

Gem & Mineral Federation of Canada

La Federation Canadienne des Gemmes et des Mineraux

FOUNDED 1977

Newsletter

Spring 2008

Volume 27, Number 1

-- 2. Fun information edition --



From the Newsletter Editor

-- submitted by Madeline Sheridan, newsletter editor

This newsletter is dedicated to all of us who want to play with rocks and stones all day. A lot of the articles were taken from two newsletters: The CRLC Journal of the Calgary Rock & Lapidary Club, and the Bugle of the Ripple Rock Gem & Mineral Club of Campbell River, BC.

I made only a few changes. (*Warning: start of editorial rant*) We are in Canada, so please spell colour with a U! Including in our colouring books! (*End of editorial rant.*)

Finally – unexpectedly I will not be able to continue as the Newsletter Editor. Do you know someone who can take over this portfolio? If so, please let someone on the GMFC Executive know. We will be looking for a replacement at the AGM in Edmonton.

SITUATION VACANT

The Gem & Mineral Federation of Canada currently has a vacancy for the office of Treasurer.

The position requires the person to take care of the financial affairs of the GMFC by depositing all income, paying all bills, and keeping record of all transactions. At the end of each year all documents are sent to the Auditor who prepares an Annual Report for the membership.

It is recommended that as a member of the G.M.F.C. Executive you participate in the two teleconferences and the Annual General Meeting.

As a non-profit organization and a charity organization unfortunately there is no salary, but you do get to meet a lot of good people and you are involved in promoting a great hobby. Since the formation of the GMFC, the position of Treasurer has been held three times. The first was Stan Deane, the second was Jack Wrightson, and the third was Ken Dewerson.

For more information, or if interested, contact:

President David Barclay
or acting Treasurer Ken Dewerson

E-mail Address a3a21782@telus.net
kdewerson@shaw.ca

2008 ETLG Annual Show / GMFC Annual General Meeting

Belmead Community Hall, 9109 – 182 St., Edmonton, AB

Saturday August 16: 9:00 am to 6:00 pm

Sunday August 17: 10:00 am to 5:00 pm

Directors' Meeting: Thursday, August 14th

General Meeting: Saturday, August 16th

For more information, see the GMFC Newsletter Vol. 27 No. 1.1.

IMPORTANT NOTICE FOR ANYONE PLANNING TO COLLECT AMMONITES:

From: ALBERTA ENERGY, March 25, 2008
Subject: Issuance of Ammonite Shell Agreements

“The Department of Energy will not be accepting Ammonite Shell Agreement applications until the aboriginal consultation is complete. Following the decisions emerging from the consultation, the department will issue a further notice advising when applications will once again be accepted.”

(This does not affect surface picking of ammonite or other fossils.)

-- Thanks to Pauline Zeschuk (paulinez8@shaw.ca) for the information. If anyone wants to know more, Pauline could probably help you out.

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For the Newsletter Editors out there:

If your club's newsletter editor is not yet a member of SCRIBE, contact Trudy Martin with the Calgary Club to find out about them. And once you are a member, then help out Mr. Imel and help spread your club's words and activities on these CDs. Read his appeal, below...

The SCRIBE 2008 CD is ready for mailing. We're still doing a final cleanup of the mailing list for the roster before sending it out with the roster for those getting the roster via snail mail. You should receive it within the next few weeks.

Now, here's the begging part any of you who have been members for a while have heard before. This last year was the first year since we started the CD in 2002 that we had *FEWER* club newsletters than the year before. We went from 84 clubs on the 2007 CD to 77 clubs on the 2008 CD.

Please, send me your newsletters each month to be included on the CD!!!! I get a lot of complements about all my work putting the CD together but I keep telling people that the real work is all the editors who send me their newsletters each month or send me a CD at the end of the year. Without you guys, there would be no CD.

Of the 77 different club newsletters on the 2008 CD, several only sent me the first couple months, then stopped sending. The next CD could be really small compared to last year. PLEASE, start sending me your newsletters via e-mail!!!!

Thanks,
Dan Imel

Lapidary Tips

From the newsletters of the Calgary Lapidary and Rock Club and the Ripple Rock Gem & Mineral Club (Campbell River, BC) -- thanks for sharing the information!

