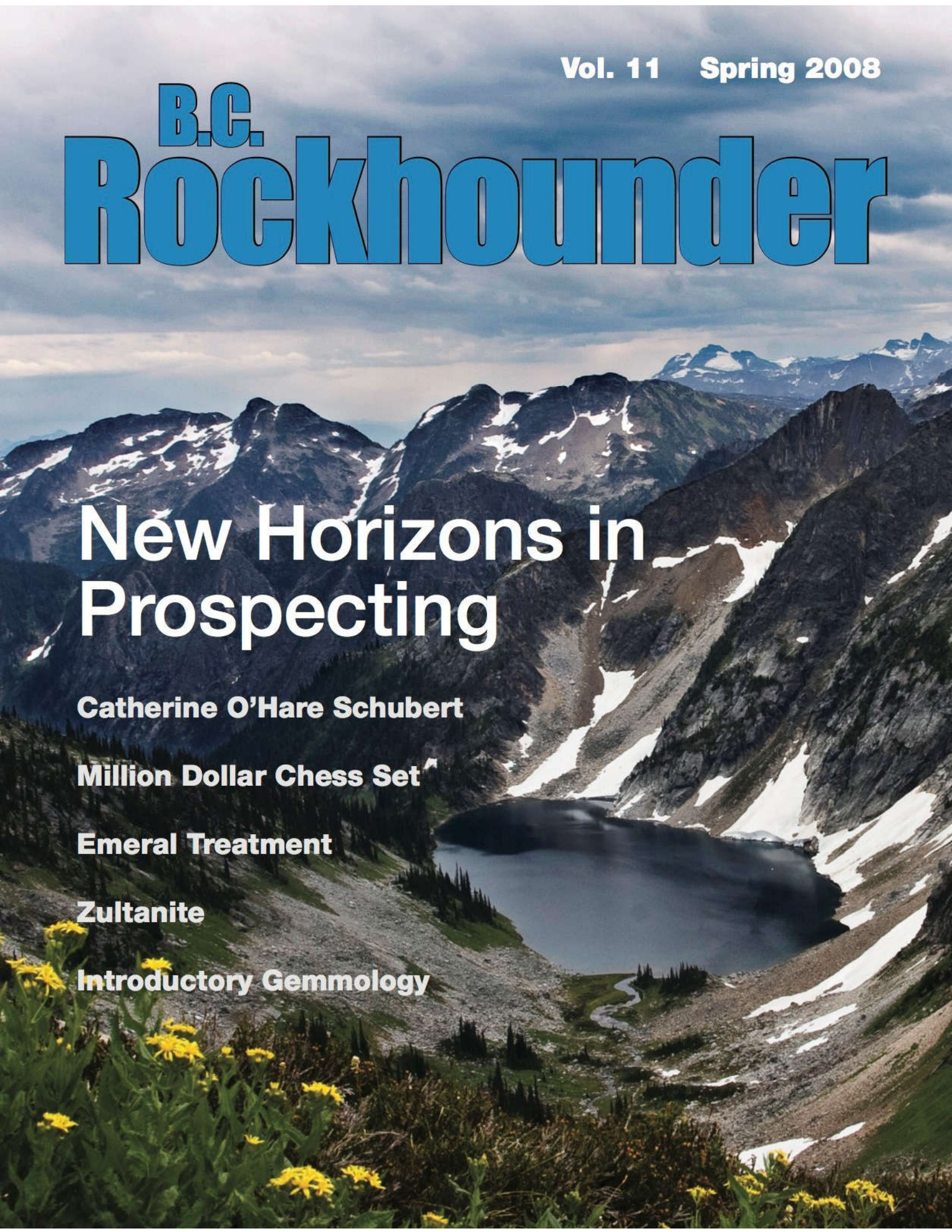
Vol. 11 Spring 2008

B.C. Rockhounder



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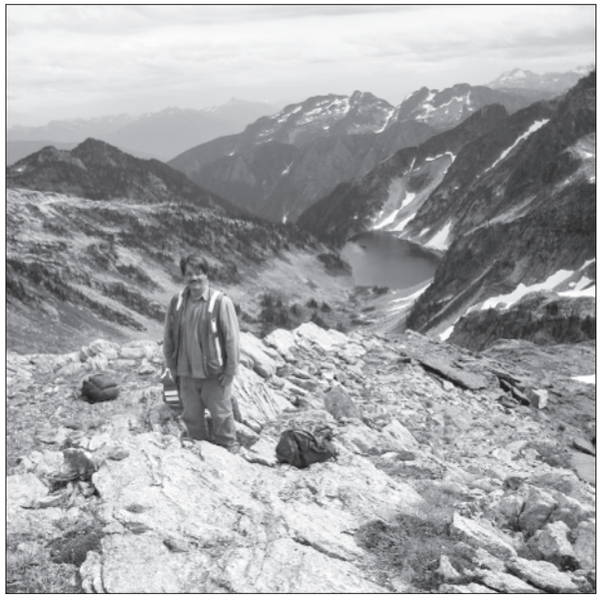

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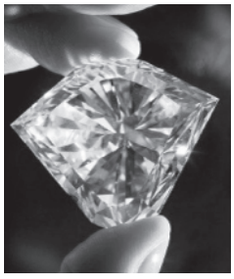


Cover Photo
The cover photo was taken by Jim Laird,
Mt. Copeland, Revelstoke, BC

Shiny, the Rockhounds, and the Selfish

A Fable by Lois Larson

Once upon a time, there was a little limonite octahedron named Shiny. He lived in a village of octahedrons in the middle of Kansas. Sometimes, they had visitors from a tribe called Rockhounds.

The Rockhounds walked around in their village, picking up some of his fellow octahedrons to be adopted into their homes. These octahedrons were lucky, because they were given baths, got to live in warm, dry houses, and were frequently shown off to the Rockhounds' visitors. The visitors ooh'd and aah'd over them, and they were happy.

One day, a tribe Shiny had never seen before overran the village. These people called themselves Rockhounds, but they didn't act the same. They were actually members of a tribe called Selfish. The Selfish didn't ask permission to enter the village; they just showed up and told the king and queen they were taking over the village for a while. The Selfish stomped around; tore up the village, left their trash lying around, and scooped up all the octahedrons they could find. When they finally left the village, the queen surveyed the damage and wept.

The king and queen vowed that the Selfish would never overrun their village again. So they built a big wall around the village and hired guards to keep intruders out. A few years later, the Rockhounds came calling, asking if they could visit the village again. The king and queen said that since the Selfish had done so much damage to the village, nobody could enter it ever again. The Rockhounds went away sad, because they really liked the octahedron village and missed visiting their little friends. And Shiny and his family stayed in the mud, never to see the outside world. Unfortunately, the story did not end there. Because the king and queen were so upset by the actions of the Selfish, they told other kings and queens in the empire what had happened. Soon, the other kings and queens built walls around their villages, and the Rockhounds couldn't visit those villages, either. Within a short time, Shiny's cousins ClamShell, SnailShell, and Sandy, along with their villages, were cut off from the outside world. Eventually, they withered away and died.

We Rockhounds can't change what happened to those villages. But we can do our best to prevent it from happening to other villages. It is our responsibility to respect the rights of property owners, act courteously, correct anyone who acts like a member of the Selfish tribe, and above all, teach all of our younger tribe members to behave like true Rockhounds

President's Message

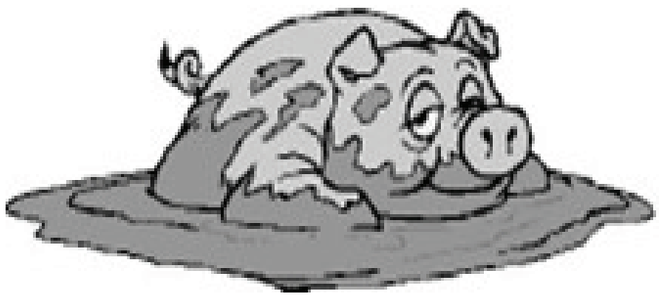
Spring is here, I can tell because the Gem Show is just around the corner. The show looks to be better than ever and I am looking forward to seeing all of you there. The next big item up will be Rendez-vous in Chase. Our hosts are busy preparing an exiciting lineup of field trips and activities for us. Be sure to ask how you can help, it will be appreciated.

The Society will be looking for a replacement for the Recording Secretary as Terry Bacon will be stepping down after many years of good service. Thank you, Terry. Please let the executive know if you are interested in this role.

Field trips are a major attraction for people new to our hobby. Please take the time to introduce your new club members to the etiquette of rockhounding. Remember please, to only take what you can use so that there is material for everyone in the future. Let's all enjoy our great outdoors here in BC and wherever else we travel.

See you soon.
Regards Walt Pinder

"Don't be a Rock Hog"



Take only what you can use and leave the rest for others.

Catherine O"Hare Schubert

1835—1918

Catherine O'Hare was the first European woman to enter British Columbia overland from eastern Canada. She was the youngest of nine children born in Ireland in 1835. At the age of sixteen, she sailed to the United States and worked as a maid for a wealthy family in Springfield, Massachusetts. She used her spare time teaching herself to read.

When Catherine was nineteen, she met a twenty-seven year old German carpenter named Augustus Schubert. Catherine married Augustus in 1855 and they moved to St. Paul, on the Mississippi River.

Catherine opened a grocery store and made bread while Augustus worked as a carpenter. Their son Gus was born in 1856 and their daughter Mary Jane was born in 1858.

A depression hit the area and the family packed up and moved to Winnipeg, Manitoba (called Fort Garry).

In 1858, miners had discovered gold dust and nuggets in the lower Fraser Valley, in what is now the province of British Columbia.

A Sternwheeler of that Era,

On May 26, 1862, 150 men arrived by paddle-steamer at Fort Garry determined to follow the "overland" route to the Cariboo.

SS Alexandra on the Fraser River 1864.

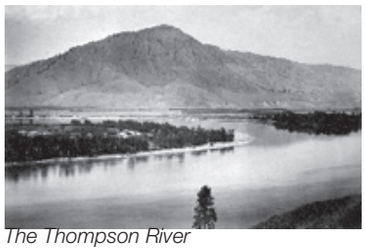
The Overlanders, as they came to be known, consisted of fifteen smaller groups of gold-seekers who had met as they travelled west.

Catherine's husband, Augustus, decided to join the Overlanders and go search for gold in the Cariboo. Catherine chose to accompany her husband as she had no intention of being left behind at Fort Garry to run their farm and store, and to care for their three small children.

Catherine was four months pregnant when she and her husband began their overland trek across the prairies and the Rocky Mountains with three children ages 5, 3, and 1.

The Rocky Mountains

After many hardships and terrifying adventures the Schuberts arrived in British Columbia. The family decided to travel down the Thompson River instead of the treacherous Fraser River.



The Thompson River

Still floating down the Thompson River, Catherine went into labour on the raft. They went ashore, and Catherine was taken care of by the First Nations women at a local village. She gave birth to a healthy baby girl, whom she named Rose.

Catherine supported the family while her husband unsuccessfully prospected for gold in Quesnel. In 1881, Augustus decided to give up his gold-hunting days and the Schuberts bought a farm in British Columbia's Okanagan Valley.

Memorial to Catherine O'Hare Schubert in Armstrong, British Columbia

Augustus died in 1908 and Catherine moved into nearby Armstrong. She remained an important part of the community until her death on July 18th, 1918.

Turning Lead into Gold—Is Alchemy Real?

From Anne Marie Helmenstine, Ph.D.,

Before Chemistry was a science, there was Alchemy. One of the supreme quests of alchemy is to transmute lead into gold. Lead (atomic number 82) and gold (atomic number 79) are defined as elements by the number of protons they possess. Changing the element requires changing the atomic (proton) number. The number of protons cannot be altered by any chemical means. However, physics may be used to add or remove protons and thereby change one element into another. Because lead is stable, forcing it to release three protons requires a vast input of energy, such that the cost of transmuting it greatly surpasses the value of the resulting gold.

Transmutation of lead into gold isn't just theoretically possible—it has been achieved! There are reports that Glenn Seaborg, 1951 Nobel Laureate in Chemistry, succeeded in transmuting a minute quantity of lead (possibly en route from bismuth, in 1980) into gold.

There is an earlier report (1972) in which Soviet physicists at a nuclear research facility near Lake Baikal in Siberia accidentally discovered a reaction for turning lead into gold when they found the lead shielding of an experimental reactor had changed to gold.

Today particle accelerators routinely transmute elements. A charged particle is accelerated using electrical and/or magnetic fields. In a linear accelerator, the charged particles drift through a series of charged tubes separated by gaps. Every time the particle emerges between gaps, it is accelerated by the potential difference between adjacent segments. In a circular accelerator, magnetic fields accelerate particles moving in circular paths. In either case, the accelerated particle impacts a target material, potentially knocking free protons or neutrons and making a new element or isotope. Nuclear reactors also may used for creating elements, although the conditions are less controlled.

In nature, new elements are created by adding protons and neutrons to hydrogen atoms within the nuclear reactor of a star, producing increasingly heavier elements, up to iron (atomic number 26). This process is called nucleosynthesis. Elements heavier than iron are formed in the stellar explosion of a supernova. In a supernova gold may be made into lead, but not the other way around.

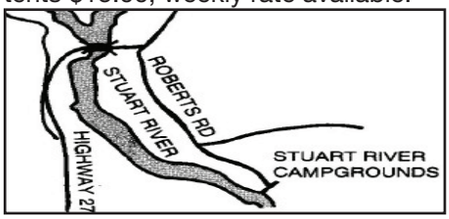
While it may never be commonplace to transmute lead into gold, it is practical to obtain gold from lead ores. The minerals galena (lead sulfide, PbS), cerussite (lead carbonate, $PbCO_3$), and anglesite (lead sulfate, $PbSO_4$) often contain zinc, gold, silver, and other metals. Once the ore has been pulverized, chemical techniques are sufficient to separate the gold from the lead. The result is almost alchemy…almost.

Summer Camp "08"

Fort St. James, BC
August 3–8, 2008
Fort St. James is located on the south-eastern shore of Stuart Lake, at the head of the Stuart River, 160 kilometres northwest of Prince George on Highway 27, off Highway 16 just west of Vanderhoof.

Stuart River Campgrounds

PO Box 306, Roberts Rd.
Fort St. James, BC V0J1P0
Phone: 250-996-8690
26 treed and sunny campsites for tents/ motor homes and other recreational vehicles.
Full & partial hook ups, picnic tables & fire rings. Laundry room, free showers, horseshoe pits and a children's playground. Sani dump, power and water, boat rentals, boat mooring and launching.
Pets must be leashed & cleaned up after.
$18.00—full hook up, Partial hook up & tents $15.00, weekly rate available.



Other accommodations:

New Caldonia Motel

167 Douglas Ave
Fort St. James, BC V0J 1P0
Phone: 250-996-8051, Fax: 250-996-8061
Toll-free: 866-996-8051
Quiet surroundings, 17 rooms built 1997.
Housekeeping rooms; microwave; TV/VCR; free movies; DD Phones; winter plug-ins; hair dryers, complimentary coffee/tea; near shopping
Rates (subject to change): $50.00—$60.00

Pitka Bay Resort

Box 1834, Fort St. James, B.C V0J 1P0
Tel: 250.996.8585 Fax: 250.996.8585
No Pets
Only 4km from Stuart River Campground, very safe location for those camping with young children.
14 one and two bedroom motel units are available with kitchens and color TV.
Rates (subject to change): $60—$70
If Camping there's full and partial hookups, tenting, showers, flush toilets, sani-station, indoor BBQ, free firewood.
Rates (subject to change): $16—$22
Also offers a private beach and a full marina with moorage and boatlaunching.

Chundoo Motor Inn

290 Stuart Dr E, Box 130,
Fort SL James, VOJ 1PO
Tel. 250-996-8216, Fax 250-996-2213
Sleeping & housekeeping units; 2 studios with gas fire place; combination baths; DD phones; high-speed wireless internet; individual thermostats; in-house movies; complimentary coffee & tea;
35 Units—$59-72; Add'l $15;
LS Rates
Reservations recommended; 6 smoking rooms;
Maj CC, Cash, DC; pets $6; CP 48 hrs.

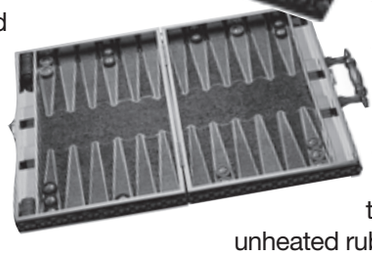
Paarens Beach Provincial Park

Hwy 27, Fort St. James, BC V0J 1P0
Phone: 250-964-3489 or 604-689-9025 (Res.only)
Toll-free800-689-9025 (Reservations only) Off Hwy 27, 11 km from Fort St James.
Day-use area; wheelchair access; drinking water; pit toilets; fire rings; hiking; playground; beach area; swimming; canoeing; kayaking; boat launch; fishing; biking; windsurfing; waterskiing.
Rates (subject to change):
$10.00—$10.00 for 4 persons

Sowchea Bay Provincial Park

Hwy 27, Fort St. James, BC V0J 1P0
Phone: 250-964-3489
Off Hwy 27, 20 km west of Fort St James.
Situated on Stuart Lake, popular for fishing & boating.
Drinking water; pit toilets; fire rings; boat launch; windsurfing; waterskiing; no day-use area—use Paarens Beach
. Rates (subject to change):
$10.00—$10.00 for 4 persons

Million Dollar Chess Set-Auction



New York—Playing chess with a US$1,000,000 chess set will make anyone a winner.

