



CIHC

CANADIAN INDUSTRIAL HERITAGE CENTRE

LEARNING FROM OUR PAST,
BUILDING A STRONG FUTURE

December 2021

This newsletter is published by CIHC, an organization dedicated to preserving Canada's Industrial history.

About 1900, Brantford was Canada's third largest industrial producer of exports to the world. Its industrial history mirrors the growth of industry across Canada.

Our Address is Canadian Industrial Heritage Centre, P.O. Box 23055, Brantford Ontario, Canada N3T 6K4

See our website:

www.canadianindustrialheritage.com

Facebook:

<https://www.facebook.com/CanadianIndustrial>

We are responsible for the TICCIH Canada website at

www.ticcihcanada.org

Please send submissions or inquiries to:

info@canadianindustrialheritage.com

REPORT FROM THE ACTING PRESIDENT OF CIHC

On October 22, 2021, Donald Harris, who joined the CIHC's Board of Directors in 2019 and has served as President for the past two years, submitted his letter of resignation. We would like to thank Mr. Harris for his years of service and for his valuable contribution to the CIHC.

Below are some important updates since October.

FUNDING

We are pleased to report that we have received a Heritage Organizations Development Grant (\$1,545) from the federal government. The grant will help us as we prepare for new and exciting changes for the CIHC and 66 Mohawk.

66 MOHAWK

On Oct. 12, the CIHC hired Mike Zwart, a structural engineer at Tacoma Engineers of Waterloo, ON, to assess the conditions of our Time Office building and portico. Mr. Zwart was recommended to us by heritage architect Taylor Hazell. The structural assessment would tell us to what extent the Time Office can be used in our redevelopment of 66 Mohawk and what the costs might be. We will provide updates on the report once it is made available.

THE ROOTS OF EAGLE PLACE PROJECT: SHARING NEIGHBORHOOD WORKERS' MEMORIES

The CIHC and BTW are working on a new project, *The Roots of Eagle Place: Sharing Neighborhood Workers' Memories*. We believe it is of utmost importance to preserve and share the memories of Eagle Place's industrial workers both for the community and for the CIHC's mandate. The workers' stories are an essential part of Brantford's industrial history and will be one of the key themes in our future Time Office display. The project will involve community interviews, archival research, creation of a new website/digital archive, an open-air exhibit of workers' memories at 66 Mohawk, and production and performance of original plays by BTW. The CIHC will be applying for Trillium's Resilient Community Grant for the project.

ANNUAL GENERAL MEETING (JANUARY 8, 2022, 2-3 PM)

Our Annual General Meeting is scheduled for January 8, 2022, 2-3 pm. It will be a virtual meeting, and a Zoom invite will be circulated via email. We hope to see all our members at our upcoming AGM. Now more than ever, we need your support.

We are looking for volunteers who could help us with our various projects. Thank you for your ongoing support for the CIHC.

Acting President

Christina Han



REPORT FROM YOUR NEWSLETTER EDITOR

From This...



To What? Help us create our Vision!

Our Vision: To create at 66 Mohawk St., Brantford, Ontario, a centre for interpreting Canada's industrial history, using Brantford's past, proud successes as an example to inspire the young entrepreneurs of today and tomorrow.