Polishing Jasper

-- From The Rock Bag via Blue Agate News, 1 / 08; The Rockcollector 02 / 08

-- From the April 2008 CRLC Newsletter

Jasper is much more troublesome to polish than agate because many varieties are "earthy "and porous and others contain hematite, which in itself is difficult to polish.

If you are on a field trip, a good way to test jasper is to wet it. If it absorbs the water and dries rapidly, throw it away. It will not polish. If it stays wet and does not dry right away, it contains a high amount of chalcedony and will take a good polish. Most jaspers polish well on leather with Linde A, but good results can be obtained with tin oxide on either leather or felt. Always remember that a good fine sanding job is the secret of good polishing.

Keep a log in your shop. Document your techniques and inspirations. You will come up with a journal full of useful tips, and maybe even an educational article or two.

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How To Cut Obsidian

-- Source: The Tumbler, 11/95, via Osage Hills Gems, 11 / 99; Blue Agate News 03 / 08

-- From the April 2008 CRLC Newsletter

Gold Sheen: Saw with the bands, as if they were a stack of plates and you wish to unstack them. Watch for "fire spots" in gold sheen. It is not plentiful, but opal-like colours do occur.

Rainbow: Cut parallel to the flow layers. These can be seen by looking at fractured surfaces using a single lamp directly overhead. Note the bands are not always straight, it may be necessary to turn the stone slightly between cuts. Examine each slab set with either water or saw oil to see if the correct angle has been obtained.

Iridescent: In cutting the two types of iridescent obsidian, orientation is important. One type is banded and the colour lies in the bands. On the other type, the surface has to be chipped to find the colour in the conchoidal fracture surface. Cut the banded material parallel to the bands. To get rainbow effects, cut the stone at about 15 degrees across the bands.

Midnight Lace: Lace-pattern obsidian should be cut across the surface pattern that you want to reproduce. Sand out all scratches with grit and wet sanding (to reduce heat) before going to polish. For final polish, use felt with cerium oxide.

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Eliminating Flats

-- Source: *The Mountain Gem* 11 / 01, via *Blue Agate News*, 12 / 07, *The Rockcollector* 02 / 08

By Ted Robles

-- From the April 2008 CRLC Newsletter

A while back, someone was saying that he was having problems with getting "flats" on his cabs, that there was insufficient "give" in his wheels, and it didn't seem to make any difference no matter how much pressure he applied. That was his first mistake.

Diamond and corundum are two different animals; relatively speaking, about the same difference as between quartz and chalk. If you "lean into" a diamond wheel, you will get lousy results (flats, etc.) on your stone, and your wheels will wear out long before their time.

On diamond, you try to do your cutting (and everything else) by almost not touching the wheel. Use essentially no force. Don't "grind" the stone, let the diamond wear it away, but keep it spinning. The technique is simply to use the whole face of the wheel, and keep your cab moving. Any time you stop, you just bought a "flat". Can't help it!

It's the same principle as sharpening a knife on an emery wheel. If you don't want notches in your blade, you keep it moving. Do almost all of your cutting on the coarsest wheel you have. If you leave any flats on the pre-form, you're going to have them on the final piece...can't help it.

And finally, practice, practice, practice. Machines, like people, take some acquaintanceship before you really know what you can get out of them.

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Treatment for Special Stones

-- From *Skagitt Gems* 01 / 01, via *Pickin's & Diggin's* 09 / 05

-- From the April 2008 CRLC Newsletter

Tourmaline & Garnet: Both chip. Grind carefully on well-dressed wheels. Both stones are fairly heat sensitive. Sand wet. Linde A on leather is a good polishing combination for these gems.

Moonstone: Will cleave. Be sure to grind it on a smooth wheel. It polishes nicely on felt with cerium oxide.

Tiger Eye: Always grind, sand and polish tiger eye in the direction of the fibers of the material to eliminate undercutting and damaging the fibers at the surface.

Turquoise: Never use ammonia, soap or detergent on turquoise. Ammonia will turn the turquoise white. A drop of ammonia on what may be a scrap piece is a good test to see if it is genuine.

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Editor's note: This is quite close to where I was born, which shows that rocks really are in the blood. And there's a lot more coming out of Timmins than just Shania Twain.