Million-Dollar Backgammon Set Studded with Black, White and Fancy Colored Diamonds Among Items to be Offered At Tzoffey's "Magnificent Jewels Auction" on May 9 in Dubai

The chess pieces and the chessboard in this set are crafted from over 1 kilogram of gold and set with 9,900 black and white diamonds, making this a stunning creation.

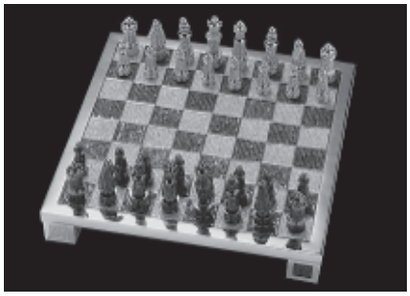
The International Colored Gemstone Association (ICA) announced today that this fabulous chess set, along with a heart shaped intense yellow diamond of 22.26 carats (valued at nearly half a million US dollars), a pair of old mine, pear-shaped emeralds weighing 56.46 carats (valued at approximately US$200,000) are among the luxurious items that will be auctioned at the upcoming ICA Congress in Dubai, which is taking place May 6-9.

These items, as well as other items to be auctioned off in Dubai, are now on display at the Tzoffey's 1818 booth at BaselWorld in Hall 3.1, booth J60, where Tzoffey's 1818 and the Dubai Multi Commodities Centre, a strategic initiative of the Dubai government created to establish a commodity marketplace in Dubai, will cooperate to promote this exclusive international auction.

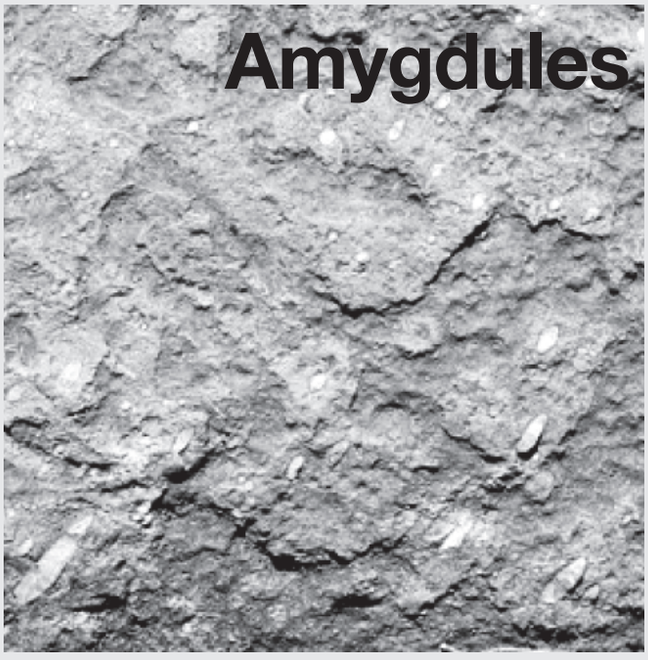
Tzoffey's 1818, a European based auction-house that specializes in unique diamonds, rare gemstones and one-of-a-kind pieces of jewelry, will hold the auction on May 9th, the final day of the ICA Congress in Dubai.

Other auction items include a rare 14.14 carat, non-heat treated ruby and a 23.23 carat tsavorite from Africa. A unique Burmese ruby and a stunning tsavorite from Africa.

Important gemstones to be offered at the auction include a cushion-shaped, unheated ruby from Burma and a 23.23 carat tsavorite known as the "Green King of Africa." This should create some interesting competition, says Sofiov: "We bring superior and rare diamonds, emeralds and sapphires to the auction world. The fight for these hard-to-find gemstones is expected to be fierce."



But it is the full backgammon set, boldly decorated with black, white and fancy colored diamonds, that should turn this auction into a one-of-a-kind occasion–where those that appreciate beauty and uniqueness will see pieces they won't find anywhere else.



Amygdules

Lava commonly contains bubbles of gas, which is no surprise because that gas is what causes lava to erupt. The empty bubbles left in the solid rock are called vesicles. Amygdules (a-MIG-dules) are what happens when vesicles later fill with secondary minerals.

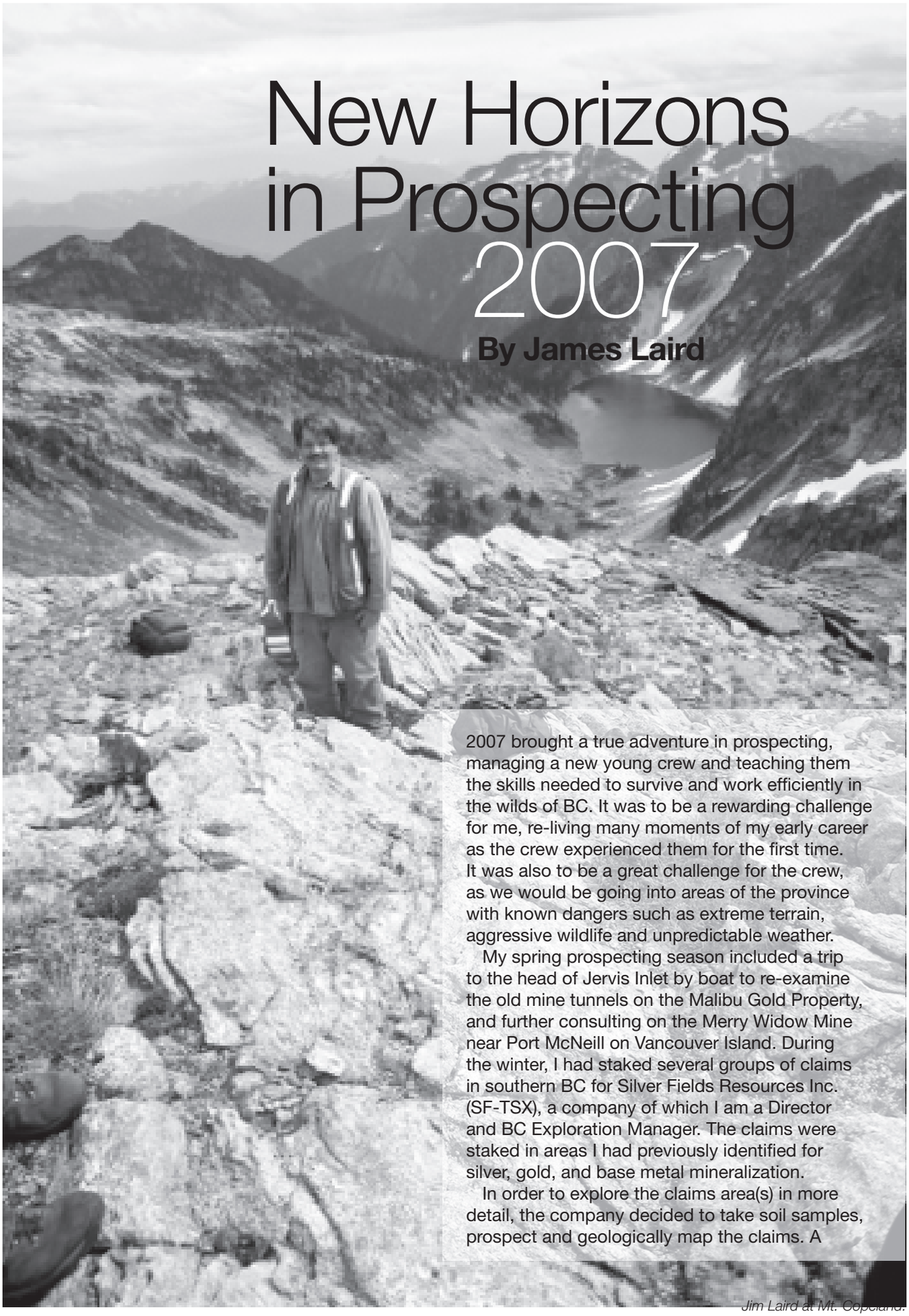
Amygdules (often called amygdales by British geologists) fill with a number of different minerals, depending on the groundwater chemistry and the physical conditions underground. These amygdules are full of chalcedony or agate, but the zeolite family of secondary minerals is famous for its occurrences in amygdules. Indeed, they are usually considered to have an amygdaloidal habit.

Notice that some of the amygdules are stretched, not round. These started out as spherical vesicles and were deformed while the lava was still fluid. Amygdules and vesicles thus can be indicators of movement in ancient lavas.

A rock with amygdules is said to have amygdaloidal texture. The word comes from the Latin for "almonds" and refers to their typical shape.

New Horizons in Prospecting 2007

By James Laird



2007 brought a true adventure in prospecting, managing a new young crew and teaching them the skills needed to survive and work efficiently in the wilds of BC. It was to be a rewarding challenge for me, re-living many moments of my early career as the crew experienced them for the first time. It was also to be a great challenge for the crew, as we would be going into areas of the province with known dangers such as extreme terrain, aggressive wildlife and unpredictable weather.

My spring prospecting season included a trip to the head of Jervis Inlet by boat to re-examine the old mine tunnels on the Malibu Gold Property, and further consulting on the Merry Widow Mine near Port McNeill on Vancouver Island. During the winter, I had staked several groups of claims in southern BC for Silver Fields Resources Inc. (SF-TSX), a company of which I am a Director and BC Exploration Manager. The claims were staked in areas I had previously identified for silver, gold, and base metal mineralization.

In order to explore the claims area(s) in more detail, the company decided to take soil samples, prospect and geologically map the claims. A

Jim Laird at Mt. Copeland.

crew of 4 to 6 persons was needed to work on the properties, and we (company management) decided to utilize our sons and train them for this kind of work.

The first job was to outfit each person with field equipment and familiarize them with its usage. My sons, Christopher, 17 and Brendan, 15 were well acquainted with most of the gear from their many field seasons working with me. The other members of our crew were Jeremy Porter, 29 whom had spent time in a previous season with me on Vancouver Island and was a BC Qualified Prospector, his brother John England, 19 and John's partner Jamie Hanson, 18. Also accompanying us from time to time would be geologists Greg Thomson BSc., P.Geol., and Dr. Warren Geiger, PhD. P.Eng. P.Geol., whom is also a Director of Silver Fields.

Tulameen Mountain.

The properties were strategically located in established silver-mining areas, namely Tulameen Mountain adjacent to Huldra Silver's Treasure Mountain Mine; near Keremeos surrounding the Dankoe or Utica Silver Mine; at Zincton in the Slocan Silver Belt overlying the Lucky Jim Mine; and near Revelstoke on Frisby Ridge and beside the nearby King Fissure deposit on Mt. Copeland. Revelstoke in particular is a dangerous area to work in due to extreme terrain, bad weather and hungry grizzlies.

In the early season, Greg Thomson and I had visited the Dankoe/Utica Mine area near Keremeos and had a quick prospect of the old mine dumps to establish rock types and the character of the mineralization. When high school let out, Chris, Brendan, Greg and I visited the Revelstoke area and the Argentum Property near Sandon in the Slocan Silver Belt. We examined the local rock outcrops on the Argentum Property and also visited the Lucky Jim Mine at Zincton, a major mine which our claim overlaps. This mine was the major producer in zinc in the Slocan Mining District, along with lead and silver.

Brendan Laird at the Lucky Jim Mine, Zincton.

Chris Laird at Tulameen Mountain.

Following placer and rock sampling work by Chris, Brendan and I for Duke Mountain Resources near Lumby, and for Huldra Silver at the Treasure Mountain Mine in mid-July and after a week of bad weather, the crew arrived on Treasure Mountain. They brought with them all of their field equipment, a tent trailer, and four new Yamaha Grizzly 700cc ATV's. We had a great place for a camp with a sunny view and drive-in access, courtesy of Huldra Silver- Chris, Brendan and I had all our tents set up with a central kitchen tent and a small Honda generator for power. The generator came in handy to charge our crew

walkie-talkies and Brendan's portable DVD player, and power for our portable computers. Greg Thomson was also in camp and so we began the field season.

Initially, I had identified an area of interest on the north flank of Tulameen Mountain on strike from the Treasure Mountain Mine, and we began with establishing access to the area by clearing out old tum-of-the-century horse trails. Following this, we soil sampled along the bottom of talus slopes where they turned into vegetated soils, and prospected the rock outcrops in the area. Assay results received months later showed substantial geochemical anomalies containing gold, silver, lead and zinc in this area. These results indicate we'll be back with a larger program in 2008.

Jeremy, John, Jamie, Greg and Chris at Tulameen Mountain.

After the Tulameen Mountain program, we proceeded to the Argentum Property in the Sandon area, staying at the comfortable and scenic Retallack Lodge. The lodge was a real treat, I had arranged for full room and board and the food and service were terrific. The staff were very pleasant and helpful, and we quickly changed lunches from sandwiches and pop to what we desired, lots of chopped fresh fruit and vegetables, and sweet local water. I would stay here again at any time of year, even though it is primarily a winter ski lodge. The crew loved it too, especially after learning that gin and tonic with a double lime is far superior to a beer after a hot day's work.

We started the program with a quick tour of the Lucky Jim Mine surface workings and the former mill site. I always like to start my crews with a firm idea of what they are looking for. We began our soil sample grid beside the main highway on the aptly-named Bear Lake. Given that it was early in the program and I wanted the crew to feel comfortable in the bush, I sent all four together to put in the Argentum grid.

Jeremy on the Argentum Grid, Slocan.

It was not long before I heard a bear-banger go off, and I heard on the radio that they had encountered a black bear which had charged them to within 2 metres. The crew did what they had been taught, deployed bear bangers and readied bear gas and the bear ran off. As they had just come through a large field of Devil's Club bushes, another route was taken back to the baseline. This was an unfortunate choice, as someone soon stepped on a wasp's nest and most got stung mercilessly. After returning to the trucks, I gave them all the afternoon off, knowing that this had been a "learning experience" day and they needed to reflect on what had happened.

After the bear incident, I instituted a change in procedure so that every morning a different person would let a bear banger off, just to warn the bear we were still there. John and Jamie saw the bear watching them from a good distance away a few days later, but there were no more incidents. All in all, the weather was great and we were successful in finding new silver, lead and zinc soil anomalies worthy of additional work

 Retallack Lodge, Near Sandon.

Mount Copeland from Downtown Revelstoke.

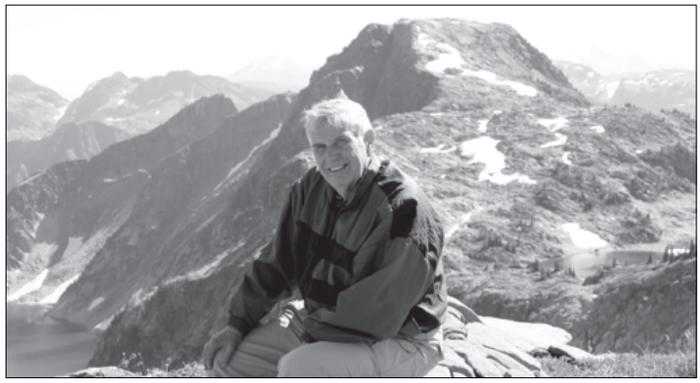
John and Jamie on the north side of Mount Copeland.

next summer. In the interest of furthering the crew's historical education we paid a visit to town of Sandon for an afternoon, located about 10 kilometres from the Argentum Property. There is also a working silver mine and mill near town, a modem testament to the prolific nature of the famous Slocan silver mining district.

From the Argentum Property in the Slocan, we headed back north in late August to work on our two properties near Revelstoke. One of them is on the south side of Mount Copeland, which is quite visible from downtown Revelstoke. The other is on Frisby Ridge, which starts just to the northwest of town. The two properties are presently accessible only by helicopter or a long, arduous climb, so we elected for helicopter. Only Christopher had been on a helicopter ride, so Jeremy, John and Jamie were in for a treat. The weather was generally warm and superb for flying and hiking, and the snow cover had receded nearly as far as it ever does in a normal summer.

