

The Lighthouse Keeper

by
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Authors Declaration

I hereby declare that I am the sole author of this thesis.
This is a true copy of the thesis, including any required final
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I understand that my thesis may be made electronically
available to the public.

Abstract

Lighthouses are the heart and soul of hundreds of communities across Atlantic Canada; they were integral to the survival and growth of their people while acting as a safety net around the coasts. These communities no longer require lighthouses to guide their fishing vessels and passing ships to safety. Now that their primary purpose is no longer required, many of these buildings are being lost. This is due to a lack of resources to keep them properly maintained, especially when faced with the increasing frequency of harsh weather conditions due to climate change. Their histories and experiences tied to them are usually kept isolated from each other, tucked away in an old photo album or journal drifting into obscurity.

This research aims to provide new ways to preserve the histories and stories associated with these buildings in a way these small communities can access and afford while allowing a broader range of people across the world a glimpse into this unique community. To achieve this, new emerging accessible technologies have been utilized such as interactive web mapping and 3D scanning to create an immersive virtual experience. A variety of media will be hosted in this virtual environment such as photos, videos, and audio recordings, collected from each lighthouse in order to best understand these iconic buildings. This research and resultant web tool will empower small coastal communities by providing them new more accessible ways of recording their histories while simultaneously increasing outside intrigue and potentially bolstering their tourism economies and preservation resources.

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To the land I call home, I am aware of and grateful for the privilege to live and study as a settler here in both Waterloo and Galt, where the University of Waterloo School of Architecture sits in Block One of the Haldimand Tract, land promised to the Attawandaron, Anishinaabe, and Haudenosaunee people.

To the land in which this work is based and that hosted my remarkable lighthouse pilgrimage. Newfoundland, Nova Scotia, Prince Edward Island, and New Brunswick, the traditional and unceded territory of the Beothuk, Mi'kmaq and Wolastoqiyik (Maliseet) People. The maritime territories are covered by the "Treaties of Peace and Friendship" which Mi'kmaq and Wolastoqiyik (Maliseet) People first signed with the British Crown in 1725. The treaties did not deal with surrender of lands and resources but in fact recognized Mi'kmaq and Wolastoqiyik (Maliseet) title and established the rules for what was to be an ongoing relationship between nations.

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Part I: Introduction



Figure 1.0 Photo of Hampton Harbour, Hampton, Nova Scotia. 1916. Photo via Author.



Figure 1.1 Photo of Hampton Lighthouse, Hampton, Nova Scotia. 1920. Photo via Author.

Preface

He wakes just before the sun; feeding the chickens and tending the crop to start the day. The horses also need to be fed, especially Don, the heavy gray percheron, he fulfills the role of an oxen after all, tilling the stone and boulder laden upper field. Once the animals and garden have been tended to, the sun's rays start to peak over the Bay of Fundy, its rays cutting through the hazy morning fog. He begins the journey to chute's cove (Figures 1.0,1.2), making his way down the main road under the willow trees as the revolving light paints pulsing shadows across the ground. As the sun makes its way fully above the horizon, he reaches his destination, the Hampton Lighthouse (Figure 1.1). The lighthouse sits atop the hill overlooking the quaint harbour abuzz with life as the fishermen prep their nets and boats. He climbs up the narrow ladder inside the white square pepperpot tower where in the centre of the small chamber sits the heart of Hampton, a red lantern. Fueled by kerosene, its brilliant light is amplified out onto the bay through its 6th order dioptric lens. Now that the day has started, he extinguishes the flame, trims the wick, and checks the fuel to prepare in the event the fog rolls back in, as it so often does.

With the lighthouse prepped for the day, the keeper can continue with the rest of his duties. He travels back through the tunnel of willows to his barn where the walls are covered in iron rings and stacks of lumber. This is where Vernon aids his father Charles in making barrels, his main trade, both for his fellow villagers but also to sell to neighbouring towns like the ever-growing Bridgetown. Barrels were integral to the storage of food and goods as they were watertight and quite robust, being used to store things like the abundant cod, herring, or whiskey. As most Hamptonites reviled alcohol, the whiskey barrels were sent elsewhere.

As Hampton is a largely self-sufficient village community there was always lots to be done, the keeper did much more than run the lighthouse and make barrels. Other days might include ploughing the fields, unloading the infrequent shipping vessels of their fuel and supplies, or chopping down and processing lumber from the villages shared forest and lumber yard, to name a few.



Figure 1.2 Photo of Hampton Village members, Hampton, Nova Scotia. 1916. Photo via Author.



Hampton wharf & Charles' fishhouse - ca 1920

Figure 1.3 Photo of Hampton Wharf and Charles Dunn's fishhouse, Hampton, Nova Scotia. 1920. Photo via Author.

Today however, the fog hasn't rolled in, and the winds are behaving. Once the moody tide has risen, he makes his way back to chute cove and starts prepping his boat to catch some fish. Cod and herring were abundant in the bay and were a staple food for the people of Hampton. Almost every family had a fishing boat and trawl to catch their fair share of cod. As the net fills he heads back to shore to his father's fishing shack at the base of the wharf (Figure 1.3) to behead, gut, heavily salt, and spread the days catch in the sun to dry. The heads and guts were thrown into a barrel to be used later for lobster bait reducing waste to an absolute minimum.

The last of the remaining boats make their way back to the harbour as the tide starts to fall with the setting sun. Vernon emerges from his shack to hike back up the hill towards the lighthouse, up the narrow ladder, and into the small room, the red lantern centred like an altar. To guide any straggling boats home or illuminating threats hidden in the water for passing vessels, the keeper must light the kerosene lamp every night. The light cuts through the darkness providing flashes of vision across Hampton; an absolute necessity to this small coastal community. With this, the keeper's day is over, time to head through the tunnel of willows, past his barrel shed, and into his home until the sun rises again.

This is the story of my great-grandfather Vernon Dunn, Hampton's lighthouse keeper from 1920-1950. The genesis of my obsession with lighthouses, and subsequently this research, is strangely not Vernon, it is his son or my grandfather Gerald. Growing up in Winnipeg MB, and moving to Waterloo ON, I was never able to physically experience this building, but being regaled by the amazing stories told to me by my great-grandmother and grandfather I became increasingly infatuated with these unique structures and the importance they hold to the community they once served. This interest only increased when my family took a trip to Hampton when I was 18, as we talked around the village, people recognized our family name, Dunn, frequently mentioning "oh the Dunns! You're of Vernon's ilk aren't you?". Close to a century later the legacy of a keeper lives on.

My family was one of Hamptons early settlers, coming up from Boston around 1760. I can trace my lineage back directly to 1792 on the tombstones in the village's Cemetery, with every Dunn being buried their together. My Grandfather grew up in

WAYS OF THE OLDEN DAYS

or

How Things Got to be This Bad

A LA RECHERCHE DU TEMPS PERDU

by

Gerald Dunn

96/01/29

Over the years it has been my pleasure to regale my family and friends with reminiscences of my childhood, and stories told me by my parents and grandparents. From time to time my hearers have suggested that I should write these things down "so that the family and posterity won't lose those interesting memories when you're gone". Up to now I have resisted these suggestions, because I suspect that they are motivated by the thought that "If he gets them written down, we won't have to listen to the old man's repetitious maunderings every time something from the past comes to his mind". Too true. And then what would be left to me for conversation? Just the current state of my metabolism and the aches and pains resulting therefrom.

But recently I have been coming to the conclusion that putting some things on the record may be worthwhile. During our last visit with Mother she mentioned several times, "How I wish I had written down some of those boring stories Grandpa and Grandpa used to tell over and over again until I would think, 'If I hear that story one more time I'll explode'; but now I can only remember that there were such stories, not what they were." So that puts a new perspective on the subject; I'll record my reminiscences, not for the delectation of others, but to support my own memory. That way, I'll be able to go on boring people right to the end.

Figure 1.4 Scan of Gerald Dunn's memoir. 1996. Image via Author.

MEMORIES OF HAMPTON 90 YEARS AGO - ABOUT 1900

by

Annie H. Dunn

When I was about five years old my mother, Minnie (Kearns) Foster, and stepfather, Herbert Foster, lived on the Shore Road in the house recently owned by Claude Hamilton. Dad fished with his father, and they had a fish-house on the Upper Shore Road. There were eight houses on the Shore Road then. On the right-hand side going down, the first house on the corner was Eaton Chute's (now Letha White's); then came John Ed Farnsworth's (recently McCarthy's), ours, a Mrs Parker's (where later Mrs Annie Farnsworth had the hotel), and Lloyd Brooks's under the hill. Going back up the other side of the road was Adoniram Foster's (burned since, now Goudreault's) and in the lane Eber Chute's (Wayne's great grandfather). Continuing up the road was Mr Farnsworth's blacksmith shop opposite his house, and Albert Tolan's (McDonald's).

I can remember Henry Chute building his house (now Ida's) across the road from ours, and Uncle David Kearns building the Tompkins house and

Figure 1.5 Scan of Annie Dunn's memoir. 1990. Image via Author.

Hampton but was the first Dunn to leave, pursuing a higher education and to further his career, but always spoke fondly of Hampton and his upbringing. He'd bring my father, uncle, and aunt to Hampton every summer, generating more stories and passing them down to my father. Gerald and his mother wrote down their memories of early life in Hampton which are now cherished documents within my family which I am completely enamoured by (Figures 1.4-1.5). Experiencing these wonderful stories and looking through a catalogue of ancient photos allows me a glimpse into another time and another world. The power of these stories is not merely illustrating the importance the lighthouse has within its communities, but sharing their stories and spreading the experience to people who might not otherwise.

My family's story, and that of Hampton, is not isolated, there are hundreds of similar communities across Canada's east coast. Each with their own rich history, collating into a large portion of our country's cultural identity which deserves to be remembered and shared. The thesis begins here, a humble familial beginning with an understanding of a greater scale to which it can and should be applied.

Long before the Dunn's of Hampton arrived, this land has been home to the Mi'kmaq. The entirety of Atlantic Canada exists on the traditional and unceded territory of the Mi'kmaq. This thesis is largely comprised of the white settler narratives like that of my families, which are all set on this stolen land. The recognition and inclusion of the Mi'kmaq is constantly neglected in the histories of the communities this thesis addresses. The records of lighthouses only go so far back as to when they were built, not recognizing the land upon which it was built. The relationship to the original stewards or what the land was before this tower was built is never mentioned in these narratives. To confront this history of neglect, this thesis begins with those stories and what they can teach us about how to connect with the land of which they are so intimate with, as well as demonstrating the power storytelling has on the remembrance and permutation of culture. By beginning and grounding this research in recognition of the unceded territory I hope to make one small step in bringing these narratives into the conversation of these coastal community's histories without telling the stories that are not mine to tell.

Introduction

Before Canada was colonized, the Atlantic region was known as Mi'kma'ki, home to its original inhabitants the Mi'kmaq. They have preserved their culture through oral history, showcasing the power storytelling can have in safeguarding a peoples past. They thrived in this land until the late 1400's when the first Europeans landed and laid their claim on the 'new' world. This tumultuous and violent period between the indigenous people and various European nations centred around the fortress of Louisbourg in present day Cape Breton. For the Europeans to maintain their military presence, they relied heavily on large and frequent shipments from across the Ocean. Lighthouses became an integral infrastructural tool to guide these shipments safely into the fortress providing a major role in perpetuating the colonization efforts. Once the British won their last major battle, they deported the Acadians and forced the indigenous Mi'kmaq into reserves and began efforts to wipe out their long and storied history, assimilating them into the British way of life.

Once the new colonies finished fighting for the land, they now needed to fight to survive in this land. The brutal Atlantic conditions provided a diverse array of challenges to live in, most notably the thick blankets of fog that can appear in an instant swallowing ships into obscurity. To combat this, lighthouses were built all along the coasts to create a safety network of lights to communicate with the ships out at sea. These towers of light served a variety of roles, mainly to guide fishing vessels back into their harbours at night or through the fog. They also used signal flags and specific light revolution frequencies to communicate with passing boats, letting them know where they were along the shore or other vital information. As fishing and naval transport were essential in small coastal communities, their lighthouses became cherished centres of the communities they served.

With the advent of GPS, electronic depth mapping, more accessible meteorological tools, and ease of communication, lighthouses have become obsolete. Their most recent owners and caretakers, the Canadian Coast Guard, has made it clear they no longer want to spend resources on outdated infrastructure and begun demolishing and divesting themselves of lighthouses across the country. Coastal communities who deeply cherish the buildings that have

served them faithfully for generations are able to take their lighthouses off the Coast Guard's hands, but this divestiture process is lengthy and laborious. Often these towns and villages are small without the resources required to work with the governmental bodies required to take on tending their own lighthouse. If they do manage to secure ownership over the building, they are now tasked with finding a way to properly fund the high maintenance costs associated with a building typology that exists to be battered by harsh weather conditions.

The most successful cases of communities divesting and properly funding the preservation of their beloved lighthouse are ones that have been adapted to tourist destinations. Capitalizing on the inherent charm and intrigue these buildings have on the public has generated enough income to keep them sufficiently maintained. It does not however provide enough funding for the more extreme costs associated with problems caused by the effects of climate change. Coasts, especially in PEI, are rapidly losing their shorelines which requires expensive measures be taken to prevent shoreline erosion like building artificial reefs or physically relocating lighthouses further inland. These communities are also not adequately equipped to handle the aftermath of Hurricanes that the region experiences. There are examples of lighthouses successfully pivoting into tourist destinations, but even then, they are not sufficiently equipped to deal with the worsening effects of climate change.

Zooming out, the larger issue the east coast lighthouse community is facing is the preservation and dissemination of a unique history and culture. By looking to community groups facing similar problems, we can learn from their accomplishments to inform what can be done to help lighthouses. First, for more systemic and larger geographic areas, interactive web mapping is used to connect individual disparate issues into a network that can learn from and share resources between each other. Second, 3D scanning and digital models have been increasing in effectiveness, accessibility, and ease of use, allowing for accurate and 'inhabitable' digital models to preserve objects and buildings virtually. Lastly, the internet as a whole is an extremely powerful resource for increasing reach and awareness for sharing stories and resources, breaking down geographic barriers and issues of proximity.

In 2000 The Atlantic Lighthouse Council saw the looming danger of lighthouses being phased out of usefulness and sought to take inventory of all lighthouses across the region as a first step to figuring out what to do with these cherished icons. Researchers carried out an intensive inventory project and tried to implement some of these strategies used by the above case studies, but due to the infancy of the internet and digital technologies the project was lost to the ages. With current technological advancements the goals set out over twenty years ago by the Atlantic Lighthouse Council can now be properly achieved.

The solution proposed in the thesis synthesizes projects carried out by different community groups facing similar issues and applying their strategies to the issues faced by Atlantic Canada's lighthouse communities. This solution takes the form of an interactive web tool aimed at preserving lighthouses and their histories for future generations while increasing their intrigue to a wider audience. This is accomplished by first mapping out all the lighthouses in the region to create a network between them. Then through 3D scanning the buildings and their landscapes one can experience their stories in space by virtually inhabiting them. By increasing the exposure of this unique community and building typology in an engaging and immersive manner, it will generate more outside interest bolstering the burgeoning lighthouse tourism industry.

Research Methods

This research is intended for, and inspired by, the Atlantic Canadian lighthouse community with the goal of providing a framework to improve the preservation and dissemination of lighthouses and their stories. The methodology of this thesis was executed in three major stages: first preliminary research and data collection, second field research, and lastly implementation and synthesis.

At the outset, the work began with research and data collection from afar. Learning from news stories, testimonials, and from the limited web presence of different non-profit lighthouse groups about the current state of lighthouses, the problems they face, and the road that led them there. Alongside this research data collection began, creating a database of all Atlantic Canadian lighthouses in the region

and basic information associated with them. Parallel to the lighthouse research, a series of case studies were examined to learn how similar groups have approached the problem of how to share their endangered stories and experiences. These case studies led to experimenting with different cutting-edge technologies and software focused on web mapping and 3D scanning. The database was then applied to these new tools, visualizing the data through mapping while the necessary tools for 3D scanning were secured and implemented.

Utilizing the findings garnered from preliminary research, a field research plan was created to conduct site visits at various lighthouses throughout the four Atlantic provinces. These site visits included interviews with various members of the lighthouse community such as staff members running lighthouse exhibits, members of lighthouse preservation non-profit groups, and lightkeepers and their families. During the site visits a great deal of material was collected such as photos of the lighthouse, it's surrounding, and any information presented as part of a museum exhibit or information plaque. Videos were taken like walkthroughs of the building, timelapses of weather and tides, and anything else that cannot be fully captured by photos. Lastly a series of 360° photos and videos were taken to digitally scan the building and its site.

The interviews were compared and combined with the initial research, ensuring the sentiment of the community this thesis is intended for appears front and centre. The information available from afar is quite limited as the communities in question are small, sparse, and have limited resources. This resulted in the field research and interviews becoming an integral source of knowledge, often superseding conclusions made from the initial research phase. Finally, the earlier case studies were referenced to combine the web map, 3D scans, videos, photos, and stories into an interactive web tool aimed at aiding these small communities record and share their lighthouses.



Part II: Setting the Stage

Canada's east coast has a rich and ancient history interweaving many actors which culminate in a unique cultural condition. The Beothuk and Mi'kmaq have called this land, Mi'kma'ki, their home since time immemorial. The First Europeans landed on Mi'kma'ki in the late 1400's which marked the start of a deeply complex and violent relationship between its Indigenous occupants and these new settlers. The colonists relied upon lighthouses as an integral piece of infrastructure to maintain control of, safely explore, and live in this land, guiding ships home through the tumultuous and powerful Atlantic conditions. Across the region, lighthouses served a variety of important roles, starting in Louisburg Cape Breton, an integral fort to the colonizer's military presence, guiding supply and personnel shipments safely into the base. Lighthouses usage evolved into aiding fishermen find their way home in small villages such as Hampton Nova Scotia, to providing ice floe reports and guidance to sealers and passing freighters at Long Point Lighthouse in Newfoundland. They also became crucial navigation aids for busy transportation routes like Miscou Island New Brunswick and helping ships cross the Atlantic Ocean in Cape Spear Newfoundland. Due to how crucial these beacons became in the settlers' lives, lighthouses became embedded in their cultural history and identity.