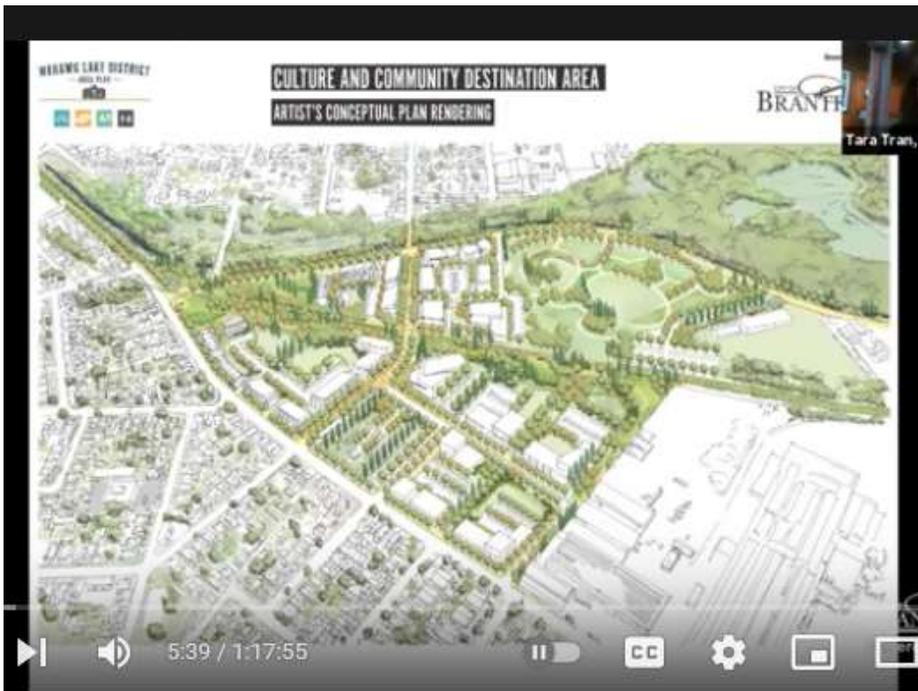
We will promote greater awareness by gathering the stories and partnering with Brant Theatre Workshops to dramatize how workers and their families lived, toiled and struggled, and how the men proudly shared their ideas and skills to create the successful products that once made Brantford famous and contributed to the development of modern Canadian society. **We have a challenge!**

What activities are in our plans? CIHC will create a space where we can display, demonstrate, entertain and inspire. This will be done in stages. When we get access to the property, we will be able to fence off areas not yet accessible to us, conserve the Time Office and the portico of the Cockshutt

office/warehouse, hold open-air events such as summer day camps, plays, after-school events for kids, workshops, etc. We will set up kiosks and displays.

What else are we planning? In a later stage we hope to have an amphitheatre to dramatize the stories and for neighbourhood use, and a small museum for displays, workshops, hands-on activities and year-round events.

Our 2-acre heritage area will fit into the plan for the new emerging **Mohawk Lake District** with its park areas, walking trails, bike paths, canal, public spaces, business and residential areas, with our new neighbour to the east the **Lansdowne Children's Centre** for children with special needs. To the north will be the **Aboriginal Health and Wellness Centre**, a hub which includes a day care centre, native medicine and community wellness programs to be shared by the indigenous people with neighbourhood families.



We have previously shared and plan to continue working with the Brantford Labour Council, Brantford Brownfield Committee, the Canadian Military Heritage Museum, the Eagle Place Community and East Ward Community groups and the Mohawk Lake District Working Group. Through the Brant Museum & Galleries Association – BMGA – CIHC meets with Brant County and Brantford museums, Glenhyrst Art Gallery, City and County representatives and from the Woodland Centre,

Chiefswood and the Mohawk Chapel. We work on joint projects.

What stage are we at now? Right now we are doing a balancing act. The ideas shared by CIHC Directors' and our partner Brant Theatre Workshops have gone to the Brantford Planning Department with **the concept** of what we want at 66 Mohawk. They are using our ideas to create the **zoning bylaw**. Until the zoning bylaw is passed our hands are tied for obtaining capital grants. We have created a **concept** plan for the architect. Nothing is definite yet.

In the meantime our Directors are very busy doing homework:

We are planning and seeking funding for activities which we can perform now, virtually or off-site – videos, digital projects, plays – working with other groups.

We are learning: National Trust awarded CIHC a *Launch Pad Grant* for coaching to help the Directors plan our centre. We have been discovering how to master budget figures to prepare for a **feasibility study**. We have applied for a grant to hire experts for the study. We need to learn what

size project we can sustainably manage by balancing costs and income for property, staffing and programs. We have met with a fundraiser for ideas. We will continue to use expert advice.



George Burgin & Rob Adlam with the Cockshutt Experimental Tractor at Waterford Museum

What do we have to work with? Over the years, since the inception of CIHC in 2003, members have collected and stored artefacts from the past – tractors, ploughs, tools, a doctor’s buggy from 1910 - which we will display and demonstrate. Did you know that we have a collection of agricultural implements in the **Waterford Heritage & Agricultural Museum** <https://waterfordmuseum.ca>, including an experimental Cockshutt tractor? Did you know that Cockshutt inventors created the first power-takeoff (PTO) on their tractors?