Our primary goal on these properties was to scout out local conditions and landing areas for an upcoming soil sample program. I also took the opportunity to teach my crew about the local rocks and mineral deposits, which are quite complex mineralogically and are folded and faulted several times. Rocks in this area vary from over two billion (Frenchman Cap Gneiss Dome) to less than 50 million years old (lamprophyre dikes), and are highly metamorphosed and re-crystallized. The large King Fissure or River Jordan silver, lead and zinc deposit occurs on the north side of Mount Copeland, along with a rare-earth bearing extrusive carbonatite layer I had discovered in 1991. An extension of these layers has been traced onto our Frisby Ridge Property. There is also the 740 million year old molybdenum deposit at the Copeland Molybdenum Mine, and numerous industrial mineral deposits ofnepheline, fluorite and tremolite. Some gem mineral crystals such as emerald-green gahnite spinel, red or black tourmaline, red or amber gamet, corundum (sapphire) and quartz crystal also occur in the general area.

Following the successful examination of the Frisby and Mount Copeland Properties, we headed back home to re-gear for our next work programs in the area. In early September we returned to soil sample both properties and I also brought Dr. Warren Geiger out for a detailed examination of the mineral deposits and our properties. We lucked out again with the elements, and were blessed with "Indian Summer" weather. While the crew took several hundred soil samples, Dr. Geiger and I occupied ourselves with taking rock samples and geologically examining all available mineral deposits.


Dr. Warren Geiger on Mount Copeland.

The soil and rock samples we took proved to be highly anomalous in the metals we were seeking, so we now have an extensive Silver Fields field work program planned for Summer 2008. And this year, we can depend on a seasoned field crew with hard-earned local knowledge, so a much more ambitious season is planned. The crew will earn more, learn more, and (unfortunately) eat more too! And so begins the start of a new generation of prospectors, and a new season of discoveries.

Photos by James Laird and Jeremy Porter

Precious Opal in Volcanic Sequences

by S. Paradis1, G.J. Simandl2 and A. Sabina3

1 Geological Survey of Canada, Pacific Geoscience Centre, Sidney, B.C., Canada.
2 British Columbia Geological Survey, Victoria, B.C., Canada.
3 Geological Survey of Canada, Ottawa, Ontario, Canada.

Paradis, S., Simandl, G.J. and Sabina, A. (1999): Opal Deposits in Volcanic Sequences; in Selected British Columbia Mineral Deposit Profiles, Volume 3, Industrial Minerals, G.J. Simandl, Z.D. Hora and D.V. Lefebure, Editors, British Columbia Ministry of Energy and Mines.

Identification

Synonyms: Hydrothermal or "volcanic opal".
Commodities (Byproducts): Precious opal (common opal, chalcedony, jasper, agate).
Examples (British Columbia—Canada/International): Klinker (082LSW125), Northern Lights (093E 120), Whitesail Range (maps 93E10W and 93E11E) and a precious opal occurrence near Falkland, Eagle Creek (093K 095); pale green and apple green common opal occurs at Savona Mountain (092INE158); Queretaro Mines (Mexico), Virgin Valley (Nevada, USA), Tepe Blue Fire Opal Mine (Idaho, USA).

Geological Characteristics

Capsule Description: Opal occurs commonly in seams of volcanic ash or lahars sandwiched between successive lava flows. It occurs mainly as open space fillings and impregnations. Common opal, opalized wood and to some extent "fire opal" are widespread within Triassic or younger volcanic sequences, but precious opal is rare. Where opal occurs in massive volcanic rocks, it occurs also as open space fillings, however the opal-bearing areas are much smaller. Regardless of volcanic hostrock, the precious opal occurrences are discrete, whereas common opal occurs over large areas.
Tectonic Settings: Volcanic arcs, rifts, collapsed calderas, hot spot related volcanism and others.
Despositional Environment / Geological Setting: Volcanic sequences formed in subaerial or shallow marine environments where porous, pyroclastic or lacustrine rocks are interbedded with lava flows.
Age of Mineralization: Tertiary or younger, commonly Miocene.

Host/Associated Rocks: Common host rocks are rhyolite, basalt, andesite and trachyte lavas, lahars and other volcaniclastic rocks. Associated rocks are perlite, bentonite, scoria, volcanic ash and diatomite; volcanic rocks may be intercalated with lacustrine sedimentary rocks.
Deposit Form: Favourable opal-bearing horizons are commonly stratabound. Occurrences of precious opal within these horizons are commonly considered as erratic, controlled by permeability at the time of opal deposition. Individual precious opal-bearing fractures or lenses may grade into common opal and agate over distances of centimetres.
Texture/Structure: Opal occurs as open space fillings in irregular cavities, narrow discontinuous seams, partially-filled pillow tubes, fractures, vesicles, matrix in volcaniclastic rocks and replacing wood fragments and logs. Common opal may form miniature stalagmites and stalactites within cavities, nodules in clay or diatomite beds and "thunder eggs".
Ore Mineralogy [Principal and subordinate]: Precious opal; "fire opal", chalcedony, agate, common opal.
Gangue Mineralogy [Principal and subordinate]: Common opal, agate, fragments of host rock, clays, zeolites, quartz, jasper, celadonite, manganese and iron oxides.
Alteration Mineralogy: Opal-bearing cavities may have zeolite and celadonite coatings, but so do the barren cavities. There is no known alteration which is specific to precious opal.
Weathering: In arid environments, opal in surface outcrops may desiccate, become brittle and crack. Such material is not suitable as a gemstone. However, these opal bodies may be gem-quality at depth.
Ore Controles: Open spaces and other permeable zones open to the silica-bearing solutions.
Genetic Models: In many large opal districts, it is believed that during the longer periods of volcanic inactivity, shallow lakes developed. Forests grew along the lake-shores and driftwood accumulated in the lakes. Volcanic eruptions covered everything with pyroclastic materials capped by lava flows resulting in aquifers, perched water tables, and anomalies in the thermal gradient. This in conjunction with subsequent brittle tectonic deformation resulted in ideal conditions for the formation of hydrothermal systems. A variety of

silica forms, including silica sinter, opaline silica, chalcedony and common opal are believed to have formed by deposition of silica-bearing fluids. The dissolved SiO2 content in water is well known to be temperature dependent with the maximum dissolution at around 325°C, however, the conditions needed for the precipitation of precious opal in volcanic environment are not well understood. At least a portion of the opal-CT in volcanic rocks is believed to precipitate directly from supersaturated solutions. The temperatures of formation for precious opal are expected to be relatively low by analogy to sedimentary-hosted precious opal deposits, but temperatures as high as 160°C are reported from fluid inclusion studies. No precious opal is reported from active hydrothermal fields, such as Geyser Valley, Yellowstone or Whakarewarewa (New Zealand). This suggests that the precious opal forms only under very specific physico-chemical conditions. Eh and definitely pH may be important. Chemical composition of hydrothermal fluids in terms of silica concentrations, as well as Na, K, Cl, Ca, SO4, HCO3, B, Li and other elements may be important. The composition of the silica-bearing fluid is probably modified during migration through the permeable host rock, specially if the latter contains zeolites and/or clays. Zeolites act as molecular sieves and are well known for their cation exchange properties.

Associated Deposit Types: Associated deposits can be beds of diatomaceous earth (F06), volcanic ash (E06), zeolite deposits (D01, D02), perlite and a variety of semi-precious or ornamental silica gemstones, such as jasper (Q05), moss agate (Q03), and chalcedony. Other deposit types occurring in the same setting are hot-spring Au-Ag (H03), hot-spring Hg (H02), agate (Q03) and hydrothermal Au-Ag-Cu: high sulphidation (H04). It is possible that these deposit types are the source of primary amorphous silica.

Comments: Precious opal is characterized by a play of color. The term common opal, as used here, covers any opal that does not show this play of colors. Some common opal specimens may be used as gemstones, but in general they have substantially lower value than precious opal. The term “Fire Opal” describes a common opal having a transparent orange to red-orange base color. Such opal is commonly faceted. Precious and common opal coexist within the same deposits.

Common opal and opaline silica are also commonly associated with the spectacular hydrothermal systems characterized by hot springs pools and geysers, mud pots, geyser terraces and fumaroles where it may be deposited as common opal, opaline silica or silica sinter. The well known examples of such systems are: Yellowstone hot springs; Geyser Valley in Kamchatka and now inactive Waimangu Geyser (Taupo volcanic zone, New Zealand). It is possible that some of the precious opal is formed by the dissolution of the previously formed common opal, silica sinter in the same conditions as sedimentary rock-hosted precious opal deposits.

EXPLORATION GUIDES

Geochemical Signature: Mn oxide fracture coating was observed in the proximity of the Klinker deposit. In some cases the indicator elements used in exploration for epithermal metalliferous deposits such as Hg, Sb and As may be indirectly applied to precious opal exploration.

Geophysical Signature: N/A, except for detecting perched water tables and faults (mainly VLF and resistivity). Thermometry may have use where precious opal is associated with recent hydrothermal activity.

Other Exploration Guides: Boulder tracing is commonly used in opal exploration. Unmetamorphosed or weakly metamorphosed (zeolite facies) terrains (gem opal deteriorates and becomes brittle if subject to moderate temperatures); Tertiary or younger volcanic rocks. Areas containing known occurrences of precious or common opal, opalized wood and possibly chalcedony. Opal occurrences hosted by volcaniclastic rocks are commonly confined to the same lithologic unit over a large area. The presence of warm springs in an appropriate setting may also be considered as an indirect exploration indicator.

At the MINFILE (Klinker) 082LSW125 deposit, mineralogical zoning within vesicule fillings may be used to delimit the most favourable areas. For example the common opal occurs only within broad areas of agate mineralization and precious opal only in small areas within the common opal mineralization.

Economic Factors

Typical Grade and Tonnage: Grade and tonnage for volcanic-hosted opal deposits are not well documented, largely because the opal extraction is done by individuals or family type businesses. The precious opal distribution within most deposits is erratic, “Bonanza-type”. The deposits at Querétaro were discovered in 1835 and are still in production. Furthermore, the term “grade” as commonly used for metalliferous deposits is much harder to apply to gemstone deposits and especially to opal deposits. For example “fire opal” ranges in value from $CDN 5

to 300 per gram. Average commercial precious opal will sell probably around $CDN40 per gram, the top quality stones may sell for $CDN 1400.00 per gram.

Econimic Limitaions: Some of the common opal specimens may be used as semi-precious or ornamental stones, but in general they have substantially lower value than precious opal. Gem opal contains up to 10% water, which contributes to the translucency of the specimens. Precious opal from some localities, such as Virgin Valley in Nevada, are generally not suitable for gems because they crack too easily; however the opal from many other volcanic-hosted occurrences is as stable as that from the Australian sedimentary-hosted deposits. Deposits located in intensely weathered terrains are easier to mine than deposits in unaltered rocks. Prices of the best quality opal have risen steadily since 1991. There is a relatively good market for precious opal, nevertheless strong marketing and value-added processing are considered essential parts of successful opal mining operations.

End Uses: Precious opal is highly priced gemstone; "fire opal" may be faceted, opalized wood is a speciality ornamental stone commonly used for book ends.

Importance: Volcanic rock-hosted opal deposits are numerous, but most of today's high quality opal production comes from Australian sedimentary-hosted deposits.

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Last Updated September 12, 2007

The Beilby Layer

What is the Beilby layer? It is a phenomenon that brings about a polished surface.Sir George Beilby discovered that during polishing the surface of gemstones actually melted and flowed as a "glassy" layer over very fine scratches. He proved it by noting a certain scratch pattern, polishing the surface, and then recovering the scratch pattern by etching away the polished surface with acids.

In 1937, a Mr. Finch using another technique, confirmed this finding. He reported that there were two types of polish: the Beilby flow and the surface that has such fine scratches that it appeared polished. The latter existed on those materials that were unable to flow in the Beilby manner.

The Beilby layer can occur in three ways. First as an amorphous layer much like glass, e.g., the polish on zircon and spinel.

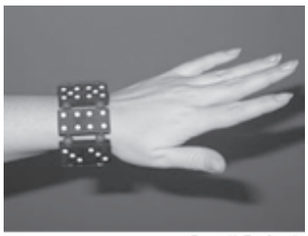
Secondly, as an amorphous layer, but parallel to crystal planes and crystallizing again in these lines, e.g., calcite. In the third case, the layer forms by flowing but immediately crystallizes identically to the underlying material, e.g. quartz.

Distinguishing properties of the Beilby layer: It is very thin and usually slightly harder than the underlying material, probably due to packing of molecules by pressure. There still remains some controversy over the existence of the Beilby Layer.

Some argue that the "flow" is not true melting, but rather a migration of molecules underpressure. Polish seems to be the result of a combination of temperature, polishing agent, and pressure, and varies from material to material. But does is really matter, as long as we get a good polish?

Dominoes Recrafted into a Bracelet

by Ryan McFarland



Ryan McFarland

Ryan McFarland

An easy project that uses old dominoes to make a bracelet.

A single domino could be used as a pendant on a necklace as a gift for someone with a favorite number or a birthday present by using the numbers to represent their age.

You will need:

- Dominoes
- Small diameter elastic cord
- Drill or rotary tool and small bit
- Scissors
- Beads

1. Most modern domino sets that I have seen are made out of plastic but I was able to find an older set made of wood at the thrift store for fifty cents. This would work equally as well with plastic dominoes.
2. Drilling through the side of the pieces is the most tricky part of the project. I don't have a drill press but that would be the best way to be certain that your holes are made parallel to the face. Making a jig to position the domino would be wise so that each hole is drilled in line with the next. Since my workshop is a bit less advanced, I just put a fairly small bit (but large enough to push the elastic cord through) in my rotary tool and clamped the domino to my workbench. A bench top vice would also help keep your flesh from that spinning blade.
3. It took me a bit of trial and error to figure out how many dominoes would be necessary to go around my girlfriend's wrist. We found that beads helped with the spacing and appearance and seven dominoes was most comfortable for her. Finish the project off with a few knots pulled tight and trim the elastic cord. Even the smallest set should have enough for three bracelets. With a little thought each domino could have some meaning such as birthdays, anniversaries, or any numbers of special significance to the wearer.

How tiny crystals decorate iris agates

Agate, a type of quartz whose iridescent patterns sparkle with color, has long been valued as a semiprecious stone. Now, scientists can explain how its elegant swirls form.

Peter J. Heaney, a geologist at Princeton University, and Andrew M. Davis, a geological chemist at the University of Chicago, show that concentric shells of fine and coarse crystals alternate to create agate's light-diffracting "iris" bands.

Agate, formed when mineral-rich water flows through volcanic rock, consists of millions of micrometer-sized crystals. Those crystals, the researchers observe in the Sept. 15 SCIENCE, come in different sizes and contain varying degrees of impurities, caused by changes in the water's mineral concentrations.

Observing agate slices with transmission electron microscopy and ion mass spectroscopy, the two scientists found that the size of the tiny crystals and the degree of impurities change cyclically, forming the iris band's crystal pattern. When scrutinized, agate slices reveal a self-similar pattern, which repeats itself at various levels of magnification: on the micrometer scale, on the millimeter scale, and on the centimeter scale.

"Agates show us one way that nature makes repetitive patterns," Heaney says. "Self-similarity is fascinating because it's largely unexplained.

"Understanding this process may shed light on how materials scientists can mimic those textures in new materials."

And then there are Thundereggs

Some people prefer eating white eggs
Others like those that are brown.
There are those who eat them sunny-side-up
And some who want them up-side-down.
Kid's favorites are made of candy,
Hidden by bunnies each Easter morn.
They love to get up and hunt them,
'Mongst the grass, brush, hedges and thorn.
Rockhounds love hunting for stone eggs,
On a day that is warm and sunny.
They hunt their eggs on the hillsides
Left by their friend—Thunder Bunny!

The difference between a nodule and a geode is that a nodule has 100% fewer cavities

Emerald Treatments

by Mark Liccini

Many people tend to believe Gemstone Enhancement is something derogatory due to all the publicity of its misuse. They liken it to something synthetic. In most cases treating a Gemstone is just duplicating what occurs in nature. Most people's objections are because they simply don't understand the nature of it. It is not the act of enhancing a gemstone that is improper—it is failing to disclose to the buyer how it came to be and the care for it.

In fact, if you consider the mining process as a "treatment", and well you should, stones are subjected to any number of heat, acid and chemical treatments in the extraction and preparation for market. The Lapidary process, which is not just sawing and grinding, is in itself is a treatment, changing the stone from its original nature. It also involves various heat treatments and chemical polishes, and coatings, etc. By that criteria, all Gemstones are enhanced. The only truly natural stone is one left in the pegmatite, undisturbed.

Gemstones are becoming more and more rare every day. I present the processing information so that as much as possible can be brought to its full potential. If people are informed on how it is done, then they will come to understand it, and accept it, as most objections are based on misinformation. No one would mount a gemstone for wear as it is found. Even after it has been chemically or mechanically removed, the rough edges, and terminations would cut you or rip your clothes, the surface contaminants would stain or cause illness. All Gemstones are treated in some way or another to make them fit for human consumption. I cite as the most blatant example I can give, I would not wish to drink unpasteurized milk out of cartons that have not been irradiated first.