Mi'kma'ki

Before Europeans landed on the shores of Mi'kma'ki, the Beothuk and Mi'kmaq had a rich and storied past traversing and living off the land. Their histories have been passed down orally for thousands, if not tens of thousands of years, illustrating the power and resilience that telling stories has. Through their storytelling we know that Mi'kma'ki is comprised of seven districts based on their geographical characteristics (Figure 2.0). Unama'kik aq ktawmkuk ("foggy lands" and "land across the water"), Cape Breton island and Newfoundland; Epekwitk aq Piktuk, ("lying in the water" and "the explosive place"), Pictou County and Prince Edward Island; Eskikewa'kik ("skin-dresser's territory"), area between Guysborough and Halifax County; Sipekni'katik ("wild potato area"), Halifax, Lunenburg, Kings, Hants, and Colchester Counties; Kespukwik ("last flow"), Queens, Shelburne, Yarmouth, Digby, and Annapolis Counties; Sikniht ("drainage area"), Cumberland County in Nova Scotia and Westmorland, Albert, Kent, Saint John, Kings, and Queens Counties in New

Brunswick; Kespek ("last land"), north of Richibucto including its rivers and parts of Gaspé.⁰¹ Everything about their way of life is tied to the land in which they live, starting with their place names.

Mi'kmaq are one with this land, they lived in constantly moving settlements matching the rhythms of the shifting fish spawning beds. Having an intimate knowledge of water flows and spawning patterns they crafted different fishing weirs specialized to river mouths, lake outlets, estuaries, or river channels. Archaeologist sites have been discovered all over rivers in Mi'kma'ki with artifacts such as pottery, tools, weapons, and even hearths, demonstrating the number of settlements that were created along these rivers.⁰² The Mi'kmaq way of living with the land was to morph alongside it and become one with the earths flows.

Archaeology has been instrumental in bringing many of these histories to light, but the most prolific source for Mi'kmaq history is through language and stories. "Language is one of the main instruments for transmitting culture from one generation to another and for communicating meaning and making sense of collective experience."⁰³ Stories manifest as legends and mythical figures to teach about the natural environment, history, and culture. As an example, this is why the Bay of Fundy Rises and Falls, allowing them to incorporate its cycle into their rhythm.

Kluskap, the giant, legendary Mi'kmaw figure, wanted to take a bath. He called his friend Beaver and told him to find some water. Beaver built a huge dam across the mouth of a great river. Water backed up behind the dam and stopped flowing into the sea. As Kluskap stepped into the water, Whale stuck her head over the dam and asked, "Why have you stopped this water from coming to my domain?" Not wanting to anger his friend, Kluskap got up and walked back to land. With a stroke of her mighty tail, Whale destroyed the dam and sent saltwater flooding into the river. As she turned and swam back out to sea, she set the water of the Bay sloshing back and forth, a movement it has kept to this day.⁰⁴

01 The Confederacy of Mainland Mi'kmaq, "Mikmaq Kekinamuek (Learning) Manual - [The Confederacy of Mainland Mi'kmaq, CMM]" (Human Resources and Social Development Canada, 2007), <https://www.askecdev.ca/directory/mikmaq-kekinamuek-learning-manual-confederacy-mainland-mikmaq-cmm>; "Mi'kmaw Place Names Digital Atlas," accessed February 12, 2022, <https://placenames.mapdev.ca/>.

02 ibid

03 Government of Canada; Crown-Indigenous Relations and Northern Affairs Canada, "Highlights from the Report of the Royal Commission on Aboriginal Peoples," report, November 3, 2008, <https://www.rcaanc-cirnac.gc.ca/eng/1100100014597/1572547985018>.

04 Tim Bernard, *Kekina'muek: Learning about the Mi'kmaq of Nova Scotia* (Eastern Woodland Publishing, 2007).

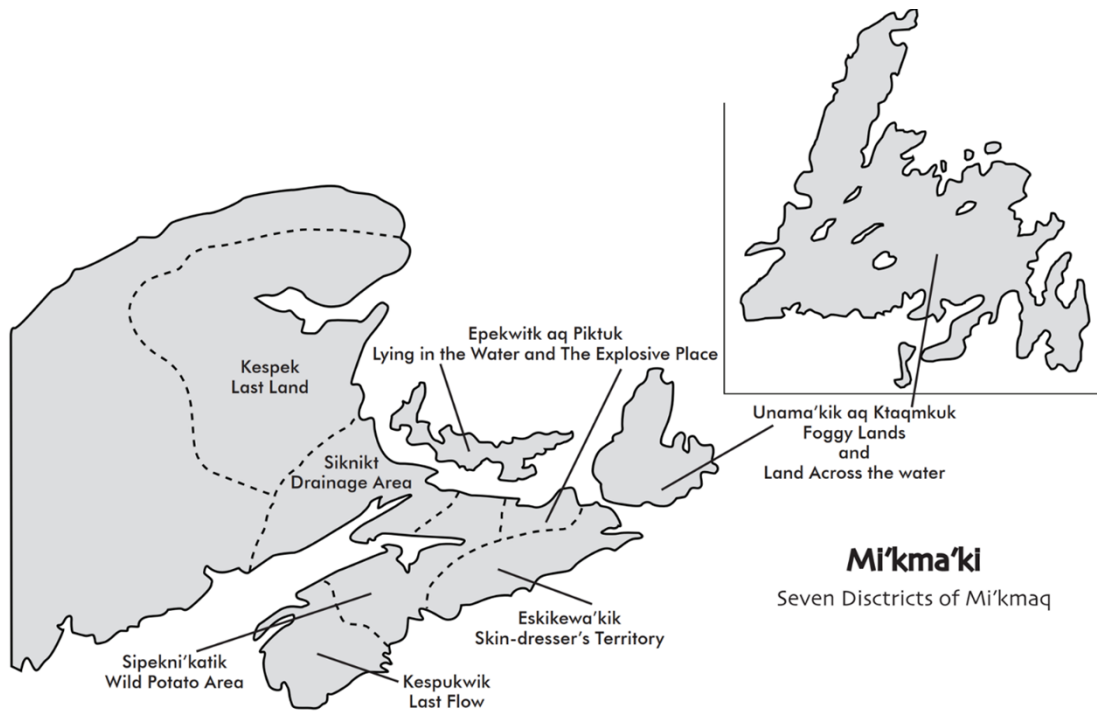


Figure 2.0 Map of the Seven Districts of Mi'kma'ki. Image via Kekina'muek: Learning about the Mi'kmaq of Nova Scotia (Eastern Woodland Publishing, 2007), 11.

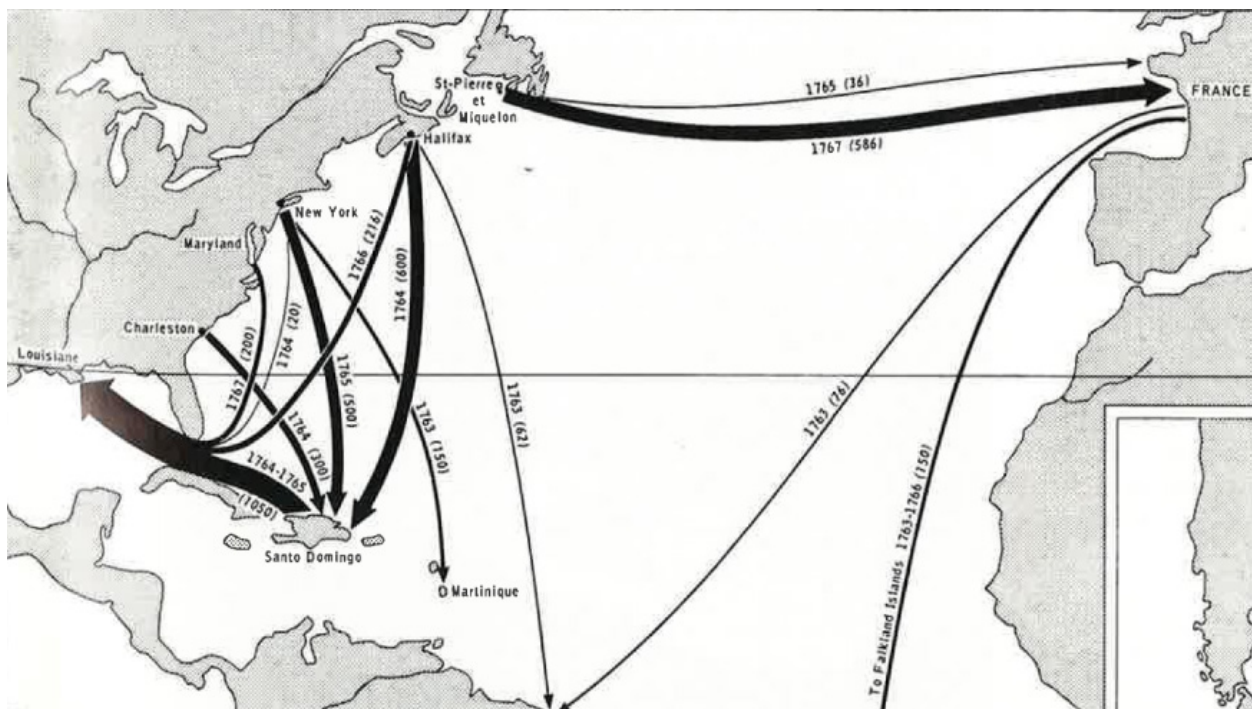


Figure 2.1 Map of Acadian deportations between 1763 - 1767. Image via <https://canadiangeographic.ca/articles/mapping-the-acadian-deportations/>.

The "Discovery"

For thousands of years the indigenous peoples of Mi'kma'ki lived off the land; telling stories and developing their culture. But in 1497 John Cabot, an Italian immigrant to England, landed on Unama'kik aq ktawmkuk, either Cape Breton Island or Newfoundland. Upon landfall John Cabot claimed possession of Mi'kma'ki on the order of King Henry VII of England. Jacques Cartier would also make a claim for King Francis I of France when he made the journey across the Atlantic, notably founding Port-Royal in 1604. These original French settlers adapted into their own distinct culture apart from France known as Acadians.⁰⁵ With the addition of Portuguese explorers, these European nations were competing to claim this land with no regard for the original inhabitants, the Mi'kmaq. The Acadians continued to grow largely independent from France and developed a type of allyship with the Mi'kmaq, learning how to live off the land and survive the harsh winters while, mostly, respecting land use deals.⁰⁶ The British and Portuguese however, had a violent and deceitful relationship with the Mi'kmaq; capturing Mi'kmaq to use as labour, placing a bounty on Mi'kmaq scalps, and breaking their promises and treaties.⁰⁷ King James I of Britain went on to grant Sir William Alexander all of Acadia and Mi'kma'ki, claiming the land as their own and renaming it Nova Scotia.⁰⁸ Shortly after this claim of sovereignty, Christianity was introduced to convert the Mi'kmaq attempting to assimilate them into the British way of life. Charles Lawrence, the Lieutenant-Governor of Nova Scotia issued an order to commit hostilities against the Mi'kmaq furthering their goal to eradicate the Mi'kmaq and their storied culture.⁰⁹ The French founded the Fortress of Louisbourg on the eastern coast of Cape Breton as a major stand against the British in dispute of their claims, often supported and occupied by allied Mi'kmaq. The preceding years were fraught with conflict such as The Indian War resulting in the fort constantly changing hands between the British and French but came to a head in 1758 when British forces captured Louisbourg for the last time.¹⁰ This decisive victory led to the eradication of the Beothuk, centralization of the Mi'kmaq, and expulsion of the Acadians. The crown deported approximately 10,000 Acadians across the Atlantic distributing them back to France or south to the Caribbean or Louisiana who later became the Cajun and Creole (Figure 2.1).¹¹

05 Refugees and Citizenship Canada Immigration, "Discover Canada - Canada's History," not available, September 1, 2009, <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/discover-canada/read-online/canadas-history.html>.

06 Canada, "Highlights from the Report of the Royal Commission on Aboriginal Peoples." <https://sencanada.ca/en/sencaplus/opinion/remembering-mi-kmaq-acadian-friendship-sen-christmas-and-sen-cormier>

07 Senate of Canada, "Remembering Mi'kmaq-Acadian Friendship: Senator Christmas and Senator Cormier," SenCanada, accessed March 3, 2023, <https://sencanada.ca/en/sencaplus/opinion/remembering-mi-kmaq-acadian-friendship-sen-christmas-and-sen-cormier/>.

08 "Nova Scotia - History," Encyclopedia Britannica, accessed October 6, 2021, <https://www.britannica.com/place/Nova-Scotia>.

09 Bernard, Kekina'muek.

10 Courtney Thompson, Lighthouses of Atlantic Canada: A Pictorial Guide, n.d.: 80-82.

11 "Acadian Expulsion (the Great Upheaval) | The Canadian Encyclopedia," accessed October 6, 2021, <https://www.thecanadianencyclopedia.ca/en/article/the-deportation-of-the-acadians-feature>.

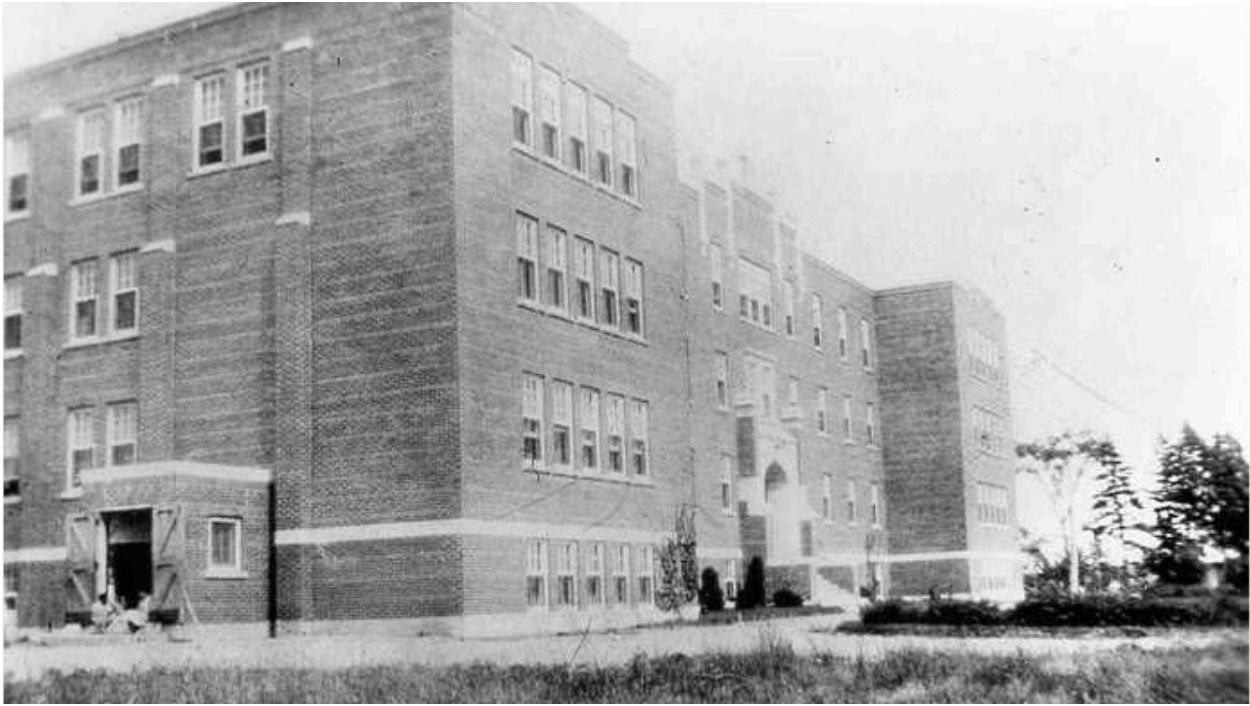


Figure 2.2 Shubenacadie Residential School, Shubenacadie, Nova Scotia. 1930. Photo by Elsie Charles Basque via <https://novascotia.ca/museum/mikmaq/?section=image&page=&id=818®ion=&period=&keywords=>



Figure 2.3 Louisbourg Lighthouse, Louisbourg, Nova Scotia. 2022. Photo by Author.

Having appropriated this land from both the Mi'kmaq and Acadians, the British sought to end the remaining conflict with the Native peoples through assimilating them into British culture. This centralization was carried out under the guise of various peace treaties and the acceleration of educational school programs. Schools like LaHave and Shubenacadia (Figure 2.2) were implemented to take Mi'kmaq children away from their families and culture. With the Mi'kmaq confined to reserves and most of the Acadian settlements now void of their original occupants, the crown offered up swaths of free land to any who wanted it. This inspired large passenger ships from cities south along the coast like Boston arriving with new settlers.¹² Some smaller conflicts were still present throughout the Atlantic with resistant groups of Mi'kmaq or the Americans to the south, but this new English colony started to plant their roots and develop.

First Light

After claiming this land, the new stewards had to quickly learn about and adapt to the extreme weather this region is home to. The waters of the Atlantic coast are brutal, huge waves, shifting currents, massive ice floes, and chilling temperatures. Constantly changing blistering winds are commonplace, cutting through the much colder air temperatures than what the British are used to. Possibly the most dangerous and prolific of all the hazardous weather conditions are the thick blankets of fog that can appear in an instant, engulfing a vessel in obscurity.¹³

During the British occupation of Louisbourg the fort relied on a constant stream of personnel, weapon, and ration shipments from Britain to maintain their stake on Mi'kma'ki. Having any one of these transport vessels wreck due to the brutal conditions would sport massive losses for the crown. To guide ships safely into the fort and navigate the blinding fogs, the first lighthouse in Canada was built in Louisburg Cape Breton in 1734 (Figure 2.3).¹⁴ Loud bells or gongs would get drowned out by the howling winds or crashing waves, but light cast from towers at high points on the coast that can pierce the fog and cover a great distance out to sea would work. Lighthouses were built all around the coasts, creating a safety network that all these communities would now depend on.

12 WA Calnek and Beamish Murdoch, "History Timeline," Town of Annapolis Royal (blog), accessed October 6, 2021, <https://annapolisroyal.com/visitors/history-timeline/>.

13 Yue Wu, Ronald Pelot, and Casey Hilliard, "The Effect of Weather Factors on the Severity of Fishing Boat Accidents in Atlantic Canada," *Risk Management* 7, no. 3 (2005): 21–40.

