



The Pink Dolomite Saddle

Monthly Bulletin of the Niagara Peninsula Geological Society

February 2010

www.ccfms.ca/Clubs/NPGS/

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Roni Plavac

Lapidary & Faceters' Guild

N.P.G.S. Info:

c/o 120 South Drive
St.Catharines, Ontario
L2R 4V9



Dave Baker with his display case of Gold Specimens

Next Meeting:

NPGS Annual General Meeting

Friday February 19th at 6:00 pm

Pot Luck Dinner starts at 6:30

Location: Mountainview Church,
150 Glendale Ave., St.Catharines

Speaker: Burt Murphy

Topic: The Niagara Peninsula

Display: Bill Plavac

Meetings are *usually* held every third Friday Sept-June at Brock University Dept. Earth Sciences, Room D-309 7:30 PM. Workshops begin at 7:00 PM



THE NIAGARA PENINSULA GEOLOGICAL SOCIETY

The **Niagara Peninsula Geological Society** (N.P.G.S.) was established as a non-profit organization in 1962 to promote the study of earth sciences, the hobbies of mineral and fossil collecting, and the lapidary arts.

Our focus is on collecting minerals, fossils, crystals and jewellery making. Collecting trips to quarries and other locations throughout Ontario and the U.S.A. are arranged several times during the year.

Meetings are held the third Friday of each month, September to June, Room D-309, Department of Earth Science, Brock University, St. Catharines, Ontario. Regular meetings begin at 7:30 PM with workshops starting at 7:00 PM. Each meeting usually consists of a discussion on club business followed by a presentation from a guest speaker. Children's workshops are hands-on educational modules about some aspect of earth science and are geared toward junior members ranging in age from 3 to 12.

Each year the N.P.G.S. hosts GEO-VENTURE, our annual gem, mineral and fossil show. The show consists of several regional gem, mineral, or fossil vendors along with N.P.G.S. member displays and demonstrations. The general public is invited to attend GEO-VENTURE to purchase items of interest from the vendors and learn a little bit more about earth science and the hobbies of lapidary arts and mineral and fossil collecting.

New members and guests are welcome any time.

Individual memberships are \$15

Family memberships are \$20.

More information about the Niagara Peninsula Geological Society is available at www.ccfms.ca/Clubs/NPGS/ Questions or comments are welcomed at npgs@ccfms.ca.

THE PINK DOLOMITE SADDLE BULLETIN

The Pink Dolomite Saddle is the "official" newsletter of the N.P.G.S. The Saddle is geared toward keeping N.P.G.S. members informed of club activities, regional events and other items of general interest to the N.P.G.S.

Members are requested to submit articles or reports of interest regarding earth science or the hobbies of lapidary arts and mineral and fossil collecting. **All articles should be submitted to The Editor no later than the 1st of each month**

The Pink Dolomite Saddle is published ten times per year and is distributed to members of the N.P.G.S. as part of their annual membership dues. Non-members may receive the Pink Dolomite Saddle on a subscription basis of \$10.00 per year. There is a nominal charge for business advertisements.

Items from this bulletin may be reprinted, unless otherwise stated, providing proper credit is given to both the original author and this publication.

PRESIDENT'S CORNER



Club President **Sharon Groen**

Lapidary and Facetor's Guild

Meetings suspended until further notice.



Gold on Quartz from **The Minerals of Canada** interactive poster
<http://www.mineralogicalassociation.ca/poster/mineral.php>

Mineral Collecting

Anyone interested in pursuing the study of minerals should contact **Roman Olszewski**. Minerals, their identification, their characteristics, locations, specimen preparation and care, organization of your collection are all likely topics for this study group.

Contact Roman for details at 905-732-9955 or roman.ofa@cogeco.ca

President's Report

February 2010

Dear Members,

This is a very sad time for the club as we all knew Wally as a main pillar (in more ways than I can express on paper) of our club. He will be missed. I'm sure his family knows they are in our thoughts and prayers.

The February Pot Luck Dinner is coming up and as you all know this is one event that is important to our club's year. This year there is the election, Pot Luck Dinner, which everyone must recall how delicious it always is; and of course, everyone who has had the privilege of hearing **Bert Murphy** speak before will look forward to this year's talk.