The real problem is people are unaware, and uneducated, and actually handling enhanced gemstones now. The purpose of my article is to inform, not as a lesson on how to deceive. The public awareness of how it is done, or that it is even done at all, will alert them to the identification and understanding of the total mining and Lapidary process.

—Mark Liccini

Emerald Treatment consists of numerous types of fillers, impregnations and dyes, the purpose of which is to make the "Jardin," (A French word "garden" used to describe the lovely inclusions one encounters in an Emerald) more pleasing to the eye. To begin an Emerald treatment or retreatment, as almost all Emerald enhancements can discolor or cloud with time, you must first clean the stone thoroughly. The cleaning process is most effective under warming conditions, not boiling. Obviously if you boil the stone, or immerse it in boiling hot liquid, you can crack or shatter the stone. But if you warm both the stone and the liquid used to clean or to fill/penetrate you will open the pores of the stone, allowing deeper penetration.

Cleaning can consist of a simple soaking overnight with the stone in a jar of the cleaning medium, on a hotplate. You can use organic solvents or for a more vigorous cleaning acids. Organic solvents used can be acetone, methyl alcohol, ethyl alcohol and a good one is "Attack"—a methylene chloride solution used to dissolve cured epoxy and polyester resins. You might want to use a covered container, as these preparations can evaporate in air, and leave a residue worse then the original problems.

If you find the solvents do not remove the contaminants, you can use acids: hydrochloric (muriatic acid) and for an intense cleaning, aqua regia, a mixture of one volume concentrated nitric acid with 3 volumes of concentrated hydrochloric acid. Orange/Brown rust stains can be removed with a solution of Oxalic acid. USE CAUTION when using and disposing of these acids. After the acid treatment, a washing with soap and water, and in some cases a bath in a neutralizing solution. Some acids can have a delayed discoloring chemical reaction, so they must be neutralized in solutions of say, vinegar and water, or baking soda and water.

Once the stone is cleaned well, and allowed to dry thoroughly, you can simply soak it, again on a hot plate, in your filling/penetrating solution overnight to achieve the most dramatic results. Or more effective is to place the stone in a vacuum, and insert the treatment medium while still under the vacuum and with pressure. Again, all of this is done under mild heating, to both open the pores of the stone, and drive off any remaining water. In some cases, the medium material must be heated to remain liquid.

A simple chamber can be constructed inexpensively using a plastic or glass bell jar type cover, a hot plate, and hydraulic piston assembly. The bell jar cover, a casting supply would carry, the parts to construct the hydraulic force feed can be obtained from your local auto supply.

Now as to the substance you would use to treat the Emerald, there are various considerations.

First if you use a material close to the refractive indices of the stone, it will help to disguise cracks and inclusions. If the stone has pits, or fissures that break the surface, you would want to use a thicker filling agent. And in the case of a pale or color zoned stone, you might consider a coloring additive.

To color the Emerald you can use any number of dyes, chromium powder, and there is a ready mix sold in Bangkok, oil and dye together, under trade names of “Crown or King” Emerald oil. If you permeate the Emerald with chromium powder, it will give the added effect of a nice red glow under an Emerald filter or Ultraviolet light.

Below a chart of the refractive indices of various common treatment mediums, and lists of commercial treating companies, sources of equipment and chemicals. And here are some tips, information, and long term effects of the more common mediums.

First, although not extensively tested, irradiation appears to have no effect on Emerald. Crystals from Columbia and Scandium Emerald from Australia were irradiated both in natural crystals, and after a bleaching to white by heating to destroy the color centers. One would expect Emerald on irradiation to at least go yellow, the common result on irradiating most Beryl. But again, limited experiments produced no change.

For those considering laser to remove the often found inclusions of black spots: the lasering will remove the black spots, but leaves a black trail where the laser burns through the stone. The Emerald holds up to the lasering, but shatters in the heated acid bath after, that is used to clean up the black trails.

Some of the most common Emerald treating substance are Cedarwood oil, which discharges quite rapidly. A thicker application will not delay this effect, also Cedarwood oil when exposed to ultraviolet light emits oxygen as a by product which can stain.

Canadian Balsam (Abies balsamea), an oleoresin obtained from the North American balsam fir, is an excellent filler due to the thickness, even in a liquid state on heating, but is an organic material and can decay with time, and discolor. This can be delayed or forestalled and the material thinned for better penetration by addition of chemicals such as Toluol. Canadian Balsam is used as an adhesive to hold laboratory microscope slide covers. It is often sold ready mix by chemical houses with additives to preserve it against this deterioration.

Opticon, a Lapidary fracture filler, works well with the drawback that the sealer used with it breaks down after a year and begins to oxidize and change to a yellow color. But has an advantage over some others that when set up, it is hard enough to polish.

Palm oil or Palma (a synthetic derivative of Epoxy 828 or 6010) has the disadvantage of clouding to a milky color on the long term.

An excellent filler similar to the “Yehuda” method used in Diamonds, is the solder glass used in the electronics industry with melting temperatures of 250C. And a colored glass can be used.

The simplest, and an excellent finish you can apply after all treatments or by itself to fill minor pits, and to give an excellent luster to a stone, is Bee’s wax, Vaseline or Mineral oil (liquid paraffin). All of these are quite long lasting, nor discolor.

Water Glass (Sodium Silicate) is an excellent filler, and does not discolor. And is hard enough to polish.

Epoxy No.224+ hardener turns yellowish orange in the long term

Dental fillers and epoxy based adhesives that set up with ultraviolet light are of mention. They appear not to discolor.

Of note is a patent applied for process “Gemtrat” of Epoxy Resin and hardener by the firm Arthur Groom. It is stated to be permanent and not discolor.

REFRACTIVE INDICES

NATURAL STONES:

Quartz 1.55
Beryl, Emerald 1.58
Topaz 1.61
Ruby, Sapphire 1.77
Diamond 2.42

FILLERS:

Coconut oil, paraffin wax 1.45
Neat’s foot oil, whale oil 1.46
Corn, mineral, olive, peanut, rapeseed & soybean oil 1.47
Caster oil, linseed oil 1.48
Lubricating oil 1.49
Cedarwood oil 1.51
Canada Balsam 1.53
Opticon 1.54
Epoxy No. 224 1.54
Gemtrat 1.53
Polymers(epoxies) 1.5-1.6
Glass 1.5-1.9
Palm oil 1.57

Zultanite:
A Turkish Delight

When shopping for a gemstone, you are faced with an array of amazingly diverse choices, with as many different colors, cuts and countries of origin to choose from as there are individual styles. As a bridge between two cultures, Turkey is a unique blend of East and West. The birthplace of major civilizations, including the Byzantine and Ottoman Empires, despite Chalcedony Quartz's name being derived from Chalcedon, an ancient port near present day Istanbul, Turkey is not usually a country associated with gemstones, until now.

Relatively new to the jewelry world, Zultanite is one gemstone whose amazing natural color changing abilities makes it well suited to savvy jewelry connoisseurs. As you watch its colors change from kiwi to champagne to raspberry, you too will be entranced by Zultanite's 100% natural beauty. The pinnacle of exclusivity, beauty, rarity and desirability, Zultanite is a rising star in fine jewelry due to its sparklingly brilliant tranquil colors. Like Tanzanite, Zultanite is so rare that it comes to you from only one source in the world, a remote mountain area in Anatolia, Turkey. Named by Murat Akgun in honor of the 36 sultans who ruled the Ottoman Empire in Anatolia in the late 13th century, Zultanite is a true Turkish delight.

A gem that changes color?

Color change gems show different colors when viewed under different light sources, such as sunlight and indoor light. Astonishingly beautiful, exotic and rare, Zultanite demands a double take—its unique color change is truly that mesmerizing. If for you fashion is all about getting attention, Zultanite is set to redefine your look.

While some of Zultanite's key characteristics are its delicate color saturation, durability and scintillation (play of light), the beauty and intrigue of this regal gemstone ultimately lies in its different colors. Zultanite displays a range of earthy hues and similar to the famous color change gem Alexandrite, it can change from kiwi greens in sunlight (candescent light) to raspberry purplish-pinks in candlelight (incandescent light). But unlike other color change gems such as Alexandrite, Zultanite's color change is not limited to two basic colors. Incredibly, the same Zultanite can also exhibit khaki greens, sage greens, cognac pinks, pinkish champagnes, canary yellows, rich champagnes and gingers in different light sources. Zultanite's kiwi greens with canary flashes are noticeable under sunny skies, while traditional indoor lighting will elicit rich champagne colors. During a candle lit dinner, the same gem reveals pink to raspberry hues. While just wearing Zultanite unveils its breathtakingly diverse colors, one of its most unique characteristics is that unlike other color changes gems, Zultanite's best color change is not dependant on dark tones. According to the leading gemstone author Antoinette Matlins, some women prefer the colors of Zultanite because they like the more subtle pastel contrast and find they complement earth tones (green, chocolate, mocha and gold), making the gem more wearable. Like all color change gemstones, the larger the Zultanite, the more visible the color change.

As if one phenomena wasn't enough, some Zultanite also possess the coveted cat's eye effect. Chatoyancy or the cat's eye effect is a reflection effect that appears as a single bright band of light across the surface of a gemstone. It is caused by the reflection of light by parallel inclusions.

The GIA (Gemological Institute of America) classifies Zultanite as a Type II transparent gemstone, meaning that it is usually eye-clean (no visible inclusions when the gem is examined approximately 6 inches from the naked eye) with some inclusions visible under 10x magnification. Inclusions are tiny natural features that grow within

the crystal during a gem's formation within the earth. Mostly microscopic in nature, inclusions are a fascinating hallmark of authenticity, recording a gem's natural relationship with the earth. They are also extremely useful to gemologists when identifying natural gemstones from synthetics and imitations.

Cat's Eye Zultanite

Zultanite registers 7 out of 10 on the Mohs' Hardness Scale (a system devised in the 18th century by a Viennese mineralogist Friedrich Mohs to measure the ability of a gem to resist surface scratching), has a refractive index of 1.75 and specific gravity of 3.39. Unless you're a gemologist, these numbers won't mean much to you, but these characteristics make Zultanite an excellent jewelry gemstone. As 100% natural gemstone, Zultanite is one of the few gems that have no known enhancements or treatments.

While the newness of Zultanite means that it has had little time to accumulate legends and lore, for those interested in the esoteric properties attributed to gemstones, some people believe Zultanite can assist in the development of psychic power, astral force, ambition, intellect, desire and emotions based on intellect and touch.

Zultanite not diaspore

First faceted in the late seventies (1977), Zultanite is an extremely rare gemstone that despite its beauty and suitability for jewelry was previously plagued by scant availability. While an article in "Gems & Gemology" magazine (Winter 1994) indicated that supplies were promising, this hasn't translated into the availability of good quality gems until recently. While some jewelers previously sourced limited quantities of this gem marketed under their mineral name Diaspore, please don't confuse the two. Zultanite is your guarantee that each gem has been optimally cut by some of the world's most experienced lapidaries.

Zultanite's mineral name "Diaspore", comes from the Greek word "diaspora" meaning "to scatter". While Diaspore was first discovered in 1801 in Mramorskoi, Kossoibrod, Ural Mountains, Russia, the Turkish deposit remains the world's only source of Zultanite.

All gems are rare, but some are rarer than others

By their very definition, all gemstones are rare (to be classed as a gem, a mineral or organic material used for personal adornment must be rare, beautiful and durable), but like many things, rarity is relative. Apart from their color change and discovery in Russia's Urals (Alexandrite was discovered in Russia's Ural Mountains in 1834), Alexandrite and Zultanite's names both have royal connections, Zultanite being named in honor of Ottoman sultans and Alexandrite being named for a Russian tsar, but which is rarer? While comparative rarity is always difficult to gauge, in terms of natural occurrence, Zultanite is far rarer. Zultanite is only mined in one country, while Alexandrite is currently mined in seven.

Although it was initially collected by mineral enthusiasts and independent miners in the mid eighties, Zultanite is now mined commercially. Mined by hand with chisels and pick-axes in Turkey's Anatolian Mountains (Milas county of Mu la) at a height of over 4,000 feet, the world's only Zultanite deposit is 7 miles away from the nearest village of Selimiye. But its rarity isn't just dictated by its natural scarcity and remoteness, Zultanite tests the skills of even experienced cutters due to the difficultly in correctly orientating each crystal to accentuate its inherent color change. With up to 98% of the crystal lost during cutting, its unbelievably low yield (2%) really reinforces the exclusivity of this truly beautiful gemstone and is one of the reasons Zultanite is so rare, especially in sizes over 5 carats.

Brilliant, mesmerizing and fashionable, phenomenal Zultanite is a rare star in fine jewelry design, deserving pride of place in every serious jewelry collection.

Upcoming Shows 2008

CREATIVE JEWELLERS GUILD of BC

May 31, 2008, 10am – 4pm
"Open House"
Richmond Cultural Centre
7700 Minoru Gate, Richmond, BC
in the Lecture Room on the main floor
No Admission
For more information contact::
Al Evans 604-530-1966, E mail vaevans@shaw.ca
or Guenter Otto 604-687-6071

RIPPLE ROCK GEM & MINERAL CLUB

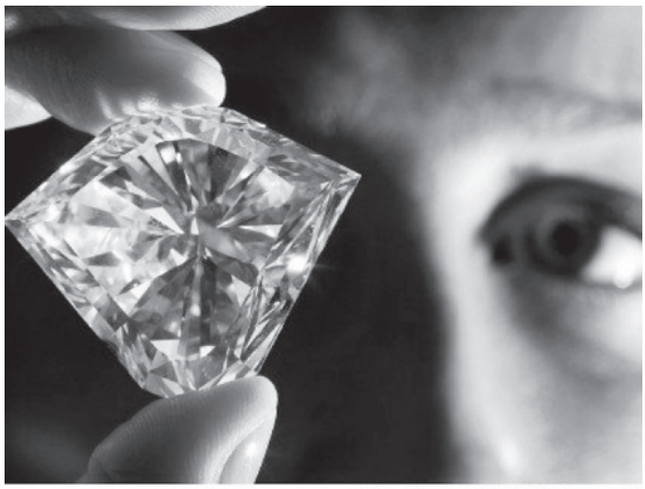
June 14 & 15, 2008
"19th Annual Rock and Gem Show"
Saturday & Sunday, 10 am.- 4 pm
Navy League Hall
911-13th Avenue, Campbell River B.C.
Lunch counter; Silent auction; Demonstrators;
Dealers; Specimen sales
Adults $2.00, Children under 12 free, accompanied by an adult
For more information contact Barb Akelaitis,
250-286-6088
E mail:antbarake@hotmail.com

PORT MOODY ROCK & GEM CLUB

October 25 & 26, 2008
"Rock my World-"
"The Personal Stories behind the Stones"
Saturday & Sunday 10 am - 5 pm
Kyle Centre
125 Kyle Street, Port Moody, BC
Admission by Donation
For more information contact Shirley Edwards
604-931-6986
Visit the club at: http://www.portmoodyrockclub.com/annual_show.php

Christie's To Auction Off Record Diamond

Feb 22nd 2008 by Laura Malesich



Peter Macdiarmid/Getty Images Ne

Its been twenty years since such a mighty colorless diamond has hit the auction block. At 101.27 carats, this gigantic gem is expected to bring in more than $6 million when auctioned at the Hong Kong branch of Christie's later this year. On display in London currently until February 27th it will be one of only four colorless diamonds over 100 carats ever auctioned. And I thought ten carats was a sizable rock!

Record Price set for Platinum

Feb 15th 2008

Earlier this week, platinum rose to an all-time high of over $2,000 per ounce. Classically used for jewelry settings, and a rather popular choice for many engagement rings, platinum is also used for catalytic converters in some automobiles. So what's the reason behind the rising price? There have been energy issues in South Africa where the metal is mined, lowering production quite a bit. This drop in mining is estimated to last around four years as the national energy crisis in South Africa is resolved. In just the past four years, the price of platinum has doubled! Maybe this price surge will turn more people to white gold—it may not have the same durable quality of platinum but it looks almost exactly the same.

Honourary Lifetime Membership for Trudy Martin

On Friday September 14th at the Calgary Rock and Lapidary Club meeting, John Hausberg presented Trudy Martin with a Honourary Life Membership in the Gem & Mineral Federation of Canada. Her nomination was presented to the Board of Directors on August 16th 2007 at GMFC convention. The Board of Directors voted unanimously to grant Trudy that honour. There are now 4 Honourary Life Members in the GMFC.

Below is the nomination presented to the Board:

We nominate Trudy Martin of the Calgary Rock & Lapidary Club for an Honourary Life Membership in the Gem & Mineral Federation of Canada. Trudy was present and became involved in the GMFC at the inaugural meeting of the GMFC in July 1977 in Calgary. She was appointed an Alberta Delegate to the GMFC Board of Directors for the first five or six years. She attended all the GMFC conventions when she was an official Director. For the first four years she was also the Editor of the GMFC newsletter.

