



BUGLE



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RIPPLE ROCK GEM & MINERAL CLUB
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Editor: Gordon Burkholder
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December 2015

Regular monthly meeting
2nd Friday each month at 7:30 pm
(Except June, July & August)
Craft Room, Campbell River Community Hall
401-11th Ave
Campbell River, BC



RIPPLE ROCK GEM & MINERAL CLUB

RIPPLE ROCK EXECUTIVE 2015

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Secretary	Steve Cooley	250-287-4388
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Assistant Wagonmaster(s)	Ken Palmblad	
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Shop Maintenance	Dennis Cambrey/Harry Kerr	
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Slab Draw	Beba Adams	250-926-0044
Coffee Break	Janice Boyes	
Basic Lapidary Instructor	Steve Cooley/Gord Burkholder	250-287-4388

Delegates to Vancouver Island Zone Meetings

Senior	Gordon Burkholder
Intermediate	Jan Boyes
Junior	Ulla Williams

WORKSHOP

Shop located at 246 Dahl Rd.
 For general shop info contact
Beba Adams 250-926-0044
**The workshop hours are posted on the
 club website.**
www.ripplerockgemandmineralclub.com

MEMBERSHIPS

A single membership is \$15.00 and a family is \$25.00. Memberships may be paid at the General meetings or by mail to Box 6 Campbell River, BC, V9W 4Z9.

President

The calendar year is almost at an end once again and the 'holidays' are upon us. I look forward to seeing you all at the Christmas pot luck dinner to wish you a Merry Christmas and to talk rocks and other topics.

If you'd like to purchase any club gear (we have t-shirts in all sizes and 'tilley' hats all at the extremely great price of \$10) please let me know so I can make arrangements to have them at the meeting.

We will have a name tag draw at the potluck so that we can get to know new members, socialize, and help us old buzzards to remember names! We will not conduct a business meeting at the dinner but we will be bringing the rock calendars previously ordered.

For the Jan meeting we will need to look at the remaining vacancies for rock club jobs:

- 1) Entertainment coordinator
- 2) Club Publicity promoter
- 3) Junior delegate for zone meetings
- 4) Past president will be the lead for a nominating committee for future elections but we need 1 or 2 more names to make this an actual nominating committee.

We are not planning an exec meeting between Christmas and New Years for the Jan meeting so if anyone has a message, question, or concern please contact one of the exec members so that we can respond to it.

Kathy Young

Vice President

If you have any requests for your Christmas reading or entertainment, get them in to me before the meeting.

Linda Henderson

Entertainment Report

This month's entertainment will take place as part of the Christmas pot luck dinner which will be held from 6:00 p.m. until 9:00 p.m. on Friday, December 11 in the lounge just down the hall from the crafts room where we normally hold our meetings. The entertainment will be a gift exchange of some rock related item. Check out the minutes from the November meeting for more refined details.

Pat Doyle

Membership

I have an important reminder for members that the December meeting is your last opportunity to renew your membership before the due date of January 1, 2016. Bring

your cheque book or cash along to the meeting. Also, if you want a name tag get your information to me ASAP.

Dennis Cambrey

Zone Report

Once again, Marion Barclay opened her lovely home to the Zone delegates for our November meeting. We shared and enjoyed a pot luck lunch, delicious, before the meeting. The Zone brought along a lovely Christmas table arrangement for our hostess Marion. All clubs were represented and everyone was a cheery and willing participant in the various discussions.

There were the club reports and the Gemboree 2015 report, with thanks to Marion and Leni for handling the registration and auction, and Cowichan's Gemboree 2016 plans, which look great, The next exec committee taking over from us next summer will be Cowichan, there was discussion and agreement that wagonmasters could/should share information and adopt a uniform sort of procedure for signing folks in on trips (some clubs run a tight ship (or used to) and some do not. It would be nice if field trips were open to all other members from other clubs too. We agreed this year could not have worked out as well as it did had we not had the three meetings.