A few things to remember are ... please bring one dish to share, please bring your own utensils, plates, etc. and the water, pop, etc. will be supplied.

This is also one of the best social times of the year. We talk of what has occurred and what we are planning for the future.

Hope to see you there.

Take care.

Sharon

Editor's Note: Sharon Groen's husband, Wynand, after two years, lost his battle with cancer. A memorial service was held on Wednesday February 10. Memorial donations can be made to the Canadian Cancer Society.



Wally Walcer remembered with respect and fond memories
Pink Dolomite Saddle Bulletin

NPGS ANNUAL GENERAL MEETING February 19, 2010

Location: Mountainview Church,
150 Glendale Ave., St.Catharines

Volunteers needed at 6 pm and after the meeting to help with set up and later with clean up.

Doors open at 6 pm
Pot Luck Dinner starting at 6:30
Silent Auction
Members' Collection Display
Club Executive Election
Member of the Year Award
Guest Speaker: **Burt Murphy**
Adjournment 9 pm

Minutes of Club Meeting January 15th, 2010

Vice President Wally opened the meeting on behalf of **President** Sharon who was not available for the meeting. Visitors introduced themselves and the minutes of the last meeting were approved.

Reports

Past President: Darlene has booked the Niagara Falls Library for a display during the month of June. This display will advertise the show in June. Thank you Darlene.

Secretary: Dave asked if the attendance book had been signed by everyone and if not please sign it.

Bulletin Editor: John asked for more articles and input to the bulletin.

Field Trip Director: Ashley has not had any reply with Windsor Salt towards a field trip there.

Show Director: Roni spoke for Bill and asked for displays and extra minerals for the club.

Social Convener: Roni talked about the February meeting and asked all to bring their favorite dish for the pot luck, also their on plates and utensils. She could use help with the set up too.

Treasurer: Barry again indicated are financials are in great shape and he has most of the dealer payments for the show.

Director: Roman was asked about a potential purchase of a DVD on a geology course. He said that he would review the advertising material about it and make a decision about it. Chrystal made a motion " to purchase the DVD if it was acceptable to Roman". Roni seconded the motion and it was passed by the club.

Vice President: Wally asked the club members to consider and executive position for the coming year. We are in need of a President and a Director.

Other business:

Jane Gadsby spoke about the Beamsville Strawberry Fest and the "Pampering Feet" for ladies.

It was noted that Rick Cheel of Brock University has on his website a course on geology people might want to visit.

Ashley has 2 of the *windows* 7 available to the club and the executive will decide how this will be auctioned off.

For the monthly display Dave Baker did a nice display of gold, including some nuggets and flakes of Gold.

We then had our break

After the break Vice President Wally indicated that President Sharon's husband was slowly getting better so we all wish him well. Roni held the 50/50 draw.



Dr. Dale Hess speaking to the NPGS about the Laurentide Ice Sheet

Report on “Laurentide Ice Sheet Retreat: From Baffin Island to New York State” by Dr. Dale Hess

The NPGS had the pleasure of hosting **Dr. Dale Hess** of Brock University’s Earth Science Department during the January monthly meeting. Dr. Hess has done extensive research on the reconstruction of the Laurentide ice sheet, which covered Southern Ontario and Northern New York State with approximately 2km of ice during the last glaciation. Theoretical reconstructions of this great ice sheet are important in showing us how current glaciers behave and how they may be responding to climatic change. His talk focused specifically on the reconstruction of the location and effects of former ice streams, or areas of relatively rapid river-like flow, within this ice sheet in this area.

Discovered by researchers in the late 1970s, ice streams are currently found within the large glaciers covering Greenland and Antarctica. Evidence of the actions of this fast moving ice can currently be found in areas such as the fiords on Baffin Island. This is done by means of techniques including isotope dating of surface exposures of bedrock. Areas of high ground are typically found to be much older than those areas at lower elevations, suggesting non-uniform scouring of the surface by the overriding glacial ice. By mapping the distribution of ages of the surfaces surrounding the fiords, ice stream locations may be mapped.

