February 2023

SHALE MALE

RANGE COUN

INERAL SOCIET

W YORK



See you at: 81 Laroe Rd Chester, NY (Town of Chester Recreation Senior Center), (From KINGS HWY, Turn left on Laroe Rd by UPS office building)

CLICK FOR MAP

2023 CALENDAR

Feb 10 - Crinoid Fossils Mar 10 - Lecture Apr 14 - Lecture May 12 - Lecture Jun 3-4 Sat Mineral Show and Sale Jul 14 - Lecture Aug 11 - Lecture Sep 9 - Rock BBQ - **Saturday** Oct 13 - Lecture Nov 10 - Lecture

Dec 8. - Christmas Party 2023

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PRESIDENTS MESSAGE & MINUTES!

President's Message

Four months until Show time. Please attend our February 10 meeting at the senior center. We will be discussing the preparations for the June 3-4 Mineral Show and Sale at Museum Village. We welcome any new suggestions for discussions regarding the show and meeting activities. Raffle, field trips, and more will be topics of interest. Refreshments will include our own freshlybrewed coffee and maybe a few surprises. Our presentation will have an archaeological aspect to crinoid fossils. I predict an early spring and wish you all a warm and happy Valentine's Day.

Minutes of the Meeting

OCMSNY January 2023 Meeting Minutes:

OCMSNY attendance sheets were completed, Attendance 25. Name tags were not available at this meeting.

Meeting preparations included refreshments: coffee, cookies , brownies, pizza and more...raffle table included 16 specimens.

OCMSNY president Mike Tedford called the meeting to order at approximately 6:35 PM, welcoming the attendees who each introduced themselves to the meeting.

The business meeting portion was deferred until after the informative presentation by Derek Yoost. Rhodochrosite is a red gemmy mineral from only a few rare locations in the world. With a hardness of 3.5 to 4, this red, crystalline form of manganese carbonate is easily polished and crafted. He presented hands on specimens as well as specimens for sale that were enjoyed by our members.

The business meeting reconvened. Members confirmed they are receiving the emailed Shale Mail , and the December meeting min-

utes were accepted. Ron Nelson read the balances of the main checking account and show account. He mentioned we began initiating contacts with vendors for the June 3-4, 2023. Mineral Show and Sale. More possibilities of field trips and mineral shows were discussed briefly. The Albany show trip was unlikely to take place as the show was canceled. Derek again offered to lead a Big Brook field trip when the weather improves and members expressed an interest in participating. It is also likely we can join in with members of other clubs for the trip. There are still openings at Wild Acres workshops this year... Keep an ear out for possibly tagging along on a trip with any other club. Our website and Facebook page continue to be updated. Gary Kerstanski announced our February meeting speaker will be an archaeologist on the topic of crinoid fossils. The 16 unique raffle specimens were enjoyed by the members. The club camaraderie continued past 900pm.



By: Mike Tedford

"Rhodochrosite - Inca Rose"

Derek Yoost came to our club house January 13th, 2023. He arrived toting rhodochrosite from his private collection for our eyes only and some for sale. Many of us took advantage and bought specimens to take home with us.

Rhodochrosite is one of the most sought after minerals for jewelry making. Rhodochrosite has a hardness of only 3.5 to 4 and has perfect cleavage in three directions. Cabochon makers often slab it to show off its banded or concentric patterns. It's perfect cleavage makes it difficult to cut. Because its so soft rhodochrosite is extremely hard to polish however, it can be done



with a little patience.

In metamorphic rocks, rhodochrosite is found as a vein and fracture-filling mineral where it precipitates from ascending hydro-thermal solutions. Repeated episodes of crystallization allow it to build up in layers on the walls of the fracture. Each layer can be a unique precipitation event and produce material with a slightly different pink color. This gives character to the material for lapidary use. It is often associated with silver deposits, and a few silver mines produce rhodochrosite as a byproduct.