Gemborees should be open to members from all other clubs (Mainland and USA) as long as they are club members and have proper third party liability coverage. The Phrase "Fellowship, Friendship, and Fun" is in the notes in capitals. We shared in some brain-storming discussion with a lot of good ideas brought forward - a meeting of substance.

It was a busy year with support and participation of all the delegates and their clubs. Well done everyone.

Ulla Williams

Web Site Data from the Web Master

We received a very nice email from a teacher whose class is using our web page as a resource for a study of rocks and minerals. Here's what she had to say.

Hi, My name is Courtney and I'm a mentor and tutor for a small group of kids in my local area. My class and I wanted to give you a shout and send you some virtual "high-fives" on your page. We've been collecting resources for our rocks and mineral project and decided to bookmark your page, thanks. :)

Since we decided to bookmark your page, the kids thought it'd be a brilliant idea to send you a page they found, <http://www.casorojewelrysafes.com/guide-to-diamonds-rocks-and-minerals/>. They figured it'd be a great learning replacement for "Bob's Rockshop Forum", since it's not working. Do you mind adding it? They'd feel so accomplished knowing your other web visitors could learn from it too.

We'd love to hear any feedback you have...maybe even a "high-five" back. :P

Thank you for your time,
Courtney Phillips

We have also had a rock enthusiast contact me about the identification of a rock. I always defer this type of request to another club member for assistance. These requests are often added to the webpage “What’s this Rock” section.
Janet Burkholder

Editor’s Message

At the time of the writing of this month’s ‘Bugle’ I find myself in the high desert regions of Nevada and Arizona. I’ve had the opportunity to visit with local rock shop owners and museum curators. They have been very helpful and generous with information about their areas. Jan and I loved the Central Nevada Museum in Tonopah, NV with its walk around outdoor area and indoor displays. We have been able to pick up some nice samples along the way.

I’d like to thank the contributing writers this month for their articles and photos. I think it adds greatly to the value of our newsletter.

I’d also like to express my thanks and appreciation to those who let their names stand as executive members for our club. Without their leadership we’d soon wither and die.
Gordon Burkholder

Quotable quote: When you come to a fork in the road, take it. *Yogi Berra*

MEMBERS ON THE MOVE

Bob and Pat Hayhurst have made the move to Grand Forks leaving us in August. But they haven’t forgotten us! Here is some information along with pictures of the rockhounding and exploring that can happen in the area.



Bob writes...

The picture is one I took of the Oro Denoro Mine between Grand Forks and Greenwood, BC. There are several mine shafts in this area, mostly flooded. There was a rail line above the upper shaft. Five rail lines crisscross each other in this area. I'm standing on one to take this shot. There is a wreck of a steam locomotive off to the left on the upper line. Lots of history in this area.

This next photo shows part of a steam engine in the bush near the Emma Mine, a short walk from the Oro Denoro Mine. A different wreck from the previous picture.



Perfect house for a Rock Hounder! This piece of rock is off a slide next to the Granby River, a short drive north of Grand Forks.



My brother Ken and I found this miners shack near one of the mine shafts of the Emma Mine. The room is no more than 8'x10', cozy. Be it ever so humble...



This is a shot of the shaft that went under the railway. Some cribbing and water pipe is still there. This area is on a good two wheel drive road, 5 kms from highway #3. Part of the Oro Denoro Mine



Quote: Do the right thing. It will gratify some people and astonish the rest.

Mark Twain

GEM OF THE MONTH

This month I'd like to present one of my earliest favorite gem stones; turquoise. The article is written by a physical geography student and is dated 1012.

Turquoise by Kayla Young

It is quite common to see turquoise in multiple kinds of Native American hand-made jewelry. The jewelry crafters really know how to show off its beautiful blue colored stones in the most appealing way. They are quite unique, each having different markings or designs imbedded in the stone itself. Not only has it been used in modern jewelry today, but it has also been utilized thousands of years ago! Where does it come from? When did it become a popular gemstone and what was it used for? Through thorough research, these questions will be answered.

