fallen to Earth, and the presence of minerals that seem to predate the Sun.

Metaphorically, the researchers compared the stone's internal structure to that of fruitcake that has fallen off a shelf and shattered.

"We can think of the badly mixed dough of a fruit cake representing the bulk of the Hypatia pebble, what we called two mixed 'matrices' in geology terms," said lead researcher Jan Kramers.

"The glaze cherries and nuts in the cake represent the mineral grains found in Hypatia 'inclusions'. And the flour dusting the cracks of the fallen cake represent the 'secondary materials' we found in the fractures in Hypatia, which are from Earth."

The pebble is just a small shard of the original "cake", which estimates place at several meters in diameter. However, its composition reveals a lot about the whole.

Non-metallic meteorites are called chondrites, and compositionally, they are a lot like Earth, with a small amount of carbon, and a lot of silicon.

Hypatia is the opposite, with a lot of carbon, and very small amounts of silicon.

"Even more unusual," Kramers added, "the matrix contains a high amount of very specific carbon compounds, called polyaromatic hydrocarbons, or PAH, a major component of interstellar dust, which existed even before our solar system was formed.

"Interstellar dust is also found in comets and meteorites that have not been heated up for a prolonged period in their history."

Some of the PAH in Hypatia was at some point turned into sub-micrometer diamonds - probably on its impact with Earth.

But other findings were even more peculiar. The researchers found aluminum in its pure metallic form - something that happens rarely, if ever, in the Solar System, as far as we know.

They also found silicon carbide (also known as moissanite) and silver iodine phosphide in highly unexpected forms. And a compound consisting mainly of phosphorus and nickel, with no iron - a mineral composition never seen before, not on Earth, and not in extraterrestrial materials.

Taken together, these features suggest that Hypatia is made of unchanged materials that predate the Sun - but that the stone itself was probably formed after the Sun, because you need a dense cloud like a solar nebula to form larger objects.

It challenges our models of planetary formation that assumes that material is evenly scattered throughout the protoplanetary disc - but more research is, as always, needed in order to learn more.

"Hypatia was formed in a cold environment, probably at temperatures below that of liquid nitrogen on Earth (-196 Celsius). In our solar system it would have been way further out than the asteroid belt between Mars and Jupiter, where most meteorites come from," Kramers said.

"Comets come mainly from the Kuiper Belt, beyond the orbit of Neptune and about 40 times as far away from the sun as we are. Some come from the Oort Cloud, even further out.

"We know very little about the chemical compositions of space objects out there. So our next question will dig further into where Hypatia came from."

The team's research has been published in the journal *Geochimica et Cosmochimica Acta*.

Source: Sciencealert.com from January 10, 2018

2018 Member's Showcase

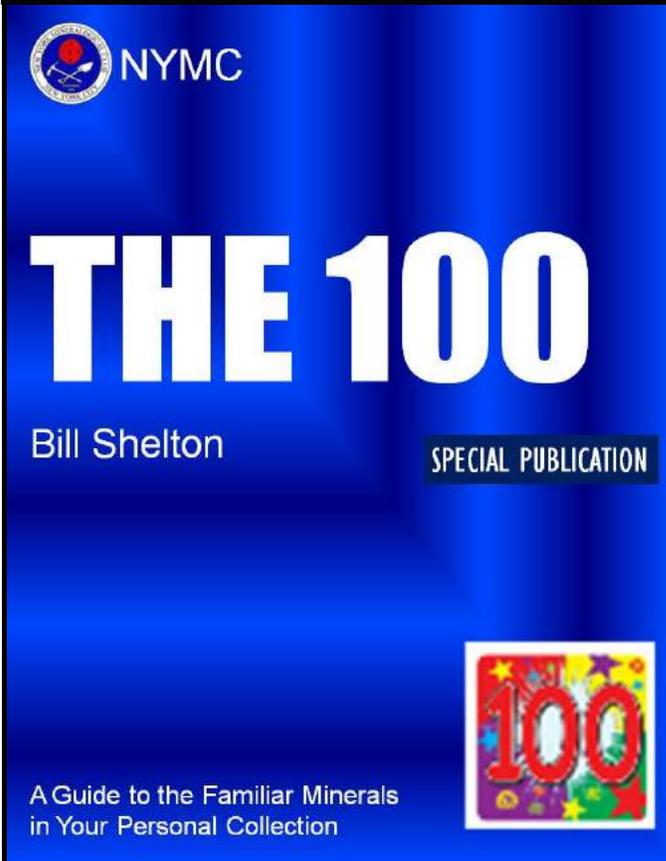
(Continued from page 6)

