



# The Telephone City Crystal



The Brantford Lapidary and Mineral Society, Inc.

**BLMS INC**

**NEWSLETTER**

**February 2008**

## 2008 Executive

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905-389-6525

**Workshop:**  
Brad McClelland  
519-751-3141

## FEBRUARY PROGRAM

Our guest speaker for our February meeting is Professor Gary Warrick from Wilfred Laurier University in Brantford. Professor Warrick will tell us about fossil and archeology sites that he visited during a 3 month tour of South Africa.

**Date: Friday February 15 2008**

**Time: 7:30 PM**

**Place: Woodman Drive Community Centre  
491 Grey St. Brantford, Ont**



Please note that our March meeting will be March 14 as Good Friday falls on our regular meeting day.

February 19<sup>th</sup> Tues. 7-9 pm is the beading class at Alexandra's Beading Supply – 576 Elgin St. Unit B (near Garden Ave.) Brantford.

The cost is approx. \$20.00 to cover materials (519-209-4566) or [www.alexbeads.com](http://www.alexbeads.com)



## The Rockhound in Winter

**F**ix my machinery....  
**E**valuate my collection from A to leaverite...  
**B**arter stuff with fellow club members...  
**R**esearch new locations for field trips...  
**U**tilize all possibilities of local libraries and museums...  
**A**rrange my specimens alphabetically...  
**R**estore all damaged or timeworn pieces...  
**Y**earn for summer...



Brantford Lapidary and Mineral Society, Inc  
1 Sherwood Drive, Brantford, ON N3T 1N3 (mailing address)

## **CLUB NEWS**

- 1. Jenny Jones is hard at work planning our 2008 Show on March 29 and 30<sup>th</sup>. Jenny has requested assistance for setup in the afternoon - Fri. March 28. Jenny will also need volunteers to help at the admission table, auction, club info table, Children's Mining Adventure, etc. Let's give Jenny a big helping hand because a lot of work is required to plan and manage our renowned show. Jenny would like to remind that small minerals or fossils are needed for the Children's Mining Adventure. Jenny is also requesting members whom are entering the 'Juried Show' to contact her with info on their entries. We also need to borrow display cases for the 'Show'. Jenny's email address is [turtlefeathers@brant.net](mailto:turtlefeathers@brant.net) or phone number (519-750-0953).**
- 2. If anyone is interested in obtaining a coloured plastic name-tag with a pin or magnet backing please contact President Bill. (cost is \$7.00)**
- 3. (PLEASE NOTE) The executive is planning a bus trip to the Royal Ontario Museum in Toronto if there is sufficient interest by the club members (40 minimum). We are including family and friends of our members to help fill the bus. The proposed date is Sunday April 20, 2008. The bus would leave from the Woodman Center at 9 am and return at about 5 pm. The club will pay for the bus but would ask for a charge of \$15.00 per person to pay for a reduced group rate admission into the ROM. The fee is payable when signing up for the trip. If the trip is cancelled the fee will be returned. Please sign up at the Feb. or March meeting. For more information phone Gary at 519-756-8298.**
- 4. Our new fieldtrip chairman Gary Bechtel has informed us that he has a trip planned to Arkona on Sunday April 27. For our new members, Arkona is a world- class fossil collecting area. More information will be available as the date draws closer.**

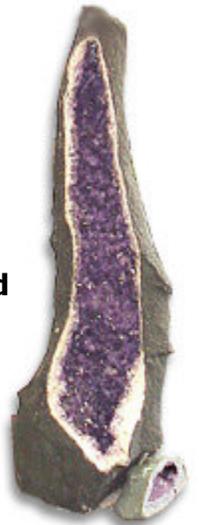
## **Amethyst - February's Birthstone**

**According to Greek mythology, one day Dionysus, the god of wine and song, was angry and vowed to slay the first mortal who crossed his path. That unlucky mortal was Amethyst, a beautiful maiden.**

**However, Artemis (goddess of virginity and the hunt) intervened and transformed Amethyst into white stone. When Dionysus saw what had happened, he repented and poured wine over the stone, staining the top of it purple. That is why the top of amethyst is purple and the bottom is white.**

