



The Telephone City Crystal



The Brantford Lapidary and Mineral Society, Inc.

NEWSLETTER

November 2007

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ELECTION NIGHT – NOVEMBER 16 2007 **HAVE A VOICE, VOLUNTEER, GET INVOLVED**

November Program: Landslides

Speaker: Stephen Evans -Waterloo University

Date: Friday November 16 2007 Time: 7:30 PM

Place: Woodman Drive Community Centre

491 Grey St. Brantford, ON

The winners of the 2007 University student scholarships are:

Jason Homewood 2A Sean Sinclair 3A

Luke Brough 2A Johnathan Rigg 3A



Future Meetings

Friday - December 14, 2007

Member Sales and Christmas Dinner

Bus Trip



London Gem and Mineral Show – Sunday November 25 2007

We will leave Woodman Community Centre at 10:00 am by coach with a stop in Woodstock to pick up club members.

Contact Phyllis at 519-752-8276 or sign up at the Nov. meeting.

Lapidary Classes

Wednesday's 7-9 pm at Woodman Community Centre

2008 Show News

Jenny is planning to have a Juried Members Show. That is, members can enter pieces of their lapidary efforts to be judged. This a chance for all the silversmiths, goldwire workers and lapidaries to show us your talents. For this event we will need to borrow display cases from any members. Please contact Jenny Jones.



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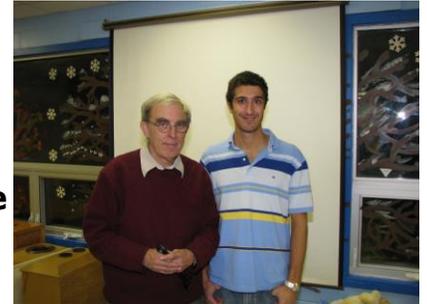


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October Meeting

Many thanks to Jamal Amin for giving us an incite into the causes and effects of volcanos on the Hawaiian Islands. Again we must thank Peter Russell for his time and effort to provide another interesting speaker for our monthly meeting. Peter, your never ending help and assistance to our club at meetings and our shows is much appreciated by all the club members. Thank you!



Future Shows

Nov 10-11

36th Gemini Gem and Mineral Club of Burlington Gem and Mineral Show

Sat. 10-6, Sun. 10-5

Show Mainway Recreation Centre, 4015 Mainway, Burlington, Ontario at the NE corner of Walkers Line and Mainway.

Features Fluorescent mineral display, micro minerals, soapstone carving, sphere making, Faceting, silversmithing, kid's quarry and door prizes.

Nov 17-19

Montreal Gem & Mineral 48th Annual Show

Fri. 4-10, Sat. 10-7, Sun. 10-5

Hippodrome de Montreal (Blue Bonnets Race Track)

Website: www.montrealgemmineralclub.ca

Nov. 24-25

London Gem and Mineral Show "Out of This Earth"

Sat. 9-6, Sun. 10-5 ; Special Events Bldg. 316 Rectory, Western Fairgrounds, London, Ont. Dealers, Demos, Prizes, Kids Activities, Auctions

Admission: Adults \$5, Children \$2 Website: www.gemandmineral.ca

Donation

'A warm thank you is being extended to Mrs. Christina Miller of Beamsville, Ontario who generously donated a portion of her late husband's (Robert Miller) rock collection to the BLMS, through Stuart Collier, whom she met at the Lincoln County Fair.

Mrs. Miller donated to the club a nice selection of fluorescent minerals from New Jersey and minerals from St. Hilare, in Quebec, as well as some very nice educational material. All of these great items will be put to good use by the club. She hopes they will find a good home with the club and will be enjoyed for many years, indeed they will, Mrs. Miller!'