She organized the Bill Downtown Newsletter contests and was the Director in charge to the day the program ended. Her time on that program after her role as a GMFC Director was over, qualifies her for the Honourary Life membership as a result of the motion passed in Winnipeg, giving members in charge of official programs Director status. She has more than the 10 years needed for this honour. She invested not only her time but also her knowledge in the program, going the extra mile to help Club editor with their newsletter. Her aim was to bring quality into these newsletters.

She joined SCRIBE and started workshops for Editors at the GMFC conventions. Trudy was also the first Canadian to become President of SCRIBE. In the CRLC she is the hardest working member who never backs down from a challenge. She was the first woman President of the CRLC; she is also the only woman who has held the job of Show Chairperson. She has been the Editor of the CRLC newsletter for 30 years. Her and husband Mel also were delegates from the CRLC to the AFRC.

We believe that she is also the best un-official rockhound ambassador to the Northwest Federation of the US rockhounds. She receives more e-mails and phone calls from rockhounds visiting or planning to visit Canada, she can answer just about any question pertaining to the hobby. and do. Trudy has been involved in the hobby for well over 30 years; she is just as involved in the hobby as she was when she first started. We the undersigned do not hesitate to nominate her.

—Nominated by John Hausberg, Pat Hausberg, Alice King, David Blair, MurrayNicholson, Alice Jaquist

Notes on Gemstone Fluorescence

Fluorescence is the emission of visible light from a substance under the stimulation of radiation of a shorter wavelength. It may be stimulated by (visible) light but most useful are blue light, short wave ultra-violet (UV) light, long wave UV and x-rays. Daylight contains some ultraviolet light and some artificial light sources (i.e. photoflood lamps) put out a considerable amount of UV light. An example of the effects of such light is blue fluorescing diamonds. Diamonds which fluoresce blue in UV light may have a yellow tint to them in UV free white light which is cancelled by the blue fluorescence in (daylight) conditions.

Crossed Filters.

A strong light (500W) is filtered through a saturated solution of CuSO4 on to a specimen or a light is hone through an appropriate blue filter. When a red filter is used to observe stones in the blue light only red light actually emitted (fluoresced) by the stones under the stimulation of the blue light is observed. Stones that show up red include: ruby, synthetic ruby (verneuil), emerald, synthetic emerald, red spinel, synthetic red spinel, pink topaz, alexandrite.

Used with a spectroscope the following observations/differentiations may be made:

1. Corundum (ruby) from red spinel which shows (organ-pipe) lines in the red end.
2. Red spinel from synthetic red spinel. The synthetic has a single line in the red (like ruby) and lacks the “organ-pipe” fluorescence lines. To differentiate ruby from synthetic red spinel one looks in the blue where the lines characteristic of corundum are lacking.
   - Synthetic (verneuil) rubies and synthetic emeralds often show a brighter red than the natural stones. The effect is apparently stronger using an infrared filter to view them with. Where iron is present it acts as a damper on the red fluorescence, i.e. Siam rubies and emeralds from South Africa and India may be almost inert.
   - Natural black pearls show a dim red glow while dyed ones (using AgNO3) are inert.
   - Long Wave UV 365.0 nm Similar to crossed filters in some instances.
   - Natural yellow sapphires fluoresce yellow, synthetic yellow ones are inert. Natural colourless fluoresce orange, synthetic colourless are inert. Synthetic orange sapphire fluoresces red (from chromium).
   - Yellow-green synthetic spinels fluoresce bright green. Blue synthetic spinels fluoresce red, most naturals do not.
   - White zircon shows a yellow fluorescence (UV may cause a reversion of colour to original yellow or brown, heat may remedy this).

Fluorspar fluoresces brightly.

Natural emerald is usually inert, most synthetic glows bright red. Ultra long wave UV (4l0.0 nm–3l0.0 nm) shows a pronounced difference in fluorescence between most natural emeralds (inert) and synthetic emeralds (bright red fluorescence).

Diamond fluoresces in all colours, the fluorescence may be analyzed with a spectroscope in some cases for identification. When cooled with dry ice or liquid nitrogen some diamonds show fluorescence lines at 415.0 nm and 504.0 nm. Irradiated diamonds may show a line at 594.0 nm which is diagnostic. Diamonds that fluoresce bright blue show a yellow phosphorescence when held in cupped hands after the light is turned off—the only blue fluorescing gemstone to do so. Photographs of the pattern and colour of fluorescing diamond set jewellery may serve to identify it for insurance or other purposes.

Short Wave UV, 253.7 nm (NB: is harmful to skin and eyes) Many stones show similar reactions as to long wave.

Synthetic blue sapphires show a greenish or white-blue glow, synthetic white stones a deep blue glow, naturals in both cases are usually inert. Some yellow sapphires fluoresce green at the surface. If suitable precautions are taken synthetics examined with a lens while fluorescing will often show curved structure lines.

Benitoite which resembles sapphire fluoresces bright blue while natural sapphires are inert.

Synthetic rubies and emeralds both often glow brighter red than their natural counterparts. Both are much more transparent to 253.7 nm radiation than the naturals and this forms a test using contact immersion photography or by using apiece of (blue fluorescing) scheelite as an indicator. The suspect stone is placed over a hole in an opaque material with the scheelite below the stone and a short wave UV source above. If the scheelite fluoresces it is receiving light through the

suspect stone and it is a synthetic stone. It should be noted that some new synthetics do not pass UV light.

Danburite (1.63 RI) fluoresces bright blue while topaz (1.63 RI) is inert or glows orange and yellow.

Garnet-topped doublets: glass fluoresces yellow (or greenish) and garnet remains dark. In some triplets the cement layer fluoresces brightly providing rapid identification. Many composite stones can be fairly easily identified as such in this manner.

White synthetic spinels glow bluish-white, useful for rapidly picking them out in set jewellery.

Natural amber glows patchily while ambroid may show swirls.

X-rays (Complex lab equipment, health hazard)

Most synthetic rubies and emeralds fluoresce brighter red than most natural ones. Synthetic rubies phosphoresce for ten seconds or so while the natural rubies are inert or nearly so.

- Hydrogrossular garnet glows bright orange serving to separate it from idocrase (occurs at times in carving identifications). Colourless, yellow and orange synthetic sapphire may fluoresce red due to chromium.
- Fresh water Biwa pearls glow bright yellow.
- Synthetic emeralds may phosphoresce a dull red while naturals are inert.
- Gilson synthetic emeralds glow bright red.
- Cultured pearls show a yellowish fluorescence, natural salt-water pearls are usually inert. Fresh water (natural) pearls fluoresce yellow but only at the surface cultured fresh water pearls glow from within.
- Some synthetic corundum manufacturers (Ramaura) have in the past doped their products to allow identification using fluorescence as an indicator. Some of the new hydrothermal and flux-melt products however act very much like natural stones under all stimulation. It is necessary to review the literature to find references to new developments.

A Mineral to Call My Own

As I peer through my microscope at the otherwise unseen world of microminerals, I recall that most newly described minerals occur in this domain. The pages of mineral journals devoted to recent discoveries describe crystals that are measured in microns and named after localities or mineralogists. Occasionally I fantasize about discovering a new mineral species among the pegmatites of New England, but I'll have to settle for the near misses I describe below, each of which momentarily took my breath away:

- Hemmorhageite: bright red spots on albite that turned out to be my own blood, shed from unnoticed cuts.
- Algaeite: enticing green patches on weathered albite, also called pseudoberyl.
- Fungusite: tiny balls on altered tryphylite, which I enthusiastically designated whitmorite.
- Krylonite: specks of orange spray paint used by quarry workers.
- Fivegallonite: A curled white micromineral that turned out to be a shaving from the inside of the plastic bucket that I used to carry my specimens.
- Autoglasspar: I found my first "diamond" in the street when I was seven years old.
- Dustite: brightly fluorescent specks on any specimen left out on the shelf for a while.
- Marlborolite: colorful litter causes more than a few double takes.
- Cheddarite: I found this one under the 'scope after eating cheese doodles one night.
- Insecteggite: round or oval micromineral, common in weathered crevices.
- Pollenite: a seasonal micromineral, similar in appearance to insecteggite.
- Fantasite: enormous gemmy pocket crystal that disappears when I wake up.
- Lichenite: eye-catching bright yellow druses on weathered granite ledges.
- Splatterite: purple reminder that birds visited the locality before you did.
- Ifonlyite: perfect matrix imprint of desirable mineral, now long gone.
- Heinekenite: not a shard of gemmy tourmaline.
- While I stumble through these and others, Gilmoreite will have to wait.

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The Monster

By Dave Abel—Spruce City Rock & Gem Club

Early one morning in June Several Years ago I picked up Sven Anderson as planned and headed out on a mission to find a location I had been researching all winter.

We headed west on Highway16 for 7kms and turned southwest on the Blackwater Road. Our destination was somewhere south of the Blackwater River in the general area of Pantage Lake, but its exact location was unknown to us, so we had a lot of exploring to do.

After an uneventful journey we crossed the river and climbed the hill to the Batnuni Road on the other side and turned south, exploring every side road as we came to it

Several hours and many roads later we still had not found anything and I was beginning to get rather discouraged. We agreed to try for another hour and if we nothing in that time we would call it a day.

Then we came to the Charleson Creek Road and proceeded to explore it. There were quite a few roads leading mostly to the south side. We followed each as far as they went until we hit side road number 7.

Up until now the terrain had been all glacial till with no rock showing at all. I didn't have much hope that this one would be any different. As we left the main road we began to climb, soon we came to an area where there was bedrock showing and my hopes began to climb.

We climbed a hill, went around a corner and I noticed on my side of the road someone had removed part of the outcrop of rock, and then I saw it. It was huge! I had no trouble seeing the vein from the road as it was about 2 feet wide and 4 feet long where it came out of the ground.

Evidently, the rock had torn up for road-fill, there were pieces of what the book called chert scattered prolifically across the site. We had a field day gathering the loose pieces in the little time we had left before dark and went home happy campers.

After some deliberation once I got home, I decided to stake a claim on "my" find. The next weekend Ian McEwen and I went out and did just that.

As it turned out the BCLS Summer Camp was held at Quesnel that year and one of the collecting sites was my claim on the Charleson Road. When the group saw the vein the bars, chisels and hammers came out, and I'll be darned if they didn't free up a huge chunk of the vein. They took what they wanted and left the rest.

I stewed over the huge piece of beautiful material sitting there, wondering how I could possibly retrieve it and get it home without having to hire some kind of loader. For a week I pondered the problem, getting and rejecting ideas as fast as I got them. Then I remembered my backyard mechanic days, the frame and hoists we used to make for lifting engines. I started to price out what I would need.

Then I got a real brainwave. I went to the rental store and rented an engine hoist which was built in such a way that it could be disassembled. Perfect and only 25 dollars a day.

Eight o'clock the next morning saw me at the rental shop, by eight thirty I was on my way. By noon I was at the site and by two the monster was in my truck headed for home, I was one very happy camper.

I'm not sure what I'm going to do with it, but I'm sure of one thing—neither it nor its brother we found later is going anywhere on its own!

Introductory Gemmology

Definitions Concerning Physical Properties of Gemstones

By Charles Lewton-Brain

Crystal Structure

A perfect crystal is bounded by plane faces which meet at angles specific for each kind of material (angle analysis can identify minerals). A crystal may be cleaved in directions related to the external form or to a possible crystal form for the mineral. Sometimes two distinct minerals can have the same chemical composition with their differing properties being due to their different crystal structure. Crystal structure affects mineral properties more than their chemical nature. Examples here include diamond (carbon, cubic) and graphite (carbon, hexagonal) and Calcite (trigonal) and aragonite (orthorhombic), both forms of calcium carbonate.

Properties Related to Crystal Structure

Optical: In the cubic system a light ray is refracted (bent), passes through the crystal and emerges as a single ray. This is known as an isotropic (singly refractive) material. Of the doubly refractive crystal systems three (tetragonal, hexagonal, trigonal) are uniaxial and have a single direction (not a line but an entire direction) of single refraction in the doubly refractive (anisotropic or birefringent) crystal. The orthorhombic, monoclinic and triclinic systems are biaxial and have two directions of single refraction in the double refractive (anisotropic or birefringent) crystal. In uniaxial crystals the isotropic direction is that of the main crystal axis.

Pleochroism (Dichroism, trichroism): In doubly refractive gemstones the light ray is split and each part refracted (bent) to a different degree. Assuming this ray is made up of white light (which is composed of all colours) each ray has various colours absorbed (filtered) so that each ray as it emerges from the gemstone is a different (residual) colour. This is called dichroism (means two colours). Thus depending upon the direction one looks at the stone relative to the crystal and optical axes a different colour is seen. Both colours are often present at the same time however and it requires a dichroscope to separate the colours to see them. The dichroscope allows each ray's colour to be viewed separately and at the same time to compare them.

Uniaxial gemstones are dichroic and two colours may be observed. Biaxial stones are trichroic and three colours may be seen.

Heat Conductivity: Heat is conducted differently in various minerals according to their crystal system. This is used in Thermal Conductivity instruments to differentiate diamond which conducts heat very well from its simulants and imitations. Some instruments use it to identify other gemstones but they are expensive and of value only when used with care and some gemmological knowledge. The use of standard stones is suggested and drafts to be avoided as they can change the readings. At its simplest this is the temperature test using tongue or lips for glass and plastic.

Electrical Effects: Atomic structure and the related crystal structure influence electrical properties. Some crystals possess pyro-electricity. Tourmaline for example when heated to between 100—100oC possesses polarity like a magnet needle. Another effect of some polar crystals is piezo-electricity-pressure on a crystal slab induces electrical charges on opposite faces. This is used in piezo-electric gas lighters. If an alternating current is applied to the crystal it oscillates. This is used in controlling radio wavelengths, usually using synthetic quartz. Quartz watches use these properties. Silicon chips depend upon the directional crystal properties to function. Electrical current is conducted better in some gemstones than others. Natural blue diamonds conduct electricity while the irradiated blue ones do not. A simple circuit can be constructed to test this.

Cleavage: The is the tendency of a crystallized mineral to break in definite directions related to the crystal structure producing relatively smooth cleavage break surfaces. Cleavage planes are always parallel to a particular cleavage face, i.e. diamond cleaves in any of the four directions parallel to the faces of the octahedron. Almost all crystals have a tendency to cleave. Those with the least tendency to cleave include garnets, quartz, spinel (natural), beryl and zircon. Gemstones with a strong tendency to cleave include diamond, fluorite, topaz, peridot, kunzite (spodumene), euclase, sphene, axinite, feldspars, synthetic spinel, dioptase and calcite.

Cleavage is described by the crystal face to which it is parallel; diamond has octahedral cleavage, topaz has basal (parallel to the base of the topaz crystal prism). The ease with which cleavage occurs and the resultant smoothness of the cleavage break

is described as perfect in topaz, indistinct and difficult in beryl. Cleavage can be used in cutting diamonds and it should be noted that stones with a strong tendency to cleave can be easily cleaved in polishing and setting procedures.

Fracture: Defines the type of surface obtained by breaking a crystal in a direction other than that of cleavage. Types include conchoidal, shell-like as in glass and often in gemstones. Also even, uneven and hackly or splintery as in nephrite. Identification applications of cleavage/fracture include: Nephrite cleavage cracks occur as 124o and jadeite at 93o.

Synthetic spinel imitating aquamarine may show cracks at right angles and aquamarine does not.

Feldspars cleave and chalcedony does not. Tiny chips or breaks on the girdle of cabachon feldspars (sunstone, moonstone, amazonite, etc.) are flat and have a vitreous lustre while in chalcedony they are conchoidal with a waxy lustre.

Splintery fracture is seen in nephrite and hematite.

Hematite fracture is splintery and hematite (a substitute) is not.

Conchoidal fractures are a strong indicator of glass. I've seen quartz do it too to some degree.

Hardness: "The power a stone possesses to resist abrasion when a pointed fragment of another substance is drawn across its smooth surface without sufficient pressure to develop cleavage" (GA course material).

Harder stones will scratch softer ones. Stones of the same hardness may scratch each other (a diamond can scratch a diamond). The Mohs scale is used for gemstone hardnesses. This scale is purely relative as shown by the fact that the difference in hardness between corundum (9) and diamond (10) is 140 times the difference between talc (1) and corundum (9).

Mohs Scale

1. Talc
2. Gypsum
3. Calcite
4. Fluorite
5. Apatite
6. Orthoclase feldspar
7. Quartz
8. Topaz
9. Corundum
10. Diamond

Other reference points include:

- Finger nail 2 1/2
- Copper penny 3 or so
- Window glass 5 1/2 or so
- Knife blade 6
- Steel file 6 1/2—7
- Silicon carbide 9 1/4
- Carborundum 9 1/4

Hardness testing is not often used as the chance of damaging a good stone or even an imitation of value to the owner is too high. It is normally only used on rough material or on an inconspicuous spot on large carvings as a confirmatory test.

Any scratch detracts from the value of a gem. It will not tell if something is synthetic or natural.