**Amethyst is a brilliant purple or violet variety of quartz, colored by the presence of iron or manganese when the crystals form. Amethyst crystals are hexagonal and can occur as tall prismatic crystals or, short stubby ones and often have horizontal striations on their sides or faces. As with all varieties of quartz, Amethyst has a hardness of Moh's 7. It is found around the world, notably in Mexico, Brazil, Uruguay, Africa, and Russia and Ontario Canada.**

**Amethyst Cathedrals -- popular home decorating and Feng Shui elements -- are actually giant geodes that formed in lava flows. When volcanic material forms, large bubbles are often trapped in the rock. Over millions of years, these bubbles form a coating of minerals from the surrounding soil on the inner surface. If water does not seep through this coating, fine crystals will form that eventually become the masses of crystals we see today. Amethyst plaques and bookends are also made from pieces of this interior lining. With its warm, purple glow, no other purple gemstone can hold a candle to amethyst. However, it's surprisingly affordable!**





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## COMING EVENTS

**March 1-2 : 15<sup>th</sup> Annual Peterborough Gem, Mineral, and Fossil Show**

Sat. 10-5, Sun. 10-5; The Evinrude Centre, 911 Monaghan Road, Peterborough, Ont.

Admission: \$3 for adults, children 12 or under free & must be accompanied by an adult

Directions: From Highway 115 at Peterborough, take the Parkway to Lansdowne St., then East 4 blocks to Monaghan Rd., then north 1 block. Or travel west to Highway 7 (Lansdowne St.) into Peterborough, turn right at the 6<sup>th</sup> traffic light onto Monaghan Rd. then north 1 block.

Contact: Mark Stanley at 705-639-2406 or [markstanley@sympatico.ca](mailto:markstanley@sympatico.ca)

Website: <http://www.rockandfossil.com/index.htm>

**March 29-30: 36<sup>th</sup> Annual Brantford Lapidary & Mineral Show**

Sat. 10-5, Sun. 10-5; Paris Fairgrounds, 139 Silver St. Paris, Ont.

Features: Dealers from across Canada, Crystals/Minerals/faceted Gems, Fossils, Fluorescent Minerals, Hands-on Educational Learning, Gold and Silver Working, Bead Supplies and Demonstrations, Industrial Archeology Exhibits, Jewellery & Giftware, Equipment/Tools & and Related Supplies, Silent Auction, Free Parking, Wheel Chair Accessible, Hot Lunch Available

Admission: Adults \$3, Children \$1

Contact: Jenny Maracle-Jones at 519-750-0953 or [turtlefeathers@brant.net](mailto:turtlefeathers@brant.net)

**April 10-11: 35<sup>th</sup> Rochester Mineralogical Symposium**

Website: <http://www.rasny.org/MinSymposium/MineralSymp.htm>

**April 18-20: 23<sup>rd</sup> Annual Gem, Mineral and Fossil Show of the Mineralogie de Montreal**  
Fri. 3-10, Sat. 10-7, Sun 10-5 ; Center Pierre-Charbonneau 3000 Viau St. (Viau Metro), Montreal, Quebec.

Admission: \$8, children 6-12, \$4

Contact: 514-955-3758 or 514-332-9028 for more details.

Website: <http://www.salonminerauxmtl.com/>

**April 25-27: Toronto Gem and Mineral Show and Sale presented by 3416798 Canada Inc.**

Fri. 4-9pm, Sat. 10-7, Sun. 10-5; Oriole Community Centre, 2975 Don Mills Rd. West, North York

Features: Precious and semi-precious gemstones, fine quality jewelry, amber, stone beads

Unique worldwide crystal specimens, tools and everything to create your own works of art!

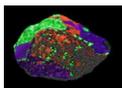
Admission: Adults \$8, Seniors \$7, 12-18 \$6, under 12 free with adult

Contact: Ohannes Bedrossian 514-989-9800 [torontogemshow@gmail.com](mailto:torontogemshow@gmail.com)

Website: [www.torontogemshow.com](http://www.torontogemshow.com)

Members of Toronto-area gem and mineral clubs will demonstrate jewelry making, faceting And lapidary arts. Unknown gems will be identified by qualified gemologist from the Canadian Gemological Association.

