

UPCOMING SHOWS

February 23rd through 24th
New York State Gem & Mineral Show
New York State Museum
Albany, NY

For information: Gerald Boileau (518) 463-4690

March 2nd and 3rd
Meriden Gem & Mineral Show
Maloney High School, Gravel Street
Meriden, CT

March 23rd and 24th
30th Annual Festival of Gems & Minerals
The Island Rock Hounds, Inc.
The American Legion
Amityville Post # 1015
79 Park Avenue, Amityville, NY

March 2nd and 3rd
New York City Gem & Mineral Show
Holiday Inn – 440 West 57th Street
New York, NY

For information: Tony Nikischer (914) 739-1134
The Club will go on a one-day bus trip on March 2nd for this event.

March 9th and 10th
13th Annual Clifton Gem & Mineral Show
Clifton, NJ
For information: Rolf Schudel (973) 636-6555

April 13th and 14th
Village of Freeport Recreation and Parks Dept.
27th Annual Gem & Mineral Show
Freeport Recreation Center
130 East Merrick Road, Freeport, NY
For information: Chairman J. Anderson, PO Box 551,
North Bellmore, NY 11710

April 27th and 28th
30th Annual NJ Earth Science Assoc. Gem & Mineral Show
Franklin, NJ
For information: Sterling Hill Mining Museum (973) 209-7212
The Club is planning a one-day bus trip on April 27th for this event



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

F E B R U A R Y 2 0 0 2

CLUB OFFICERS

President - Charles Runko	543-7873	Recording Sec'y.-Thomas Wines	472-4395
Vice President - Kerry Dicker	277-	Director - Elaine Casani	567-3342
0994		Director - Sophia Martins	
Treasurer - Roberta Besso	666-8023	Director - Doreen Wilson	
Corres. Sec'y.- Amanda Bielskas	360-1364		

The Conglomerate:

Editor - Judi Wines

Co-Editor - Marty Besso

Last Meeting

On January 28th, Joe DeCristoforo of Amazon Imports gave an informative presentation on his numerous gem and mineral collecting trips to Brazil. The Club's officers for 2002 (unchanged from last year) were elected.

Next Meeting February 25th (4TH MONDAY OF THE MONTH)

Mimi Bazan will conduct a hands-on demonstration on making a bead-knotted necklace. Material costs are \$4.00 for members (additional materials can be purchased for \$6.00) and \$8.00 for non-members. Be sure to bring jewelry (small) pliers.

DUE TO ADDITIONAL TIME THAT WILL BE NEEDED TO WORK ON THE NECKLACE, THE MEETING WILL START PROMPTLY AT 7:15 PM TO BE FOLLOWED BY THE DEMONSTRATION AT 7:30 PM.

As always, refreshments will be served.

If You Didn't Know...

Club member Herb Baker is ill, and we should keep him in our prayers. His home address is 1014 North Clinton Ave., Lindenhurst, NY 11757.

New Members

The Club would like to welcome the following new member:

Marilyn Kanti - Commack

Your 2002 Membership Dues

Club dues are to be paid in February - \$15.00 for a family and \$10.00 on an individual basis. Please take this opportunity to send in your dues now (SGMC, Box 302, Bohemia, NY 11716) or, even better, hand them in to Treasurer Roberta Besso, at the February 25th meeting. **Only paid memberships receive the monthly newsletter.**

Club Trip to "The Big Apple"

The Club is finalizing the details of a one-day bus trip for Saturday, March 2nd, to the Museum of Natural History in New York City to view the special exhibition of pearls. Details will be discussed at the February meeting. Since the Club will offer seats to members of other clubs, it is very important to know the exact number of people going.

8023 (evenings).

Westward Ho in the Spring to Franklin, NJ

The Club is planning another one-day trip to the indoor and outdoor 30th annual New Jersey Earth Science Association's Gem and Mineral Show in Franklin, NJ on April 27th. This is one of the East Coast's largest event with over 100 dealers in gems, minerals and fossils. Plan to join us. Please call either Elaine or Marty.

Club Officer to "Break a Leg"

Charles Runko, the Club's President, will be appearing in "An Evening of Comedy" consisting of six one-act plays at Synergy Theater Company, 401 Main Street, Islip, NY. Performances are February 15, 16, 22, 23, 29, and 30 at 8:00 p.m. and February 17 and 24 at 2:00 p.m. Tickets are \$5.00. For additional information, call Charlie at 631-988-0789.

Lost and Found

A black scarf has been found at Tang's Restaurant that may belong to someone who attended the December Christmas Party. Please contact Marty for details.

A few Kodak Moments

Check the Club's website (www.suffolkgem.com) for the recently added photos of the 28th Annual Gem & Mineral Show and the Annual Christmas Party as well as guest speakers and hands-on demonstrations.

