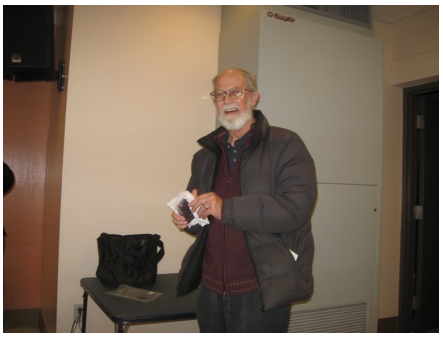
THE TELEPHONE CITY CRYSTAL

Volume 27, Issue 1

March 2012

THE BRANTFORD LAPIDARY & MINERAL SOCIETY INC.

Don Oliver's Amethyst Display



Russ McCrory winner Specimen—Amethyst

Chris Dent winner Specimen—Garnet

Laurie Walters winner Specimen—Amethyst

Alan Magda winner Specimen - Garnets

February program on PMC

Congratulations to all the winners of the draw prizes and note the mineral of the month for March is Aquamarine so all you March babies come on out to the March meeting. Also many thanks to Don Oliver for providing a excellent display of Amethyst for the February meeting.

Inside this issue:

MEMBERSHIPS HAVE EXPIRED– If you have not renewed your membership yet it is now overdue. Please send in your membership dues, or come out to the March general meeting and get caught up.

Our website: www.brantfordlapidarymineral.ca **CCFMS website:** www.ccfms.ca/

Our mailing address: 1 Sherwood Drive, Brantford, On N3T 1N3

February Program Recap :

A little about our February speakers, an excellent presentation on PMC which was thoroughly enjoyed by all attendees.

Shannon Kennedy graduated from the Ontario College of Art and Design in 1988 and furthered her jewellery making skills by attending George Brown's 2nd and 3rd year Jewellery Arts Program. She is co-owner of Cynosure Jewellery, an award winning jewellery design studio.

Jaun Bohorquez graduated from Arturo Tejada School of fashion and design with a major in Jewellery Design and Fashion in 1989 and attended the School of Applied Arts and Design for Jewellery and Accessories in Barcelona Spain in 1994. He is co-owner of Cynosure Jewellery.

Cynosure is a design studio located in Kitchener, Ontario.

March Program

PhilMcCausland-Department of Earth Sciences, Western University

We are entering a new era of planetary exploration. There has never before been a more capable array of spacecraft and telescopic instruments deployed to investigate the sun, planets, small bodies and environment of our Solar System – and others! But we have as yet comparatively few samples returned from other worlds to provide guidance for understanding these remote observations. Meteorites provide a readily available source of samples from Mars, the moon, and small bodies in the Solar System. Lunar meteorites greatly expand the range of samples that are available from the moon and Martian meteorites are still the only rock samples that we have from the red planet; other meteorites likely represent 4 Vesta and about two dozen other distinctive small bodies. Most meteorites have no clearly recognized source body in the present main belt asteroid population, but nevertheless provide clues for understanding nebular, accretionary and differentiation processes in the early Solar System. Fresh meteorite falls and other finds - including a huge number of unclassified desert meteorites - are planetary materials delivered by Nature, representing a still largely untapped resource for exploring the Solar System. Meteorites complement spacecraft-based efforts to investigate the moon, Mars and small bodies, offering a similar opportunity for research and discovery. Meteorites also provide an unparalleled opportunity for training in the handling of exceptional planetary materials, to develop protocols and baseline observations in preparation for future sample-return missions to asteroids, the moon and Mars.

March Meeting—Friday March 16, 2012
This meeting marks the 48 year anniversary of our club

Time: **7:30 pm**

Location: **S. C. Johnson Centre– 16 Morrell Street , Brantford ON N3T 4J2**

1/ Hwy 403 to Hwy 24 exit South

2/ Continue south to St Paul Avenue, past Brantford General Hospital to Brant Ave. Intersection.

3/ Continue through lights to Grand River Ave., Turn right.