14 Courtney Thompson, *Lighthouses of Atlantic Canada: A Pictorial Guide*, n.d.: 80-82.



Figure 2.4 Cape Pine Lighthouse, Cape Pine, Newfoundland and Labrador. 2022. Photo by Author.



Figure 2.5 Cape Pine Lighthouse, Cape Pine, Newfoundland and Labrador. 2022. Photo by Author.

Notably different from the nomadic Mi'kmaq way of life, the British had much more sedentary settlements. They also needed to move substantial amounts of goods and people between their towns and cities as well as to and from England. Not only did they sail for transportation of goods and people, but these permanent settlements relied on fishing the abundant waters for food and resources, but the fog was swallowing many fishing boats never to return.¹⁵ With such a heavy reliance on maritime navigation it was vitally important to find a way to safely traverse the Atlantic waters. Learning from Louisbourg, more lighthouses were built all along the coasts creating a network of beacons spanning all Atlantic Canada. Illustrating the need for these beacons Captain Henry Wolsey Bayfield of the British Royal Navy writes a report to The House of Commons requesting a lighthouse be built on Cape Pine Newfoundland (Figures 2.4-2.5):

The number of homeward-bound vessels wrecked in the neighbourhood of Cape Pine, has exceeded that of the outward-bound in the proportion of 10 to 1. The frequent occurrence of these wrecks has been generally, and I think justly, attributed to an indraught of the current into St. Mary's Bay. The inconstancy of this current, and its varying strength and direction, only render it the more dangerous. But, whatever may be the cause, it is certain that vessels bound to the eastward are constantly coming in upon that part of the coast; for, within a single fortnight, while we were at Trepassey, two mail steamers and two merchant ships came close in, and were only saved from running ashore by the clearing away of the fog, and, in one case, by the hailing of the fisherman from the boats fishing just outside the breakers. A second, and far from unimportant, use of the light on Cape Pine, will be the great assistance which it will afford to the numerous vessels (frequently amounting to more than 1—sail at a time) that take shelter in Trepassey Harbour, especially in the spring of the year, when they seek refuge from the ice, which is driven down upon the coast by north-east winds, but which, being turned off by Cape Race, leaves the entrance of the Bay and Harbour of Trepassey

15 Great Britain. Admiralty., "Lighthouses (Colonies) : Copy of Capt. Bayfield's Report on the Necessity of a Lighthouse on Cape Pine, Newfoundland; Statement of the Progress in the Construction of a Lighthouse on Barbadoes; Statement of Measures Taken with Reference to the Management of Lighthouses in the British Colonies.,"



Figure 2.7 Ice floes during winter at Long Point Lighthouse, Crow Head, Newfoundland and Labrador. 1991. Photo by Canadian Coast Guard via https://www.lighthousefriends.com/twilligate_aerial_ccg.jpg.



Figure 2.6 Hampton Lighthouse and Harbour Hampton, Nova Scotia. 1916. Photo via Author.

clear. Lastly, this light will be of great use to the numerous vessels trading between St. John's, Newfoundland, and the various parts of the other North American Colonies and the United States.¹⁶

As outlined by Captain Bayfield, lighthouses are integral to coastal communities and can serve a variety of uses of great benefit to their people. On the other side of Newfoundland in Twillingate, among the usual navigational functions, Long Point Lighthouse (Figure 2.7) also served a valuable roll in providing ice floe reports. These were important to seal and turr hunters as well as passing commercial transport vessels like a regular Montreal bound wood pulp freighter.¹⁷ Twillingate's main economy relies on fishing, but when the massive ice flows prevent boating, they take to the ice to hunt turrs from the sky and seals from the floes. But navigating the tumultuous ice is an extremely dangerous endeavor as the sheets can split and shift at moments notice, often impossible for the hunters to detect. This meant the lighthouse keepers up on Long Point Lighthouse needed to keep a keen eye on the ice and radio the hunters if any sheets start to break apart. "Being perched at 335 feet above sea level, I had the vantage point to see the subtle changes in the ice conditions. In contrast to the [seal] hunters standing at ice level, ... Once I observed these cracks spreading across the ice floe, I had to warn the hunters of the impending danger."¹⁸ At the same time, the keeper would provide reports of the ice to passing freighters allowing them to pass by safely avoiding the ice sheets and massive icebergs the area is home to.¹⁹

Smaller villages like Hampton, Nova Scotia ran as largely self-sufficient communities with a huge reliance on fishing. Hampton had a community logging forest in which they supplied the lumber for their houses and boat building, every home had some degree of agriculture to feed themselves and derived their main source of income from fishing the plentiful Bay of Fundy.²⁰ But to supply the village with goods they could not generate themselves and sell their fishing harvests, they relied on regular shipments that came into Hampton harbour (Figure 2.6). The harsh fog and massive tide made the lighthouse an integral piece of infrastructure to both the fishing and shipping vessels that allowed this community to survive. This led to the lightkeeper and their duties to become an important roll within these small communities. Vernon

16 Great Britain. Admiralty., "Lighthouses (Colonies) : Copy of Capt. Bayfield's Report on the Necessity of a Lighthouse on Cape Pine, Newfoundland; Statement of the Progress in the Construction of a Lighthouse on Barbadoes; Statement of Measures Taken with Reference to the Management of Lighthouses in the British Colonies.,"

17 Barry Porter, *Adventures of a Lightkeeper* (Flanker Press Ltd., 2022): 28-57.

18 *ibid*: 53.

19 *ibid*: 44.

20 Gerald Dunn, "Ways of the Olden Days or How



Figure 2.9 Fog rolling into the new and old Cape Spear Lighthouses, Cape Spear, Newfoundland and Labrador. 2022. Photo by Author.



Figure 2.8 Fog rolling into Cape Race Lighthouse, Cape Race, Newfoundland and Labrador. 2022. Photo by Author.

Dunn, the keeper from 1920-1950 main responsibilities included:

The job required that you turn the light on at sunset and off at sunrise. The light came from a double-wicked brass kerosene lamp mounted inside a cylindrical fresnel lens that concentrated the light in a horizontal arc towards the Bay. In the morning you put out the flame, cleaned the lamp chimney and lens, trimmed the wick, polished the brass lamp, refilled it with kerosene, and put curtains over the windows to keep the sun off the lens. In the evening you lit the lamp, adjusted the wicks, and stayed around for 15 or 20 minutes to make sure it kept going, and make any necessary adjustments.²¹

Further to Bayfield's third point, as more lighthouses were erected across Atlantic Canada it created a network of navigational aids not just for the structures immediate community as outlined through Long Point and Hampton, but for ships passing by, traversing shipping and travel routes. Examples of navigating high traveled routes are Miscou Island Lighthouse into Chaleur Bay, Cape Spear Lighthouse into St. John (Figure 2.9), Cape Race Lighthouse across and from crossing the Atlantic Ocean (Figure 2.8), and Blockhouse Point Lighthouse into Charlottetown. All these lighthouses were important to ships passing by, interweaving all these disparate communities with beacons of light.²²

Things Got to Be This Bad,"
January 29, 1996: 3-9.

21 Ibid: 29.

22 Thompson,
Lighthouses of Atlantic
Canada: 36, 94, 110, 114.

To this day there is a strong and tight knit Mi'kmaq community present in Atlantic Canada that have persevered through oppression continuing to tell their stories. Their inclusion in histories of the region is largely lacking but progress and recognition is ongoing. Unfortunately, the once symbiotic relationship between the Mi'kmaq and Acadians is a thing of the past as tensions are at a high between the two surviving peoples, clashing over lobster fishing rights. Mi'kmaq traps were cut, a boat burned, vehicles destroyed, and other acts of violence were committed because the Sipekne'katik First Nation sought to uphold the 1999 Supreme Court of Canada ruling that East Coast Indigenous Nations have the right to earn a 'moderate livelihood' for their catch.²³ But efforts are in place to renew the bonds between the peoples that overcame colonization together.²⁴

The unceded nature of Canada's East Coast and expulsion of the Acadians are often neglected from historical narratives and general perception of the region but are crucial to understanding the complex cultural relationships present. Similarly overlooked is the role lighthouses played in the colonization of the area as key infrastructural elements for the development of these new settlements. These communities relied on their lighthouses to safely fish, hunt, and navigate the tumultuous and harsh conditions of the Atlantic, becoming embedded in their history and culture. However, due to recent advances in navigational technologies, these once crucial buildings no longer serve their original purpose, leading to the neglect and decline of an important aspect of Canadian history.

23 "For Acadian Fisherman, Early Mi'kmaq Fishery in N.S. Bay Can 'Never' Be Respected | Globalnews. Ca," Global News, accessed March 3, 2023, <https://globalnews.ca/news/7414976/acadian-fisherman-mikmaq-fishery/>.

24 Senate of Canada, "Remembering Mi'kmaw-Acadian Friendship."



Part III: The Decline



Once core aspects of a town's wellbeing, lighthouses are no longer needed for their original function due to the advent of navigation, depth-finding, and meteorological technologies. As these navigational tools have become pervasive throughout people's lives the Canadian Coast Guard, who owned and operated nearly all lighthouses across Atlantic Canada, started demolishing and divesting themselves of these infrastructural tools. In every case this divestiture was messy, with each lighthouse having a unique history of its ownership structure. As an example, there are still lighthouses in Newfoundland owned by the Coast Guard, but they leave any extra structures, such as lightkeepers dwellings, to the nearest community to maintain as in the case of Long Point Lighthouse in Crow Head. In PEI however, the Coast Guard still owns the lantern rooms of towers but leaves the rest of the structure up to their respective communities to take care of. Most of the small groups that have taken on maintaining their towers struggle to find the necessary funding and resources to keep them maintained; the harsh weather of the area requires constant repainting, re-shingling, and various other repairs. Compounding this issue is the worsening effects of climate change, made most apparent in PEI's vanishing shoreline, or the recent devastating Category 4 Hurricane Fiona. These more serious phenomena require more drastic and expensive measures to be taken such as shoreline erosion mitigation projects like at West Point Lighthouse in PEI, entirely relocating the tower as at Gabarus Lighthouse in Cape Breton, or the ongoing efforts to rebuild in Hurricane ravaged towns like Port Aux Basque Newfoundland. This loss of primary function, lack of recognition and funding on a provincial and federal level, and rise in extreme weather due to climate change place lighthouses at risk now more than ever, leaving their communities scrambling to save their precious artefacts and share their stories.

Shifting Responsibilities

Over the years, various technological advancements have slowly led to lighthouses primary use as navigational aids to become obsolete. This decline started as early as the introduction of electricity by changing the light from a kerosene fueled flame to an electric light. This resulted in less duties for a lightkeeper to perform often having the role be cut down to part time status as electric lights needed much less maintenance than flame lanterns.¹ This accelerated when innovations in lighthouse automation increased, for example

at Long Point Lighthouse a massive weight would slowly lower through the tower from the lantern room, rotating a set of gears rotating the light at a certain interval, which was used to identify which lighthouse it was to sailors. This weight would need to be cranked back to the top by the lightkeeper but was eventually replaced entirely by an electrically powered mechanism eliminating yet another duty from the lightkeeper entirely.²

While the role of the lightkeeper diminished, so too did the role of the lighthouse itself. Advancements in Global Positioning System software, radar, depth finding, and electronic charting combined to ensure sailors were able to know where they were at all times, no matter the weather. The guiding beacon on shore was no longer needed which put the fate of these historic buildings at risk and, at the turn of the century, The Atlantic Lighthouse Council saw this looming threat: "The continued navigational use of lighthouses is threatened in the 21st century by new electronic navigation systems such as the Global Positioning System, Radar and Electronic Charts. The growing use of these devices reduces the importance of lighthouses".³

As the owner of all these now 'useless' buildings, the Government of Canada declared close to 1,000 lighthouses across the country as surplus and sought to rid themselves of these anachronic artefacts.⁴ Rather than pivoting these buildings as navigation aids into heritage tourism assets within the government, the Department of Fisheries and Oceans sought to offload the responsibility onto the local communities who recognize the importance of these buildings and considered them integral to their respective cultures and histories.

The Canadian Coast Guard has very little interest in lighthouses as anything but navigational aids because they receive no funding towards propagating the tourism and heritage side to them. This lack of funding started when Stephen Harper's government drastically cut the Coast Guard's funding which required them to severely reallocate their resources. At the time this happened the Coast Guard had their own specialty machine shop to fabricate pieces for lighthouse maintenance, but this slash in funding resulted in the loss of their machine shop, forcing them to redistribute what little funding they had left into finding a solution for the machining maintenance.⁵

1 Gerald Dunn, "Ways of the Olden Days or How Things Got to Be This Bad," January 29, 1996.

2 Niki Spear, 2022.

3 Jim Barkhouse, Steve Grant, and Rick Welsford, "The Atlantic Canada Lighthouse Inventory Project" (The Atlantic Lighthouse Council, 2000).

4 Justine Hunter, "Plug Could Be Pulled on 1,000 Canadian Lighthouses," The Globe and Mail, June 8, 2010, <https://www.theglobeandmail.com/news/british-columbia/plug-could-be-pulled-on-1000-canadian-lighthouses/article4266652/>.

5 Jackie Brown, 2022.

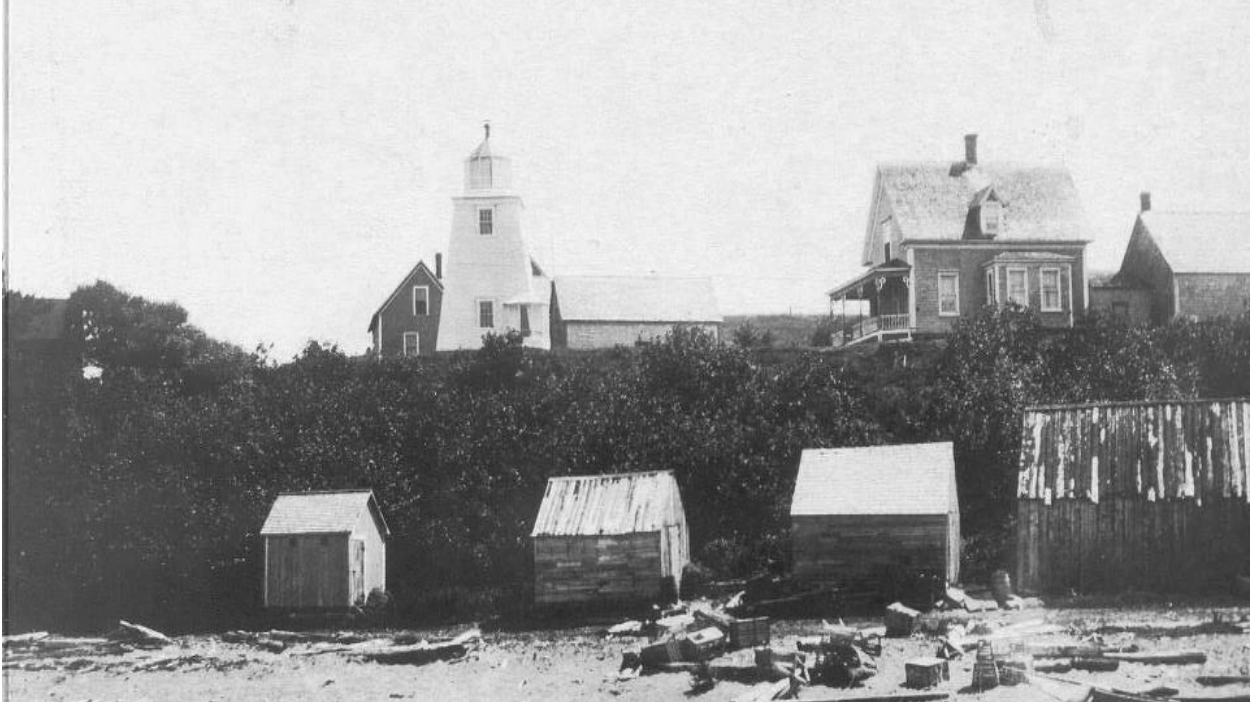


Figure 3.0 Photo of Port Lorne Lighthouse, Port Lorne, Nova Scotia. ~1900. Photo via <https://portlorne.org/images/PortLorneLighthouse.jpg>.



Figure 3.1 Photo of Hampton Lighthouse, Hampton, Nova Scotia. 2015. Photo by Author.

The irony behind this divestiture is that these communities now need to create an application package to the government proving that they are financially able to maintain a building that the government does not care for in the first place. This is a demanding application that must prove to the government that the community has a feasible business model with sufficient finances to adequately care for the lighthouse. During this period of mass divestiture and surplus declarations the Department of Fisheries and Oceans also started demolishing lighthouses they did not need anymore. An example told by Brinton Forbes, the current treasurer of the Hampton Lighthouse Historical Society, to the Author during an interview:

6 Brinton Forbes, 2022.
7 ibid.
8 Jackie Brown, 2022.

Federal Government decided that they didn't need [Hampton] lighthouse any longer, and all the lighthouses, and they came to tear it down. This woman came, she's from the states, she said 'there's no way you're gonna tear that down, it'll be over my dead body', so she's sitting on the steps and like any government agency they couldn't tear down the building with her in the way so they went to Port Lorne and that [lighthouse] is gone.⁶

The Port Lorne Lighthouse (Figure 3.0) was beloved by neighbouring communities for its unique charm and was integral to its own people, even serving as the school for their children when the schoolhouse burned down.⁷ Now Hampton Lighthouse (Figure 3.1) serves as a popular tourist destination and can fund its continued maintenance, whereas Port Lorne has been lost to the annals of time.

Prince Edward Island Lighthouse Society is the umbrella group spearheaded by Carol Livingstone that worked with and helped most PEI lighthouse groups to get them divested and set up as tourist 'businesses'.⁸ During an interview with Goldie Gillis, the director of the Point Prim Lighthouse Society, she described the sentiment of what was necessary to divest their lighthouse,

Oh, it was quite a process, let me tell you. It took a good number of years and it was a time when the federal government started divesting lighthouses, we have a good strong



Figure 3.2 Photo of Canadian Coast Guard owned lantern room of Point Prim Lighthouse, Point Prim, PEI. 2022. Photo by Author.