Turquoise is hydrous phosphate of aluminum and copper, $\text{Al}_2(\text{OH})_3\text{PO}_4 \cdot \text{H}_2\text{O} + \text{Cu}$, used as a gemstone. Its hardness is 5-6 and its luster is opaque and waxy. The gemstone colors vary from greenish gray to sky-blue; sky-blue being of the most value. Its permeability makes it easy to absorb grease and dirt which can make it a very unattractive green. The best turquoise specimens are found throughout Iran, Sinai Peninsula, and the south western states (Arizona, California, Colorado, and New Mexico.)



Images listed from least valued to highest valued turquoise.

<http://www.shopgemstones.com/turquoise.html>

Turquoise is a secondary mineral that forms as a result of saturating acidic solutions during the weathering and oxidation of pre-existing minerals. It is formed by the separation of meteoric groundwater through aluminous rock in the presence of copper (US Department of the Interior, 2002, pg 1). It is found as an opaque deposit in nodules, or veins within host rocks, or as thin crusts on the surface of rocks. Veins will vary in composition based on the materials from the rock they intrude. Turquoise deposits are often found around copper mines like the one in Bisbee, Arizona. Below is an example of a turquoise vein running through an igneous rock located in Bisbee.



“Bisbee Blue” photo credit: R. Weller/Cochise College

Most turquoise contains varieties of brown or black matrixes which are the streaks or veins seen in the polished stones. Matrixes are fragments of the rock that the turquoise intruded therefore leaving pieces of itself in the gemstone. In the United States and China, these streaks are considered to be beautiful whereas other places in the world, like the Middle East, believe they are imperfections and actually devalue the stone.



Photo credit: Roger Weller/Cochise College

Quote: We are all here on earth to help others; what on earth the others are here for I don't know. **W.**
H. Auden

Sagittarius and Capricorn

The traditional stone for a Sagittarian is Topaz. Topaz colors varies from yellow, orange, blue, clear, brown, red, pink, violet, to green. Blue is the most popular color. This stone is also known as the true stone of success and love. Topaz promotes truth and forgiveness. It removes and demolishes doubts and strengthens your beliefs. Topaz has been said to be able to unleash your imagination. Amethyst stones and Topaz stones combined are powerful and bring you a very soothing relaxed feeling. Topaz is able to aware us what is most important. It's also said that this stone can open your mind to new adventures.



Topaz is an amulet that protects against feelings of insecurity. It is often used in conjunction with other talismans to firm our resolve.. Topaz is also excellent for restoring our lives after minor trauma or loss

Lapis Lazuli is also a stone associated with Sagittarius. Lapis Lazuli is a stone that promotes friendship and truth, and can be worn to promote honesty and ease of communication. It is also believed to increase mental clarity, and be an energy focus for teachers. It is believed to enhance creative self-expression and to promoting spirituality.



Long treasured, Lapis has been used by many cultures in a wide variety of ways. Today it is a valuable talisman for gaining respect, keeping negative energy away, and for helping us to remember to be humble in our dealings with others.

The traditional stone, for those born under the Capricorn star sign, is Ruby. Ruby's is red corundum a very hard stone that takes an incredible polish. Rubies are among the treasures of the world. The most wanted Ruby is a red color with a hint of blue. Ruby is also known as the "Stone of Nobility" and "Star of Purity". Ruby is prescribed by crystal healers for aiding the circulation of blood. This stone is also related to love. It is said to be filled with love and affection. Ruby is a symbol of friendship, love, and royalty. You can use this crystal to aid you with setting goals and keeping them, bringing passion to life, balance for the heart, motivation, and creativity.



Ruby on matrix

Ruby is also said to be a nurturing stone that works very well when a mother gives birth to a baby. This stone will protect both mother and child and keep both healthy as can be.

Hematite is also a traditional stone for Capricorns. It is also known as the "Stone for the Mind". The colors vary from silver, black, and gray. Hematite is used to enhance relationships and communication.