4/ Continue on to Morrell Street go through stop sign turn right to enter parking lot.

Alternate Route

1/ Hwy 403 to Paris Road Exit, turn left onto Brant Ave.

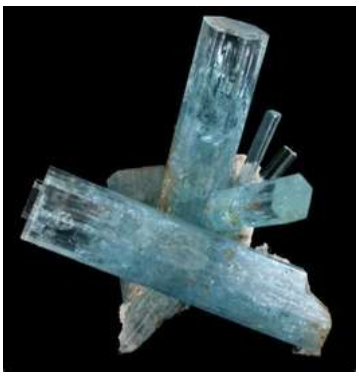
2/ Continue south on Paris Road to St Paul intersection.

3/ Turn right onto St Paul Ave

4/ Continue on St Paul Ave to Grand River Ave., Turn right.

5/ Continue on to Morrell Street go through stop sign turn right to enter parking lot.

Mineral of the Month—Aquamarine



Aquamarine - March's Birthstone

The gemstone Aquamarine is the modern March birthstone as adopted by the American National Association of Jewelers in 1912. It is also the birth stone for the Zodiac sign of Scorpio. Aquamarine is also suggested as the gem to give on the 16th and 19th wedding anniversaries.

Aquamarine is a member of the "beryl" family and ranges in color from an almost colorless pale blue to blue-green or teal. The most prized color is a deep-blue aqua color. It is 7.5-8 on the moh's of hardness and gets its name from Latin words meaning water and sea.

The hardness and durability of aquamarine make it a fine gemstone, and its light blue or aqua color makes it a fine choice when the harsher colors of some other gemstones would overwhelm or distract from an outfit. Its typical delicate color allows it to be used in a larger stone where its beauty can be impressive.

Aquamarine is colored by trace amounts of iron, and most gem aquamarines have been heat treated to produce the popular blue-green colors from less desirable yellow or pale stones. The leading producer of aquamarines is the country of Brazil, which has many mines. Pakistan, as well as many U.S. localities, produce wonderful specimens as well. Recently, a new mine in China has produced large numbers of excellent flat (stubby) hexagonal crystals, for a fraction of the price of those beautiful Pakistan specimens.

Aquamarine is sometimes found in huge crystals (unlike emerald). It is also known in a glassy form, often without showing crystal form, and sometimes with many holes or other odd shapes. Other times a large cluster of prismatic crystals can be seen to all have the same alignment - a sign that it is really a single crystal with many faces

.**Folklore, Legend, and Healing Properties:**

Since early times, aquamarine has been believed to endow the wearer with foresight, courage, and happiness. It is said to increase intelligence and make one youthful. As a healing stone, it is said to be effective as a treatment for anxiety and in the Middle Ages it was thought that aquamarine would reduce the effect of poisons.

A legend says that sailors wore aquamarine gemstones to keep them safe and prevent seasickness.

Local locations

There have been reports of some small aquamarines being found in the Beryl Pit near Quadville, there are even rumors of a large specimen being found. While the editor and his family have been to the Beryl Pit, no aquamarines were found, many other excellent specimen's of other minerals were found , so if you do go there looking for a specimen of aquamarine and don't find any you will certainly not leave empty handed.

HOW TO DO VIKING CHAIN KNITTING

Step 1:

Make three or more loops, each a few inches deep, with about a foot of your wire. Wrap the bundle a few times near the base and then again closer to the working end, about an inch below the tip of the loops. This won't actually be part of the finished chain, so don't worry too much about looks.

Step 2:

Fit the loops around the end of your dowel or mandrel. Using an Allen wrench gives you the benefits of the angles to work around, but you can cut a small notch at the top of a dowel to help pass the working wire around the loops you'll be making.

Step 3:

Anchor a new piece of wire--your working wire--to the base, and then make your first loop. The working wire will follow down the side of one of the starter loops, curve under where two loops rest side-by-side, behind the sides of the two starter loops and then out and down again to the right, making a counter-clockwise e-loop. Pull it snugly, but leave enough space to work around.