Figure 3.3 Photo of old Bonavista Lighthouse with new light station directly in front, Bonavista, Newfoundland and Labrador. 2022. Photo by Author.

local group, that I am on the board of. So we decided that we need to keep our lighthouse, we want to preserve it for future generations to enjoy, so we worked hard at it and eventually it all came about... we worked with the federal government, a lot of paper work and red tape, a total process.⁹

Describing the current ownership structure of Point Prim Lighthouse (Figure 3.2) Goldie said, "So now the society has all the maintenance costs and upkeep of the lighthouse, the grounds, and the gift shop, except for the light in the lightroom... The federal government comes on a regular basis to maintain that light."¹⁰

Even when these volunteers do everything right with the shared knowledge and experience of successfully divested PEI lighthouses, bureaucracy and red tape can still halt all progress. In 2013 a community group in Naufrage, PEI submitted their divestiture plan of the Shipwreck Point Lighthouse to the Department of Fisheries and Oceans Canada, who deemed that lighthouse surplus in 2010. Ten years later the community is still waiting to hear about the status of their application only hearing vague statements like "In a written statement to CBC, Fisheries and Oceans said 'Divesting federal real property is a lengthy complex process that can take years to finalize.' "¹¹

To make matters even more complicated every province has differing ownership structures and in a lot of cases individual lighthouses can have their own unique circumstances. As discussed in PEI, the Coast Guard still owns the light and lantern room while the non-profit groups own the tower and grounds. In Newfoundland and Labrador the Coast Guard still owns and even staffs 27 lighthouses with the rest owned by their respective communities.¹² However it is not always as simple as that, for example at Long Point Lighthouse in Crow Head the Coast Guard owns the lighthouse itself but the town of Crow Head owns the surrounding structures like the lightkeepers dwelling and garage.¹³ Other cases include examples like Bonavista Lighthouse and Lobster Cove Head Lighthouse which are owned and operated by the province of Newfoundland and Labrador as Heritage Museums. In Bonavista's case the province owns the old lighthouse, but the Coast Guard built a lightweight light tower just in front of

9 Goldie Gillis, 2022.

10 *ibid.*

11 Jane Robertson, "Community Group Hoping to Make Shipwreck Point Lighthouse Shine Again | CBC News," CBC, July 21, 2021, <https://www.cbc.ca/news/canada/prince-edward-island/pei-shipwreck-point-lighthouse-dfo-friends-1.6110108>.

12 Fisheries and Oceans Canada Government of Canada, "Lighthouses in Canada," September 8, 2017, <https://www.dfo-mpo.gc.ca/otw-am/lighthouses-phares/canada-eng.html>.

13 Niki Spear, 2022



Figure 3.4 Photo depicting the weathering and state of deterioration of dwellings compared to well maintained state of Long Point Lighthouse, Crow Head, Newfoundland and Labrador. 2022. Photo by Author.



Figure 3.5 Photo of Heritage Plaque at Hampton Lighthouse, Hampton, Nova Scotia. 2022. Photo by Author.

the old building to continue to serve as an aid to navigation (Figure 3.3).

Lighthouse communities have recognized that “the advocacy and practice of historic preservation must be as nimble and adaptive as the challenges we face.”¹⁴ They have taken on the responsibility of funding and maintaining their cherished buildings by proving that there is a worldwide audience interested in learning about these buildings and their surrounding histories. “‘It’s one thing for us locals to want to preserve and protect the history but that is something that people from all around the world are interested in,’... ‘P.E.I. is known as the province full of lighthouses and literally people come from all over the world to check out our lighthouses,’ said Matthew Doiron, owner of East Coast Paddle Adventures.”¹⁵ Even once these communities manage to wrestle ownership of their lighthouses from the Coast Guard they are now faced with raising enough funds to properly preserve their artefact for future generations to be able to experience.

The Fight for Funding

For municipalities and non-profit groups, successfully divesting their lighthouses from the Coast Guard is the first step in the struggle. Now they face the uphill battle of securing funding to properly maintain these buildings. These communities are so small, securing the resources necessary to properly upkeep these buildings is extremely difficult, like that of Long Point Lighthouse. As discussed earlier the lighthouse itself is owned and maintained by the Coast Guard but the 150-person village of Crow Head is responsible for the maintenance of all the dwellings, which is a herculean task due to the size of the compound and the extreme weather conditions these buildings must face (Figure 3.4).¹⁶

Heritage Designation, is one source of income lighthouse groups can seek out, be it municipal, provincial, or federal (Figure 3.5). These designations vary depending on the governmental body issuing them but often result in some degree of funds. However, members of the community that have the local knowledge of heritage properties have to go to the respective governmental bodies to get their buildings designated but “they need guidance; most of them, many of them, have been educated more than 20 years ago, they’re farming families, fishing families, and don’t have the

14 Davarian L. Baldwin, “‘It’s Not the Location; It’s the Institution’: The New Politics of Historic Preservation within the Heritage Tourism Economy,” *Buildings & Landscapes: Journal of the Vernacular Architecture Forum* 23, no. 2 (2016): 18, <https://doi.org/10.5749/buildland.23.2.0006>.

15 Jane Robertson, “Community Group Hoping to Make Shipwreck Point Lighthouse Shine Again | CBC News,” CBC, July 21, 2021, <https://www.cbc.ca/news/canada/prince-edward-island/pei-shipwreck-point-lighthouse-dfo-friends-1.6110108>.

16 Niki Spear, 2022 : Statistics Canada Government of Canada, “Profile Table, Census Profile, 2021 Census of Population - Crow Head, Town (T) [Census Subdivision], Newfoundland and Labrador,” February 9, 2022, <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E>.



Figure 3.6 Photo of Panmure Island Lighthouse, Panmure Island, PEI. 2022. Photo by Author.



Figure 3.7 Lobster Cove Head Lighthouse in Gros Morne National Park with Parks Canada employees and signage, Rocky Harbour, Newfoundland and Labrador. 2022. Photo by Author.

wherewithal or all the skills [to undergo that process].”¹⁷ This sentiment by Jim Barkhouse, the Nova Scotia Minister of Fisheries and Tourism from ’93 - ’98 and Field Researcher for The Atlantic Canada Lighthouse Inventory Project in 2000, was shared by people in every lighthouse community visited over the course of this research.

Jackie Brown, treasurer secretary and interim chair of the Prince Edward Island Lighthouse Society describes Panmure Island Lighthouses (Figure 3.6) Heritage funding: “only from the provincial government, we can apply for that every three years, we must make a separate application, it has to be for something specific and it has to be for the exterior. So generally we use it for paint... \$3,000 every three years... it doesn’t pay for a lot, it pays for paint.”¹⁸ Another problem that presents itself is under coast guard ownership, the building can be renovated as they see fit, such as using durable aluminum cladding when re-shingling, but with community ownership under a Heritage Designation they need to adhere to heritage criterion forcing them to use ‘authentic’ wood shingling that has to be replaced far more often, costing the community more.¹⁹ Heritage Designations can be a course of income but are laborious to achieve, only grant so much, and can provide further complications and costs down the road.

As discussed earlier, Lighthouses like Lobster Cove Head (Figure 3.7) and Bonavista are Provincial Heritage Museums providing them adequate funding to be properly preserved. But these governmental bodies do not always result in the proper care required to preserve these buildings. Louisbourg Lighthouse, the first lighthouse in Canada, is part of the Fortress of Louisbourg National Historic Site and the fortress itself just underwent “A multi million-dollar construction project aimed at protecting and restoring parts of the Fortress of Louisbourg.”²⁰ This sounds like great news for the historic lighthouse but upon visiting it across the bay from the fortress, the concrete tower is crumbling and falling apart with signs warning visitors that debris could break apart from the tower and fall (Figures 3.8 - 3.9). Falling under a larger governmental body’s jurisdiction has its own problems and is not guaranteed to result in the proper preservation of the building.

The path many municipalities are taking is by pivoting lighthouses to become community assets to secure a wider

17 Jim Barkhouse, 2022.

18 Jackie Brown, 2022; Brent Patterson, “\$100 Million in Cuts by Harper to DFO Further Endanger Water Protection,” The Council of Canadians (blog), December 28, 2013, <https://canadians.org/analysis/100-million-cuts-harper-dfo-further-endanger-water-protection/>.

19 Jackie Brown, 2022.

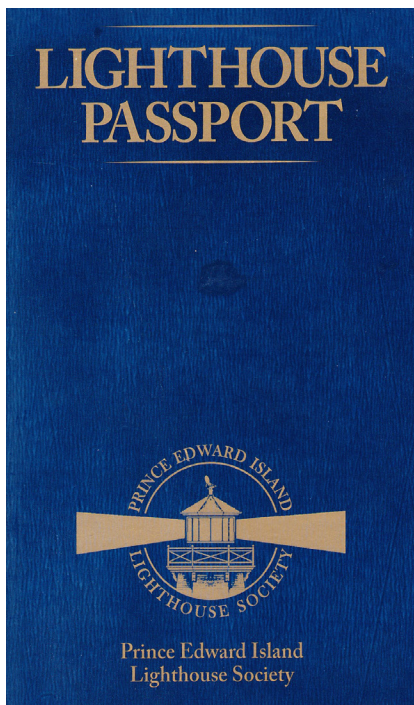
20 Brittany Wentzell · CBC News · “Fortress of Louisbourg Braces for Future with New Fortifications | CBC News,” CBC, July 16, 2019, <https://www.cbc.ca/news/canada/nova-scotia/fortress-louisbourg-construction-half-finished-1.5209890>.



Figure 3.8 Photo of sign on Louisbourg Lighthouse warning visitors of the tower falling apart, Louisbourg, Nova Scotia. 2022. Photo by Author.



Figure 3.9 Photo of the deteriorating Louisbourg Lighthouse, Louisbourg, Nova Scotia. 2022. Photo by Author.



THE PRINCE EDWARD ISLAND LIGHTHOUSE SOCIETY PASSPORT

By purchasing a PEI Lighthouse Passport, you join lighthouse lovers in a fun and educational activity for individuals, groups or families — seeking and collecting unique stamps received from visiting individual Island lighthouses.

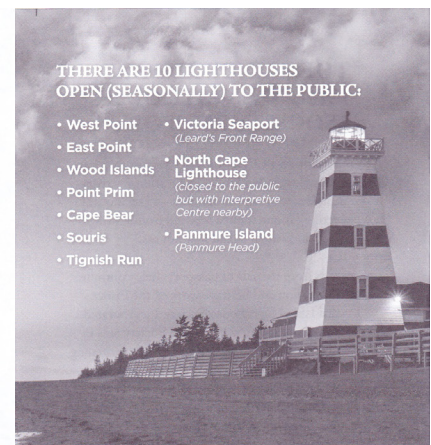
Proceeds from the sale of passports help continue the education and heritage work of the Prince Edward Island Lighthouse Society. Incorporated as a non-profit group in 1999, the Society aids in preserving the Island's lighthouses and in safekeeping their buildings, artifacts and records.

Many PEI lighthouses, formerly owned by the Canadian Government, are now owned and operated by local community non-profit groups that oversee their maintenance and restoration. The Federal Government however, still owns and operates the lanterns of many PEI lighthouses as these lights continue to be active aids to navigation.

As our lighthouses do not receive government funds to operate, a small admission fee is charged for access to their towers. Onsite donations from visitors also help individual lighthouses remain open and available to the public. We encourage visitors to pay the admission fee as they climb each lighthouse tower and/or to make a donation to help our lighthouses keep the lights on.

THERE ARE 10 LIGHTHOUSES OPEN (SEASONALLY) TO THE PUBLIC:

- West Point
- East Point
- Wood Islands
- Point Prim
- Cape Bear
- Souris
- Tignish Run
- Victoria Seaport (Leard's Front Range)
- North Cape Lighthouse (closed to the public but with interpretive Centre nearby)
- Panmure Island (Panmure Head)



Other lighthouses, although not open to the public, are accessible to view either by car, by foot or by boat. You are welcome to visit these lighthouses and to take photos that can be added to your Lighthouse Passport. While visiting, please comply with onsite signage that indicates environmentally sensitive dune areas, and avoid these areas in order to preserve the crucial environmental protection these dunes provide.

We hope you enjoy visiting PEI's beautiful lighthouses and recording your memories by collecting stamps, photos and notes in your Lighthouse Passport.

Figure 3.10 Pages from the Prince Edward Island Lighthouse Society 'Lighthouse Passport'. 2022. Image by Author via Prince Edward Island Lighthouse Society.

array of government grants. West Point in PEI, for example turned their historic lighthouse into an inn for visitors to stay while expanding the grounds around the lighthouse by re-developing an old campground and providing solar-lit trails and beach walks.²¹ Similarly, Digby in Nova Scotia took ownership of Smith's Cove Lighthouse and secured various municipal and provincial grants as well as community fundraising to restore the structure and develop the landscape into trails and a park for its constituents. " 'The response has been phenomenal. The broad community is very supportive of what we're trying to do here,' said Donald MacBeath, president of the historical society."²²

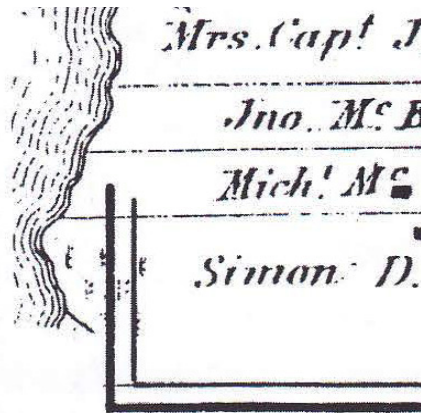
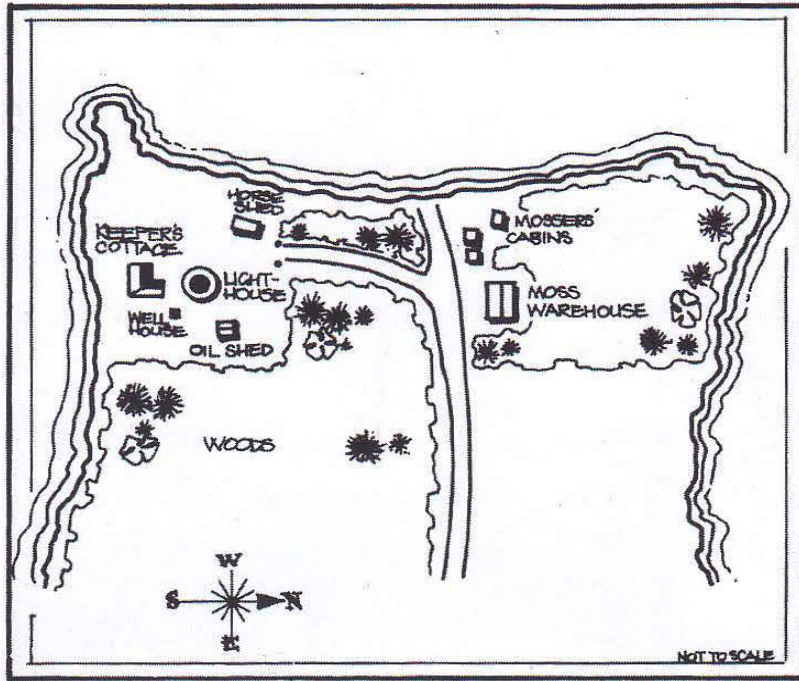
The most successful path to funding is seen throughout PEI, where the Prince Edward Island Lighthouse Society successfully divested most of their lighthouses to their respective communities and have pivoted them into popular tourist destinations connecting them into a loose network (Figure 3.10). Through gift shops and small visiting fees lighthouses across PEI can fund almost all maintenance costs to keep their towers healthy. The group's mandate was to save and preserve PEI lighthouses which they have, mostly, accomplished but as the volunteers get older, some developing health problems, they need help to maintain the massive progress they have achieved. Jackie Brown's solution is to convince the Province that lighthouses play an integral role in PEI's culture while garnering enough intrigue from tourists to warrant investment from the tourism department.²³

The island of PEI is small with a dense grouping of lighthouses, making it is easy to share resources and organize amongst each other. This becomes much harder to achieve in a larger province like Newfoundland, which is extremely spread out and has a higher danger and weather factor to contend with. Compounding sharing resources with public access, PEI's Point Prim Lighthouse is on an east coast tour bus route which provides them a high volume of tourists. Whereas Panmure Island Lighthouse, which is also in PEI but much further off major routes, requires more dedicated tourists to make the journey. Compare the density of PEI to extremely isolated lighthouses like Cape Race Lighthouse at the southeastern tip of Newfoundland or on an island like Bon Portage Lighthouse off the southwestern tip of Nova Scotia. This comparison displays the disparity between access which allowed PEI to set up a network of viable non-profit tourist businesses

21 Angela Walker, "West Point Lighthouse May Get New Features for 150th Birthday | CBC News," CBC, March 9, 2021, <https://www.cbc.ca/news/canada/prince-edward-island/pei-west-point-lighthouse-1.5942564>.

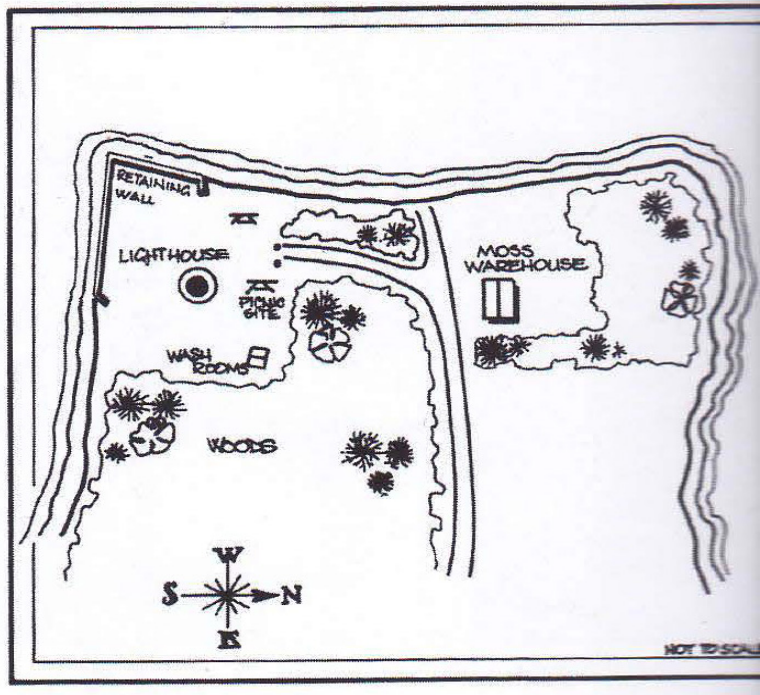
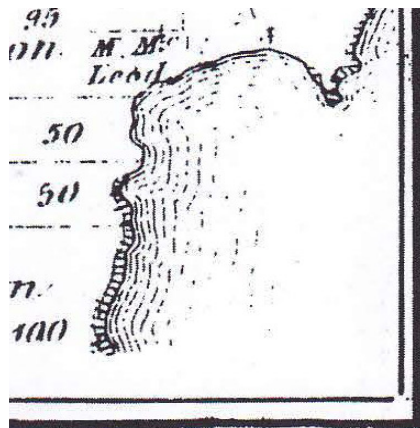
22 Anjuli Patil · CBC News ·, "Community Restoring 117-Year-Old Lighthouse in Smiths Cove | CBC News," CBC, September 11, 2022, <https://www.cbc.ca/news/canada/nova-scotia/community-restoring-117-year-old-lighthouse-in-smiths-cove-1.6574767>.