At 66 Mohawk are remnants of the old Cockshutt buildings that we are trying to save as monuments of Cockshutt’s past successes – the Time Office and the front foyer of the Cockshutt Plow Co. office and warehouse. Down the street the Cockshutt Moulded Aircraft Plant, built during the Second World War, is still standing and being used for industry. We need to teach new generations about the successes in Brantford’s proud past....and the mistakes. Past generations have created some amazing inventions but also left a polluted brownfield site that we must recover from. Early manufacturers would skillfully create products that lasted almost forever, but eventually they began to use planned obsolescence to sell more products and create more waste. By the way, the theme of **TICCIH (The International Committee for the Conservation of Industrial Heritage) Congress**, to be held in Montreal August 28th - September 3rd, 2022 is *Beyond Obsolescence, Sustainable Development*.

What lessons have we learned from our past that we should bring to our youth so that they can make good decisions for the future? Technologists and engineers are now building on old technology using new methods to create amazing innovative products every day – using computer design and experimenting with new materials; e.g., designing biological robots from live cells. Now in the post-industrial era, Canada must educate future generations in order to succeed and survive in this strange world of Covid 19, global warming and global free trade competition. We must depend on using amazing innovative creativity to save ourselves. Aging workers and their families from older generations need to tell their stories to help us understand where we have been and where are going before it is too late.

REMINDER OF VIRTUAL AGM ON JANUARY 8, 2022: Please remember to update your membership. Can you help us?. We are looking for friends and directors, sponsors and donors for various projects and events. And we will need volunteers to help us carry out our plans. **Please volunteer.**

Jean Farquharson, Newsletter Editor

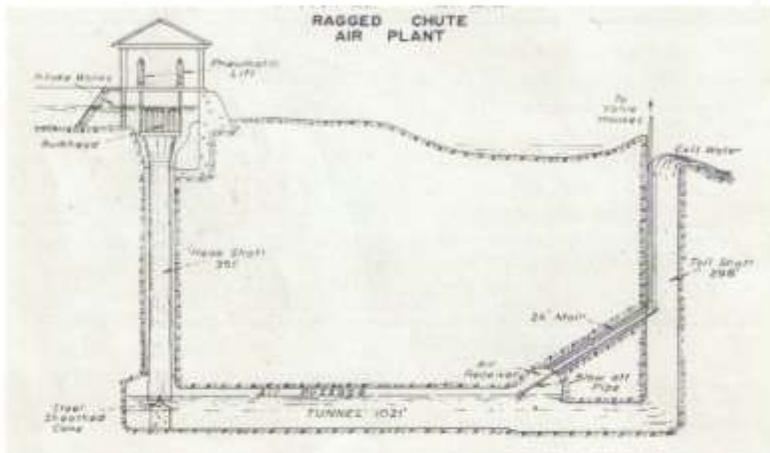
Director Mike O'Byrne has contributed the following article with permission from the author, Maggie Wilson, member of the Cobalt Historical Society, and retired from Paris, Ontario.

Ragged Chute:

By Maggie Wilson, Cobalt Historical Society

When silver was discovered in Cobalt in 1903, it set off a mining rush – not only to exploit the remarkable mineral riches, but to design new industrial techniques to drill, extract, and refine the ore.

Charles Havelock Taylor, however, used the trompe, an ancient hydraulic technology, to bring affordable power to the mines. In 1910, his Ragged Chute compressed air facility opened on the Montreal River, about 13 km due south of the Town of Cobalt.¹ His was a remarkable engineering solution to the problem of uneconomical power for the silver mines.



Sketch of CH Taylor's Ragged Chute project. From an undated Ontario Hydro pamphlet that claimed this to be the world's only compressed air plant.

