

# THE COBALT LODE Newsletter of the Cobalt Historical Society

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#### Cobalt in the News, on the Air



In case you missed it, you can watch the CBC's Still Standing episode on the "best ol' town you know" online here: https://watch.cbc.ca/media/still-standing/season-4/episode-5/38e815a-00f0c49ef4b [Link also on our website.]

#### **Meetings**

Our Outreach Program has had two public meetings, one in October and one in November. They are held Thursday nights at the Cobalt Paul Penna Library at 7:00 pm.

The first was on the history of the Cobalt Post Office, the various locations and postmasters over the years. The second was on Cobalt, the element and some its history through the ages (see page 3).

The third talk Thursday January 17th, 2019 at 7:00 pm will be given by Chris Oslund on the Masons and their connection to the area. We hope to see more people there.



Friday November 2nd, Cobalt businesses and museums went the extra mile. Open until 8:00pm, thirteen establishments, including the Cobalt Mining Museum, the Bunker Military Museum, and the Cobalt Northern Ontario Firefighters Museum offered special hours, in-house draws and other attractions to bring hundreds of people to enjoy what Cobalt has to offer. The Dynamite Grand Prize Box held \$640 of merchandise and gift certificates and was won by Dale Taylor of Cobalt.

### The Morgan Papers

Early in November, we received a donation from Jim Detenbeck of the Cramahe Heritage Board: two large boxes of ephemera belonging to Albert Norton Morgan, a lawyer from New Liskeard. The papers are mostly letters from his family—wife, siblings, father—as well as household and business documents spanning his school days, early lawyer days in Fergus, and his days in New Liskeard. He was always involved in some capacity with the military. He died in World War I when he was 38 and left behind his wife Beatrice and three children.

We are familiar with Mr. Morgan from the book *They Stepped Into Immortality, The Stories Behind the World War I Veterans Listed On The New Liskeard Cenotaph* by André R. Maheu.

For the most part, the papers are in marvelous shape, considering their age, and the fact they had been sitting in storage in a garage before they found their way to us. Some of the letters pertain to his dealings with Cobalt mines and businesses, but the bulk is related to New Liskeard and the work Morgan did there as lawyer, Mason, board member, councilman, military leader, and of course, family man. We will digitize Cobalt-related documents for the Historical Society and then pass along the collection to the Little Claybelt Homesteaders Museum.

What is the link between New Liskeard and Cramahe Township near Colborne, Ontario? We found a marriage certificate online. Morgan's daughter



Albert Norton Morgan

Beatrice Marion Morgan married William Porte Marshall in 1936. Their daughter Sally Marshall had the letters stored in her garage. We understand that Sally is living in Toronto and we hope we can contact her to learn more.

How did these come to us? Jim Detenbeck saw the CBC Still Standing episode on Cobalt, got our number online, and contacted us to see if we were interested in giving these papers a home. You just never know how all these things will tie together.

## CHS Presents: The History of Cobalt's Namesake



One of the first things you learn when you study the history of the Town of Cobalt is that Willet Green Miller erected a sign at the T&NO railroad site and called it 'Cobalt Station.' In part, the name was a tribute to the mineral found in the area. You are also likely familiar with erythrite, or "cobalt bloom." This is the pink oxidization product of cobalt that is an indicator mineral used by prospectors when hunting for silver.

What follows is a brief study of the mineral, written by the Heritage Silver Trail manager, Reiner Mielke.

The element cobalt is a heavy, hard, silver-grey metal with a high melting point. This is not to be confused with cobalt ore which contains minerals bearing cobalt. Unlike silver or gold, cobalt is never found in its pure form in nature.

The element cobalt was first discovered in 1735 by Swedish

#### The History of Cobalt's Namesake (continued)

chemist Georg Brandt. The name cobalt comes from the German word "Kobold" which means goblin. Medieval miners in Germany attributed the difficulties in smelting cobalt-bearing ores to the Kobold goblins.

Before the discovery of the element cobalt, compounds and minerals of cobalt had been used to produce blue glass and glazing as far back as 1382 BC in Egypt. However, it is not known from where the Egyptians got their cobalt. The first documented cobalt mining took place in 1492 in the Erzgebirge mountains which is on the border of Austria and Germany. This cobalt was used to produce blue potassium glass called smalt and was used in glass making, paint and ceramics.

Before 1907 most of the cobalt mined was used to produce smalt. It was not until 1907 when Elwood Haynes patented a cobalt-chromium alloy called Stellite that the metal began to be used. Stellite is an alloy containing between 40% and 90% cobalt and 10% to 60% chromium, depending on the application. Because of its great hardness and toughness Stellite was extensively used to manufacture cutting tools.

With the invention of cobalt-bearing permanent magnets, in 1932 cobalt consumption and production increased significantly. Also in 1932, a cobalt-chromium-molybdenum alloy containing 65% Co, called Vitallium was invented by Albert W. Merrick. This alloy was extremely corrosion resistant and compatible with living tissue and was used in dentistry and artificial joints.

The next big increase in cobalt demand and production was the result of the invention of the modern jet engine. Jet engines require cobalt alloys to withstand high temperatures. Although the jet engine was invented in the 1930s it was not put to common use until after World War II. This caused the production of cobalt to triple.