23 ibid



Point Prim Lighthouse Site Plan - Past

Figure 3.11 Site plans in the information brochure illustrating the shrinking shoreline at Point Prim Lighthouse, Point Prim, PEI. 2016. Image by Goldie Gillis in Point Prim Lighthouse: A Guided Tour.



Point Prim Lighthouse Site Plan - Present

Figure 3.12 Site plans in the information brochure illustrating the shrinking shoreline at Point Prim Lighthouse, Point Prim, PEI. 2016. Image by Goldie Gillis in Point Prim Lighthouse: A Guided Tour.

whereas it is much more difficult for larger more disparate provinces to secure the same funding PEI lighthouses have, leaving the question of funding still unanswered.

The Next Threat

Even though PEI lighthouses have mostly secured a steady stream of income to properly maintain their buildings, they along with all lighthouses, are more and more at risk to extreme weather phenomena due to the effect of climate change. Jackie Brown describes the biggest threat Panmure Island, and most lighthouses on PEI face:

We make enough money from our lighthouse tours to keep the property maintained and lighthouse in good shape. What we don't have, which is a huge concern, is we don't have the funds we need to combat shoreline erosion, but we need bigger money than we have... we can get money from the province, we can get money from the feds, but only up to 75%, and even that 25% remaining is more than we can handle. The worst part of it is you have to have it all complete before they reimburse you, which means as a volunteer board of directors you have to get a personal line of credit to guarantee it, get the contracting done, and then hopefully they don't change their policies, cause their policies can change at any time while in the meantime the volunteer board of directors is on the hook... half a million dollars is a fair chunk of change for six volunteers.²⁴

At Point Prim, Goldi Gillis described their erosion struggles: "A total of nine acres of government property surrounded the tower. Today this acreage has so eroded away along the banks that [six] acres have been literally washed into the sea (Figures 3.11 – 3.12)."²⁵ To mitigate this erosion the volunteer group managed to get funding from the government in 1982 to construct a concrete retaining wall costing \$45,000 but after years of further erosion required extensive reconstruction in 2010 at the cost of \$265,000.²⁶ " 'Municipalities are on the front lines of new climate extremes,' said Joanne Vanderheyden, FCM's president. 'The main challenge is that the funding that's available doesn't match the needs on the ground.' "²⁷

24 Jackie Brown, 2022.

25 Goldie Gillis, "Point Prim Lighthouse: A Guided Tour" (Point Prim Lighthouse Society, 2016), 12.

26 Ibid, 13.

27 Pam Berman, "Annapolis Royal Becomes 'group of Grant Writers' as Town Seeks Funding for Climate Change Efforts | CBC News," CBC, September 11, 2021, <https://www.cbc.ca/news/canada/nova-scotia/annapolis-royal-climate-change-plans-funding-1.6171399>.



Figure 3.13 Photo illustrating the impact the reefs have on restoring the shoreline at West Point Lighthouse, West Point, PEI. 2022. Image by CBCL.



Figure 3.14 Old and new location of Gabarus Lighthouse, Gabarus, Nova Scotia. 2022. Photo by Author.

West Point Lighthouse in PEI also underwent massive shoreline erosion projects to combat their rapidly disappearing shoreline. They started with a timber seawall in 2012, then a 2016 storm washed out the rock fill from behind the wall and Hurricane Dorian ravage the landscape in 2019. In 2022 the province heired CBCL, an engineering and environmental consulting company to combat the erosion and inclement weather. CBCL installed a series of 'reef' breakwaters to control the sediment distribution which provided immediate results. Shortly after construction finished, Hurricane Fiona hit but the reefs held firm and shoreline started to come back within a month post-hurricane (Figure 3.13). This project was a huge success but is not financially viable for every lighthouse to undergo.

Other strategies used to fight shoreline erosion is by simply relocating the tower itself. In Gabarus Cape Breton "coastal erosion had chewed away so much of the cliff on which the lighthouse sat that it may not have survived another winter... Erosion has cut away at the cliff, sometimes quickly leaving the lighthouse in a perilous position. One rainstorm, for instance, washed away 1.5 metres, McGillen said."²⁸ The small town partnered with students at the nearby University of Sydney to win a \$50,000 grant from the This Lighthouse Matters campaign sponsored by the National Trust of Canada and the Nova Scotia Lighthouse Preservation Society. "The history of Gabarus is tied up with the lighthouse'... A lighthouse is an icon in any community that has one, said Tim Menk, another member of the Lightkeepers Society... 'It means everything to people as a symbol of Nova Scotia but for the village, it's a symbol of Gabarus.'"²⁹ This sentiment demonstrates their drive which led them to win the money and use it to move their tower further inland, saving it from the sea (Figure 3.14). Similar to West Point, this one success story has a financial barrier most small municipalities and non-profit groups can not achieve.

28 C. B. C. News ,
"Touchstone' of a Tiny Cape
Breton Community Is Saved
from the Sea | CBC News,"
CBC, November 27, 2015,
<https://www.cbc.ca/news/canada/nova-scotia/gabarus-lighthouse-moved-1.3340568>.

29 ibid.

No longer needed for the original purpose lighthouses are being left derelict by their previous owners, the Canadian Coast Guard, leaving the ones who cherish them to step in and do everything they can to save the heart of their communities. Having little to no funding set aside within various levels of government, small non-profit groups have been struggling to first divest the government of these artefacts they do not care about in the first place, then raise enough money to keep them maintained. This is made more challenging by the worsening effects of climate change, causing for more drastic and expensive measures to be taken that is out of reach by most lighthouse groups which threatens the preservation and dissemination of their history and culture. All these volunteer based, non-profit groups have proven that lighthouses are a widely sought after tourist attraction and that they can be lucrative businesses to fund their preservation. Now provincial and federal tourism boards need to step in and add their resources to this important ecosystem. But this larger issue of cultural preservation and dissemination is not limited to these small coastal communities, many different groups have taken on the challenge of saving and sharing their experiences that lighthouse groups can learn from.





Part IV: Case Studies

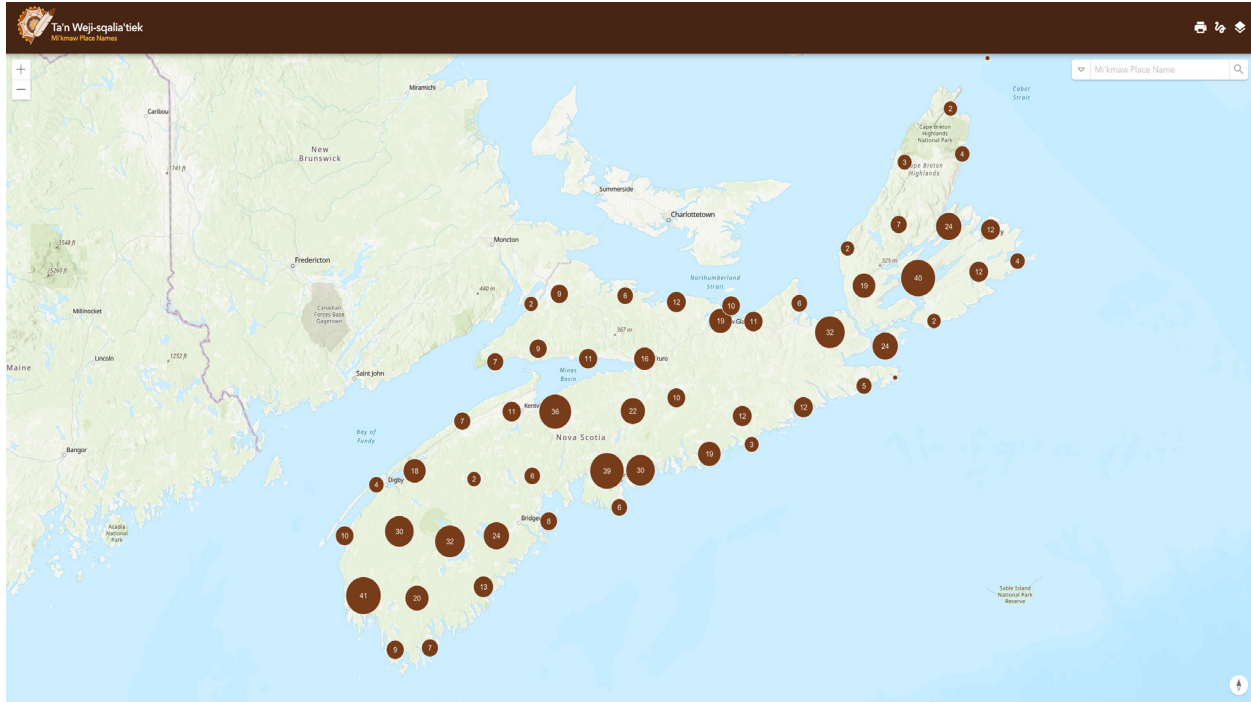


Figure 4.0 Screenshot of Mi'kmaw Place Names Digital Atlas full map. Image via <https://placenames.mapdev.ca/>.

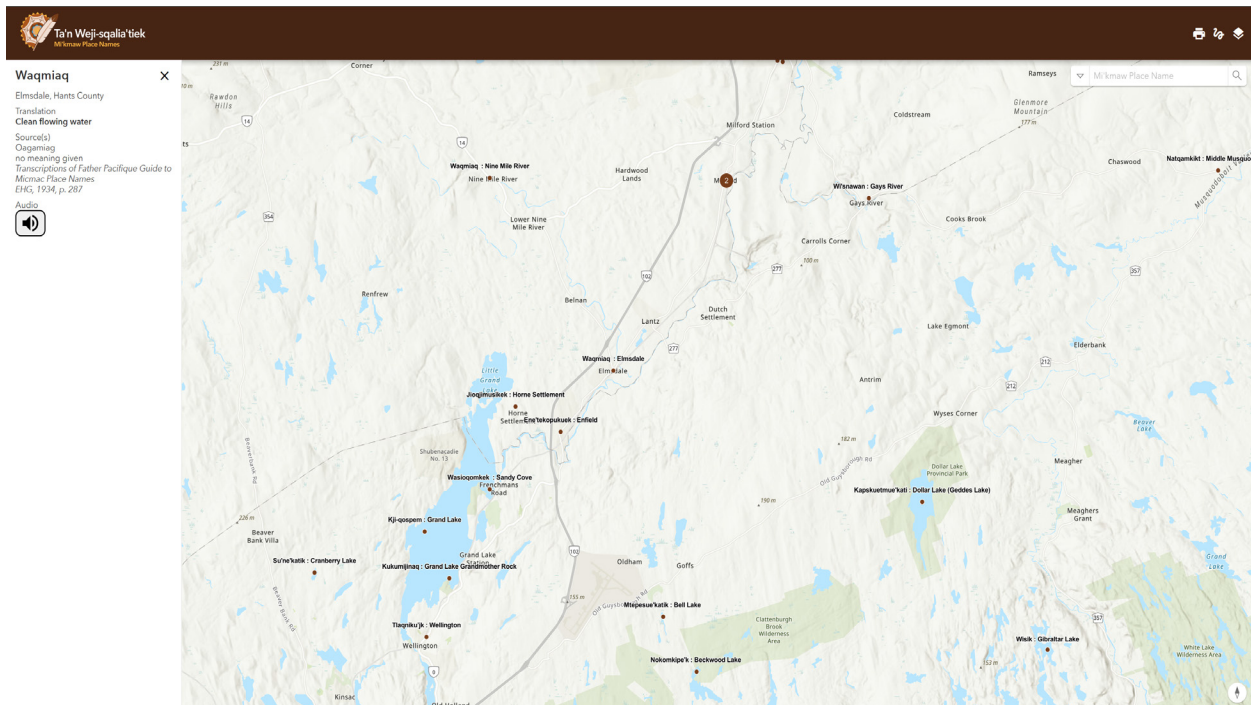


Figure 4.1 Screenshot of Mi'kmaw Place Names Digital Atlas individual selection. Image via <https://placenames.mapdev.ca/>.

The larger question this thesis tackles is how a community can preserve and share their unique history, culture, and experiences in our rapidly changing world; with advances in more accessible technological tools and literacy, communities have been able to answer this question in their own unique ways. The Mi'kmaw Place Names Digital Atlas utilizes web mapping to create a record of their place names throughout Nova Scotia, acting as a digital record of this threatened knowledge while making its existence known to others. Projects like Cero Gordo Mine by Polycam/Corridor Digital and Palimpsest by the Interactive Architecture Lab are harnessing cutting edge yet accessible Lidar and photogrammetry software to create immersive and experiential records of space, the latter leaning more into the experience of a place while the former is an exact record. Even something as simple as a blog is being used to create an artefact and story-based collection of places at risk due to climate change in Amy Balkin's Archive of Sinking and Melting. We can see that the struggle to this question has always been present, especially in the East Coast lighthouse community, as a project to take inventory of every lighthouse in the Maritimes was conducted in 2000 with the goal to create a digital record of their findings, but with the accessible internet still in its infancy, the bulk of the project was lost to time. By learning from these communities' implementation of accessible technology, that project from over two decades ago can now reach its goal.

1 "GIS Software & Web Mapping Development Company | MapDev," accessed February 12, 2022, <https://www.mapdev.ca/>.

Community Led Mapping

Mapping is an extremely powerful tool that can be used to understand a subject's geographic relationship but is mainly used as a navigational tool such as Google Maps. As technological proficiency and accessibility has advanced, more mapping tools and services such as MapDev have started to expand the general public's use of mapping to include more than only getting from point A to point B. MapDev acts as a liaison between users and Geographic Information Systems, or GIS, utilization to lower the technological barrier to entry allowing anyone with an idea to harness the power of mapping.¹ Clients work directly with their experienced software developers to carry out any GIS based project.

An excellent example of a community led project using MapDev is the Mi'kmaw Place Names Digital Atlas (Figures 4.0 -4.1), a project "to document approximately 13,000 years of

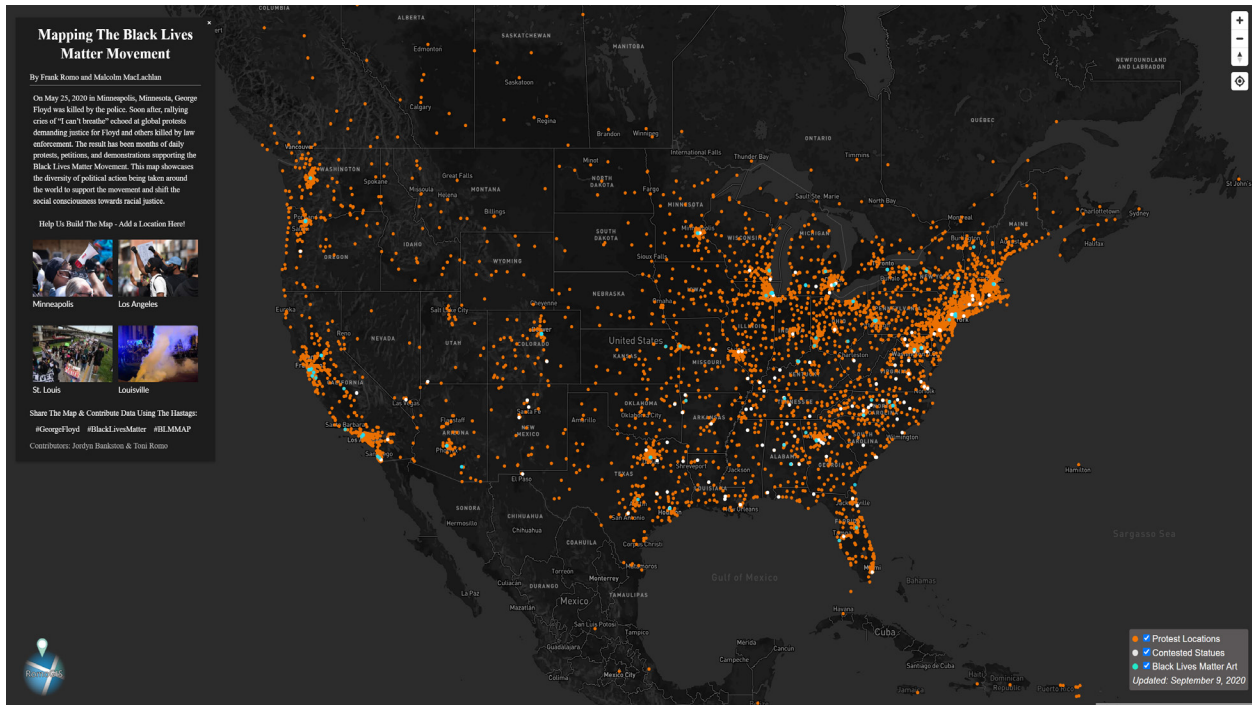


Figure 4.2 Screenshot of Mapping the Black Lives Matter full map. Image via <https://blm-map.com/>.