Step 4:

Continue to "knit" these e-loops, working to the right, joining each of the starter loops together until you come back to the beginning.

Step 5:

On the next row, using the same method, bring your next loop behind the crossed wires that formed the bottom of the first loop you made. This is how you will continue to build your chain, loop by loop, shifting the growing length of chain up the dowel, wrench or mandrel as necessary.

Step 6:

To make a more dense chain you can bring your loop behind the second cross up (for double weave) or even the third (for triple weave) for a very sturdy chain. Keep in mind that the denser the chain, the less flexible it will be.

Step 7:

At the end of your working wire, clip it just after the last loop completed, tucking the cut edge inside the chain. Make a small hook in a new piece of wire and draw the straight end behind that last loop, securing the hook around that loop. Continue weaving as before.

Step 8:

Weave the length you think you will need but know that you'll gain a few inches once the chain is drawn out.

Continued on Pg. 5

Step 9:

Make a draw plate by drilling several holes in decreasing sizes about an inch apart in your piece of hard-wood.

Step 10:

Starting with the largest hole, pull your chain through the hole once or twice, then work your way down through each smaller hole until your chain has increased in length, evened out in texture and becomes more flexible.

Step 11:

To prepare the chain for use, clip and remove the starter loops and extend the end of the wire out to make loops, hooks or feed through a decorative end cap to hide the not-so-pretty ends.

Meteorites

Meteorites are bits of the solar system that have fallen to the Earth. Most come from asteroids, including few are believed to have come specifically from 4 Vesta; a few probably come from comets. A small number of meteorites have been shown to be of Lunar (23 finds) or Martian (22) origin. One of the Martian meteorites, known as ALH84001 (left), is believed to show evidence of early life on Mars.

Though meteorites may appear to be just boring rocks, they are extremely important in that we can analyze them carefully in our labs. Aside from the few kilos of moon rocks brought back by the Apollo and Luna missions, meteorites are our only material evidence of the universe beyond the Earth.

ALH84001 meteorite

TYPES OF METEORS

Iron primarily iron and nickel; similar to type M asteroids

Stony Iron mixtures of iron and stony material like type S asteroids

Chondrite by far the largest number of meteorites fall into this class; similar in composition to the mantles and crusts of the terrestrial planets

Carbonaceous Chondrite very similar in composition to the Sun less volatiles; similar to type C asteroids

An achondrite[1] is a stony meteorite that does not contain chondrules.

Iron meteorite

Achondrite meteorite

Carbonaceous Chondrite meteorite

Chondrite meteorite

Stoney Iron meteorite

A "fall" means the meteorite was witnessed by someone as it fell from the sky. A "find" means the meteorite was not witnessed and the meteorite was found after the fact. About 33% of the meteorites are witnessed falls. The following table is from a book by Vagn F. Buchwald. Included are all known meteorites (4660 in all, weighing a total of 494625 kg) in the period 1740-1990 (excluding meteorites found in Antarctica).

Meteorite Statistics

TYPE	FALL%	FIND%	FALL WT.	FIND WT
Stoney	95.0	79.8	15,200	8,300
Stoney-Iron	1.0	1.6	525	8,600
Iron	4.0	18.6	27,000	435,000

A very large number of meteoroids enter the Earth's atmosphere each day amounting to more than a hundred tons of material. But they are almost all very small, just a few milligrams each. Only the largest ones ever reach the surface to become meteorites. The largest found meteorite (Hoba, in Namibia) weighs 60 tons.

The average meteoroid enters the atmosphere at between 10 and 70 km/sec. But all but the very largest are quickly decelerated to a few hundred km/hour by atmospheric friction and hit the Earth's surface with very little fanfare. However meteoroids larger than a few hundred tons are slowed very little; only these large (and fortunately rare) ones make craters.