- ◆ **Vivien Gornitz** brought in a "mystery rock" that she obtained in Bellinzona, Switzerland, the historic city. Labeled by the dealer as *ecologite*, she believes it actually to be *garnet lherzolite!*
- ◆ **Mitch Portnoy** amused the audience with yet another song: "Club Members Together" sung to the tune "Together Wherever We Go" from *Gypsy* by Stephen Sondheim.
- ◆ **Rich Rossi**, as is now a tradition at the annual Show and Tell, presented several of his favorite recent acquisitions. The highlight, for me, anyway, was a splendid copper/silver "half-breed" from Michigan, containing obvious crystals of both metals.
- ◆ **Howard Heitner** closed the evening by showing how effective a handy LW-UV light he owns allows one to see fluorescence in minerals.
- ◆ We look forward to next year's **Members' Showcase** as well as yet another **Chinese Auction!**



NYMC
AUCTION FUNDRAISER
WEDNESDAY EVENING, JUNE 13, 2018
WATSON HOTEL MEZZANINE
LOT VIEWING 5:00 PM – 6:00 PM
LIVE AUCTION 6:15 PM – 9:00 PM
ILLUSTRATED CATALOG AVAILABLE ONLINE

NYMC Special Publication in the Works!



NYMC
THE 100
 Bill Shelton **SPECIAL PUBLICATION**
 A Guide to the Familiar Minerals
 in Your Personal Collection

**2018 Benefit Auction
 Illustrated Catalog**



New York Mineralogical Club, Inc.
 Watson Hotel
 June 13, 2018

Lot Viewing: 5:00 pm – 6:00 pm
 Auction: 6:15 pm – 9:00 pm

GARNET

2018 Winter Olympic Medals



The medals, which range in weight from 586 grams for the gold medal to 493 grams for the bronze, reflect the traditions and culture of the host nation. Their design was inspired by the texture of tree trunks, with the front bearing the Olympic rings and dynamic diagonal lines that reflect both the history of the Olympics and the determination of the participants. On the reverse, meanwhile, are stated the discipline, event and the PyeongChang 2018 emblem. In total, 259 sets of the medals have been made.

Composition: Gold : a silver medal with a purity of 99.9% plated with 6 g of gold. Silver: a silver medal with a purity of 99.9%. Bronze: a copper medal (Cu90-Zn10).

Weight: Gold: 586 g. Silver: 580 g. Bronze: 493 g.

Diameter: 92.5 mm

Donations Being Accepted for the
Annual NYMC Benefit Auction
Wednesday Evening, June 13, 2018
Watson Hotel Manhattan
 Minerals, Gems, Jewelry, Cabochons,
 Meteorites, Lapidary Arts, Crystals,
 Magazines, Books, Ephemera, Fossils,
 Posters, Prints, Equipment & etc.

Please Send in Your 2018 NYMC Membership Dues!

Forget

Forget the hasty, unkind word;
Forget the slander you have heard;
Forget the quarrel and the cause;
Forget the whole affair, because,
Forgetting is the only way.
Forget the storm of yesterday;
Forget the knocker, and the squeak;
Forget the bad day of the week.
Forget you're not a millionaire;
Forget the gray streaks in your hair;
Forget to even get the blues -

**But don't forget
To Pay Your Dues!**



*** FINAL NOTICE ***

Please take the time to send in your
2018 NYMC membership dues if you have not already done so.
*And get yourself a set or two of note cards —
they make great gifts!*