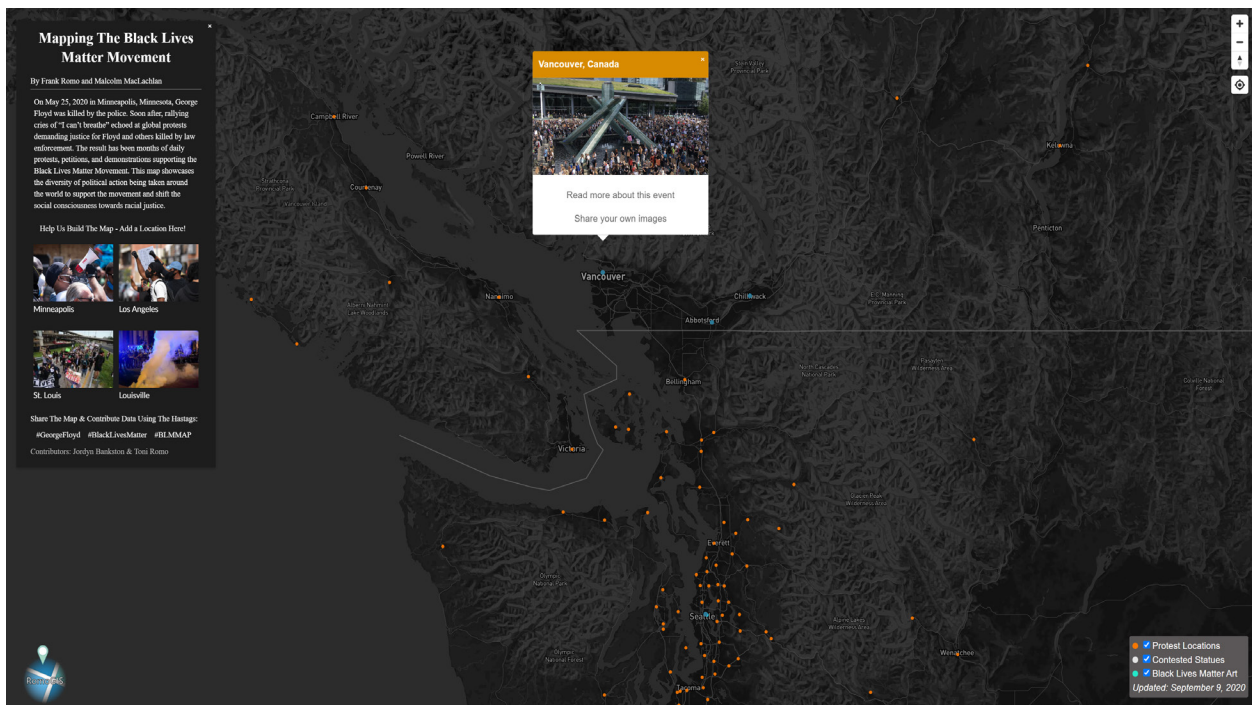


Figure 4.3 Screenshot of Mapping the Black Lives Matter individual selection. Image via <https://blm-map.com/>.

Mi'kmaw presence within Mi'kma'ki, the place of the Mi'kmaq, and to raise public awareness of this ancient history."² This digital atlas is the cornerstone to their website which they envision will expand into a multimedia educational resource to directly support other Mi'kmaw activities while enhancing Mi'kmaw tourism and cultural awareness. The map overlays colonial place names and boundaries with the ancestral Mi'kmaw place names, pronunciation, and translations with sources showcasing the "dynamic inter-relationship between the Mi'kmaq and their ancestral landscape."³ This community holds a massive repository of information and working with MapDev allowed them to disseminate that knowledge to a wider international audience in way that upholds their inherent connection to place and landscape with the implementation of GIS, and web mapping tools.

MapDev is quite a small company providing services mostly to Nova Scotia / the Canadian Maritimes which helps instill their community and collaborative values but leaves them lacking in coverage and reach. Mapbox on the other hand is one of the largest mapping API's, short for Application Programming Interface, second only to Google, providing mapping and navigation data to organizations and brands such as Facebook, Uber, Strava, National Geographic and The New York Times.⁴ According to Forbes Magazine "Mapbox has gotten this far by focusing strictly on the developers, creating a basic building block, à la Stripe or Amazon Web Services, that a wide variety of businesses can use. While many mapping companies give users a finished map, Mapbox is akin to a box of Legos that engineers can customize."⁵ As MapDev collaborates with their clients directly they completely remove the technological barrier to entry to harness the power of mapping; Mapbox however still requires a degree of coding and software development knowledge but leaves the mapping and navigation approachable and widely customizable. This results in a much wider coverage of available users as they provide the tools that anyone can utilize to carry out their project.

Due to the highly customizable nature of Mapbox it can be utilized by anyone, not just the biggest brands in the world. By pairing with Mapbox GL JS, a JavaScript library, anyone with a limited knowledge of software development can harness mapping technology to create powerful web maps. One of many examples include Mapping The Black Lives Matter

2 "Mi'kmaw Place Names Digital Atlas," accessed February 12,2022, <https://placenames.mapdev.ca/>.

3 Trudy Sable and Bernard Francis, *The Language of This Land, Mi'kma'ki* (Sydney, NS: Cape Breton University Press, 2012),17.

4 "Mapbox Company," accessed October 15, 2021, <https://www.mapbox.com/about/company>.

5 Biz Carson, "The Right Direction: How Mapbox Is Winning Over Developers To Challenge Google's Mapping Dominance," *Forbes*, May 8, 2018, sec. Tech, <https://www.forbes.com/sites/bizcarson/2018/05/08/mapbox-maps-developers/>.



Figure 4.4 Screenshot of the whole mine scan on the Cerro Gordo Polycam website. Image via <https://poly.cam/cerro-gordo>.

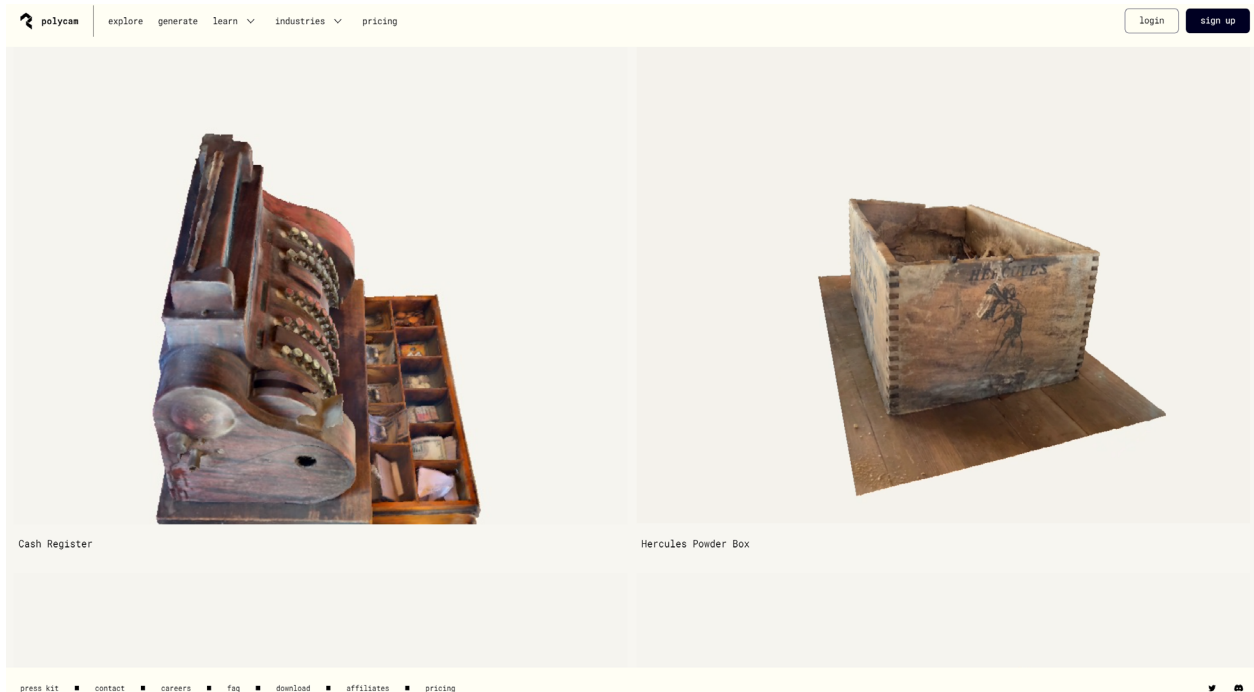


Figure 4.5 Screenshot of objects scanned on the Cerro Gordo Polycam website Image via <https://poly.cam/cerro-gordo>.

Movement by Frank Romo and Malcolm MacLachlan (Figures 4.2 – 4.3), a map showcasing “the diversity of political action being taken around the world to support the movement and shift the social consciousness towards racial justice.”⁶ By combining Mapbox with crowdsourced knowledge through twitter implementation, public news stories, and user submissions, the two were able to effectively demonstrate the scale and impact of the Black Lives Matter movement at it’s peak through 2020. This project is also an excellent case study of combining mapping with crowdsourced information to become a resource larger than what only two can feasibly produce.

6 “Mapping The Black Lives Matter Movement,” accessed January 16, 2023, <https://blm-map.com>.

Archiving Space

3D Scanning is the process of using a real-world objects data, such as its size and colour, to create a digital model. As 3D scanning technology has advanced it has both become more accurate, and increasingly accessible to use with the two most prevalent forms being LiDAR and photogrammetry. LiDAR, or light detection and ranging, uses a laser to measure the time it takes for the light to hit the target object and reflect into the receiver to determine the objects distance from the receiver. By fully scanning an object with this method it creates a very accurate digital model most notably used for making high-resolution 3D maps of earth’s surface or the ocean’s floor. Photogrammetry measures distance by analyzing a point’s change in position between two or more images. Google uses their massive amount of satellite imagery and photogrammetric techniques to create the 3D models one sees in street view. Both technologies have recently started becoming extremely accessible to the average person, iPhones now include a LiDAR scanner resulting in apps like Polycam, Ikea Place, and Measure to take advantage of the cutting-edge hardware, while anyone can use photogrammetry through photos taken on their phone and importing them into software such as Agisoft Metashape, Meshroom, and Reality Capture.

With 3D scanning techniques becoming widely accessible they have opened the door for a wide array of creative and impactful projects. For example, the Cerro Gordo joint project between: Polycam, a 3D scanning application; Brent Underwood, the owner of Cerro Gordo Mines and Ghost Town Living; and Corridor Digital, a production company specializing in experimenting with cutting-edge computer-



Figure 4.6 Screenshot of interactive 3-D scan interface of Cerro Gordo Mine. Image via <https://poly.com/cerro-gordo>.



Figure 4.7 Screenshot of interactive 3-D scan interface of Cerro Gordo Mine. Image via <https://poly.com/cerro-gordo>.

generated imagery techniques. Cerro Gordo Mine used to be one of the busiest silver mines in America but has sat abandoned for the past 100 years, Brent Underwood has since purchased the mine aiming to preserve its history while making it accessible to new generations through the Ghost Town Living project. Through partnering with Polycam and Corridor Digital, the three groups used a combination of LiDAR and photogrammetry to scan everything on the site. From the landscape to the multiple buildings (Figure 4.5) and mine shafts all the way down to individual artefacts (Figure 4.5) such as old Pepsi cans and mining tools.⁷ By combining all the digital scans into one main 3D model the public can interactively view every detail, akin to Google Street view (Figures 4.6 – 4.7). This not only preserves the objects, buildings, and space itself as digital artefacts, but it allows anyone with access to the internet to experience this piece of history.

7 Wren Weichman and Brent Underwood, "Cerro Gordo," Poly.cam, accessed September 25, 2021, <https://poly.cam/cerro-gordo>.

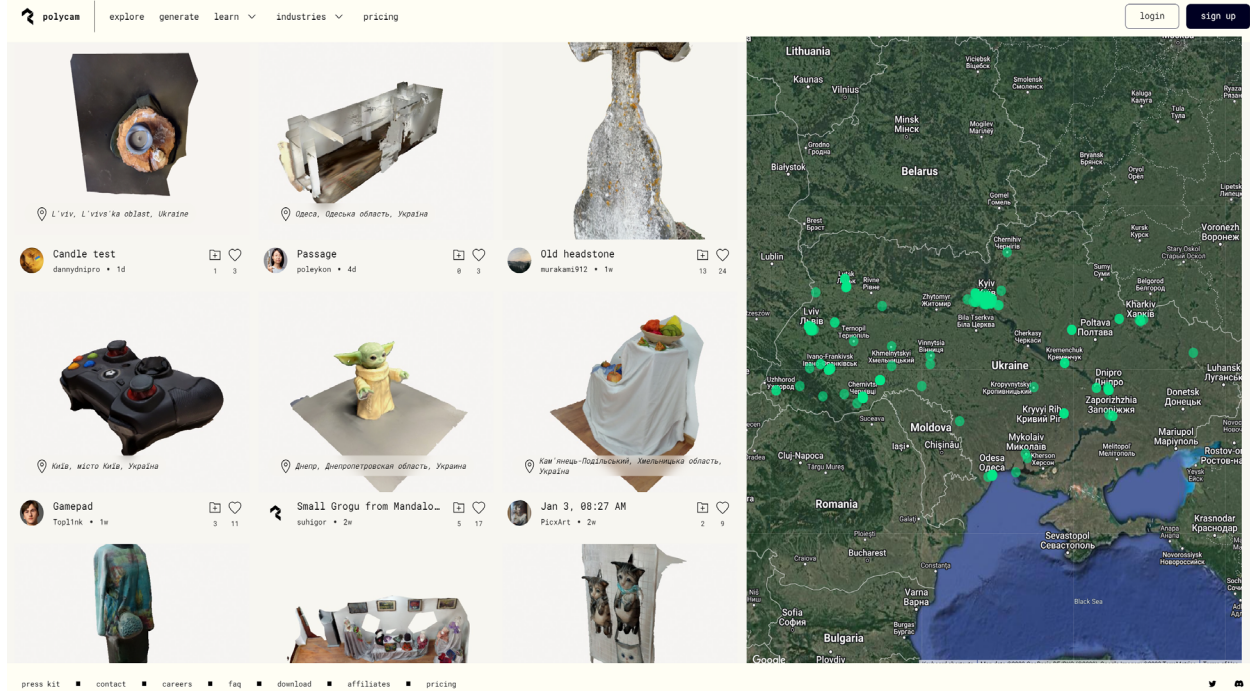


Figure 4.8 Screenshot of objects scanned and their linked locations on the Backup Ukraine Polycam website Image via <https://poly.cam/ukraine>.



Figure 4.9 Screenshot of the 3-D scan of the Dominican Church in Lviv, Ukraine from the Polycam x Skeiron website. Image via <https://skeiron.nira.app/a/9UnWLFr9RLusVS4-J0xdKw/1>.

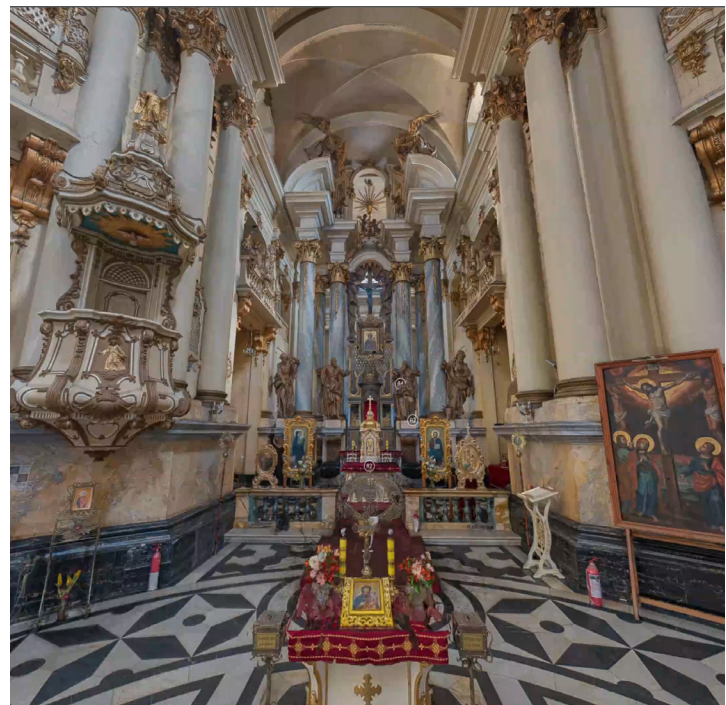


Figure 4.10 Screenshot of the 3-D scan of the Dominican Church in Lviv, Ukraine from the Polycam x Skeiron website. Image via <https://skeiron.nira.app/a/9UnWLFr9RLusVS4-J0xdKw/1>.

Another Polycam backed project is that of Backup Ukraine, in partnership with Blue Shield Denmark, Unesco, Virtue Futures, and Skeiron. This project has the sole aim to scan and map buildings, monuments, and objects throughout Ukraine to serve as a secure online archive “where no bombs can reach.”⁸ As a true testament to how accessible 3D scanning technology has become, this project utilizes crowdsourced submissions of user scanned 3D models to create the archive. The submissions are also geo tagged allowing them to be mapped, recording where these artefacts were originally located (Figure 4.8). Skeiron, A team of 3D scanning professionals use high end LiDAR and photogrammetry for larger scale and more complex buildings, like the Dominican Church in Lyiv, even publicly hosting the models for everyone to inhabit and experience (Figures 4.9 - 4.10).⁹

8 “Backup Ukraine - Polycam + UNESCO,” April 11, 2022, <https://poly.cam/ukraine>.

9 “Large Scale Architectural Captures,” Large Scale Architectural Captures, accessed January 16, 2023, <https://learn.poly.cam/backup-ukraine-partners>.



Figure 4.11 Palimpsest image, experiencing a conversation between two residents in their living room. Image via <http://www.interactivearchitecture.org/lab-projects/palimpsest>.



Figure 4.12 Palimpsest image, experiencing how people use a public park where a new development is slated to demolish. Image via <http://www.interactivearchitecture.org/lab-projects/palimpsest>

3D scanning is not limited to viewing 3D records of space but can also be used to become fully immersed in the memory of a space by layering that space with its records of stories, histories, and experiences. Palimpsest by Interactive Architecture Lab (Figures 4.11 – 4.13) achieves this through a combination of 3D scanning a record of the space and combining it with virtual reality to fully experience the communities that live in urban spaces at risk of being lost due to rapid and dramatic urban redevelopment. Palimpsest allows a user to inhabit a digital version of a space through Virtual Reality, and witness recordings and interviews play out in front of them, creating an incredibly immersive and impactful experience. Interactive Architecture Lab “aim to create more inclusive planning practices, using emerging technology to directly connect communities, governments, and developers in conversation. They also become historical documents, digitally recording spaces and stories that might otherwise be lost.”¹⁰

10 Takashi Torisu, Haavard Tveito, and John Russell Beaumont, “Palimpsest | Interactive Architecture Lab,” accessed September 25, 2021, <http://www.interactivearchitecture.org/lab-projects/palimpsest>.