Hardness points Sets of standard pieces of Mohs hardness 7, 8, 9, 10 mounted in rods used to scratch gem materials.

Hardness Plates Sheets or slabs of standard hardness materials. The gem to be tested is rubbed on the plate using the girdle so that hopefully the plate suffers the damage. Again, material can scratch itself although it is true that the feel of the "bite" in hardness testing can tell a great deal.

It is also not necessary to file chunks from gems or scratch whole facets; a 1 mm scratch can suffice and if the plate and stone is wiped clean and inspected with a loupe one can tell which was scratched. Diamond is the only colourless gemstone which will produce a scratch in a polished corundum plate.

A lapidary can make a set of small plates quite easily and synthetic corundum can supply the #9 plate.

Around the Clubs

IT'S SHOWTIME AGAIN

Report from the Port Alberni Show submitted by ***Jan***

The Alberni Valley Gem and Mineral Club held their 50th Anniversary Year Show, on March 8 & 9, 2008, at the Cherry Creek Hall. Having made an early start to our day, Jack and I arrived at the Cherry Creek Hall by 9:00am on the Saturday, to find the place a beehive of activity, with good smells coming out of the kitchen. They were a promise of things to come.

By the time Dan announced "10 minutes to Showtime, folks" over the PA system, we were putting the glass into the front of the showcase, and ready for a coffee break. It is so nice to meet old friends that we haven't seen since the last show, which was Ripple Rock's in September, it seemed that there was a lot of reconnecting going on, as I saw many small clusters of folks with heads together, catching up on each other's lives. Jack and I joined a number of them too. At 10am the public started to invade the place and, by 10:15 there was a constant stream of people doing the rounds. The crowd got thicker as the day wore on.

This being the 50th year of the Alberni Valley Club's existence, their show cases featured "Gold", or at least the appearance of Gold. The case by Joan and Herb Humphries featured the gold of Pyrite in its numerous forms. There were masses, and cubes and pyrite sunbursts. It was a very attractive case. The Alberni Club case was also "Golden", from the minerals displayed to the daffodils in the corners.

Victoria's case was "Fossils, the record of life on earth before the coming of Man". I spent some time enjoying the sparkly Facetter show case, before moving on to a case showing the work of Joyce Vallee. She has made a fabulous sculptural neckpiece or collar, with beads, shells, and stone chips, truly a one of a kind work of art. Her other, smaller pieces are beautiful too, some of them incorporating wire wrapping, Marilyn Monroe and Theda Bara.

In the Gymnasium, or "Back Room" of the Hall, there was more to see. The Comox d'Esterre House Seniors "Rock of Ages" tables were filled with interesting things to buy. Dave Robinson's stone and metal birds look good in the garden, or anyplace else you want a bird, and there was a variety of jewellery and cabs and some lightweight rolled paper beads that had me guessing what they were.

Lynn & Ron had their tables just across the way with some lovely slabs on their 'light table' to show their translucency and designs. Lots of nice slabs and chunks to choose from and Lynn's lovely lampwork beads. Max was demonstrating his cab making techniques on his Genie. He does wonderful cabs and makes it look so easy. Beside Max, Herb Humphries and friends were making spheres on his 3 headed sphere making machine.

The Touch Table in the middle of the room was laden with rocks asking to be touched and fondled. The ever popular Pebble Guess jar and the less expensive slabs and

chunks trays for the kids to buy, led one on to the “Treasure Rocks” stand. Use a hammer to break open a rock and find a treasure. There was a lineup of keen kids waiting their turns when I passed the spot. Jan Maldaner and Melina were at the Kid’s Craft table, directing small fingers in the use of glue and rocks and wiggly eyeballs, along with other bits and pieces to create unusual objects to take home.

The Rockhounds Restaurant was “Just a Steak Dinner” this year, on a table beside the Club Archives, and Joan H tending the Micro Mounts Microscope. **T**hen I had to peer into the “Black light” boxes to see the Fluorescent minerals. Long wave and short wave ultraviolet light affects different minerals in different ways. Very interesting! Next on the circuit, for the temporarily tired of foot, was an opportunity to sit down and watch a video about under ocean smokers- Volcanic vents beneath the sea. In a case by the TV, was a piece of a “chimney” which had built up, loaded with chalcopyrite.

Out to the Lunch room, the heart of the show, as that is where everyone ends up at some time. With the showcases around the perimeter, it is a cheerful place. I started at one end with the Ripple Rock cases. Traceyhas put together a case of “Wrap” Artists with a background of Rap artists, Sneaky idea. Then the 1958 Ripple Rock Story in the next case, which is a 50th Anniversary too.

Cowichan must have an amazing lot of good silver workers in their club, as their Club showcase invariably has a collection of wonderful silver jewels. This year there were some Celtic themed pins and pendants that caught my eye. The beautiful beaded pieces were arresting as well. The d’Esterre Senior’s case was showing a variety of members work. Case 13 was Fossils, nicely displayed, and beside it, a case of attractive petrified wood. Courtenay’s Beach Rocks case had a selection of stones, with some polished surfaces, that had been found on field trips to the beach. Many of them were from one trip to Quadra Island, where a new rock hound had found 2 stones studded with garnets. She was very pleased. Native artifacts, altered rocks, are also waiting to be found on the beaches.

The Jonanco Hobby Club Case shows the talents and skills of the Nanaimo club’s members. They work

stone, wood, silver, and do tatting and yarn Art pictures. There are also members who do stained glass work and quilting. Parksville showed “Mid Island Treasures” with a nicely presented selection of local stones.

Then there was a gathering of Cats, entitled “Garfield and friends at the beach”. I heard many people express a desire to acquire some of those cats. A very nice beach scene quilt was a background to the display. There followed Max’s two cases. He presented a case full of Big slabs of Serpentinized marble, Rainforest marble, a big slab of flowerstone, and a magnetite pyrite marble slab. Max has his BIG saw working. As I looked at them, I wondered what critters Shelley Penner could find in those slab landscapes. Beside that was Max’s Porphyry Case with examples of the wide variety of porphyry available, all of the pieces beautifully polished and attractively displayed.

Among the dealers in the main room, Sahara Minerals had a very lovely display of specimens and pocket

rocks inviting caresses, as well as lots of shiny pebbles, spheres, and assorted artifacts. Across the aisle was the Fossil display, which always has fossil fans discussing old things. Not being a serious fossil fan, I moved along to “Silver ‘n Stone” where Jens Hoye was handling sales while Joan was demonstrating her silversmith skills. Within chatting distance was Mabel Baaske, working at her Faceting machine. Beside her, C&D Gemcraft of Winfield BC, had several tables loaded with all manner of stuff, starting at one end with earrings, and progressing through pendants and pins, to rings and then to cabs and slabs and tools. They had a little of everything.

Across the end of the room, Eagle Gem and Gifts had a large selection of almost anything the rock hobbyist or jewel maker could want. From chunks and slabs to finished carvings and beads, tools and books. If you do not see it, just ask, they can get it for you. Millizza’s Cave is a great source for crystals and specimens for Crystal Mystics. Lots of other neat stuff too.

Prospecting information, gold pans and metal detectors took up the next table. Then came Komarovich’s

Collection of beads and other wonderful stuff. Stone beads and pearls, all so touchable. What is it about shiny stones and beads… that they have to be fondled?

Then I went around the corner to Shelley Penner and her world of wildlife. Every slab has some sort of animal hiding in it, and Shelley has the talent and skill to show them. Then Emily Faak and her very beautiful wire wrap jewels. She has a wonderful skill and talent too.

We were not able to join the group for dinner but did return on Sunday, for a brief time and met more friends. More talk, more catching up to do, once more around the rooms. Then home.
Jan

Thanks to Gwen for these additional notes:

The Alberni Club should be proud with these numbers: Attendance=1608, Attendees at the dinner=57, Breakfast=53.

The prize winners are also worth noting: First 50/50 draw was won by Joan Hoye, and the second 50/50 draw was won by Joan Hoye. She graciously gave up the second which was then won by Jindra Verner. The first free dinner was won by Joan Hoye and the second by Joan Humphries. The famous gold nugget was won by Jeanette

Steves of Port Alberni. Gwen reports that Joan's winnings are called "Doing a Langill", as Lang, her husband, had the same fortune at a previous show, when he and Gwen also had the nerve to win two door prizes.
Gwen

Burnaby Laphounds Club

MEMBERSHIP: 14 members signed in for the January General meeting. Stan Maars won the Attendance prize and John Froese won the Rapple contribution prize. George Mitchell made the motion to reduce the annual prize amounts and was seconded by Lorna Herberts, the motion was then passed by the membership.

PROGRAM: February program, we hope, will be John Froese speaking and showing us some of his collection of wood, specializing in Paraquayian woods. John gave us a sneak peek of his woods at the January general meeting.

The January program was the Election of Officers–and the Executive is as follows:
PRESIDENT–Stan Maars
VICE-PRESIDENT–Vivian Lo
RECORDING SECRETARY–Yurika Shintani
CORRESPONDING SECRETARY–Nancy Herberts
TREASURER–Lorna Herberts
SUNSHINE–George Mitchell
RAFFLE–Mary Dyck
LIBRARY–John Shintani
MEMBERSHIP–May Herberts
PROGRAM–May Wang
SOCIAL–Ed MacRitchie & Marion Herring
HISTORY–Barbara Maars
FIELD–All Club Members
BULLETIN–Nancy Herberts

SOCIAL: The proposed date of our Spring Dinner Party will be either April 5th or 6th at the ABC Restaurant in Surrey. The party date and details will be discussed at the February General Meeting. Anyone interested in attending the dinner and not able to attend the general meeting, please call one of the Executive who should have the confirmed date and information after Feb 13th.

WHAT DO THESE NAMES HAVE IN COMMON?
BOTSWANA—Lake Superior
BLACKSKIN—Sowbelly
BIRD OF PARADISE—Tepee Canyon
KENTUCKY—Youngite

Answer to above: Various types of Agates

Cowichan Valley Rockhounds

The first snowfall of the season arrived late yesterday afternoon. It made a few of us hurry to get home from the shop before things got really interesting. Amazing to think we've had our first major storm of the season, now the snow, and for sure the festive season is sneaking up quickly. When the next issue of the Rockhounder is published bulbs will be breaking through or already blooming and all this will be but a faint memory. Gazing out at the glistening white blanket covering everything makes me reflect on how fortunate we all are, and what a great year it's been for our club the Cowichan Valley Rockhounds.

A few years ago we were happily settled in a terrific shop, all we could hope for, that included huge inside storage space for not only our saws but the rocks too. Outside there was a garden perfect for BBQ's and get-togethers, and only 10 minutes south of Duncan with perfect access and parking. Then alas the property was sold, we packed up ready to move, but to where. A very generous and kind member couple had a space in their detached shop building they thought might be suitable, and offered its use to the club to fix up and make it our new home. Now to drywall, insulation, wiring, plumbing, painting, shelves, exhaust venting system, water lines, an add-on for the saws and our own "loo"–who would believe it! We even have controllable heat! Watching a group of members the other day working on the Pixie's, at the tables creating more of those exquisite silver pieces, polishing of a pendant ready to go I thought it just doesn't get much better. How fortunate are we to have a membership of involved, enthusiastic people and skilled supportive instructors that share their knowledge and expertise in lapidary, silver-smithing, geology, beading, and take us roaming on our field trips. We've tossed in occasional wire-wrap and even faceting.

We have shop time Monday, twice Tuesday, Thursday, and Friday. Our meetings are still held on the 3rd Monday each month and our Wagonmasters plan a field trip for the following weekend. Of course like everyone else that depends on gates, logging, high rivers, snow at higher elevations, and the weather. On the Island we're lucky to have many beaches to choose from. We usually have one dinner meeting in early Spring and a BBQ in June. This year we hosted the V.I. Gemboree in June and hosted the Friday night BBQ dinner. We enjoyed welcoming our new friends to the Cowichan Valley for the weekend and hope they come back for another visit. In August we have a large booth at the Cobble Hill Fair where we demonstrate what we do to the public, have displays of our creations as well as games for the children. December is our annual Christmas Pot Luck Supper with a marvellous assortment of favourite dishes, Secret Santa, rock quizzes, and donations to the food bank. Our Club was founded in 1961 so we have a fifty year birthday just around the corner, exciting! Our new Executive for 2008 is VP-John Boland, Secretary-Michele Heath, and Treasurer-Helen Oakes. Gene Leavitt is our Sr. V.I. Zone Rep. and of course many members as committee appointees.

As with any other club or organization our success is a result of the efforts and contributions of our membership and supporters. Most rockhounders I've met are down-to-earth, kind and sharing practical folks who are a whole lot of fun too! We send our best wishes for health and happiness in the New Year, and hope everyone finds something a little special treasure

hunting. Ulla Williams, President, Cowichan Valley Rockhounds.

Wanted

The Cowichan Valley Rockhounds are seeking a flatlap in good working order at a fair price for their shop. Please email particulars including where unit may be viewed and asking price to williams-u@uniserve.com or call Ulla at 250-748-0203. Thank you.

Creative Jewellers Guild

Open House, May 31st, 2008

Our Open House this year will be held on Saturday, May 31st at the Richmond Cultural Centre between 10 a.m. and 5 p.m.

Posters and flyers have been printed and were distributed at the B.C. Show. You will receive a flyer in this newsletter and there will be more at the meeting for members to take and distribute themselves. There is no charge to the public for this.

Hastings Centre Rockhounds

Greetings from Ottawa
John Bowman

We are now getting settled into our new home in Ottawa. Of course it was just our luck to arrive in Ottawa just in time for the largest snowfall for the month of December that has ever occurred in this city!

Needless to say, field trips are out right now, but we made it to our first meeting of the Ottawa Lapsmith and Mineral Club a few days ago. It was the night of their big auction, so we didn't get to visit with people much but we joined the club and participated in the auction. The club has its own premises on the street level alongside some commercial enterprises at the bottom of an apartment building. They have a workshop that looks well equipped, and they hold quite a few training classes in their workshop. They also do field trips, which we are looking forward to going out on.

It is always interesting seeing what people pay for rocks and minerals at auction. It was notable that good cutting material went for much higher prices at this auction that what we would see in Vancouver. For example,a fist sized chunk of snowflake obsidian went for $26 and a small piece of mahogany obsidian went for $13. A fist-sized chunk of rhodonite from BC went for $21 . We were thinking we should have brought more cutting rough with us from BC to donate to the club but unfortunately most of it is in storage back home.

Diane commented that Ontario rockhounds aren't as cheap as the ones in BC, but I would never suggest that. They just don't have as much cutting material here as we do so they are prepared to pay more for it.

For example, there were three small chunks of decent sodalite that went for $10, which was not a bad deal. There were a couple of nice lots of tourmaline including three two inch rainbow tourmaline crystals that went for $60 and some pieces of Quebec tourmaline that sold for $44. (Diane bid on both of them but was too cheap to get them).

One very interesting feature of this auction were two 3" round pieces of Victoria Stone, (one blue and one green). This is a very rare man-made stone that is no longer manufactured because the person who invented it passed away without telling anyone how he made it. It is much sought after by collectors. The blue piece went for $140 and the green one was a real steal at $70. It was interesting seeing what some of the local specimens look like, such as bronzite, tigerite, hackmanite, and sodalite. They even sold an old Geiger counter, which comes in handy when collecting in Ontario as there are a number of sites where you will come upon radioactive minerals.

Alberni Valley Rock & Gem Club

Club Contact:

Joan Humphries 250-723-6882,
Dot West 250-723-0281

Burnaby Laphounds Club

Club Contact:

George Mitchell, 604-433-4043

Creative Jewellers Guild of B.C.

Club Contact:

Maria Tomsich, (604) 224-1951
or Email Maria at
mtomsich@interchange.ubc.ca

Cowichan Valley Rockhounds

Club Contact:

Gene Leavitt (250)246-4571
E mail: gleavitt.shaw.ca

Hastings Center Rockhounds

Club Contact:

Linda Foy 604-421-1068

We are looking forward to getting out and doing some rockhounding. Stay tuned for articles on the Bancroft Gemboree, Herkimer diamond collecting, hopefully a trip to the Ste. Hillaire, Quebec area, show reports from Ottawa, Montreal and perhaps Toronto, and who knows what else. Diane is going to the biggest bead show in North America in Milwaukee, Wisconsin in June.

The "Marilyns" visit Greece

This past spring (May '07) we fulfilled Marilyn Olson's dream of travelling to Greece and Marilyn Maxwell's desire to revisit a country she loves. We had a chance to do some rockhounding as an added bonus!

We were told the town of Lavrion, a few hours south of Athens, was an area to check out for interesting minerals in the tailings from an old mine. We bravely rented a vehicle in Athens and made our way out of the city towards the coastal route after stopping for many directions along the way. Before reaching Lavrion we stopped at the Temple of Poseidon near Cape Sounion-a beautiful antiquity on the stunning Greek coastline.