## What Makes Rocks Fluoresce



Under the rays of a UV lamp many ordinary items fluoresce: teeth, white shirts, many inks and plastics, crankcase oil, some woods – even scorpions, a fact which has caused problems for more than one prospector who was out hunting the desert at night! But it is the response of fluorescent minerals that excites the interest of collectors. Calcite, which is often a dull white in ordinary daylight, may fluoresce red or orange red, pink, or green. Fluorite is pretty on its own, but really comes alive under UV: bright pale yellow, deep green, blue-green, blue, violet-blue, red-violet, orange, cream, and bluish white.

The fluorescent color variations displayed by a mineral are generally due to impurities known as activators. The activator (or activators, in some cases) absorbs ultraviolet radiation, and in reaction emits a combination of visible light (color) and minute amounts of heat. The activator manganese makes calcite fluoresce red or orange-red; fluorite, a deep green; and fluorapatite, yellow. The uranyl ion makes most minerals in which it is found fluoresce some shade of green. In other rocks, europium ions may be responsible for a blue glow, and yttrium for yellow.

Sometimes the activator electrons get stuck in their high-energy state, and the mineral will continue to glow after the UV light is switched off. This is called phosphorescence. The variety of Willemite found in Franklin, NJ is an excellent example of a mineral that is both fluorescent and phosphorescent, but there are many others. Calcite is often phosphorescent. Applying heat to some UV-charged minerals (by holding them briefly under a hot water tap, for example) will make the phosphorescence even more dramatic.

### Collecting Fluorescent Minerals

Often the most satisfying way of acquiring specimens is to find them yourself. One good way to start is to join a local club. If none is available, or you prefer to go it alone, [a good book on fluorescent minerals](#), combined with a [rockhounding guide to your area](#) can get you started. Always be sure that you know the status of the area where you plan on collecting, and get permission when it is needed! A good resource for both the beginning and the experienced prospector is the [Fluorescent Mineral Society](#).

Small [handheld 4 watt UV lamps](#) are convenient and easy to carry. They are a good place to start when you are new to the hobby. The larger [6 watt handhelds](#) will be more satisfying to the committed prospector, as they will trigger fluorescence in specimens from several feet away, a great boon when you are out hunting at night. [Multiband or combo lamps](#) allow the user to switch between short-wave and long-wave light. This can provide a significant savings in the cost of your equipment, though some decrease in ultraviolet output can be expected.

Other tools useful to the UV mineral prospector are standard [rockhounding tools](#): hammers, chisels, pry bar, field bag, safety equipment, and the like. Safety glasses or goggles will protect your eyes from short-wave radiation as well as flying rock chips, and a good flashlight should go along with your UV lamp(s) for night trips.

Some way of creating a dark space for testing possible fluorescent specimens is necessary when prospecting during daylight hours. Commercial viewing bags are available, though a black plastic sheet does a pretty decent job and is both lightweight and inexpensive. When wrapping your prizes (which you should always do before you put them in your field bag), either wrap them first in plastic wrap, or be sure that you've tested the newspaper you plan to use for fluorescent dyes.



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## 2008 Executive and Directors



Front Left to Right; Jenny Jones, Karen Ward, Kathy Campbell, Gary Bechtell Back; Roger Campbell, Russ McCrory, Bill Boone, Brad McClelland, John Moon (missing Phyllis Czarnowski and Blair Batty)

## 2007 Executive and Directors



Front; Jenny Jones, Phyllis Czarnowski, Maddie Lavender, Gary Bechtel, Back; Russ McCrory, Ernest Edmonds, Roger Campbell, Brad McClelland (missing Deborah Jackson and Blair Batty)

## January Meeting

Many thanks to Gary Bechtel for showing his video 'Living Rock: An Introduction to Earth's Geology'. I found the theory of the formation of the west coast most interesting and a logical possibility.

The club expresses a sincere thank you to Susan Wakely for becoming our 2008 social convenor. The lunch area is a very popular location after our meetings and we look forward to a cup of coffee, goodies and social time of visiting and getting to know each other.