A good example of what happens when a small asteroid hits the Earth is Barringer Crater (a.k.a. Meteor Crater) near Winslow, Arizona. It was formed about 50,000 years ago by an iron meteor about 30-50 meters in diameter. The crater is 1200 meters in diameter and 200 meters deep. About 120 impact craters have been identified on the Earth, so far (see below).

A more recent impact occurred in 1908 in a remote uninhabited region of western Siberia known as Tunguska. The impactor was about 60 meters in diameter and probably consisting of many loosely bound pieces. In contrast to the Barringer Crater event, the Tunguska object completely disintegrated before hitting the ground and so no crater was formed. Nevertheless, all the trees were flattened in an area 50 kilometers across. The sound of the explosion was heard half-way around the world in London.

There are probably at least 1000 asteroids larger than 1 km in diameter that cross the orbit of Earth. One of these hits the Earth about once in a million years or so on the average. Larger ones are less numerous and impacts are less frequent, but they do sometimes happen and with disastrous consequences.

The impact of a comet or asteroid about the size of Hephaistos or SL9 hitting the Earth was probably responsible for the extinction of the dinosaurs 65 million years ago. It left a 180 km crater now buried below the jungle near Chicxulub in the Yucatan Peninsula (right).

Calculations based on the observed number of asteroids suggest that we should expect about 3 craters 10 km or more across to be formed on the Earth every million years. This is in good agreement with the geologic record. It is more difficult to compute the frequency of larger impacts like Chicxulub but once per 100 million years seems like a reasonable guess.

Here are educated guesses about the consequences of impacts of various sizes:

IMPACT DIA. (metres)	YIELD (megatons)	INTERVAL (years)	CONSEQUENCES
<50	<10	<1	Meteors in upper atmosphere, most do not reach Earth.
75	10-100	1,000	Irons make craters , Stone's produce airbursts, land Impacts destroy area of a small city.
160	100-1000	5,000	Irons and stones hit ground, comets produce airbursts, Land impacts destroy area size of large cities.
350	1000-10,000	15,000	Land impacts destroy area of a small state, ocean impact causes mild tsunamis.
700	10,000-100,000	63,000	Land impacts destroy area of a medium sized state like Virginia. Ocean impacts make large tsunamis.
1,700	100,000-1,000,000	250,000	Land impact raises dust with global implications, destroys area of a large state like California.

Barringer Meteor Crater

Meteor Crater Arizona 3 miles around

2012 Gem and Mineral Show:

1/:Carrie and Susan, our social executives, have requested help from the membership with providing snacks at our gem and mineral show. Home baked goodies such as cookies, tarts or muffins, or purchased items would be greatly appreciated. Please call either Carrie or Susan to let them know what you are bringing so they can plan purchases.

2: Please consider signing up to help out at the show, volunteers are needed for the admissions table as well as the membership table , silent auction and mining adventure and also volunteers are needed for manning the fluorescent mineral display.

3: Please consider donating a specimen to the cabinet our club and Robert Hall Originals will be donating to an elementary at the show. Please contact Bob Parry if you wish to donate (519-448-1236)

4: Again like last year, please consider putting in a mineral, jewellery or fossil display. Some display cases are available from the club. Please contact John Moons if you need a display case.

5: Russ McCrory has put in a request for any small specimens to be donated for the mining adventure. Please bring your donations to the March general meeting.

7. For all the volunteers helping out with the gem show, please let Bob Parry know, at 519-448-1236, or at the next meeting, if you are going to attend the complimentary dinner on the Saturday night of the gem show, March 31, at the fairgrounds. This is a dinner sponsored by the club for the dealers and the show volunteers.

8. Ernie and Roger are also still looking for historical club documents that can be donated for a club history display, please contact either Ernie or Roger if you can donate anything, old newsletters, brochures etc.

9. Mayor Ron Eddy is expected to cut the shows 40th anniversary cake Saturday at 1:00 pm.

10: Our treasurer, Darren Gage, has requested , if possible, that members email him their master lists for the silent auction by March 16th.