Another important but minor use for cobalt is cancer treatment. In the early 1950s scientists discovered that by bombarding ordinary cobalt with neutrons, resulting in a radioactive cobalt that emitted powerful gamma radiation. This radiation proved to be useful for destroying cancer cells.

Although Thomas Edison was experimenting with cobalt batteries in 1906 and even went so far as to open up a mine near Latchford, it was not until the lithium-cobalt oxide battery was invented in 1979 that cobalt became an important component in batteries.

Sony's commercialization of the cobalt-bearing lithium ion battery in 1991 caused demand for the mineral to rise significantly and is today the driving force behind cobalt demand and prices. Currently the battery industry is the largest consumer of cobalt accounting for about 45% of consumption.

Even though at one time the mines in Cobalt were the largest producers of cobalt in the world, the amount they produced was small compared to current global production. The most the Cobalt mines produced was about 1,400 metric tonnes in 1910 which is about 1.3% of current global production. Unfortunately, the world did not need that much cobalt at the time and the resulting glut of cobalt caused the price to go so low that in 1911 producers did not receive any credit for their cobalt. Most cobalt is produced as a by-product of the mining of other metals, and in Cobalt it was a by-product of silver mining. Since the cobalt was intimately associated with the silver, they had to produce it no matter what the price.

Cobalt bearing veins were first discovered in the Cobalt area in 1903. Of the four veins first discovered in the Cobalt area, only one did not contain silver. This was also the first vein discovered by the Nipissing Mimning Co.on their property, and was called the Cobalt Hill vein. According to Dr. Miller, samples taken from this vein contained as much as 21.7% cobalt. As a result, the Nipissing Mining Company was first formed as a cobalt mining company. However, with the later discovery of rich silver veins on its property, it soon turned into a silver mining company.

The only mine in the Cobalt area that was operated mainly for cobalt was the Agaunico Mine on the shore of Lake Timiskaming in Bucke Twp. It produced

approximately
4 million
pounds of cobalt from 1905
to 1961. During
that period
there were only
5 years in
which the revenue from silver exceeded
that from Cobalt.



Cobalt sample showing cobalt 'bloom'



## Fund Raising Update

GREAT news regarding our fundraiser to fix the roof on the Right-of-Way Mine! We're keep growing closer to our goal with \$15,066 in donations. If you wish to send us an Interac e-transfer from your bank, please use our email chs@heritagesilvertrail.ca

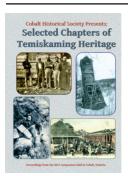
Together is the way it works. Thank you.

# -\$32,000 -\$28,000 -\$24,000 -\$20,000 \$16,000 \$15,066 \$12,000 \$8,000 \$4,000 \$4,000

\$37,000

# SAVE the DATE

# June 1<sup>st</sup>, 2019 Speakers Symposium Golden Age Club



The proceedings from the 2017 symposium are available at the book store, 50 Silver Street, Cobalt, online, or by cheque/ money order payable to the Cobalt Historical Society.

Submissions for the Newsletter are most welcome and needed. So if you have some piece of history to share please let us know. We can scan photos, and decipher handwriting if we have to do so, but a word processor file attached to an email would be greatly appreciated. Sharing history of the homes you've lived in, places you've worked -all the pieces of Cobalt life will have some interest. History isn't just the money, the mines, the businesses—it's what life was like that also needs to be captured. Help us do that.

#### The History of Cobalt's Namesake (continued)

However, the largest cobalt producer in the Cobalt camp was the Nipissing Mining Company. It produced approximately 5.6 million pounds of cobalt. Unlike the Agaunico Mine, the cobalt was a relatively small source of revenue compared to the silver.

Currently the largest producer of cobalt by far is the Congo in Africa which produces about 45% of all the world's cobalt. Cobalt was first discovered in the Congo in 1914 and has been the worlds largest cobalt producer at least as far back as 1957. Canada is currently the 4<sup>th</sup> largest cobalt producer just behind Russia and Australia. Canadian cobalt production is a byproduct of nickel mining. There are no mines currently operating in Canada just for cobalt.

The rarest cobalt mineral in the world came from the long-closed Keeley mine near Silver Centre in South Lorrain township. It is a bright pink mineral called burgessite that looks identical to cobalt bloom. It was discovered in 2006 on an old museum sample. The only other known place for bergussite is the Czech Republic where it is extremely rare and was not discovered until 2014.

With the re-opening of exploration in Coleman Township, hopes are high that cobalt will again be mined in the area.

CHS Annual General Meeting will be held 10:30 am March 18, 2019 probably at the CHS office. The election of the Board members will happen, and a report on our 2018 activities will be presented. Hope you can join us.

### **Membership Renewals**

We hope you will renew your membership for 2019. We're looking to accomplish bigger and better things. The form is enclosed and is also available for download from the website. The Newsletter will only be mailed to those who have renewed.

The Board has reviewed costs and decided to increase our membership dues to \$20 per household. This will cover the postage costs of the newsletter and other smaller cash outlays. (Stan Lafleur at Prism Publishing has continued to print them for free, and the set-up time has also been donated.) This is still reasonable and helps us out greatly.

Between newsletters, stay current with our website and Facebook page.