Welcome to new members for 2008: Vita Lucas, Bryon Lucas, Donna Mason, Mark Newcombe.

I noted that some of our new members were very appreciative of the mineral specimens and slabs that were available as 'freebies'. If any members have a few spare minerals or fossils please bring them to the meetings. I fondly remember, as a new member (many years ago), receiving specimens from some of the club's experienced rockhounds. I still have a few in my collection and treasure them as well as the fond memories of the members who donated them to the free table. It is also a means for new members to identify the names of unfamiliar minerals.

## About Pearls



Throughout much of recorded history, a natural pearl necklace made up of matching spheres was a treasure of almost incomparable value – in fact, the most expensive jewelry in the world! Before the creation of cultured pearls in the early 20<sup>th</sup> century, pearls of any sort were so rare that they were reserved for the noble and very rich. To prove the great wealth of Egypt, it is said that Cleopatra won a contest with Marc Antony to give the most expensive dinner in history by crushing and adding to a glass of wine a single large pearl worth about 30 million sesterces (or about \$4,700,000)!

However, around 1907, several Japanese men working simultaneously discovered that they could entice oysters to create pearls. As the process has been refined, these cultured pearls have become virtually indistinguishable from natural pearls, making the most valuable gem in the world become the beauty that we can use in our beading designs today for just pennies apiece!

Natural pearls are formed when an irritant or parasite enters an oyster or mussel and cannot be expelled. To reduce irritation, the mollusk uses its mantle to coat the intruder with the same secretion it uses to build its own shell, nacre (also called mother-of-pearl). Continuous layers of nacre grow like an onion skin around the irritant, until the pearl is harvested or it becomes too large for its host. Pearls vary in shape, depending on the shape of the foreign body being coated.

However, mollusks are normally very good at expelling these foreign bodies before the pearl-forming process begins – so naturally-occurring pearls are found in perhaps one of every 10,000 bivalves. On the other hand, with culturing techniques, every one of those 10,000 creatures could create a pearl – or more than one! Culturing is a process that is simple in concept but requires great skill to perform. In essence, an irritant (commonly a piece of mother-of-pearl from a Mississippi river mussel) and a small piece of mantle tissue (a “graft”) are inserted by a specialized technician. Great care must be taken, or the oyster or mussel may be damaged in the process or even die.

After a short rest, the mollusk begins to coat the nacre “seed” just as it would a natural irritant. Layer upon layer grow, until the pearl is large enough to be harvested. Cultured pearls are composed entirely of nacre, just as natural pearls are, so they exhibit the same structure, color, and gorgeous luster as their more expensive counterparts. Additionally, a wide variety of seed shapes may be used, to create interesting new pearl shapes, from the now-familiar [rice](#) and [potato pearls](#) to the more unusual baroque, matchstick, drop, and cross shapes.

The crystalline structure of nacre (which is a combination of the mineral aragonite and the protein conchiolin) reflects light in a unique way, giving pearls their high luster. Light rays reflect not only off the surface of the pearl, but also off the concentric inner layers of nacre, which act like tiny prisms and create iridescence within the tiny sphere. This distinctive glow fostered the belief, long ago, that pearls were moonbeams which fell into the ocean and were eaten by oysters. Consequently, they have been believed magical, and symbolized the moon, purity, spirituality, and virtue for centuries.

**Caring for your pearls:** Avoid contact with hair spray and perfume. Wipe with a soft, damp cloth and store them in a soft cloth. Wear them often – your natural body oils help to keep them from drying out.





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## WORKSHOP

### How to Choose the Right Rock Tumbler

Rock tumblers make very popular holiday gifts for adults and kids alike, but it's often difficult to decide which one you should buy. First, you should consider three basic properties:

**Rock Hardness.** The stones you tumble together must be of the same hardness. For example, you would want to tumble [quartz](#) with other quartzes, such as [jasper or agate](#). If you tumble softer rocks with harder ones, the softer rocks will end up in little bits and pieces. In general, rocks with a hardness of less than 5 Mohs are more likely to crumble than polish if tumbled.