Upon reaching the small town of Lavrion we tried to find the site following the sketchy map we had. Backtracking a number of times, we asked several people for directions including the local police and a woman at the Archaeology Museum. She seemed to understand what we were looking for and sent us off in search of what she referred to as the "black mountain" near a taverna on the outskirts of town. However, as we still couldn't see a "mountain" we stopped at the little tav- erna to ask for more directions. Unfortunately no one spoke English and we didn't know the Greek word for "rock" or "minerals" or "black mountain" !After leaving the taverna and thinking we would never find the site, to our amazement we saw a large pile of black rocks just beyond where we had parked the car. Wondering if this could possibly be the "black mountain" we went to investigate. We started to search through the area and after a couple of hours scouring the "mountain" in the heat we managed to find a few nice pieces of Dolomite crystals with Azurite. Our first attempt at rockhounding in Greece was a complete success!

A few days later we were off to visit some of the many islands in the blue Aegean Sea. We island-hopped using the ferries from Paros known for its beautiful white marble (Marilyn M. actually has this marble on the floor in her powder room!) to Naxos where we rented a car (we'd learned how to drive the Greek way!). We explored the many little mountain villages and gorgeous beaches collecting rocks and shells along the way. Next stop…spectacular Santorini-red and black volcanic cliffs, black sand beaches and breathtaking views. On Folegandros—one of the smallest and least "touristy" of the islands—we took a boat tourl with stops at several beautiful beaches perfect for rockhounding.

We spent a few days on Mykonos before taking a fast ferry to our last stop, Tinos, a large island where a car rental was a must to see all the sights. Navigating this island was a real challenge for us as very few people speak English and all the road signs are in Greek. One day we drove around the island in search of Livadi Beach known for its beautiful rocks. We never did find the beach that day but had great fun trying and met many kind people along the way. Determined to find this beach we headed out the next day and ventured further along a steep, narrow, dirt road that we had driven the day before. (our hotel owner told us we had been on the right road but just hadn't gone far enough). It was well worth I the effort, surf, sand, rocks and shells, a perfect ending to our rockhounding ad- ventures on the islands. The hospitality and generosity of the Greek people made this holiday so very special for us. A dream come true-rockhounding in Greece, who could ask for anything more!

Lillian Brooks

I became interested in cutting rock slabs when I was in my early thirties.

I took lessons at Don German's rock shop in North Vancouver for a couple of years. Then I joined the North Vancouver rock club. In it's hey-day it had over 40 members. It gradually died out. I was the last president of this club before it folded. I heard about the Hastings Club and heard they had a workshop, so I joined. I was Secretary for several years, Social Director for several years, then Membership Chair. I forgot….

I also did a small stint as the Historian. Last year I retired as Membership Chair, except for filling in when necessary. I am Vice President now and Member-at-Large Both have very little work to do I appreciate this.

My interests are in doing cabs and setting a few to wear, and give to my relatives, and doorprizes for the show.I have an interest in collecting crystal specimens….just to look at.

I have been 40 years a rockhound. In my early days I collected rocks on the Fraser River and my parents' house and yard had quite a collection.

When I moved to an apartment I decided to keep some rocks—not many, and invited the North Van rock club to come and get it. It soon vanished.

I don't collect on the bars anymore. I collect at the rock shows, mostly slabs. As you can imagine, I have a lot of slabs. I have to slow down and make a lot of cabs of what I have. Be seeing you at the rock show!

-Lillian Brooks

Maple Ridge Lapidary Club

Paint In Party

This Fall our club will celebrate it's 50th Anniversary we plan to spruce up the place with a new coat of paint plus a major clean up too. watch for good weather and a date

Club to Show at the Maple Ridge Gallery

" Earth Elements"

Irene Gross has lined up a another showing for our club. The dates are July19 to August 30.

Haney Place Mall shop window display.

Merv Zakus has been busy talking with the mall management and we may have an opportunity to display work as well as promoteour club in a vacant store front in the mall. There is no cost involved and the space would be available only a month to month basis. If you would like to display some work let us know at the shop and we will keep you posted.

Port Moody Rock & Gem Club

Situated in Port Moody, British Columbia, Canada, (the City of the Arts) the Port Moody Rock and Gem Club provides facilities and events for those interested in both the exciting hobbies of lapidary, faceting, and rock hunting and geology and earth sciences in general. Founded in 1978, the Port Moody Rock and Gem Club is a member of the British Columbia Lapidary Society, the Gem & Mineral Federation of Canada, the Port Moody Arts Centre Society, and Arts Connect.

Lapidary is the art of cutting and polishing semi-precious and precious rocks and gemstones. Our various workshops provide you with the tools needed to create stones for both jewelry and display. Field trips are generally held once a month at sites across the Lower Mainland and Fraser Valley.

Jade from Qinghai Used in Olympic Medals

Olympic medals presented at the 2008 Olympic Games in Beijing will incorporate jade from the province of Qinghai, on the northeastern area of the Tibetan Plateau, in western central China, according to a Jan. 1 story from the official Xinhua News Agency.

Jade bands like these will be incorporated in this summer's 2008 Olympic medals—white for the gold, light green for the silver, and light green for bronze.

This is the first time that non-metal materials will be used in such medals, according to Xinhua, but one of our readers recalls lead crystal or polished glass being incorporated into the medals presented at the 1992 Winter Olympics in Albertville, France.

A team of Canadian scientists revealed rare new horseshoe crab fossilsfrom 445-million-year-old Ordovician-age rocksin central and northern Manitoba, which are about 100 million years older than any previously known forms. Paleontologist Dave Rudkin of the Royal Ontario Museum, with colleagues Graham Young of the Manitoba Museum in Winnipeg and Godfrey Nowlan at the Geological Survey of Canada in Calgary, gave their remarkable new fossils the name Lunataspis aurora. Rudkin explains, "Understanding how horseshoe crabs adapted to this ecological niche very early on, and then remained there through thick and thin, can give us insights into how ocean and shoreline ecosystems have developed through deep time.

Maple Ridge Lapidary Club

Club Contact:
Walt Pinder 604-826-2342

Port Moody Rock & Gem Club

Club Contact:

Andrew Danneffel 250-942-0617

Richmond Gem & Mineral Club

Club Contact:

Eric Kemp 604-278-5141

Selkirk Rock & Mineral Club

Club Contact:

Maureen Krohma 250-367-9605

Richmond Gem & Mineral Club

Faceting Class

Four courses are currently being offered or are in progress. They are lapidiary, faceting, carving and silversmithing. I had the pleasure to meet the two instructors of Faceting, Ivan Leversage and Bernice DeWitt, on Monday evening, January 28, when I interrupted their class to take some pictures. I did not realize how much concentration is required by an individual when working a stone, especially a stone of gem quality. One mistake and back to ground zero. Fortunately, no one had to start over and everyone was kind enough to show me their material.

Ivan Leversage had a bit of fun showing your editor some of the rough material that is available to students and seasoned veterans alike. The sparkle and colour created from a well faceted stone is truly amazing. Several students were not able to attend the course that evening, but I hope to meet with the entire class at the end of the course to see the results of their labour.

A Visit to the Workshop

By George Howe

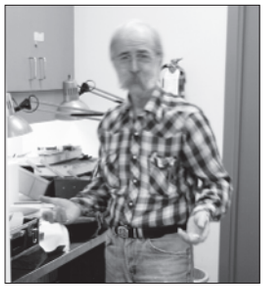
John Ilott enjoying a fresh brew of coffee

I do not know what is more important, visiting the workshop to work on my projects or visiting the workshop to talk with other club members. Walking through the door into the shop will often bring greetings from the earliest arrivals, Eric and Trapper play very important roles byensuring that the workshop is open for members to use. Before we can use the workshop, they in turn, unlock the door, turn the power and water on, and plug in the Dop wax heater, but most important of all, they put on the coffee, plug in the kettle and bring in a tasty morsel or two for us to enjoy.

A busy Saturday Open Workshop.

Trapper plays other roles. Trapper looks after the library and ensures that our club's books are available for members to sign out, and looks after the silversmithing room and the equipment within.

Our members who have taken silversmithing continue to askTrapper for advice and to help them improve their skills and abilities. His incredible chains that mesmerize us and his generosity in sharing his knowledge and skills makes the visit to the workshop very worthwhile.



The workshop can also be a pivotal part of the club if we are willing to use it. The rules state that as a member you can only use the shop's equipment once you have taken and passed the beginner's course in disciples such as lapidary, silver-smithing, lost wax casting, faceting, and carving. However, the workshop can also be a place to learn about the various disciplines and have an opportunity to meet other club members.

Eric

The club's library is in the workshop and can be used by all club members. Club members are welcomed to have a cup of coffee or tea with something to nibble on while perusing through the latest copies of the Rock and Gem or The LapidaryJournal magazines or other fine books in our collection.

After the initial greetings when entering the workshop, I do what most members do and that is sign in and then help myself to a freshly brewed cup of tea. Then I take the time to find out what everyone else has been doing and letting them know what I have been doing. Many of my projects have been greatly influenced by conversations with Eric and Trapper.

I am often impressed by the work that our members do. Annie took the time to show me the recent stone David had facetted and a display of other stones that they had facetted. Truly a delightful display. Michael is busy working on chains in the silversmithing room where I noticed the newest style torch that he was using and thought that this type of torch would be a good addition to my silversmithing tools. Bob is busy filing a ring that he made during siliversmithing class. His devotion to detail reminds me of what I need to do to improve the look of the projects I make. Pierre, who was not there on Saturday, takes the simplest of stones and finds the beauty hidden within. Watching him carve out a griffin from one stone and a trilobite from another stone was impressive.

I must get some work done. I head to the grinding wheels to shape my cabochon when I hear the distinctive voice of Lui Porc our workshop foreman. Lui has just arrived and is settling in for the rest of the day. What a lot of members do not realize, is that the lapidary equipment requires continuous maintenance and upkeep. Lui, as the workshop foreman, does his best to ensure that the equipment is functioning properly. Do you know who cleans the saws and changes the oil? It is not a pleasant task, but one that Lui performs for the club. Lui depends upon other members to inform him if there are problems with the equipment. If you inform

him, he will look at the problem and correct it. It is lunch time; there seems to be an unwritten rule that during lunch the slab saws are not to be operated. This little interruption to everyone's need to complete his or her project provides the opportunity to speak to the member next to you and get the latest news.

The time at an open workshop passes fairly quickly. Before you know it, it is time to clean up. The golden rule at the workshop is clean the equipment and leave it in better shape than you found it.

January Field Trip

By Harley Waterson

Last Sunday was the January field trip to the Yale Bar.....the weather could not have been better!

Above zero for temperature, no-wind, sunny skies (although the Yale Bar doesn't get sunshine in January). Perfect weather for rock hunting. The water was just low enough to get onto the bar, and the previous couple of weeks of wet weather melted almost all of the snow on the bar, with about a foot on the ground.

Ripple Rock Gem & Mineral Club

We welcome Don Dawson as our new Shop Coordinator. He will have the task of scheduling the mix of Shop Foremen (or women) who will oversee the various openings.

A new and improved version of the club shop has reopened for members. See the hours on page 2. Thanks to Charlie and Doug for all your work. The workshop floor is fixed, cleaned and painted, the 12 new Genie wheels are all installed, and we have 3 new water pumps. The new leathers in the pumps are all quite tight so spinning the diamond wheel by hand as you start the gene is a good way to help the motor get going. With all of the new equipment and parts we ask that members take particular care when you are crafting your pieces, especially by ensuring the Genie wheels always have water on them, so that we may get as much life from them as possible.

Thanks also to Charlie for the donation of the 18 inch aluminum saw.

Shop Fees are: from 6:30 to 9:00pm the fee is $3, and $6 from 11:30am to 5:30pm. Slab cutting is extra.

Fraser River Bars 2008 Feb 29—March 2

submitted by Charlie

What a wonderful trip we had to the Fraser River in February, the weather was picture perfect. We had lots of laughs and got lots of rocks, with lots of good people. We arrived at the City Center Motel on Thursday, and Friday we checked out every rockhounding area we could think of. The Coquihalla River Bars were clear but the Serpentine-Asbestos pit was snowed in.

The Fraser River was quite low this year but five of the bars were silted over. The beautiful Alexander Bar, the Hope, Yale and the Waleachhowever were clear so that's where we headed on Saturday and Sunday.

Did I say all clear, not quite? The road down to the Alexander Bar was snowed in, which made going down fine but every step on the return was picture by Alan Thompsonquite an effort; time to high grade. In the afternoon we headed back to the Yale Bar for lunch, then a quick stop at the Hope Bar and it was happy hour. On Sunday we headed down to the Waeach Bar and yet more rockhounding and of coarse, more eating. It seems every trip I pick up more useful tips on rockhounding. Doug's shopping basket, rock toboggans worked well…sort of. Apparently if you can see gold with a 20 power loop, it is a nugget. Thanks Bill.

Paulette gave downhill a whole new meaning and raincoats; well they can be every bit as fast as skis. Pricillafound a wonderful way to utilize processed cheese (better than cooking with it anyway). And a very, very special thanks to Alan, as we now have a hole new use for potato sacs.

Thank you to the fourteen Rockers who showed up for the trip, Dorothy, Pricilla, Paulette, Heather, Barb, Gordon, Lewis, Bill, Doug, Dave, Alan, Terry, Ken, and Charlie. Special thanks to Wagonmaster Doug and Assistant Wagonmaster and chef extraordinaire Dorothy. A good time was had by all.

So what did we find?—Gold, Serpentine, Bowenite, Silimenite, Quartzite, Jasper, Epidote, Agate, Gneiss and Leaverite. Thank you very much, Charlie.

Tribute to Living Members

Thanks once again to Charlie for his composition, this time featuring Lewis Ross Thompson.

Lewis Ross Thompson

Lewis is a rock hound from way back, employed by the rail way industry for the better part of his working

life; he has seen most of what this great country has to offer. Lewis belonged to the Montreal Gem and Mineral Club from 1960 to 1990 where he held the Show Chairman's position for many years and still receives their monthly news letters.

In 1990 he moved to Vancouver Island and joined both the Courtenay and Campbell River Rock clubs. The Campbell River club was only a year old at that time. Lewis has been a very competent Island Zone Representative for both clubs and he also attended and delivered cases to most shows. He is so helpful at all the shows and is a real hit with his ever popular silent auction. Lewis also did an excellent job as Chairman for the BC Gem Federation show held in Courtenay.

As Wagon Master Lewis organized many field trips for both clubs, a field trip is not a field trip without Lewis along and his extensive knowledge of rocks and minerals and his sharp eye for spotting the good stuff.

Lewis is very good at making cabs, jewelry, gem trees, spheres and now he is into hand faceting. He has built his own workshop where he has saws, his own diamond wheel grinder, Lewis a sphere machine plus much more. He spends many happy hours enjoying his hobby and his rock garden is a real Rockhounder's delight.

Some quotable quotes from Lewis:

1. "That rock didn't look slippery."
2. On Hill 60—" That's it Gordon, I'm walking from here!"
3. "You can have that one, I got one, I only want one, I only need one; Heck, I can only carry one.
4. "Well, maybe one more small glass"

Lewis is just simply a real nice guy, he is so very helpful, always happy, always has a smile, the kind of guy you like to have around. Thank you Lewis from all three clubs you have helped in so many ways. Thank you very much.

Note: Lewis Thompson is really Ross Thompson. Although Thompson seems to be the most common name of our club members, what do you think the chances would be to have two Ross Thompson's involved in the same club? Well we do. The other being the Ross Thompson from Eagle Rock and Gem. The two Ross Thompsons are good friends. To ease strain on our brains we know this Ross as Lewis. Now if we could only get a handle on all the Barbs.

TRIBUTE TO LIVING MEMBERS

Thanks again to Charlie for his ongoing compositions, this time featuring Max Baaske.

Max (Rocky) Baaske

Max was born in May 1937 in Edmonton Alberta and when Max was 19 he was already, hooked on rocks. He landed a summer job with the Chamber of Mines doing prospecting reconnaissance in the North Country, he, along with Geologists and a pack team use to walk 100 miles in and back off the Alaska Highway from Watson Lake, collecting samples along the way.

Max worked at the Geological Laboratory in the Research Council of Alberta for 35 years, where his main job was preparing petrographic thins for the Geologists he worked for. He helped classify, identify and catalogue mineral samples; he also developed a method of thin and sectioning Oil Sands. Max is very informed with content, structure and how a lot of the rocks we collect are formed. He is also able to read and understand Geological maps and puts that knowledge to good use.

Max and Mabel are a truly wonderful couple and have been happily married for 45 years. They are shinning examples of mutual support, respect and cooperation.

They first met through a combined Alberta Research Council & Provincial Lab bowling club. When they lived in Alberta, they belonged to the Edmonton Rockhound Club and are presently members of Ripple Rock Club and Parksville & District Rock Club.