It has been hypothesized that similar ice streams were present in the Laurentide ice sheet and that their former locations can be identified in the current landscape. Different evidence must be used, however, as exposures of bare bedrock are comparatively rare since the area is blanketed with glacial till. Instead, digital elevation models, or DEMs, have been used to map 6347 drumlins in New York State in order to study their different sizes and shapes by a technique known as morphometric analysis. Stretched out, elongated drumlins are thought to be the result of the faster moving ice of ice streams. An interesting relationship exists between these elongated drumlins and the location of the very deep Finger Lakes of New York State which are thought to have funneled the ice into fast moving streams. Dr. Hess presented the results of a numerical model he has

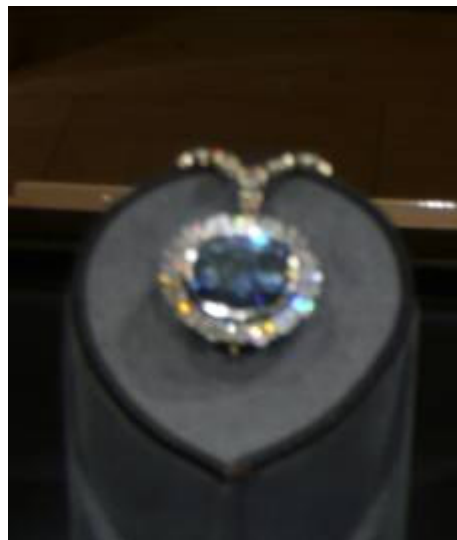
developed to simulate the flow of glacial ice streams in Northern New York State.

But of course, it wasn't just the technical details of ice streams that made this talk so interesting, but also the stories that inevitably come from working in the field. Dr. Hess told of adventures including being stalked by marauding polar bears, of snow machines sinking into crevasses in sea ice and these same machines breaking down in areas where the nearest repair shop is hundreds of kilometers and many days of travel away. And of course, the sheer beauty of these remote, desolate areas was shown to great effect by many photographs from the field.

Report by **Daryl Dagesse**.



Dr. Dale Hess speaking to the club membership



The Hope Diamond

Diamond

One of the most famous, popular and valuable of all gems is the diamond. Diamond is number 10 on Mohs' Hardness Scale, making it the hardest substance on Earth. It is so hard that it actually 4 times harder than corundum (number 9 on the hardness scale) and 8 times harder than topaz (number 8 on the hardness scale). Most diamonds contain black carbon. These black diamonds are not useful as gems, but they are useful to make diamond blades for cutting and polishing rock. Pure diamonds are colorless. When light shines through them, especially when the diamonds are cut into gems, they break

the light into its different colors. You will see flashes of different colors when light hits a gem quality diamond. This is a special optical property of gems called refraction. Refraction is a measurement of how much a material breaks light into its individual colors. Natural diamonds are usually "diamond-shaped," that is, they are octahedral crystals, like the pictures above. They can also form as cubes, and rarely in more complicated crystal forms. In very rare situations, diamonds can have deep colors, like blue, yellow, red, orange or pink.

Diamonds that are naturally colored are called "fancy diamonds" and can be extremely valuable. The Hope Diamond is one of the most famous fancy diamonds in history. Today it belongs to the Smithsonian Institution in Washington, D.C. and is on display in the Gem Gallery. If you go to the Smithsonian, you will see that the Hope Diamond is set in a necklace and is surrounded by diamonds.

The name diamond literally means "invincible." As a result, people have believed that diamonds have the power to do all sorts of wonderful things for those fortunate enough to wear one. Legend says that diamonds protect people from fire, poisoning, snakes, a variety of sicknesses, floods and even evil spirits. Soldiers who wore diamond would be extremely courageous and, therefore, would be victorious in battle. Diamond rings are given before a couple gets married. This tradition goes back to the days when people believed that diamonds were a sign of purity and would make people love each other even more than they could without the diamond!

The Four C's of diamonds

Diamonds are graded based on “the four C’s,” which are color, clarity, cut and carat weight. A higher quality gem, which means a more valuable gem, has high scores in each of these categories.

Color is a description of how colorless to yellow a diamond is. The highest quality white diamonds are the ones with absolutely no yellow color at all and are described as colorless. The scale is colorless, near colorless, faint yellow and yellow.

Clarity is a description of the number of the flaws inside a cut diamond as well as where they are in the diamond. “Flaws” include inclusions and fractures.

Cut You might think that “cut” refers to the shape of a gem and the facets cut into that gem. However, cut is really a description of the dimensions of the gem. In other words, is it the right width and height so that light goes into the gem from the top and bounces back off of the faces on the bottom of the gem.