The Palimpsest

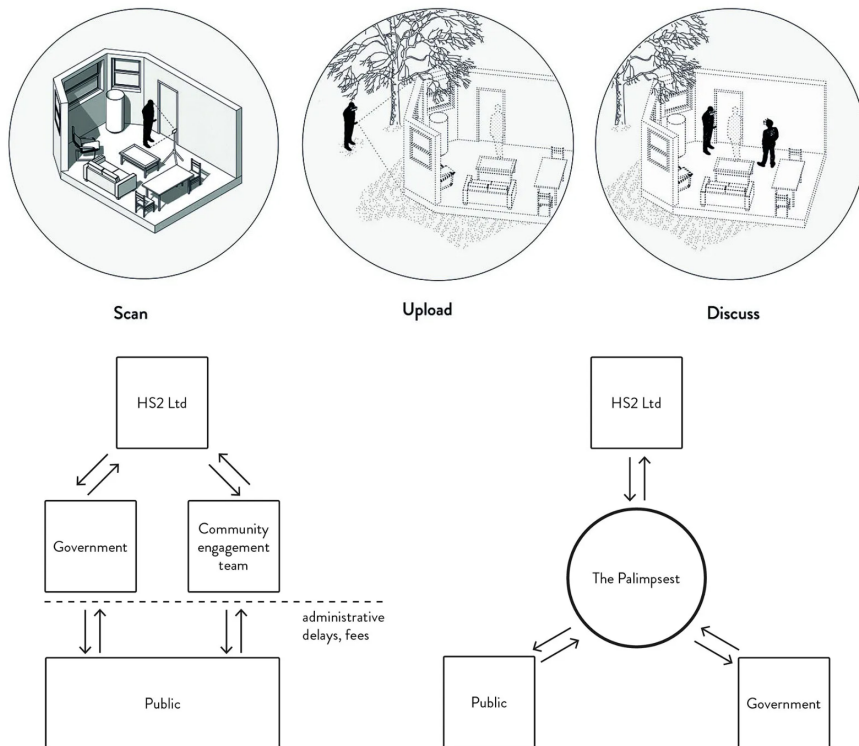


Figure 4.13 Diagrams outlining The Palimpsest. Image via <http://www.interactivearchitecture.org/lab-projects/palimpsest>



PENNIFED VERTEBRA, Kivalina, Alaska (Jenna Landin-Torres III), SENEGAL COLLECTION, Dakar, Senegal (Matt Swagler), PATCH, Anvers Island, Antarctica (Olefinas Neus)

A PEOPLE'S ARCHIVE OF SINKING AND MELTING

A People's Archive of Sinking and Melting is a collection of materials contributed by people living in places that may disappear because of the combined physical, political, and economic impacts of climate change, primarily sea level rise, erosion, desertification, and glacial melting.

As of 2021, the archive includes contributions from locations including Anvers Island (Antarctica), Cape Verde, Cuba, Greenland, Kivalina (Alaska), Miami, Nepal, New Orleans, New York City, Panama, Peru, Russia, Senegal, Trinidad and Tobago, and Tivahu.

Together, through common but differentiated collections, these contributions form an archive of what will have been.

Visit the Archive online

A People's Archive is actively seeking contributions.

WHAT TO CONTRIBUTE

Any item is equally valuable as a record of a sinking or melting place, as contributed by someone who lives there. Your contributions can be something natural, manufactured, found, made, or discarded, including trash. It doesn't have to originate from that place - it can be anything that is there. Your submitted object will be permanently archived with the information you send and the location's [UNFCCC Party Grouping](#).

Your contribution must weigh less than 1/2 lb. The archive will not accept items with import/export prohibitions.

HOW TO SEND

1. FILL OUT the contribution form below and email it to: registrat@sinkingandmelting.org

Item name:
Description/Materials:
Contributed by:
Location:
Lat/Long (if available):
Date Collected:
How location is impacted by climate change (sinking/melting/desertification, etc.):
Notes:

2. MAIL or BRING contributions to:

A People's Archive of Sinking and Melting
c/o Registrar Amy Balkin
2136 Fell Street, No.301
San Francisco, CA
94117 USA

2. SUBMIT any 8MB or smaller .jpg images to: registrat@melting.org

3. (OPTIONAL) QUESTIONS

Do you live where the object came from? If not, what is your relation to that place?

What have you seen disappear there, environmentally or otherwise? What do those disappearances mean?

What is your relationship to the object(s) you contributed?

Why did you contribute to the archive? What do you hope for your contribution, and the archive generally, to change or draw attention to?

CONTACT

Email the registrars at: registrat@melting.org

Figure 4.14 Screenshot of A Peoples Archive of Sinking and Melting main page. Image via <http://www.sinkingandmelting.org/>.

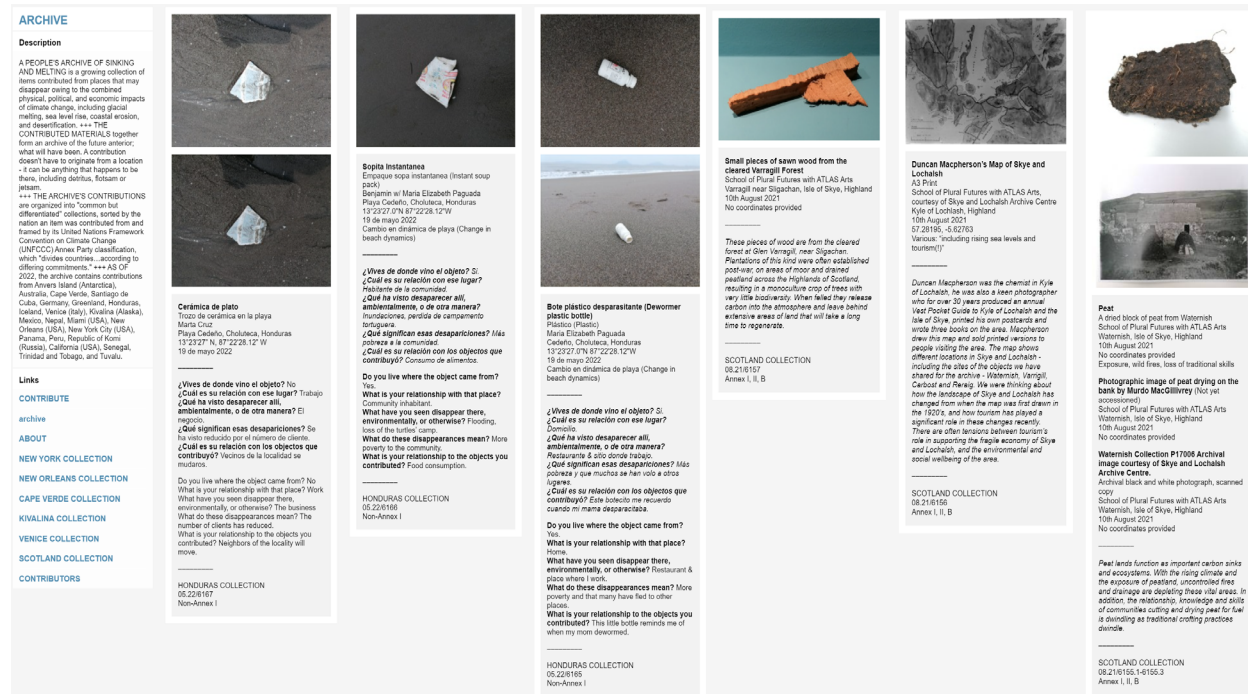


Figure 4.15 Screenshots of the archive. Image via <http://www.sinkingandmelting.org/>.

Storytelling as Memory

Even without using cutting edge technological tools, people harness the reach and power of the internet to create collaborative archives with something as similar as a blog post. A beautiful precedent of this is the work of Amy Balkin on 'A People's Archive of Sinking and Melting' (Figures 4.14 – 4.15),¹¹ "a growing collection of items contributed from places that may disappear owing to the combined physical, political, and economic impacts of climate change, including glacial melting, sea level rise, coastal erosion, and desertification."¹² This communal collection gives heart and soul to everyday objects, telling the stories of things that would normally be overlooked; it creates a connected system across the globe of these endangered places. Anyone can contribute to the archive, they simply need to fill out a form, submit the artefact itself or an image of it, and tell the stories associated with that object. The submissions are then sorted into " 'common but differentiated' collections, sorted by the nation an item was contributed from and framed by its United Nations Framework Convention on Climate Change (UNFCCC) Annex Party classification, which 'divides countries...according to differing commitments.' ".¹³ There are currently six collections: New York, New Orleans, Cape Verde, Kivalina, Venice, and Scotland but there are submissions from all over the world ranging from Anvers Island Antarctica to Tuvalu.

11 Amy Balkin, "A People's Archive of Sinking and Melting," 2011, <http://www.sinkingandmelting.org/>.

12 T.J. Demos, "The Law of the Land: An Interview with Amy Balkin," Edwin Coomasaru and Tom Snow (International New Media Gallery (IN)VISIBLE MATTER (2013).

13 Balkin, "A People's Archive of Sinking and Melting."

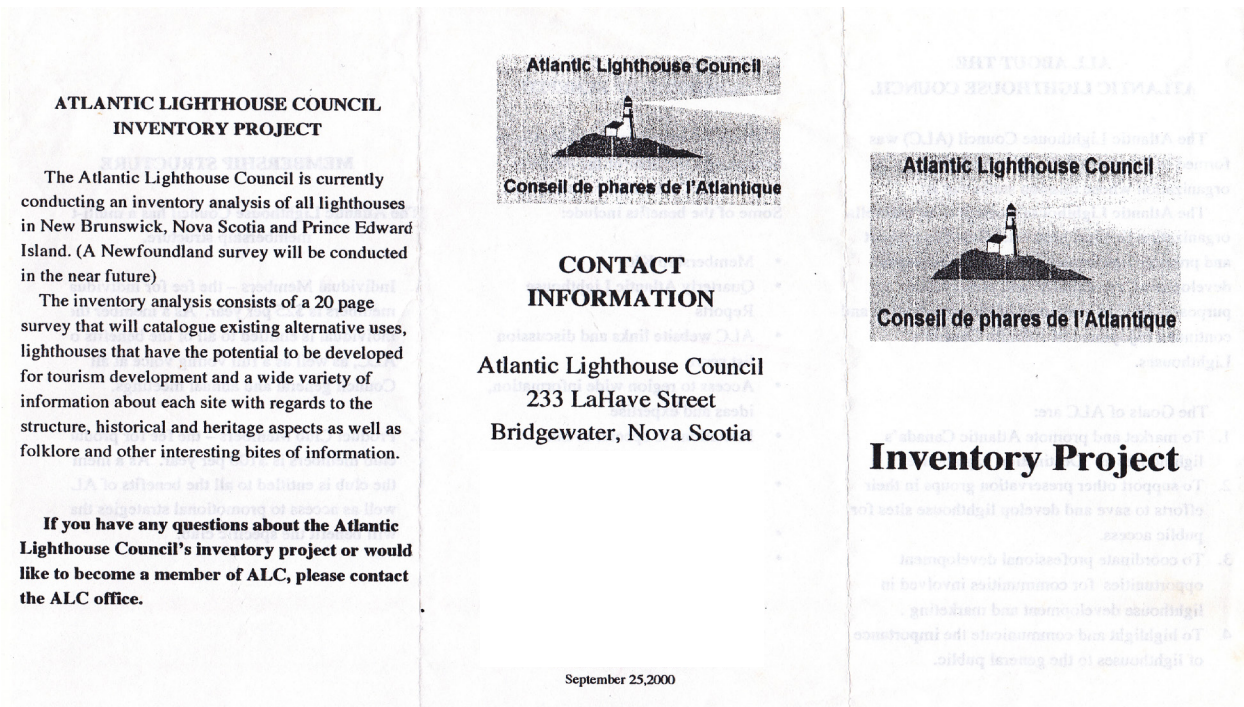


Figure 4.16 Information brochure for the Atlantic Lighthouse Council Inventory Project. Image via Jim Barkhouse.

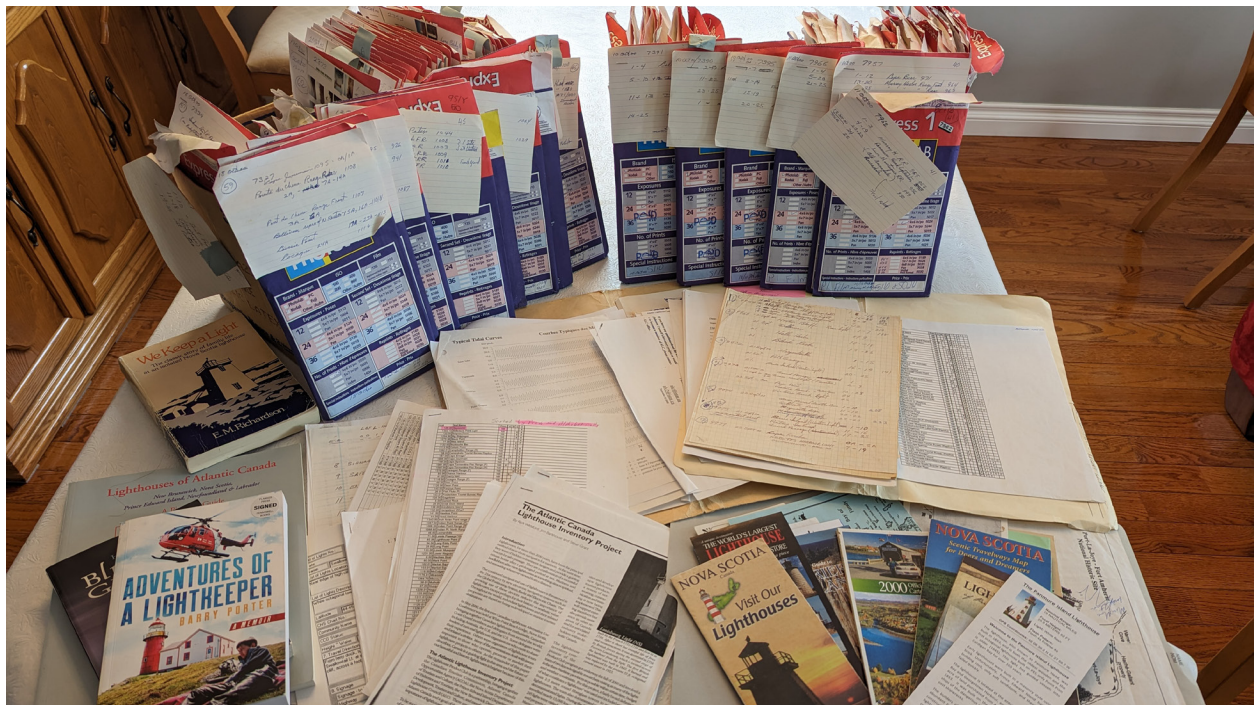


Figure 4.17 All paper documentation and photos taken by Jim Barkhouse and Steven Grant during the 2000 inventory project. 2022. Photo by Author.

The Precursor

These questions of preservation and dissemination shared by the discussed projects and communities have been present in the Atlantic Canada lighthouse community for decades. Roughly twenty years ago in 2000 The Atlantic Lighthouse Council saw the looming threat to lighthouses with the advent of GPS, Radar, and electronic charts and sought to record every lighthouse possible to take inventory of how to move forward to protect and redevelop their cherished icons (Figure 4.16).¹⁴

Lighthouses, for more than 2000 years, have been the principal method of near-shore navigation for mariners. At the same time, they warn of hidden or imminent dangers and provide a guiding beacon for safer passage. They are a confirmation of a successful return home after a prolonged period at sea. Mariners and landlubbers alike view lighthouses as something almost spiritual, and reassuring whenever viewed from a distance. ...the team travelled nearly 13,000 km and shot over 100 rolls of film. In all, 245 lights were visited; photographs of all aspects of each lighthouse and property were taken and a 20-page questionnaire was started.¹⁵

To understand how the council wanted to address the future of how they utilize their lighthouses they needed to take inventory of as many lighthouses as possible and record all relevant information tied to each light. The first step in the process was to visit every lighthouse in the three maritime provinces and document them through film photographs and field reports. If the field team could not access lighthouses on islands or contact the Coast Guard or people in the local community to gain access to the tower, they took photos from a distance and did as much as they were physically able. Each film photograph taken was carefully documented and recorded alongside a lengthy field report noting things like key contacts, directions, tourism attractions, and the historical background to name a few (Figures 4.18 – 4.20).

Once the trip had concluded and photographs developed and sorted, all the information was to be recorded in various

14 Jim Barkhouse, Steve Grant, and Rick Welsford, "The Atlantic Canada Lighthouse Inventory Project" (The Atlantic Lighthouse Council, 2000).

15 Barkhouse, Grant, and Welsford, "The Atlantic Canada Lighthouse Inventory Project."

ALC Lighthouse Inventory—Field Sheet

1. Date: 28 Oct 2000

2. Location: ~~At NS Boarder Crossing~~

Latitude ^{GPS} ~~45 51 17~~

Longitude ~~64 15 40~~

CHS Chart Number _____

List of Lights Name Nova Scotia Boarder Replica

List of Lights Number ~~767-01~~

List of Lights Description White square tower

Figure 4.18 Excerpt of a Field Sheet used for the inventory project. Image via Jim Barkhouse.