Cabochon making and polishing are his forte and Max is an expert cabochon maker. At all the Rock and Gem Shows Max is busy demonstrating on his Gene and Mabel on her hand lap. He is always happy to talk about rocks and has one of the most amazing collections you will ever see. On field trips Mabel is always so very helpful and Max's years of experience and incredible knowledge are indispensable. Max really has an eye for rocks, especially Porphyry, and the bigger the better.

Quotable: from Max (and others)

"Oh no, that rock's not too big, my truck's just too small."
"I think I'm going to need the big hammer on that one."
"If it wasn't for all Mabel's spinning wheels I could store more rocks up here."
(Charlie)–"Where did Max find that huge piece of Jade?"
(Doug)–"Buried in the road; it's the rock you peed on."

Thanks for everything Max and Mabel, (one rock and one gem).

Junior Rockhounds

Jasper and I ventured out for our first Alberni Show…and I must say, we were impressed! If you are a Junior, or if you have a Junior, or if you know a Junior, I strongly encourage you to get them out to the shows. The Alberni show was huuuuge, with much for a young person to appreciate.

Jasper particularly enjoyed the kids rock smash. For $.50 he got to wack open a crusty nodule, which encased a treasure. He was amazed on his first try to win a loony. "Hmmm, how can they be making money on this?" It didn't take Jasper long to figure out which 'rocks' housed the looney's. We both decided after a few shots, it was probably best to move along. It did leave him though with money to spend, and he is thrilled with his size 10, hematite ring from Millizza's Cave. This, after he coerced me into purchasing ring sizers from Eagle Rock & Gem.

The timing of the show was perfect, as he is working on a school project on Paleontology. He loved the rock smash, and now he is searching out the recipe to make a batch for the hands on part of his school presentation.

Tonight the house becomes a rock/paleo/science lab. Ugh!

If anyone out there is planning a garage sale this year, would you please let us know if I can join in to sell some of my old kid stuff? There are not enough people who would come out on our dead end road to warrant putting on a sale here. Thanks, Jasper 337-2008 or 287-6411.

Mm-GOOD, Mm-GOOD THAT'S WHAT CAMPBELL SOUP'S ARE Mm-GOOD!
from Gwen

Remember that old commercial? Well, it seems that for the last two decades, villagers in central China have been offering a bit of competition to the famous soup company.

Dong Zhiming, a paleontology professor with the Chinese Academy of Sciences has discovered the villagers in the area have been digging up a ton of dinosaur bones and selling them for 50 cents a kilogram, thinking they were flying dragons. They cooked them and used them for traditional medicine.

They would add other ingredients and boil the calcium rich bones for soup or grind them up and make a paste to apply to fractures and other injuries. They also said it cured leg cramps and dizziness.

The doctor and his colleagues were able to persuade the villagers to donate 200 pounds for research.

Thought for the Day

There is a very fine line between "hobby" and "mental illness".

Selkirk Rock and Mineral Club

Selkirk Rock and Mineral Club has over 30 members from the West Kootenay. The group meets every second Tuesday of the month to plan trips to old mines and historical sights. In spring, summer and fall there are field trips to collect rocks, minerals and fossils and to enjoy the outdoors.

The club experienced a successful year in 2007.

Several members took part setting up displays at the Visaac Gallery in Trail and in Beaver Valley locations.

On a damp day in April the Kokanee Club joined our club for a trip to the Queen Victoria Mine. Everything showed up very colorfully in the rain and everyone went away happy with garnet, epidote, chalcopyrite and magnetite.

At the end of April a trip was made to the Merry Creek Trail. It was a very pleasant hike in good conditions as the trail had just been cleared. There were lots of trilliums and glacier lilies.

Six people spent an enjoyable day at the Stonerose Fossils at Republic , Washington.

This is a popular spot to collect leaf, flower and insect fossils. Each member is allowed to take home three fossils.

Sixteen people and one dog attended a trip to Hudu Creek near Fruitvale. The road was rough but the view was terrific. They saw their first black bear of the season and everyone collected quartz crystals.

Ten people and one dog made a successful trip to the Marsh Creek Ammonites. It was great to find180 million year old marine fossils and realize we were the first to see them after their demise.

A tour to the Mascot Gold Mine and Nicklel Plate near Hedley was enjoyed by two members. The tour is open everyday in July and August. Hedley School, run by the aboriginal people, has excellent displays including items about the Ochre mine west of Princeton. The gold mine was originally thought to be nickel, hence the name Nickel Plate Mine. Visitors go up the mountain in a bus and then down 600 steps to the mine.

There are lots of interesting mining buildings, displays and a tour of the mine.

On June 16th several people enjoyed a tour of Gardner Cave near Metaline, Washington.

On the way home , the group collected concretions, dolomite crystals, graptolite fossils and nautiloid shells.

A few of our summer trips were cancelled due to poor weather and forest fires. B.C. Mine Tour was enjoyed by 10 people. Eight members visited the Velvet Mine near Rossland. After climbing down a big rocky bank, the group found serpentine, specular hematite and chalcopyrite.

Many members traveled to Idaho Peak near Sandon and enjoyed the spectacular view and the wildflowers.

We were able to schedule our fall trips because the weather cooperated and the forest fire danger was over.

In September the group had a very successful trip in the Rossland area. The Red Mountain Molybdenite Mine was very interesting. The group found molybdenite, arsenopyrite and erythrite or cobalt bloom.

Wollastonite was found in a quarry near Rossland. It is used as a filler in plastics, paints, resins and ceramics; as a bone joint replacement, and as a substitute for asbestos.

Wollastonite is beautiful with white needles of calcite.

In October on a beautiful sunny day a trip was made to Porcupine Creek where the group found lovely quartzite, fool's gold, sphalerite, and galena. Porcupine Mine was one of the earliest claims in the Ymir district. Lots of pulaskite with shimmering blue feldspar was found at a quarry on the Burlington Northern Railway. The Nelson memorial is made of this rock.

Cooperative weather and beautiful fall colours helped sixteen people and two dogs enjoy a trip to the Pend'Oreille . The first stop was at an old peaceful cemetery. There used to be blocks of tufa along the road but the public has helped themselves to tufa for their gardens. There was

an excellent view of the Boundary Dam. Rusty limonite was found at the Lomond or International Mine.

The last field trip was to the Endersby Museum between Fruitvale and Salmo. The museum is a private museum which has many displays including mining artifacts from this area.

The last event was a Christmas party enjoyed by all.

Election of Officers:

- President- Maureen Krohman
- Vice- President- Joan McKenzie
- Recording Secretary– Lesley Killough
- Newsletter- Diane Robinson
- Treasurer- Ron Nielsen
- Photo Album-Bette Michaux

We look forward to a successful year in 2008.
Submitted by Maureen Krohman

Thompson Valley Rock Club

The Christmas party was a great evening of fun, laughs and wonderful donated rocks and items in the auctions. The pot luck was a feast! The live auction was especially successful as we raised nearly a thousand dollars for the club. The donations were superb and those of us who waded into the bidding wars took home some exceptional items. It was a good time.

The move went well and the equipment and tools are all in the new workshop at the BC Wildlife Park. The committee met on Thursday, February 20 and made some decisions about the floor plan and building a storage and saw room. We are lucky to have some professional construction tradesmen in our club and we now have the green light from the BC Wildlife Park to go ahead. So we'll be getting it build asap. The workshop will open as soon as we have the addition built. We have been able to find donations for some of the materials (plywood, door, paint & primer, concrete mixer) and would like to hear from anyone who has any of the following that they could donate:

- Insulation, dry wall or wall paneling
- 2" x 4" studs
- Concrete anchor bolts
- Tin panels (24' x 5') for a roof
- Heaters
- Electrical supplies
- Cement
- Nails…..

We also determined that the following members will be the workshop foremen/forewomen/people:

- Jim Lott 554-3931
- Marv Maunu 314-1250
- Rob Davis 554-0765
- Jacki Dowdell 554-9519
- Bernie Vander Wal 374-0851

Spares:

- Bill Manson 573-3362
- Derek Neumann 578-0179

"Soft" opening of the BC Wildlife Park Nature Exchange will be March 15/08, with the official ribbon cutting ceremony and Grand opening to be held on Wednesday, March 26, 2008.

Please sign up at the General Meeting on March 3 if you will be able to volunteer to be out at the Nature Exchange and talk to the public about rocks, minerals and fossils. We'll continue to have more news as this develops!

Victoria Lapidary & Mineral Society

Our Show started on the Friday and ran till Sunday at 4 p.m. We had fifteen dealers with a great variety of rock related articles for sale. There were ten demonstrators, including hand facetters, with everything from gold panning to piercing coins, bead stringing and silver clay modeling.

The club workshop was also there with members making cabechons, working in silver, opal cutting and dichroic glass fusing.

The Kids Komer, Spin & Win and the Silent Auction did steady business all weekend and turned a nice profit. There were twenty display cases with lots of fossils (our theme) and other interesting rocks and minerals.

The draw for the winner of the Treasure Chest was made on Sunday just before the Show closed.

Interior Zone Meeting March 8, 2008

Member from 5 clubs of the Interior Zone met at the Arts Centre, Polson Park in Vernon for a very tasty pot luck lunch. Following the lunch Zone President Pat Boden called the meeting to order at 1pm.

The Interior Zone Tailgate sale will be held in the Fall in the Central Okanagan. Location to be selected by the hosting club Rock related items only–rough rock, used equipment. Open to Club members—No Commercial Dealers–Must be Hobby related Club members from other than Interior Zone can sell also. There will be more details later.

Yellowhead Lapidary Club

Our membership stands at 24.
Two courses were held and were very popular with those that attended.
Course #1 was a Wire Wrapping course–instructor Ben Beutler
Course #2 was a Precious Metal Clay course–instructor Jacki Dowdell
We will probably put on another course near the end of June.

The Club did not have it's Christmas Dinner until early February. Turkey dinner was served by the Bar K Treats. The dinner was excellent and everyone had a great time.

The Field trip list is almost complete. Pat Boden and I hope to plan a joint trip between our two clubs. The Club AGM is in April along with an Election of Officers.

Thompson Valley Rock Club

We have been on our 1st field trip last weekend to Campbell Bar. It was abit muddy but everyone enjoyed themselves.

Due to the rising cost of rent for our workshop, we have finally found a new home out at the BC Wildlife Park. We have had a few work parties to clean up the new place and the outside area where we are building a shed for the saws and storage. All our equipment has been moved to the new site and we will be opening as soon as all the construction is finished. Many thanks goes to all the volunteers that have made this possible.

Vernon Lapidary & Mineral Club

As in most organizations, we had problems getting officer positions filled, so I got inventive–after that we filled all the positions including 1st, 2nd, and 3rd Vice.

We have over 50 members and 15 juniors.

We have moved our workshop as the science centre was going to triple our rent. We are now in the Arts Centre. It is more of a user pay system. Our shop is open Monday, Wednesday and Saturday. It seems to be working well, although we might need minor adjustments.

High Country Rockhound Club

The Club now has 8 members and 1 junior. The Club holds regular meetings on the fourth Sunday of each month and have an open workshop day on the second Sunday of the month.

We have been using the workshop to gather and prepare material for a display at the student's activity day at the Kamloops Exploration Group conference in April.

The Club is hosting the Interior Zone weekend "Rock Roundup" at the Logan Lake Campgrounds on June 28th and 29th. We are waiting for the snow to leave so we can find some new areas for a field trip.

After the meeting a silent auction was held, there was some neat stuff to bid on.

The next Zone meeting is Oct 5th/08 at Toad Hall at 1200. Exec meeting is at Toby's Restaurant at 1030 prior to regular meeting.

THE ISLAND ZONE MEETING

March 16, 2008

submitted by Janice Boyes

The most recent Meeting took place in the Burnside Lawn Bowling Club House, on the Victoria Show weekend. Present were: Lois Stevenson-Senior delegate (Courtenay Club), Jan Boyes-Intermediate Delegate,and Jack Boyes-Junior Delegate (Courtenay Club), Gordon Billings-Senior delegate, and his wife Jeannie(Ripple Rock Club), Delegate Jens Hoye and his wife Joan (Parksville Club), Delegates Glen Leavitt and Ulla Williams (Cowichan Club), Delegates Murdo and Barb Smith (Victoria Club). There were no delegates from Alberni Valley present, as Dan and Rose Mooney were in the middle of moving.

Besides Minutes and Financial Reports, Gordon spoke about the GMFC Insurance Policy that all clubs are covered by. A copy of the policy will be held in the Zone Secretary's records. Ulla Williams moved that "the Vancouver Island Zone recommend that the member Clubs be reminded by the Zone Secretary that the BC Lapidary Society has a correct procedure to follow regarding membership reporting and fee paying". Zone members are reimburse for fuel costs to attend the meeting and there was consensus that despite rising gas costs the coverage is adequate.

Ripple Rock Gem & Mineral Club

Club Contact:

Emily Faak, (250) 337-57241
or Email Emily at
wiredbyemily@msn.com

Thompson Valley Rock Club

Club Contact:

Jacki Dowdell 250-554-9519

E mail: jackidowdell@telus.net

Victoria Lapidary & Mineral Society

Club Contact:

Magdalene Magon 250-592-8963

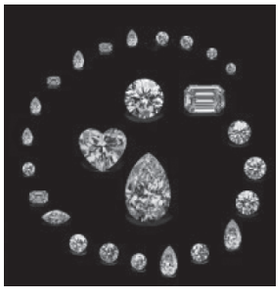
Or visit:
Victoria Lapidary & Mineral Society
http://www.islandnet.com/~vlms/

For more information about The BC Lapidary Society or a club near you, visit

www.lapidary.bc.ca

The Cutting of the Lesotho Promise

Feb 27th 2008 by Deidre Woollard



Somehow I missed the announcement in December and so it took March's W Magazine to draw my attention to the fact that the Lesotho Promise diamond which was bought by diamond dealer Laurence Graff in 2006 has been cut into 26 smaller diamonds varying in size from .52 carats to 76.41 carats each with a D Flawless grade. The 603-carat stone yielded 223.35 carats. That sounds bad but it is actually a really excellent haul, when cutting rough stones there is always a significant loss.

The stone has had quite a journey from the Letseng mine in the African country of Lesotho which is surrounded entirely by South Africa. The stone was sold and cut in Antwerp. Each of the stones is laser inscribed on the girdle with the Graff logo and its GIA (Gemological Institute of America) identification number and its own Lesotho Promise number. Graff bought the rough stone for $12.36 million and is expecting quite a haul on his investment, he's looking for a $50 million payday. He's also hoping not to break up the set and sell all the stones to a single buyer.

Club Reports

Alberni Valley Rock and Gem Club

Members who attended the Alberni Show agreed it was well done, as usual. They chose to host the Gemboree this year, as it is their 50th Anniversary.

Courtenay Gem and Mineral Club

(25 members): The Annual Show will be May 3-4 (see below). Therehave been a couple of field trips to Quadra this winter. Membership is growing. The workshop is open every Wednesday evening, and some new members have been coming out to use it. On Easter Sunday there was Pot Luck lunch and Rock and Easter Egg Hunt at the Boyes rock pile.

Cowichan Valley Rockhound Club

(50 members): The CVRC has slowly been increasing it's membership over the last few years. A new Executive was elected in Nov 2007 with Ulla Williams as President and John Boland as Vice. The new Editor of the Club Newsletter "Quartz and Quirks" is Heather Posey. Their well equipped workshop is being fully utilized with several organized classes and sessions in lapidary, silversmithing, geology and beading going on throughout the week. The Cowichan members are having field trip liaison problems with the Timber companies.

Parksville & District Rock and Gem

(24 members): The club is now renting a room at the College to accommodate members at their monthly meetings. President is Claude Levesque. They had a good Christmas party and are now starting to work on Gemboree 2009.

Ripple Rock Gem and Mineral Club

(145 members): have moved to the Community Center. Gordon has taught a 6 session course of Basic Lapidary, as he does each winter. Beba recently taught a wire wrap course. The shop is very busy. Field trips: 14 members went to Hope, 16 members went to Upper Campbell Lake, and there is a trip to Princeton scheduled in July. The Show Dates have been changed to June 14/15 in 2008 but still in the Navy League Hall.

Victoria Lapidary and Mineral Society

(112 members): At the time of the meeting plans were still underway for the Victoria Show. Over 50 members and guests attended the Christmas Pot-Luck Dinner. The AGM was held in Jan. Magdalene Magon will serve another year as President and the Island Zone Representatives remaining the same. Our program for February was a talk and slide show on fusing dichroic glass by our member Wally Priedolins, who again in March demonstrated making opal triplets. April will be our annual auction, May will be a talk by our member Aurora Bolger on Pearls, and June will be our usual social meeting before our summer break. Field trips are scheduled on a regular basis with a March trip planned for an up-Island site, which has not yet been finalized. The Workshop is in regular use with a basic Lapidary class in progress and may be followed by a class on opals.

Many Thanks to Molly for the very good lunchs, goodies, coffee and tea she has provided for us.