Name (s)			
Street Address			
City		State	Zip
Home Phone	Work Phone	E-mail PLEASE! <input type="checkbox"/> Send me my monthly Bulletin via e-mail.	
<input type="checkbox"/> Individual Membership (\$25.00)		<input type="checkbox"/> Family Membership (\$35) for:	
Please send me a set of the following boxed Note Card Sets (Each set for \$6.00 including envelopes): <input type="checkbox"/> Thin Sections <input type="checkbox"/> Mineral & Gem Bookplates <input type="checkbox"/> Jade <input type="checkbox"/> Native Elements <input type="checkbox"/> Crystallography <input type="checkbox"/> Ruby <input type="checkbox"/> Famous Diamonds <input type="checkbox"/> Birthday Mineral Cards <input type="checkbox"/> Malachite <input type="checkbox"/> Quasicrystals <input type="checkbox"/> Quartz <input type="checkbox"/> Lapis <input type="checkbox"/> Amethyst <input type="checkbox"/> Fluorite <input type="checkbox"/> Garnet <input type="checkbox"/> Amber <input type="checkbox"/> Sapphire <input type="checkbox"/> Pyrite <input type="checkbox"/> New York State <input type="checkbox"/> Pseudomorphs <input type="checkbox"/> The NYMC <input type="checkbox"/> Opal <input type="checkbox"/> Pederneira <input type="checkbox"/> Upper New Street <input type="checkbox"/> Emerald <input type="checkbox"/> Turquoise (See complete list online)			
<input type="checkbox"/> I'd like to get one of garnet-red drawstring backpacks which features the Club. (Each backpack is \$5.00)			
Mail this form (or copy) with your check to:		Membership Coordinator, New York Mineralogical Club, Inc. PO Box 77, Planetarium Station, NYC, NY, 10024-0077	

2018 Club Calendar

Date	Event	Location	Remarks & Information
March 14	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Eric Rampello – “Gemstone Folklore & Mythology”
April 11	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Renée Newman – “The Luster of Pearls!”
May 9	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Dennis Askins – “NYC Minerals & Their Locations”
June 13	Annual Benefit Auction	Mezzanine C Watson Hotel, Manhattan	100+ Diverse Lots; Bring Friends! Online Catalog Available!
July 11	Summer Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Karenne Snow – “Collecting Type Locality Minerals”
August ?	Open House (Social Event)	Location?	Details to follow when finalized
September 12	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Roland Scal – “Microscopes and Minerals”
October 17	Annual Gala Banquet	Mezzanine B & C Watson Hotel, Manhattan	Theme: <i>Carnelian</i> ; Lecture; Silent Auction; Awards; Fun & Games; Gifts & Surprises!
November 14	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: Mitch Portnoy – “The Stones of NYC Park Monuments”
December 12	Meeting at 6:00 pm	Watson Hotel, Manhattan	Special Lecture: David Baker – “The Diverse World of the AGTA”

2018 Show & Event Calendar

Date	Event	Location	Remarks & Information
February 24-25	25 th Annual Gem, Mineral, and Fossil Show and Sale	New York State Museum, Albany, New York	Sponsored by the Capital District Mineral Club and the New York Academy of Mineralogy
March 3-4	Spring NYC Gem, Mineral, Jewelry & Fossil Show	Grand Ballroom, Watson Hotel, New York City	25+ diverse dealers; lectures; wholesale section (with credentials); NYMC Booth
April 4-8	NY / NJ Mineral, Fossil, Gem & Jewelry Show	NJ Expo Center, Edison, New Jersey	Exhibits & Dealers
April 6-8	Combined EFMLS/AFMS Convention & Show	Raleigh, North Carolina	Bulletin Article Contest results; More detailed information to follow
April 14-15	29 th Annual North Jersey Gem, Mineral & Fossil Show	Midland Park High School, Midland, New Jersey	Sponsored by the North Jersey Mineralogical Society
April 28-29	New Jersey Earth Science 46 th Annual Gem & Mineral Show	Robert E. Littell Center, 12 Munsonhurst Road, Franklin, New Jersey	Includes outdoor swap; Information: Sterling Hill Mining Museum, 973-209-7212
May 19-20	Southern Vermont Mineral, Rock & Gem Show	Grace Christian School, Kocher Dr., Bennington, Vermont	Sat: 10-5, Sun: 10-3; Admission \$5; Kids free For info: Bill Cotrofeld (@ (802) 375-6782
NEW! June 23-24	Summer NYC Gem, Mineral, Jewelry & Fossil Show	Grand Ballroom, Watson Hotel, New York City	NYMC Booth; Details will follow