Some rhodochrosite forms in cavities in

sedimentary and metamorphic rocks when descending solutions deliver a supply of dissolved materials. In these deposits, the rhodochrosite accumulates in layers on the walls of the cavity and may form stalactites and stalagmites on the roof and floor of the cavity - just like speleothems in a cavern.



Rhodochrosite is mainly used as an ore of manganese, which is a key component of lowcost stainless steel formulations and certain aluminum alloys.

Rhodochrosite is extremely rare as wellformed crystals. One of the few locations in the world where they are found is the Sweet Home Mine, near Alma, Colorado. Originally opened as a silver mine in 1873, the rhodochrosite was disregarded at that time. Then, as the popularity of mineral collecting increased, the well-formed crystals found at the Sweet Home Mine became many times more valuable than the lapidary material. Excellent, small, hand-size specimens currently sell for five-digit numbers. Broken or damaged crystals are sometimes used as faceting rough.

Check out some of the specimens at the <u>Sweet Home Mine Gallery.</u>

Silver!

By: Keith Chip Allen

Silver often plays second fiddle to another precious metal, gold, but this element has special properties that deserve a good look. Of all the metals, pure silver is the best conductor of heat and electricity. It's also the best reflector of visible light, which is why it is commonly used to make mirrors, though silver does tarnish and turn dark grey when exposed to air, requiring periodic polishing.

The word silver comes from the Anglo-Saxon word seolfor. There is no word that rhymes with the English word silver. The chemical symbol for silver, Ag, comes from the Latin word for silver, argentum, which in turn derives from the Sanskit word argunas, which means shining.

Pure silver is too soft for products like jewelry and tableware, so the family's finest forks and knives are most likely sterling silver, an alloy of 92.5 percent silver and 7.5 percent copper (though sometimes other metals are used). Silver is also used in some electronics and batteries. Because the metal has antimicrobial properties, nanoparticles of silver can be woven into clothing to prevent bacteria from building up on deposits of sweat and oils.

Silver's history is long. The first evidence of silver mining dates back to 3000 B.C., in Turkey and Greece. Ancient people even figured out how to refine silver. They heated the silver ore and blew air over it, a process called cupellation. The silver does not react to the air, but the base metals such as lead and copper oxidize and separate from the precious metal.





Silver really exploded on Earth, however, when Europeans landed on the New World in 1492. Spanish conquerors discovered that South America was home to rich veins of silver and silver ore, and they mined that wealth enthusiastically. 85 percent of the silver produced worldwide came from Bolivia, Peru and Mexico between 1500 and 1800.

Silver played a big role in making early photography possible. Silver nitrate (silver combined with nitrogen and oxygen molecules) was used on photographic plates in the first, clunky cameras, according to the RSC, because it reacts to light by turning black — enabling photographers to capture an instant of light. Even with the rise of digital cameras, silver remains part of the traditional photographic process.

As of 2003, the most recent year data is available, 1,920 metric tons of silver each year went to use for photographic purposes. Electrical and electronic uses were the second most-common single industrial use for silver, with 1,230 metric tons going into wires and gadgets in 2003. Jewelry, sterling silver and silver electroplated objects ran a distant third, using only 486 metric tons. Another 1,810 metric tons went to various other uses.

The primary source of silver today is the New World. Mexico is the leading producer, followed by Peru. The United States, Canada, Russia, and Australia also produce silver. Around two-thirds of the silver obtained today is a by-product of copper, lead, and zinc mining.

Rhodochrosite!

In 1989, after being fired from his job, Miguel Yampa invested all his money for a permit to explore the Capillitas Mountains for Rhodochrosite deposits. In 1992, after only finding 7 tons of Rhodochrosite in 3 years and out of money, he found a large vein. Praying to Santa Rita for help, he promised he would build a church in her honor, if she helped him. The first main structure build was the Santa Rita Church and he named the mine Santa Rita.