Zircons Are Earth's Tiny Time Capsules

By Randy Boswell, Canwest News Service

The Calgary Herald - 5 March 08

-- From the April 2008 CRLC Newsletter

A tiny zircon crystal extracted from a three-billion-year-old rock in northern Ontario is being hailed by Canadian and U.S. scientists as a primordial “**memory cell**” containing a previously unknown record of the Earth's early history. The researchers also believe their microscopic time capsule could provide a new tool for testing whether life has ever existed on other planets.

The zircon was extracted from an outcropping of deep-earth rock known as the **Kapuskaing Uplift**, a rare geological feature near the city of Timmins in which ancient rock that's normally 30 kilometers below the planet's surface is exposed.

Led by the University of Western Ontario geologist Desmond Moser, a team including scientists from California, Wisconsin and Utah studied the site's rich supply of zircons - well known as a trusted indicator of a rock layer's age - and determined for the first time that such crystals also provide reliable data about environmental conditions at the time and place the zircons formed.

Scientists have long believed that this “**internal history**” of a zircon's birthplace “would be erased” over the eons, Moser told Canwest News Service, “but it's just the opposite. They've retained this incredibly detailed history of their own growth.”

In an article published in the latest issue of the journal of Geology, Moser and his colleagues explain how chemical signatures detected in the zircon confirm the presence of oceans on earth over the 200-million-year stretch of time during which the minute crystal was forming about 2.7 billion years ago. The cooling of the surrounding rock in which the zircon formed finally ended its long period of growth, sealing inside key information about the state of Canada's future landmass at that time.

Describing their discovery as a “**robust, microcrystalline record of the early genesis of North America**,” the researchers say this novel feature of the zircon offers a new way of reconstructing planetary dynamics on earth and other worlds - a kind of litmus test in which zircons recovered from Mars or other planets might yield proof of long-extinct oceans or other tell-tale signs of possible life. “This research shows these crystals are incredibly resistant to change,” says Moser. “The oldest pieces of our planet are crystals of zircon.”

From the April 2008 CRLC Newsletter:

These three tips were reprinted from Thunder Bay Gems: This is a collection of Hints and Tips from years ago. In most cases, the original source is unknown.

Gemstone Buttons

Make your own gemstone buttons by cutting a set of round cabochons, or whatever shape you want. Glue them to the .back of a flattened-out bell cap so that the loop becomes the button shank. Or, you can fit your cabs into the base of those manufactured settings used for making covered buttons.

Storing Cabochons

Keep polished cabochons in photo - slide 'protector' pages. The pages fit a three-ring binder. Each page has 20 individual pockets. The cabs are easily viewed but are protected.

Polishing Cabochons

When polishing, do not use a saucer, dish or pan and messy brush to apply the polishing agent. Such methods invite contamination. Instead, use a plastic spray bottle. Put the polishing agent into the bottle, add water and a small stone or buck shot. The purpose of the stone or buck shot is to agitate and stir up the polishing powder when you shake the bottle. Shake well and squirt the solution on the felt, leather or poly pad. No more contamination. No waste of polishing agent and the polishing agent may be applied exactly where you want it.

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ALBERTA GEOLOGY and GEM MUSEUM SOCIETY

We are now accepting applications for membership. The goals and objectives of the society are to collect, curate and display rocks, minerals, fossils, artefacts, finished rocks, stones and gems.

We are a museum; collecting, curating and displaying earth science specimens and related arts and crafts, including finished gemstones. Our purview also extends to Astronomy, Physics and Cosmology.

For more information please contact **Bruce Gregory at (403) 275-2693**

Crystal Mystic Corner:

From the April 2008 Bugle. This is one of the best summaries I have ever seen on Chakras.

CHAKRAS

Chakras are energy vortices in the body that transmit the life force throughout (called *Prana* by Hindu Ayurvedics and *Ch'i* by the Chinese). Certain stones are considered in tune with these Chakras and can be used to cleanse the Chakra and bring balance.

- For example an overactive Navel Chakra might mean a person dominates everyone around him, causing him personal problems. To subdue the Navel Chakra, look at the gemstones below under Subdues.
- A closed Navel Chakra might mean a lack of will power or self-control. To open this Chakra, look below.