For more extensive national and regional show information check online:

AFMS Website: <http://www.amfed.org> and/or the EFMLS Website: <http://www.amfed.org/efmls>

NYC GEM & MINERAL SHOW MARCH 3-4, 2018



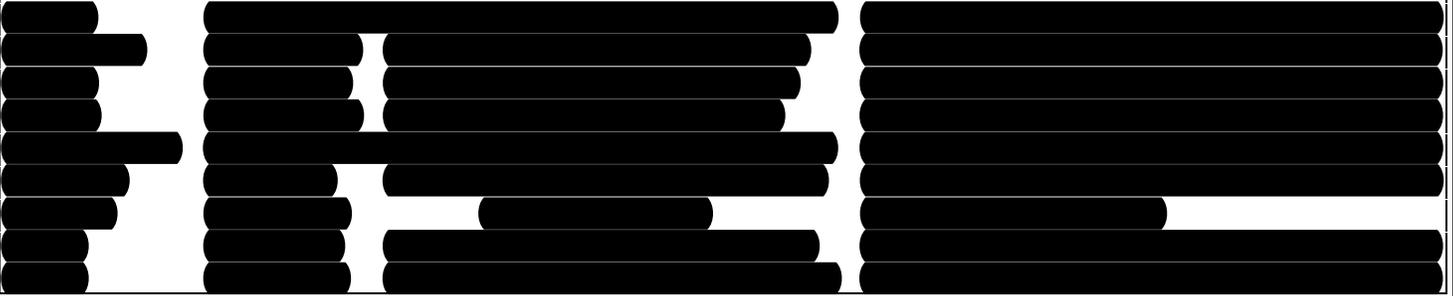
The New York Mineralogical Club, Inc.

Founded in 1886 for the purpose of increasing interest in the science of mineralogy through the collecting, describing and displaying of minerals and associated gemstones.

Website: www.newyorkmineralogicalclub.org

P.O. Box 77, Planetarium Station, New York City, New York, 10024-0077

2018 Executive Committee



Dues: \$25 Individual, \$35 Family per calendar year. **Meetings:** 2nd Wednesday of every month (except August) at the Watson Hotel, 440 West 57th Street between Ninth and Tenth Avenues, New York City, New York. Meetings will generally be held in one of the conference rooms on the Mezzanine Level. The doors open at 5:30 P.M. and the meeting starts at 6:45 P.M. **(Please watch for any announced time / date changes.)** This bulletin is published monthly by the New York Mineralogical Club, Inc. The submission deadline for each month's bulletin is the 20th of the preceding month. You may reprint articles or quote from this bulletin for **non-profit usage only** provided credit is given to the New York Mineralogical Club **and permission** is obtained from the author and/or Editor. The Editor and the New York Mineralogical Club are not responsible for the accuracy or authenticity of information or information in articles accepted for publication, nor are the expressed opinions necessarily those of the officers of the New York Mineralogical Club, Inc.

Next Meeting: Wednesday Evening, March 14, 2018 from 6:00 pm to 9:00 pm

Mezzanine, Watson Hotel, West 57th Street & Tenth Avenue, New York City

Special Lecture: Eric Rampello – “Gemstone Folklore & Myths”

New York Mineralogical Club, Inc.
Mitchell Portnoy, Bulletin Editor
P.O. Box 77, Planetarium Station
New York City, New York 10024-0077

FIRST CLASS



George F. Kunz
Founder



NYC GEM AND MINERAL SHOW

A Spring Show & Sale of Minerals, Fossils, Gemstones, Meteorites, Jewelry & Crystals



March 3-4, 2018

Saturday (10:00 am – 6:00 pm)

Sunday (11:00 am – 5:00 pm)

Watson Hotel

440 W. 57th Street (Between 9/10 Avenues)

General Admission: \$6.00

\$1.00 off with this ticket

Free admission to accompanied kids under 12

Hosted by the New York Mineralogical Club

www.newyorkmineralogicalclub.org

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