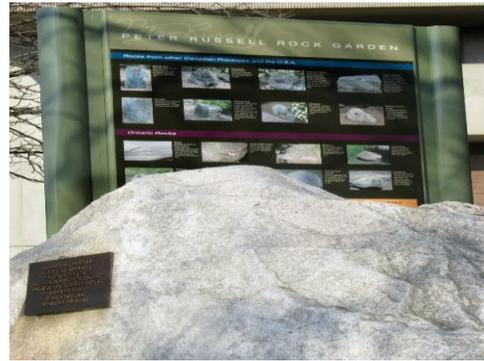
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Flash Back of the Rock Garden



The opening ceremony for the Geological Garden



Peter Russell Rock Garden Sign Today

The geological collection between the Biology and Math buildings was created by Peter Russell. The garden is area made to commemorate the 25th Anniversary of the founding of the University of Waterloo. The University of Waterloo's Earth sciences department officially opened the geological garden on May 29, 1987. The initial garden had 23 donated specimens and represented Ontario's geological formations.

The first request for funding support to the Canadian Geological Foundation in 1982 was declined but the proposal was resubmitted in 1984 and accepted. Funds from Wintario and a bequest in memory of Malcolm Heaton, UW Alumnus, made the project viable. The initial plan included 12 rocks of an attractive and educational nature. The sum of \$10,000 was raised. The quest for searching rocks took place on June of 1986 from St. Joseph Island in Georgian Bay to Marathon, Bancroft, Sault Ste Marie and Timmins.



The most difficult rock to find was jasper conglomerate. The crane, truck and trailer was drove to the bottom of the pit and loaded the rock onto the trailer only to discover that the soft sand at the bottom of the pit had trapped our fleet. A cable from the driller's truck and trailer was attached to the crane and the quarries front end loader which set them free!

During the first collection trip, 19 varieties of rock were collected including jasper conglomerate, argillite and quartzites, Gowganda conglomerate, glacial striated quartzite, Jacobsville sandstone and basalt from the Sault St. Marie and Elliot Lake area. Gold ores from Timmins and Hemlo, anorthosite and iron ore from Wawa, banded iron formation from Timiskaming, Vermilion Bay granite, stromatolitic arble and amethyst from Thunder Bay. (The picture on the right is loading of Stromatolitic Marble from Thunder Bay. Myra Kennedy of the Ministry of Natural Resources helped to find suitable specimen and helped load it on to the back of the truck.)

Since then, the garden has blossomed with new donations every year - from mine owners, in memory of UW students and staff, and to mark the



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40th anniversary of the co-op program at Waterloo. Each specimen is marked with cast bronze plaque providing information about the geological age, name, location and name of the donors. The initial triangular garden is devoted to Ontario rocks. Across a footpath another area has opened up. It includes rocks from Quebec, Labrador, and Pennsylvania, Manitoba and British Columbia.



The photograph on the left shows the delivery of the andradite garnet skarn from Marmoraton Mine. The picture in the middle shows the back wheel of the loader is off the ground due to the weight of the sodalite syenite. The picture on the right shows the loader pulling the rock off the trailer after delivery from the Princess Sodalite Mine, Bancroft.



In summer of 1999, Geological Garden was renamed "The Peter Russell Rock Garden" in recognition of Peter Russell by University of Waterloo he was also made an Honorary Member of the University of Waterloo at the June convocation.

Three new rocks were installed during that summer in the Peter Russell Rock Garden. Now, there are over 45 rocks planted in the rock garden and there is more to come!

The garden is used to inform school children and other visitor groups about Earth materials and the geology of Ontario. University students study the rocks in first year earth sciences courses and students and visitors enjoy sitting in the attractive surroundings watching the resident squirrels. As well, it serves as a peaceful place for lunch, or a break, to the university community.



2007 University of Waterloo Annual Gem and Mineral Show. Bill Greenfield of the Niagara Peninsula Club demonstrates sphere polishing.

(Right Photo) Large malachite specimen donated to the U of Waterloo from collection of past Brantford Club member Lew Depew.



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Workshop

Abalone

(Editor's note - due to the near extinction of the species, the harvesting of Abalone in Canada is prohibited - please use only old shells or from foreign sources). Abalone, (Haliotis), for over 80 million years, has been grazing on algae in the selected waters of our planet earth. Eight species may be found along the West Coast of the North American continent, from Mexico to the Aleutian Islands. They are: Red Black, Corrugated, Green, Flate, White, Pinto, and Threaded. These shells are comprised of multi-layered "Mother of Pearl" nacre, chemically similar to the Oyster. Colour bands found in the shells are a direct result of diet and genetic factors. The outer layer is protected by a covering called Peristrium, which is a translucent shellac-like overlay. These beautiful shells have been found all over the world in many forms. In ancient times, royalty decorated their robes and turbans with them, Stings of Abalone shell jewelry were used by the women. During the era of barter and trade, the Abalone was often used as "coin of the realm".