Chakra	Qualities	Subdues	Opens
7th – Crown Sahasrara	Understanding Cosmic Consciousness Enlightenment	Opal Tourmaline Amethyst Apophyllite	Diamond Herkimer Diamond Clear Quartz
6th - 3rd Eye Ajna	Clairvoyance Intuition Psychic Senses	Watermelon Tourmaline Lapis Labradorite	Amethyst Moonstone Sugilite
5th - Throat Vishuddha	Communication Creativity Healing	Larimar Aquamarine Turquoise	Kyanite Blue Topaz Azurite
4th – Heart Anahata	Love Hope Compassion	Emerald Green Tourmaline Malachite	Rose Quartz Kunzite Rhodochrosite
3rd - Naval Manipura	Energy Vitality Desire & Power	Amber Moonstone Peridot	Citrine Calcite Topaz
2nd - Sacral Svadhithana	Emotions Sexuality Intimacy	Chrysocolla Clear Quartz Jade	Ruby Carnelian Citrine
1st - Root Muladhara	Survival Instinct Security Grounding	Black Tourmaline Hematite Smoky Quartz	Bloodstone Garnet Ruby

From the April 2008 Bugle:

BIRTHSTONE FOR APRIL – The Diamond

Diamond is the ultimate gemstone, having few weaknesses and many strengths.

Diamond is well known as the hardest substance found in nature, but few people realize that Diamond is *four times harder* than the next hardest natural mineral, corundum (sapphire and ruby). But even as hard as it is, it is not impervious. Diamond has four directions of cleavage, meaning that if it receives a sharp blow in one of these directions it will cleave, or split.

Hardness: Diamond is a perfect "10", defining the top of the hardness scale.

Clarity: Diamond is more transparent over a larger range of wavelengths (from the ultraviolet into the far infrared) than is any other solid or liquid substance. Nothing else even comes close.

Thermal Conductivity: Diamond conducts heat better than anything - five times better than the second best element, silver!

Lattice Density: The atoms of Diamond are packed closer together than are the atoms of any other substance.

Diamond is a polymorph of the element carbon. Graphite, another polymorph shares the same chemistry, but has very different structures and properties:

Diamond	Graphite
Hard	Soft (the "lead" of a pencil)
Excellent electrical insulator	Good conductor of electricity
Ultimate abrasive	Very good lubricant
Transparent	Opaque
Crystallizes in the Isometric system	Crystallizes in the Hexagonal system

Somewhat of a surprise is that at surface temperatures and pressures, Graphite is the stable form of carbon. In fact, all diamonds at or near the surface of the Earth are currently undergoing a transformation into Graphite.

This reaction, fortunately, is **extremely** slow.

Cool Links

www.gmfc.ca/	www.lapidary.bc.ca
www.crlc.ca	www.afrc.ca
www.amfed.org	www.agateswithinclusions.com
www.ammonite.com	www.brminerals.com
www.calgaryscience.ca	www.eloxite.com
www.ganoksin.com	www.ccfms.ca
www.gemdata.com	www.gemcutters.org
www.minernet.it	www.ontariominerals.com
www.rocksforkids.com	www.rockhounds.com
www.royalalbertamuseum.ca/gallery/nathist/info.htm	

ROCKHOUND'S CODE OF ETHICS

-- *From the April 2008 Bugle*

As we look forward to many up and coming rockhounding adventures, it is a good time to remind members of the *Rockhound's Code of Ethics*. This is the code of the BC Lapidary Society of which we are all members.

It can be tempting when you look down and see well-sought-after treasures that you know you will never use... and the person beside you will. Fortunately rockhounding brings together a kooky bunch of people who are usually most willing to share, trade and help out friends. That spirit of cooperation has contributed to the formation of many strong friendships within our club, and the great reputation that our club presents to the rest of the province.

It can be difficult when our bags are loaded and we know there are more rocks for the taking at many of the sites we visit. The code should help to guide us in making ethical choices as we collect our treasures.

1. I will respect private property and do no rockhounding without the owner's permission.
2. I will use no firearms or blasting materials in rockhounding areas.
3. I will take garbage home or deposit it in proper receptacles.
4. I will leave gates as found.
5. I will do no willful damage to materials or take more than I can responsibly use.
6. I will fill excavations, which may be dangerous to livestock.
7. I will build fires in designated places or safe places only, and make sure they are completely extinguished before leaving.
8. I will not contaminate wells, creeks, or other water supplies.
9. I will not tamper with signs, structural facilities or equipment.
10. I will obey all laws and regulations of forestry and game departments in the area in which I am hunting.
11. I will appreciate and protect our heritage of natural resources and wildlife.
12. I will always use good outdoor manners.