Hematite rock

This stone is very useful for supporting your goals, hopes, and dreams. Sorting out your thoughts and mind is a lot easier when you have Hematite by your side. Hematite is a strong stone that helps the formation of red blood cells.

Obsidian happens to be a stone for Capricorns, too! It is lava that has been cooled quickly. Obsidian is also known as a natural glass. This stone blocks out mental stress and tension to help you relax. It promotes compassion and strength. While a change in lifestyle of any sort you should keep an Obsidian stone nearby because it will provide you support and protection. If you suffer from arthritis pain, Obsidian is a great stone to have.



obsidian

Quote:

Diplomacy is the art of saying 'Nice doggie' until you can find a rock. **Will Rogers**

WHAT'S THAT ROCK?

Ever wondered how gems get their name? Maybe this information will provide some insight and information of use to you.

Naming Gems

Similarly to the way organisms are named in biology, in gemology, each distinct type of gem has a species name.

Species: A gem species is a mineral that has a definite chemical formula, and has a particular three dimensional structure. In regards to that structure, gems can have a crystalline (highly regular and organized), or amorphous (less organized) structure.

An example of a gem species is quartz. All quartzes, whatever their other characteristics, share the same chemical formula: SiO_2 and are members of the *hexagonal* crystal system. The species "quartz" encompasses many quite different looking gems, though, from amethyst and citrine, to agate and jasper, to rutilated quartz and tiger's eye.

Another example of a gem species is corundum (commonly known as sapphire). All corundum gems share the chemical formula: Al_2O_3 and are members of the *trigonal* crystal system.

Variety: A gem variety is composed of a sub-group, within the species, that shares distinct and notable characteristics, such as color, degree of transparency, inclusions, or optical phenomena with others of its kind. Not every gem species has multiple varieties, for example, there are no separate varieties within the gem species peridot.

Quartz Gems:



[Species quartz: Varieties: amethyst, agate]

Amethyst is transparent, crystalline, purple quartz. Agate is translucent, usually banded or patterned, cryptocrystalline (made of ultra-microscopic crystals in an aggregate) quartz. Amethysts come in a range of purple colors from very light to dark, and agates come in a nearly infinite array of colors and patterns.

Corundum Gems:



[Species corundum: Varieties: ruby, yellow sapphire, star sapphire]

Ruby is the variety name for red corundum, yellow sapphire is yellow corundum and star sapphire is translucent to opaque corundum that shows the optical phenomenon of *asterism* (forms a star figure from reflected light). The only variety of corundum that is simply called "sapphire" without any modifier is blue sapphire, all other colors have their own variety name (like ruby) or use a modifier like star, yellow, pink, white, etc.

Groups: In some cases, a number of closely related mineral species are placed into a larger, more inclusive category, called a mineral group. Examples are the garnet group and the feldspar group.

The individual species of the group share membership in the same crystal system, but although the chemical formulas amongst group members are very similar, they are not exactly the same throughout the group. Typically, the formulas gradually change by substitution of a set of chemical elements from one end of a continuum to the other.

Garnet Group Gems:



[Group: garnet, Species: Spessartite, Group: garnet, Species: grossularite, variety: Tsavorite]

The orange oval stone above belongs to the Spessartite* species within the garnet group.

Trade Names and Misnomers:

In addition to the official names given to gems, there are also a multitude of trade names, brand names, and misnomers that are in use. In fact, just as happened in the history of biology, the confusion over which mineral or gem was called what, where, by whom, has led to the development of a rigorous system for international naming of minerals and gems. Although this formal system is used by professionals, students, and serious gem enthusiasts among the public, many other names are still in use and can create confusion.

Quote: Just as treasures are uncovered from the earth, so virtue appears from good deeds, and wisdom appears from a pure and peaceful mind. To walk safely through the maze of human life, one needs the light of wisdom and the guidance of virtue. **Buddha**

Final Thought: You must not lose faith in humanity. Humanity is an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty. **Mahatma Gandhi**