In many parts of the world, at archeological digs, artifacts have been found made from these shells. Today, many forms of jewelry, from formal to baroque, are designed with the unique characteristics and beauty of the Abalone utilized to the fullest. Many steps are used in the preparation of the shell until its final lustrous beauty is brought to life in the creation of fine jewelry.

Working with Abalone

(Editor's note - Abalone is extremely toxic if worked dry. Do not ever work this material unless the piece is under a steady stream of water. If you feel the least bit nauseous even when working it wet - stop immediately and get plenty of fresh air.)Starting with the raw shell, it must first be soaked in a chemical to rid it of algae and parasitic crustations. It is scrubbed, dried, sandblasted, before it is ready for cutting. Rough shapes are formed by saw, drill, and dremel tools using diamond edged tools. This work should be done under water, with a worker wearing a respirators, plus fans blowing for ventilation to protect the workers from Silicosis, due to the dust of Calcium Carbonate from the shells. After the cutting operations are completed, the shell parts can be placed in a tumbler for 24 to 72 hours with three changes of grit. The shell is then washed, and buffed to a high gloss finish. This last operation can be done either mechanically or by hand. The shell should now be a beautiful creation of vivid colour worthy of any jewelry setting. All that is left now is the imagination of the craftsman. The shell can be drilled for jump rings, epoxied for any glued style, or prong set for special effects. Completion of any of these operations assures the individual of the finest in Abalone jewelry. The world's population has for years, gorged itself on these delectable Gastropods (Editor's note - if you enjoy fish flavored shoe leather ;)), thus over-harvesting their reproductive capacity. The Sea Otter also includes Abalone as a main part of his diet, and that also reduces the reproduction. Our federal government has stepped in and placed an "Endangered Species" label on the Abalone for these reasons. Quantity limits as well as size limits have been placed on the harvesting of them. Thus, the Abalone has become more valuable, both as a food source and a jewelry source.

From the Ultralite Co. Inc. via Chips and Tips

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BREATH

SENSITIVE

PAPER

Breathe on the chemically treated square shown on the left to determine your current state of health.

If it turns green, see your clergyman immediately

If it turns lavender, a visit to your analyst is in order.

(not you Maddie)

If it doesn't change at all, there is nothing wrong and no reason why you can't pay your dues and attend meetings for the '07-08 Club year.

THE ROCK PILE

I'll tell you what I often do
When I am tired of feeling blue,
I like to take a chair or box,
And sit beside a pile of rocks.
I get a thrill as I begin
To think of places I have been.
To gather these , my treasures
here, in various spots both far and near.
Although I've sat here oft before,
Each time I find in this rock store
Some hidden gem I did not see,
Which somehow hid itself from me.
You'd be surprised the peace of
mind this simple act helps me find.
So, I advise you, when you're blue
To do this thing I often do
You'll find a relief from toil and
care;
You've left them at the rockpile
there.
By C.G. Schweitzer in Pick and
Pack

BET YOU DIDN'T KNOW

Diamonds, emeralds, rubies and topaz are formed from molten rock.

Amethyst, turquoise, opal and quartz are formed from ground water evaporation.

Staurolite and garnet are formed by metamorphic recrystallization.

Jade is the most durable stone.

Amber, pearl, opal and turquoise scratch easy. (Use care when wearing).

The best material to use for wind chimes is old Brazilian Agate, Indian Blacksnake agate, India red-green agate or Souria agate. Slice the material 1/8 th inch thick. **DO NOT POLISH.** Polishing has a deadening effect. Don't use slabs with cracks in them.

FIFTEEN PETRIFIED FORESTS – one above another – Are exposed in the 2000 foot gorge of the Yellowstone River. All are standing. Each is buried by volcanic ash. Via AFMS newsletter 1/97

Field Trip Happiness.....

Finding a geode as big as a basketball and weighing as much as a golf ball.

Your partner telling you the snake you just sat on is only a garter snake.