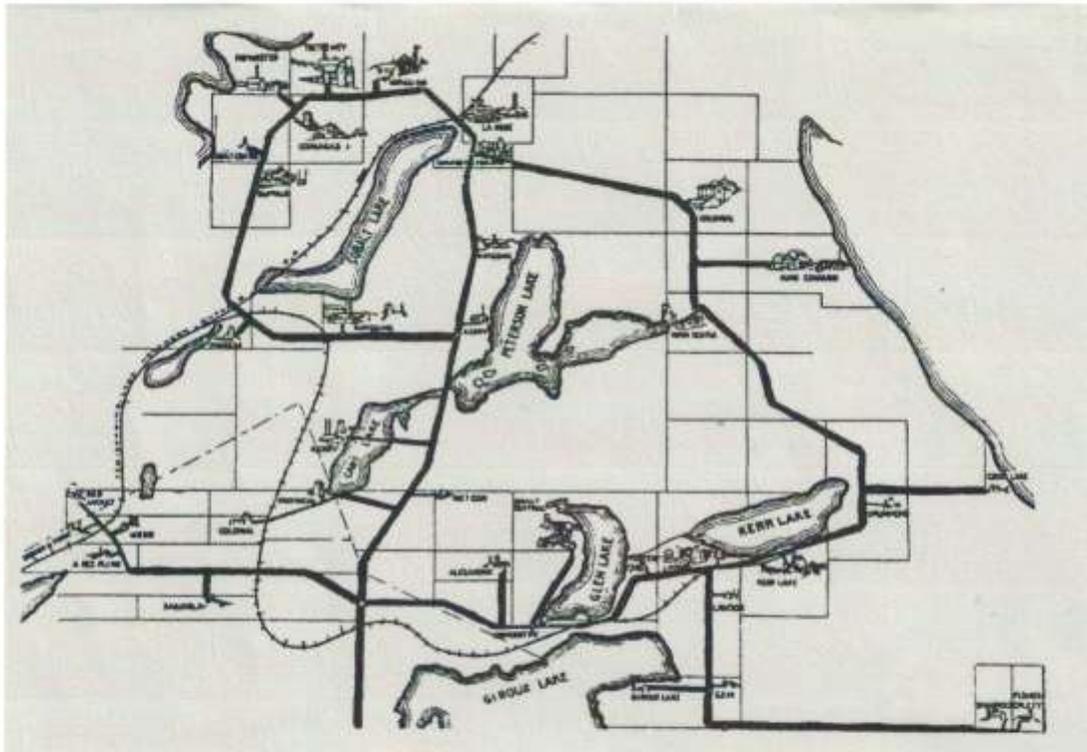
The Ragged Chute plant included a dam on the Montreal River and a 9.5-foot diameter shaft blasted to a depth of 107 metres.

Intake pipes at the top of the shaft introduced air into the water as it plunged down the shaft. The force of the water compressed the air, which was then piped to a dozen mines to provide pneumatic power.

Ragged Chutes required no fuel, cost almost nothing to operate and ran continuously for 70 years with two brief interludes for maintenance.²



Ragged Chute on the Montreal River ca 1910 Cobalt Historical Society digital collection



Map of the pipelines to the mines, 1910. A Coleman Township Road Guide to Historic Cobalt Mines, 1994 P. Fancy

Pipes were installed to connect the air plant to the mines by a 50 cm steel feeder pipe which branched off to each of the customers.

The Ragged Chute facility was Taylor's second. In 1897, he published a pamphlet that described his operation at Magog. He wrote, "In all well regulated mines, compressed air is indispensable for elevating, hoisting, drilling, pumping, and tramcars, the exhaust air serving also to supply the operatives with fresh cool air." Before this, mines relied on coal which was expensive and often in short supply. By using Taylor's compressed air system, he continued, "Mines, which in the past have yielded little or no profit with hand work and cylinder compressors, may be worked at a considerable profit."³



Compressed air main pipeline with a branch to one of the mines. Cobalt Historical Society collection

*The Cobalt Daily Nugget*⁴ reported, "As far as can be ascertained, the hydraulic air is giving satisfaction wherever customers have turned it on."

The system was not without glitches, however, as the miners learned the new process. The *Nugget* had some fun at one man's expense. As he passed by a leak in a pipe, he was struck to the ground by a blast of air that "rolled him over in the mud two or three times and when he got up, he had a large amount of real estate on his person. If his language is any criterion his feelings were hurt but otherwise he was uninjured."