Field Trips:

-Herkimer trip is on the May 24th (May 19, 20,21st) weekend. Bill and Anne (Herkimer Diamonds) have reserved a block of rooms at the Herkimer Motel (www.hekimermotel.com Ph.: 877 656 6835) If staying at the motel please mention Bills name for the group rate. Many members will be arriving on Friday May 18th and staying the weekend. A KOA campground is located across the road from the Ace of Diamonds Mine and some camping spots are available at the mine itself. Bill and Anne will be hosting a BBQ on Saturday evening. Please contact fayemeadows@rogers.com if attending..

-Our annual field trip is also in the works for Arkona/Hungry Hollow in late April/early May depending on weather and river flow. Dates and times will be confirmed.

-Field trips in conjunction with the CCFMS are somewhat in limbo right now as there is no Field Trip coordinator for the CCFMS at the present time. A call has gone out to all member clubs for any volunteers willing to take up this position. If any member is interested please contact CCFMS president Russell Bruce at bruce12@bell.net

-A tour of the Peter Russell's Rock Garden at the University of Waterloo is in the planning stage and will take place May or June.

-Also for any members who are interested, Karen Ward is planning a trip to New Jersey in late April. Fluorescent minerals and a Gem Show are the main focus of the trip. If anyone is interested in going please contact Karen at 1-905-525-0779 or email her at karenpward@sympatico.ca , for more information go to http://www.UVworld.org or you can contact the trip organizer at TripMaster@Uvworld.org=0D

Workshops

Workshops should be resuming very soon, the house on Helen Street is being worked on by the City of Brantford and should ready for us to move in shortly. A committee of 5-6 members is required to help run the workshops, basically one of the committee members would be required to be present during any workshop activity. Please consider volunteering for the workshop committee and make this exciting chapter in our club's history a success.

Up Coming Events

March 3 - 4 2012: 19th Annual Peterborough Gem, Mineral, and Fossil Show, Sat 10 AM - 5 PM; Sun 10AM - 5 PM. Evinrude Centre, 911 Monagahan Road, Peterborough. Admission $3 adults; children 12 and under free. For more information: "http://www.rockandfossil.com".

March 31 - April 1 2012: The 40th Annual Paris Gem & Mineral Show, presented by the Brantford Lapidary & Mineral Society, Paris Fairgrounds, 139 Silver Street, Paris, Ontario. Saturday & Sunday, 10 AM to 5 PM. Admission: adults $5, kids 12 and under free. Featuring gem, mineral, fossil, and stone dealers; lapidary equipment; supplies; jewellery; demonstrations; exhibits; silent auction. Free parking. Wheelchair accessible. For more information, contact John Moons 519 752-9756 or Bob Parry at "mailto:robert@roberthalloriginals.com" .

April 19-22 2012, 39th Rochester Mineralogical Symposium.

April 27-29 2012, 21st Toronto Gem and Mineral Show and Sale, Friday 4 PM - 9 PM; Saturday 10 AM - 7 PM; Sunday 10 AM - 5 PM. Don Mills Civitan Arena, 1030 Don Mills Road, North York, Ontario. Adults $7, under 16 free.

May 4 - 6 2012, 49th Canadian Micro Mineral Association Annual Symposium, Brock University, St. Catharines, Ontario. For more info, visit "http://www.canadianmicrominerals.ca"

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by Erston Barnhart
Rock Buster News
Centeral PA Rock & Mineral Club
via Golden Spike News 5/00

This poem by Mineral Man and Rockhound says it best:

Rocks to eat and rocks to wear... Rocks, oh rocks, they're everywhere!

Rocks to climb with your best buddy... Rocks are really cool to study.

Large and small, all over the place... Sometimes they fall right down from space.

Rocks will teach you many things... The best are collected by wealthy kings.

So, come with us upon our travel... You will learn about much more than gravel.

We have found, and hope to share with you, the most valuable "gem" of all, knowledge.

From The Tektite 3/97
via Beehive Buzzer 3/00