Having to ask for help to carry your crystal specimen back to the truck.

Finding that the fool's gold on your piece of quartz... isn't. (News and Views..May 2000)

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Canada: A Diamond-Producing Nation

For many years, the thought of finding diamonds in Canada was little more than a prospector's dream. But that dream became a reality following the discovery, in the 1990s, of several world-class diamond-bearing deposits in Canada's north.

Diamond exploration began in Canada as early as the 1960s but major kimberlite discoveries were not made until the 1980s. In 1991, the first economic diamond deposit was discovered in the Lac de Gras area of the Northwest Territories. Canada became a diamond producer in October 1998 when the **Ekati** diamond mine opened about 300 kilometres northeast of Yellowknife. By April 1999, the mine had produced one million carats. Canadian Diamond Industry

Canada's diamond industry has now become an industry worth more than \$2.0 billion with all indicators pointing to potential for future growth. Canadian diamond production in 2003 was about 11.6 million carats and in 2004 was 12.6 million carats.

Diavik, Canada's second diamond mine, began production in January 2003. During its projected 20-year life, average diamond production from this mine is expected to peak at six to eight million carats a year — about five percent of the world's total supply. Ekati's average production over its projected 20-year life is expected to peak at three to five million carats a year — four percent of world production by volume.

Another three mines are scheduled to be opened: one at **Snap Lake**, about 220 kilometres northeast of Yellowknife, N.W.T.; **Victor**, near James Bay in Ontario; and **Jericho** in Nunavut. These mines will consolidate Canada's position in world diamond production by value, third after Botswana and Russia.

Cutting and Polishing

Although there have been diamond polishing facilities in Canada for many years, the new mines triggered the construction of a number of factories in the Northwest Territories that now employ close to 100 people. One facility is majority-owned by the Yellowknife Dene First Nation. The largest of these facilities has an output of 2500 carats a month.

There are cutting and polishing facilities in Vancouver, Winnipeg, Toronto, Montréal and Matane.

Employment

The Canadian diamond industry employs about 1200 people in mine operations and over 1000 more in support industries for exploration and mining. In total, the Canadian industry provides some 4000 direct and indirect jobs. Aboriginal persons comprise 30 to 40 percent of the work forces at Ekati and Diavik.

Kimberley Process for Rough Diamonds

The **Kimberley Process** was initiated by South Africa in May 2000 to develop an international certification scheme for rough diamonds in order to help prevent conflict diamonds from entering legitimate markets. Conflict diamonds originate in areas controlled by rebel groups and are often used to fund military action that targets governments.

Canada has been a leader in the process to control the conflict diamond trade. It has supported the United Nations in this initiative and, in June 2002, in Kananaskis, Alberta, this country and



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other G8 leaders pledged support for an international effort. Canada has now passed legislation to control the import, export and transit of rough diamonds in Canada. By participating in the Kimberley Process, Canada is doing its part to halt the devastating impact that trade in conflict diamonds is having on peace, security and sustainable development in affected countries.

Diamonds and Sustainable Development

Canada's diamond industry is part of a minerals and metals industry that is one of the world's largest producers and exporters. This highly productive and technologically advanced industry provides a source of stable, high income for northern, remote and Aboriginal communities. Canadian mining companies are also leading the way in integrating sustainable development into their activities in Canada and abroad. The Canadian mining industry was the first in the world to develop and adopt a national environmental policy. On the international front, some of Canada's major mining companies are involved in projects ranging from delivering health, water and electricity services to reintegrating workers into their communities.

Natural Resources Canada advances the Government of Canada's commitment to the sustainable development of our natural resources — contributing to their economic importance and to a strong society and communities through knowledge, innovation, technology and international leadership.

By integrating our economic, social and environmental goals, we can ensure our quality of life and build the Canada we want, for ourselves and for future generations.

Via Natural Resources Canada



Location of Kimberlites in Canada



An aerial view of the Misery development at EKATI™

Kimberlites are rock formation where diamonds can be found. Diamonds form at a depth greater than 150 kilometres within the earth. After their formation, diamonds are carried to the surface of the earth by strong volcanic activity. This mixture of magma, transported rock and diamonds forms pipes called kimberlites as it reaches the surface.

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