**Barrel Size.** The barrel must be at least 2/3 full, and may be no more than 3/4 full. If you think you'll want to tumble fairly large pieces of rock, you may want to consider one of the [larger-barreled models](#). On the other hand, if you feel that you won't often be able to fill a larger barrel, you might want to look into a [smaller one](#).

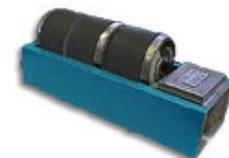
**Number of Barrels.** You may wish to consider a [multiple-barrel tumbler](#). Some of the advantages of more than one barrel are 1) not having to wait for the rocks you found last week to finish tumbling (five weeks from now) before you start tumbling the rocks you found this week; 2) being able to tumble rocks of different hardnesses at the same time; and 3) having a barrel for each member of the family!

Which *kind* of tumbler is right for you? Each of the two basic forms of rock polisher – rotary and vibratory – has its advantages.

Rotary tumblers are an excellent way to get started tumble-polishing rocks. Good-quality tumblers, such as the [Lortone](#) models, are much cheaper than comparable vibratory units. Getting good results on rocks that are Mohs 5 or greater in hardness is not difficult, and generally your batch will require checking only once every day or two. You can also tumble-polish metals in these units. Rotary tumblers with rubber barrels – like the Lortone models – are also noticeably quieter than vibratory tumblers.

Rotary tumblers are best for producing [seaglass](#) (while [both rotary and vibratory tumblers can be used to achieve a high sheen on tumbled glass](#)).

On the other hand, they take 4 to 6 weeks to produce results. This can be a sizeable disadvantage for some people.



Vibratory tumblers such as the [Gy-Roc Model B](#) can finish a batch of rocks in little more than a week. Types of appropriate loads are more varied, including very soft organic materials like ivory, with a hardness level down to Mohs 2-1/2. One sort of processing that is possible only with vibratory units is [dry polishing](#).

However, this versatility brings with it a fair degree of complication.



Vibratory tumblers are also quite noisy, though this can be moderated to some degree by placing them on a piece of carpeting or other padding.

For many people, the initial high cost of these units is decisive. If, however, speed is important to you, you can process much more rock in the same amount of time. Capacity can be increased by [piggy-backing additional inexpensive hoppers](#) onto the basic unit – up to three total on the Gy-Roc. (via Mama's Minerals)

For a complete line of tumblers see our good friends Bob and Betty Parry at Robert Hall Originals in St. George.

**RUNNING A ROCK CLUB IS LIKE POLISHING A GEMSTONE, THE MORE PLANNING AND WORK BY PEOPLE INVOLVED.... THE MORE BRILLIANT THE FINISHED PRODUCT. Via Quarry Quips**

**" God wisely designed the human body so that we can neither pat our own backs nor kick ourselves to easily." Via The Glacial Drifter, via Owyhee Gem**

#### Did You Know

Fifteen Petrified Forests – one above another – are exposed in the 2000 foot gorge of the Yellowstone River. All are standing. Each was buried by volcanic ash. Via AFMS Newsletter



**A KISS --- AN ANATOMICAL JUXTAPOSITION OF TWO ORBICULAR MUSCLES IN A STATE OF CONTRACTION.**

#### President's Letter

Our January meeting was well attended. The committees were appointed and reports were given.

Enclosed in this month's newsletter you will find a questionnaire. It is hoped that all members will please complete this questionnaire and return it to any board member or forward it to the our mailing address noted on the bottom of page 1 of this newsletter. We don't know your particular interests until you can give us some assistance.

Our Rock and Gem Show is coming up for March 29<sup>th</sup> & 30<sup>th</sup> to be held at the Paris Fairgrounds in Paris. Your support would be greatly appreciated. Please contact Jenny Jones at 519-750-0953 if you are able to volunteer any time for this event.

Please remember our field trip on Sunday April 20<sup>th</sup> to the ROM. Family and friends are invited on a first come basis. Let's fill the bus.

Again, I thank everyone for your support. This is your Club and only you can make it a success.

Bill Boone – President