More seriously, however, the treated air contained less oxygen. Mines with deeper or longer passageways had difficulty maintaining adequate ventilation, and in some cases, "when the air was turned off, the miners' candles went out."⁵

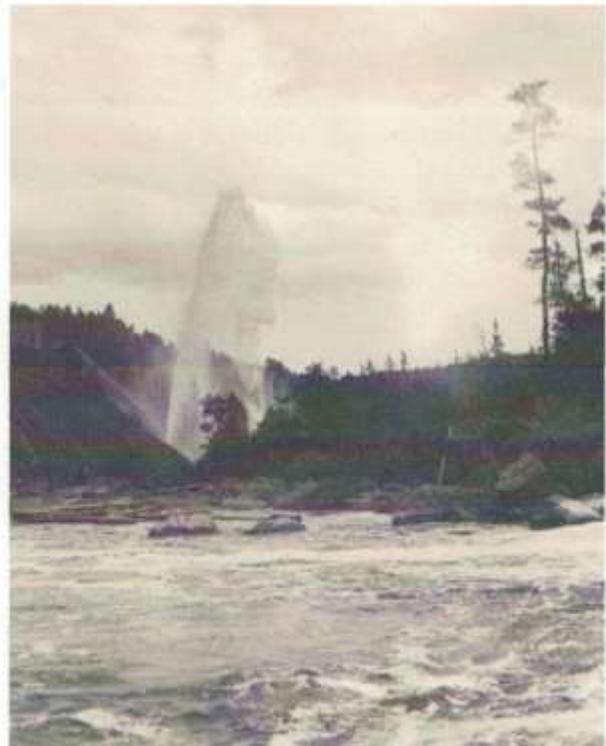
The blow-off, a safety feature of the design, was also considered a tourist attraction and local residents would picnic there in the summer, waiting for the spectacular 115m geyser. In 1986, Ontario Hydro closed the plant much to the dismay of locals. For the citizens of Cobalt, especially the children, the pipeline was a way to get from home to work, or to a playground. Today, people shudder to recall how, as kids, they'd cross deep open cuts by walking along the elevated transmission pipe.

After closing the plant, a good deal of the pipe was removed, but several long stretches remain as reminders of earlier days.

For further reading:

Robert Hawkins, Taylor's grandson, hosts a website⁶ devoted to the story.

Industrial scientists in Sudbury⁷ are looking at the technology as related to air conditioning. You can read more about their project and CH Taylor in a piece written by Bill Steer⁸.



Ragged Chute blow-off Cobalt Historical Society collection

¹ You can find the location on Google maps [here](#)

² www.northernontariobusiness.com/industry-news/mining/a-breath-of-fresh-air-for-deep-mining-651136

³ *Illustrated Description of the Taylor Hydraulic Air Compressor and Transmission of Power by Compressed Air*, 1897

⁴ *Cobalt Daily Nugget* May 21, 1910

⁵ *Cobalt: Canada's Forgotten Silver Boom Town* 2016, Douglas O. Baldwin

⁶ charleshtaylor.blogspot.com/

⁷ www.northernontariobusiness.com/industry-news/mining/a-breath-of-fresh-air-for-deep-mining-651136

⁸ www.sudbury.com/local-news/now-and-then-evidence-of-an-old-idea-with-new-applications-8-photos-3785922

BITS AND PIECES

DE-CONGLOMERATION: It is interesting to observe how General Electric has changed over the years. On November 9, 2021, the company announced it would divide into three public companies. The new companies will be focused on aviation, healthcare, and energy (renewable energy, power and digital) respectively.

General Electric (GE) has evolved from Thomas Edison's home laboratory into one of the largest companies in the world, following the evolution of electrical technology. GE is a conglomerate incorporated in New York State and headquartered in Boston. As recently as 2018, the company operated through the following segments: aviation, power, renewable energy, digital industry, weapons manufacturing, locomotives, and venture capital and finance. (Source: Excerpts from Wikipedia and the internet)

THE CRYSTAL or BEER BOTTLE COTTAGE HAS BEEN SAVED!