Carat Weight is a measure of the weight (and therefore, the size) of a cut diamond. Heavier, larger diamonds are a rarity and are, therefore, more valuable. The value of a diamond is determined by the combination of its color, clarity, cut and carat weight.

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January meeting of the NPGS

NPGS Schedule 2009- 2010

- Feb 19 **N.P.G.S. Monthly Meeting**
Location: Mountainview Church, Glendale Ave., St.Catharines
Speaker: Burt Murphy
Topic: TBA
Display: Bill Plavac
Special Event: *Annual General Meeting*
- Mar 19 **N.P.G.S. Monthly Meeting**
Location: Brock University
Speaker: Dave Baker
Topic: Peru
Display: n.a.
- Apr 19 **N.P.G.S. Monthly Meeting**
Location: Brock University
Speaker: n.a.
Topic: n.a.
Display: n.a.

Special Event: Annual Club Auction

May 19 **N.P.G.S. Monthly Meeting**
 Location: Brock University
 Special Event: Annual Club Auction.
 Topic: Expanding Your Collection

Jun 19 **N.P.G.S. Gem and Mineral Show**
 Location: Fairgrounds, Beamsville
 Details: Saturday from 10 am until 6 pm
 In conjunction with the Beamsville Strawberry Festival
 Cost: By donation at the door

Jun 27 **N.P.G.S. Monthly Meeting**
 Location: Brock University
 Special Event: Annual Club Picnic and Walking Tour
 Tour Guide: n.a.

REGIONAL EVENTS

courtesy of the CCFMS Website and other CCFMS newsletters www.ccfms.ca

April 10 - 11 2010 , 38th Annual Gem and Mineral Show

Brantford Lapidary and Mineral Society,

10am to 5pm each day

Paris Fairgrounds, 139 Silver Street, Paris, Ontario

Admission: Adults \$3.00, 12 and under free

Contact: Robert Parry 519-448-1236

www.brantfordlapidarymineral.ca

or Robert@roberthalloriginals.com

or John Moon at 519-752-9756

March 27 – 28, 2010 , 42nd Annual Gem, Mineral and Fossil Show

Buffalo Geological Society, “Trilobites : Under the Seas of Western New York”

Sat 10am to 6pm , Sun 10am to 5pm

The Fairgrounds in Hamburg, New York,

Market and Grange Bldgs., 5600 McKinley Pkwy., Hamburg, NY

Please use the South Park Ave. entrance
Admission \$5.00, Children under 12 free
Minerals, Fossils, Beads, Jewelry, Demonstrations, Public and Private Collections
www.bgsny.org , Contact Steve Birtz, sbirtz@aol.com

April 30 - May 2, Open House at Robert Hall Originals Pewter Studio and Rock Shop

Fri., Sat. and Sunday 10 am to 5pm
138 Sugar Maple Road, St. George, ON
Admission: free
Contact: roberthalloriginals.com

April 30 – May 2. Canadian Micro Mineral Association, 47th Annual Symposium

Brock University, St. Catharines, ON
Contact: Bill Lechner at 416-438-8908 or bill.lechner@rogers.com
DATE CORRECTION

June 19 NPGS Annual ‘GeoVenture’ Rock and Mineral Show

Concurrent with the Beamsville Strawberry Festival, Beamsville Fairgrounds
Beamsville, Ontario
Contact: Bill or Roni Plavac at 905-468-5393

Jul 29 to Aug 1 2010 47th Annual Rockhound Gemboree and 8th Annual Stone Carver’s Show

Canada’s Largest Gem and Mineral Show
Bancroft, Ontario
Contact: BancroftDistrict.com or 888-443-9999

NIAGARA PENINSULA GEOLOGICAL SOCIETY 2009-2010 DUES

Please check one:

Family Membership \$20.00

Individual Membership \$15.00

Do you wish to receive the newsletter via email?

Bring to a meeting or mail along with cheque payable to:

Niagara Peninsula Geological Society

c/o Barry Douglas, Treasurer

17 Lochinvar Dr.

St. Catharines, ON L2T 2B5

Name: _____

Address: _____

City: _____ Postal Code _____

Phone (Home): _____ (Work): _____

Email Address: _____