The Santa Rita Mine is the believed to be the world's largest mass of rhodochrosite famous for its unique formation, occurring as stalactites and stalagmites. Yampa began giving money to the community and soon 200 people would journey up the mountain to attend church. He built a hotel and community center for his visitors and became known as "the lord of the rhodochrosite.

Rhodochrosite is a manganese carbonate mineral with the chemical composition MnCO₃. The mine is located in the Andalgalá Department, Capillitas Province, in northwestern Argentina at an elevation of 10800 feet.

Mined since Incan times, the polymetallic sulphide veins at the Capillitas Mine were worked in the 17th century for silver, and later for lead and zinc. Today, sulphides extraction is no longer economical, but the mine is still



being worked for lapidary materials for specimens and carvings, producing 100-200 tons of material a year. The banded rhodochrosite is often sliced and polished into slabs for collectors.

Rhodochrosite from the Capillitas Mountains was first described in the literature in 1873, when it was given the name, "Inca Rose" rhodochrosite. Indigenous people probably mined the nearby placers for gold in pre-Colombian times. From the 13th through the 15th centuries, rhodochrosite was mined here by the Incas. In the 17th and 18th centuries, the area was mined by the Jesuits for silver, gold and copper. From the 1850's



onward mining was carried out by Spanish, English and German companies. In 1940, the mine was taken over by the Argentine military to mine copper. More than 20 miles of adits have been driven at the mine, making it the largest mine in Argentina.

The stalactites found at the mine have been cut and polished and sold worldwide, which made Capillitas rhodochrosite famous. A 15-foot-high and 6-foot-wide cavity was discovered in the 25 de Mayo vein, with individual stalactites up to 2 feet thick and 10 feet long. The walls were completely covered with thick stalactite formations, and large stalactites hung from the cave ceiling.

Rhodochrosite -cont.

By: Keith Chip Allen

Some pieces have up to 30 fine strips, each a few millimeters thick, but they can be up to 5 cm in thickness. The strips are sometimes interlayered with white of pink crystalline manganocalcite, and rarely chalcedony. The chocolate brown strips are called capilliite, which is very rich in zinc. Probably the most impressive color is the vivid crimson red.



Unlike most sulphide deposits, most of the Capillitas veins consist almost entirely of rhodochrosite with only minor amounts of lead and zinc sulphides. These veins are the result of hydrothermal mineralization in diatreme volcanics and the adjacent Paleozoic granite. The veins are related to Miocene-



Pliocene volcanism, and are said to be of tertiary age. The mine is part of the Farallón Negro Volcanic Complex, which is located at the interface between the Sierras Pampeanas and the Puna physiographic and tectonic provinces. The principal veins are Capillitas, Carmelitas, La Rosario, Ortiz, Restauradora, and 25 de Mayo.

Its powers include drawing love to the wearer, helps release past psychological issues and improves eyesight. Rhodochrosite is thought to relieve stress and is used by healers to cleanse the aura.



Rhodochrosite is also believed to help in the development of inner freedom by helping to resolve inner conflicts and as a stone of love and balance. It is a powerful healer for the 4th chakra and used to cleanse the heart chakra.

Many believe that it can release the suffering based on past lives and energize the pancreas, spleen and kidney. It increases the ability to handle life problems and increase personal self-confidence.

The Incas, who called it *Inca Rose,* believed that rhodochrosite is the blood of their former kings and queens that was turned to stone.

Shows, Swaps & Cool Stuff!

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ission with this card!

*Food available

1: Adult \$5 • Senior \$4 • Under 12, MPHS Students, Scouts in Unif

One of the best shows in the Northeast! Featuring Rocks, Minerals, Fossils, Crystals Gemstones, Jewlery, Metaphysical, Lapidary, Rockhounding Supplies, and Much MORE!



SATURDAY, APRIL 22, 2023 AT 9 AM – 5 PM April Swap & Sell

Franklin Mineral Museum



Strange life forms create an "alien" ecosystem in an abandoned uranium mine



Ice cave in Patagonia, Argentina

FEB 8, 2023

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Making Minerals

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