GEM OF THE MONTH

PHYSICAL PROPERTIES

- **Amethyst Chemical composition:** SiO₂ (minor Fe⁴⁺ impurities cause amethyst's color)
- **Class:** tectosilicate
- **Crystal system:** Hexagonal-R; 32 (trigonal-trapezohedral)
- **Crystal habit:** Macroscopic crystals occur as horizontally striated hexagonal prisms terminated by a combination of positive and negative rhombohedrons forming six sided pyramids. Amethyst often occurs as drusy masses showing only the rhombohedral terminations. It can also be massive.
- **Twinning:** Dauphine twin with *c* the twin axis, Brazil twin with {1120} the twin plane
- **Specific gravity:** 2.65
- **Index of refraction:** 1.54-1.55
- **Birefringence:** 0.009
- **Pleochroism:** distinct
- **Hardness:** 7
- **Color:** light to dark purple
- **Luster:** vitreous
- **Transparency:** transparent to translucent
- **Cleavage:** none



HISTORICAL INFORMATION AND USES

Amethyst has been used as gemstones and other ornamental objects for thousands of years. The early Greeks believed that amethyst would protect one from the effects of drunkenness when consuming alcohol. A possible explanation for this unusual virtue being given to amethyst is that when water is poured into a cup fashioned of amethyst, it would have the appearance of wine yet could be drunk without experiencing wine's normal inebriative effect. In ancient cultures, amethyst amulets were worn as antidotes against poison, to dispell sleep, as protection against harm in battle and to sharpen one's wits. In medieval times,

enemies, and assist hunters with the capture of wild animals.

Gem of the Month - Amethyst (Continued)

The name amethyst comes from the Greek word *amethystos* which means *not drunken*. In the first century, Pliny wrote that amethyst was so named for its color being nearly the same as that of wine. Early Greeks believed that drinking wine from an amethyst cup would prevent intoxication.

The astrological signs of amethyst are Pisces, Virgo, Aquarius and Capricorn.

Amethyst is the symbolic gemstone for the 17th wedding anniversary.

QUARTZ (Amethyst) BACKGROUND INFORMATION

Amethyst is a macrocrystalline variety of the mineral **Quartz** (SiO₂). Quartz is the most abundant single mineral on earth. It makes up about 12% of the earth's crust, occurring in a wide variety of igneous, metamorphic and sedimentary rocks.

Quartz varieties are commonly separated into two groups based on the size of the individual grains or crystals; **macrocrystalline quartz** in which individual crystals are distinguishable with the naked eye, and **cryptocrystalline quartz** in which the individual crystals are too small to be easily distinguishable under the light microscope.

Some of the macrocrystalline quartz varieties are: Amethyst, Ametrine, Cat's-eye Quartz, Citrine, Phantom Quartz, Rock Crystal, Rose Quartz, Rutilated Quartz and Smoky Quartz. Blue Aventurine Quartz and Green Aventurine Quartz are actually quartzites (a rock, not a mineral) composed essentially of interlocking macrocrystalline quartz grains with disseminated grains of other color imparting minerals.

The cryptocrystalline varieties of quartz may be separated into two types; **fibrous** and **microgranular**. Chalcedony is the general term applied to the fibrous cryptocrystalline varieties. Agate is an example of a fibrous cryptocrystalline banded chalcedony variety of quartz. Carnelian, Chrysoprase and bloodstone are other chalcedony varieties. Chert is the general term applied to the granular cryptocrystalline varieties of quartz, of which flint and Jasper are examples.

OCCURRENCE AND DIAGNOSTIC FEATURES

Amethyst has been found in siliceous volcanics, occurring as macroscopic crystals and drusy coverings inside of agate lined amygdaloidal cavities or vugs, often forming geodes. Amethyst also occurs in quartz veins.

The purple color of amethyst is due to small amounts (approximately 40 parts per million) of iron (Fe⁴⁺) impurities at specific sites in the crystal structure of quartz. The difference between amethyst and citrine is only the oxidation state of the iron impurities present in the quartz. Upon heating, the iron impurities are reduced and amethyst's purple color fades and becomes yellow to reddish-orange (citrine), green, or colorless depending on the site and original oxidation state of the iron impurities present and the amount and duration of the heating. The amethystine color usually can be regained by irradiation which re-oxidizes the iron impurities. This irradiation can be done by synthetic means, or it can occur in nature by radioactive decay of nearby radioactive minerals. In most cases this is a reversible process, however excessive heating may change the distribution of the iron impurities at the different sites within the quartz making it impossible to convert it back to amethyst by subsequent irradiation. The heating process can occur naturally or synthetically. At the present, it is not possible to determine whether or not an amethyst or citrine was synthetically irradiated or heated.

Amethyst is recognized by its color, crystal habit, occurrence, hardness, glassy luster, conchoidal fracture and lack of cleavage.

METAPHYSICAL PROPERTIES

Amethyst is said to bring serenity and calm, to enhance one's ability to assimilate new ideas, and to assist during meditation. It is also said to give strength and mental stability, and to provide balance between one's physical, emotional, intellectual states. Amethyst is also said to make one shrewd in business matters.

Amethyst is said to help remove toxins from the body and to help treat arthritis. It is also said to be useful in treating a number of



to strengthen the immune system.