Recently **Brantford's Crystal Cottage**, sometimes referred to as the **Beer Bottle Cottage**, was moved off site from Chatham St. to the parking lot of the Brant Museum on Charlotte St. "The whimsical structure features more than 330 old bottles incorporated into the brickwork on three sides as well as under the front window sills." * When interviewed by the Expositor, Tim Philp, Chairman of the Brant Historical Society, commented: "The people paying for the move have committed to repairing the cottage as it was when it was on Chatham Street. Hopefully, it will have a couple hundred more years at its new location".

Built in 1876, this is a designated Heritage building representing the **Brantford Cottage**, home to many hard-working families whose men worked in Brantford's growing industries and who began to rise to the middle class. The unusual trim is unique to this building.



*"The style [of the Brantford Cottage] made it possible for working class families and tradesmen to afford sanitary living conditions in a time when log cabins dominated our landscape. Just take a quick walk through any of the Victorian neighbourhoods in our historic city, East Ward, Eagle Place, Dufferin, Downtown, etc., and in no time you will be sure to find one, if not many. Yet drive out of Southern Ontario and they quickly fade from the landscape. They are completely unique to our city streets and country roads."**

VanDijk, Ryan. "A Small Gothic (Brantford) Cottage". In *The Brant Advocate*, Issue 35, July/August 2014. <http://www.brantadvocate.com/a-small-gothic-brantford-cottage-by-ryan-van-dijk>

HISTORIC BRIDGE TO BE SAVED: Brant's Crossing Bridge, a pedestrian and bicycle bridge, originally built to convey railway traffic in Brantford, is about to be temporarily repaired with a plan to open it in December and rebuild at a later date. It was damaged during the flood and ice jam on the Grand River in 2018. Last year, the City had the *Three Grand River Crossings Environmental Assessment* done to investigate work required on the Lorne Bridge, Brant's Crossing, and the TH&B Crossing Bridge, all important in Brantford's transportation history. (Source: Brantford Expositor, Dec. 2, 2021.

This newsletter is published by Canadian Industrial Heritage Centre, P.O. Box 23055, Brantford, Ontario, Canada N3T 6K4. See our website: www.canadianindustrialheritage.com Facebook: Canadian Industrial Heritage Centre CIHC. Submissions to our newsletter are welcome and are subject to editing. We are not responsible for errors. Please send submissions or inquiries to info@canadianindustrialheritage.com



CANADIAN INDUSTRIAL HERITAGE CENTRE

Membership Form

Benefits of Membership in the CIHC...

- Participation in the Annual General meeting, and the election of directors.
- Regular updates on our activities through the CIHC Newsletter
- 10% Discount on most Purchases
- Special invitation to all CIHC events

Your Membership Helps us All...

- Expand and conserve the CIHC collection
- Advocate for the preservation of our extensive industrial heritage
- Promote awareness of the industrial and innovation heritage and its importance to our future and quality of life
- Liase with other national and regional heritage groups

MEMBERSHIP STATUS - **RENEWAL** **NEW** **DATE:** ___ / ___ /201__

Name: _____

Mailing Address: _____

City, Prov.: _____ Postal Code: _____

Telephone: _____

Email: _____

Membership Fees category: Student \$10 Individual \$20 Family \$25

Family Member(s) at Same Address _____

I hereby consent to receive information by electronic-transmission from CIHC

Yes ! I would like to make a donation to the CIHC of \$ _____

Donations of \$20 or more above membership fees are tax deductible.

Charitable number #861470623RR0001

Method of payment: - **Cheque** **Cash** **Paypal**

Please Make cheques payable to the Canadian Industrial Heritage Centre.

Our mailing address is - P.O. Box 23055, Brantford, ON N3T 6K4

Membership Fees are for the Calendar Year. Those joining after October 1st will be entitled to membership through to the end of the following calendar year.

visit - www.canadianindustrialheritage.com/membership - To Pay on-line

Are you interested in volunteering with us ?

Areas of interest/comments/suggestions: _____

Information collected on this form is for CIHC membership records only.