17/11/00 10:41:37 AM

Num	Name	Latitude	Longitude	Description	
1	0006.0	44 30.1170	-67 06.1170	Machias Seal Island	<i>NB Lighthouses</i> 55 lights on Bay of Fundy / Saint John River
2	0008.0	44 30.6230	-66 46.9300	Gannet Rock	
3	0011.0	44 36.0430	-66 54.3280	Southwest Head	
4	0025.0	44 36.8250	-66 42.6270	Long Point	
5	0026.01	44 40.0300	-66 45.0700	Fish Fluke Pt.	
6	0029.0	44 41.0650	-66 41.6200	Great Duck Island	38 lights on Gulf of St. Lawrence
7	0033.0	44 45.8470	-66 43.9930	Swallowtail	
8	0034.0	44 47.9630	-66 47.1620	Long Eddy Point	
9	0036.0	44 56.2000	-66 44.0500	Southwest Wolf Island	
10	0038.01	44 51.7830	-66 58.7670	Mulholland Pt. Replica	
11	0038.02	44 51.7670	-66 58.4670	Campobello Tourist Bureau Replica	8 lights not visited
12	0041.0	44 55.1230	-66 58.0000	Cherry Islet	
13	0044.0	44 57.4770	-66 54.0020	Head Harbour	16 replicas
14	0046.0	44 58.0930	-66 57.3070	Leonardville	
15	0049.0	44 55.5230	-66 59.0880	Deer Point	93 lights total
16	0057.01	45 04.1170	-67 02.3330	Pendlebury Lt.	
17	0059.0	45 10.0500	-67 11.1500	Spruce Point	
18	0060.0	45 10.2330	-67 12.6500	Mark Point	
19	0062.01	45 11.5000	-67 16.5670	St. Stephen Replica	
20	0071.0	45 02.3300	-66 53.5150	Letete Passage (Green Point)	
21	0077.0	45 01.1050	-66 51.0150	Bliss Island	
22	0081.0	45 02.3400	-66 48.4680	Pea Point	

Figure 4.19 Excerpt of the New Brunswick list of lighthouses used for the inventory project. Image via Jim Barkhouse.

spreadsheets on the computer, which were still very much in their infancy at the time, to act as a digital record. The information was then formatted into a digital catalogue or database while being very sure it was all future proofed (Figures 4.21 – 4.22).

We should think of the researcher who will be looking at this database in, say, 10 years and annotate things so that there will be no confusion long after we have all moved on to other projects. ... A piece of info. might seem trivial to us today but even the simplest and seemingly most trivial comment might be extremely valuable to a researcher in several years." ¹⁶

The project was extremely well executed and thorough with plans to include Newfoundland and Labrador in the coming year, even creating budgets and schedules for the trip. However due to the limitations of computers, the internet, and its dependence on disparate analog tools that needed to be connected, resulted in the project being lost to obscurity. The only records of the project were paper copies and documents, along with the full film and print catalogue of photos, in a box Jim Barkhouse kept in his office for twenty years (Figure 4.17).



Figure 4.20 Photo of Swallowtail Lighthouse, Grand Manan Island, New Brunswick. 2000. Photo by Jim Barkhouse.

ALC Data Control Sheet

LoL#	Date	LoL Nam	Chart#	Prov	CC	Sig	En	Ro	Wa	He	Communit	To	De	His	Es	His	FH	BRC	His	Descr	De	De	Cn	Vo	Fu	Aw	Pia	Prd	Gr	Im	Po	Out	Sig	Sig	Sig	Sig	Mo	Ev											
1		All New Brunswick		NB																0																													
2		All Nova Scotia		NS																0																													
3		All Prince Edward Island		PE																0																													
4		All Nfld. & Labrador		NF																0																													
5		All Quebec		QC																0																													
6		Machias Seal Island	4340	NB	C			Y	N							1914	87-125			0																													
8		Gannet Rock	4340	NB	C	N	Y	Y	N	Y	Y	Grand Ma	Y			1831	90-112			0		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N								
11-10-26		Southwest Head	4124	NB	B	Y	Y	N	Y	N	Y	Grand Ma	Y			1880				0	Concr	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	N							
25-10-26		Long Point	4340	NB	C	N	Y	Y	Y	N	Y	Grand Man	Y			1966				0	Concr	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N							
26.01-10-26		Fish Fluke Pt./ Grand	0	NB	P	N	Y			Y		Grand Ma	Y							0	Wood	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	N					
29		Great Duck Island	4340	NB	B	N			N	Y	Y	Grand Ma	Y			1966				0		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	N				
33-10-26		Swallowtail	4342	NB	C	Y	Y	Y	Y	Y	Y	North Hea	Y			1860	90-113			0	Wood	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	N				
34-10-26		Long Eddy Point	4340	NB	C	N	Y	Y	Y	N	Y	North Hea	Y			1966				0	Concr	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	N			
36		Southwest Wolf Island	4340	NB	C											1871				0																						Y							
38.01-10-26		Old Mulholland Pt.	4114	NB	P	N	N	N	Y	Y	Y	Campobell	Y			1885	91-066	INF	-1	Wood	Y	Y	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Y			
38.02-10-26		Campobello Tourist Bu	4114	NB	R	N	N	N	Y	Y	Y					N/A				0			O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O				
41-10-26		Cherry Islet	4114	NB	C	N			N							1969				0																													
44-10-26		Head Harbour	4114	NB	C	Y	Y	Y	Y	Y	Y	Campobell	Y			1829	90-284			0	Wood	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N				
46-10-27		Leonardville	4114	NB	B	N	Y	N	Y	Y	N	Deer Islan	Y			1914	90-298	INF	0	Wood	Y	Y	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			
49-10-27		Deer Point	4114	NB	C	N	Y	N	Y	Y	Y	Deer Islan	Y			1955				0	Fiber	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N			
57.01-10-27		Pendlebury Lt. (St. And	4332	NB	P	N	Y	Y	Y	Y	Y	St. Andrew	Y			1833				0	Wood	Y																									Y		
59-10-27		Spruce Point	4331	NB	D	N	N	N	Y	N	Y	St. Stephe	Y			1876				0	Fiber	N																								N			
60-10-27		Mark Point	4331	NB	D	N	N	N	Y	N	N	St. Stephe	Y			1876				0	Fiber	N																								N			
62.01-10-27		St. Stephen Replica	4331	NB	R	N	N	N	Y	Y	Y					N/A				0			O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	C		
71-10-27		Letete Passage (Green	4124	NB	D	Y	Y	Y	Y	Y	Y					1903	89-150			0																													
77-10-26		Bliss Island	4124	NB	C	N			N							1871				0																													
81-10-26		Pea Point	4124	NB	B	N	Y	Y	Y	Y						1878				0																													
83-10-26		Lighthouse Point(Drew	4116	NB	B	Y	Y	N	Y	Y	Y	Blacks Har	Y			1875				0	Fiber	Y	N																						N				
90-10-25		Point Lepreau	4116	NB	C	N	Y	Y	Y	N	Y	Saint John	Y			1831				0	Concr	Y	Y																							N			
93-10-25		Chance Harbour	4116	NB	B	Y	Y	Y	N	N						1915				0																													
97-10-25		Musquash Head	4116	NB	B	N	Y	Y	Y	N	Y					1879				0																													
100-10-25		Partridge Island	4117	NB	B	N	Y	N	N	Y						1791				0																													
100.01-10-25		Saint John Lt. (CCG B	4117	NB	R	N	N	Y	Y	N	Y					0				0			O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	

Figure 4.21 Excerpt of the Data Control Sheet used by the inventory project. Image via Jim Barkhouse.

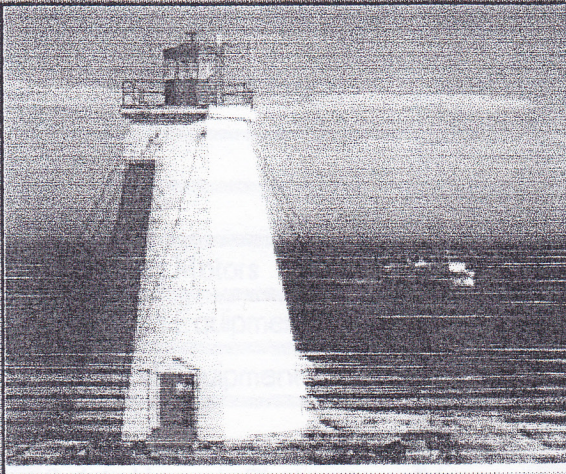

List of Lights No.:	<input type="text" value="33.00"/>				
Date:	<input type="text" value="2000-10-26"/>				
Name:	<input type="text" value="Swallowtail"/>				
List of Lights Location:	<input type="text" value="Near edge of high cliff, NE. part of island."/>				
List of Lights Descriptio	<input type="text" value="White octagonal tower."/>				
Latitude	<input type="text" value="44-45-50.8"/>	Longitude	<input type="text" value="66-43-59.6"/>	Datum	<input type="text" value="NAD27"/>
CHS Chart No.:	<input type="text" value="4342"/>				
Community Name	<input type="text" value="North Head"/>				
CCG Status:	<input type="text" value="C"/>	Province	<input type="text" value="NB"/>		
Height ^ Water	<input type="text" value="37.1"/>	Height ^ Ground	<input type="text" value="16.2"/>	<input type="button" value="Enter Community Contact"/>	
7. Travel Directions					
<input type="text" value="From ferry dock, turn right and drive +/- 200 m to Old Airport Rd. then follow signs to Swallowtail Lt. at end of Lighthouse Rd. You then must walk down the side of the cliff, across a foot bridge and along a path to the light +/- 170 m."/>					
8. Signage					
Signage - to Light	<input type="text" value="Y"/>	Meaning clear	<input type="text" value="Y"/>		
Highway	<input type="text" value="Y"/>	Easily Distinguished	<input type="text" value="Y"/>		
Site	<input type="text" value="Y"/>	Language consistent	<input type="text" value="Y"/>		
Inside	<input type="text" value="N"/>	Symbols only	<input type="text" value="N"/>		
Bilingual	<input type="text" value="N"/>	Presentation Consistent	<input type="text" value="Y"/>		
Accessible Services	<input type="text" value="N"/>	Signage - Dir. from Light	<input type="text" value="N"/>		
		Signage Photo	<input type="text" value="Y"/>		
<input type="button" value="Details"/>					

Figure 4.22 Printed screen shot of a entry to the database for the inventory project. Image via Jim Barkhouse.



Figure 4.23 Photo of Swallowtail Lighthouse, Grand Manan Island, New Brunswick. 2000. Photo by Jim Barkhouse.



Figure 4.24 Photo of Blockhouse Point Lighthouse, Rocky Point, PEI. 2000. Photo by Jim Barkhouse.



Figure 4.26 Photo from lantern room of Miscou Island Lighthouse, Miscou Island, New Brunswick. 2000. Photo by Jim Barkhouse.



Figure 4.25 Photo of Miscou Island Lighthouse, Miscou Island, New Brunswick. 2000. Photo by Jim Barkhouse.

Over two decades ago in the early stages of the digital age, the Atlantic Lighthouse Council sought to utilize the burgeoning internet and advances in computational technology to carry out an extensive inventory project. Their goal was to market and promote Atlantic Canada's lighthouses, support other preservation groups, coordinate the lighthouse development and marketing opportunities, and communicate the importance of lighthouses to the general public. Unfortunately, they were not able to achieve their goal and the project did not finish completion and implementation. By incorporating and learning from the modern techniques and technologies similar groups have used to tell their stories, share their experiences, and preserve their histories, the goals set out in 2000 by the Atlantic Lighthouse Council can now be achieved.



Part V: The Solution

Interactive Map

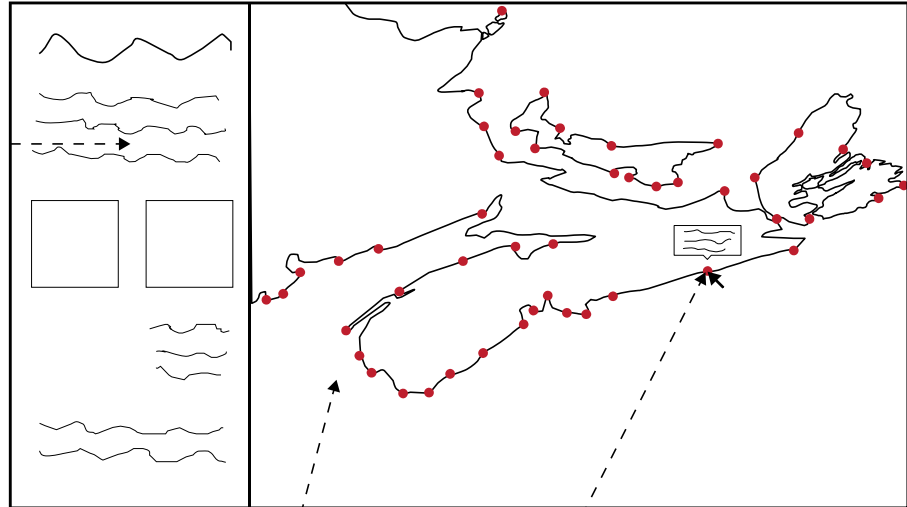
Side Bar

Mode 1: List of lighthouses

- Filterable
- Searchable

Mode 2: Lighthouse Info

- Keepers
- Important dates
- Photos
- Directions
- General timeline
- Mi'kmaq resources
- Link to Virtual Tour



Map Base

- Pan and zoom to navigate





Lighthouse Node

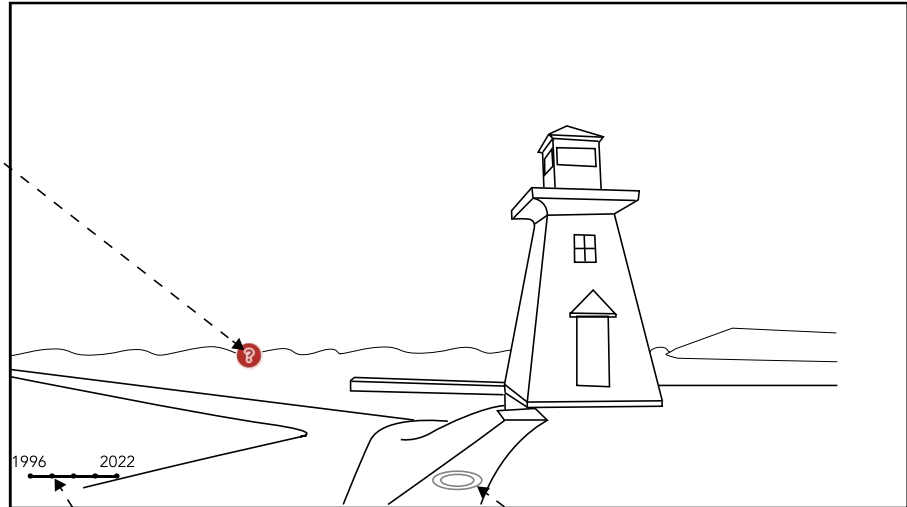
- Popup when selected with information

Figure 5.0 Schematic diagram outlining the structure of the interactive map portion of the tool. Image by Author.

Virtual Tour

Point of Interest

-  Information
 - brochures
 - Plaques
 - Any text
-  Photos
 - Past/archival
 - Special events
-  Videos
 - Timelapses
 - Special events
-  Audio
 - Wind
 - Water
 - Stories



Model Toggle

- Change weather/time

Navigation Node

- Jump between 360 photos to move around

Figure 5.1 Schematic diagram outlining the structure of the virtual tour portion of the tool. Image by Author.

Combining aspects from Mi'kmaw Place Names Digital Atlas, Cerro Gordo, Backup Ukraine, Palimpsest, and A Peoples Archive of Sinking and Melting into one centralized online tool will create a resource to aid struggling lighthouse communities in saving their history while spreading awareness of its existence. The tool, organized around a large-scale map of Atlantic Canada, connects the isolated beacons into a system, setting them in relation to one another as well as in their physical space. Once a particular lighthouse is selected on the map, a side bar will appear presenting more detailed information about it along with various links to more related information with a link to a virtual tour being highlighted. The Lighthouse Keeper allows users to digitally 'tour' lighthouses, immersing them in space providing sensorial moments to interact with to achieve a rich and complex experience indicative of these buildings, their environments, and histories. The tour is based upon photogrammetric scans of the building used to create digital models, which can be developed further into digital records of the building to preserve the lighthouse itself as an artefact. Having the tool's user interface be reminiscent of the widely used Google Maps and Streetview provides a high degree of useability allowing the tool to be extremely accessible.

* Links to demo videos of what The Lighthouse Keeper might look like are available in the Appendix.

The Lighthouse Keeper exists in two major parts, first the Interactive Map and second the Virtual Tour. The Map (Figure 5.0) can be navigated through panning and zooming to explore the geography of the region and has nodes for every lighthouse. There is also a sidebar that hosts a list of all the lighthouses that can be filtered and searched. The list and the nodes are linked so if either is selected by the user, both will activate. The map will zoom to that lighthouse's node and a small popup of information will appear while the sidebar transitions to host more information pertaining to the selected lighthouse. The side bar most notably contains a link to connect users to the second part of The Lighthouse Keeper, the Virtual Tour (Figure 5.1). Users can move around the tour by interacting with the navigation nodes to change which 360 photo they inhabit. The core of the experience rests in the points of interest depicted by their respective icons: information, photos, videos, and audio. Once a point is selected it will expand the media for the user to enjoy.*

1	Latitude	Longitude	Name	Region	Province	Heritage	Open	Standing
2	45.7351981	-64.6973744	Anderson Hollow Lighthouse	Harvey Bank	NB	N	N	Y
3	45.3504183	-66.1336418	Bayswater Lighthouse	Bayswater	NB	Y	N	Y
4	45.3781965	-66.216062	Belyeas Point Lighthouse	Morrisdale	NB	N	N	Y
5	47.7221339	-64.6606062	Big Shippegan Lighthouse	Shippagan	NB	N	N	Y
6	47.8844917	-64.6233061	Black Point Lighthouse	Petit-Shippagan	NB	N	N	Y
7	45.0184974	-66.8502881	Bliss Island Lighthouse	Back Bay	NB	N	N	Y
8	46.4611323	-64.612839	Boucouche Bar Lighthouse	Boucouche	NB	N	N	Y
9	46.3198602	-64.5126392	Caissie Point Lighthouse	Bourgeois	NB	Y	N	Y
10	48.0099147	-66.6719303	Campbellton Range Rear	Campbellton	NB	N	N	Y
11	45.5977778	-64.7897221	Cape Enrage Lighthouse	Waterside	NB	N	Y	Y
12	46.1572606	-63.8070916	Cape Jourmain Lighthouse	Bayfield	NB	Y	Y	Y
13	45.1951465	-65.9097343	Cape Spencer Lighthouse	Cape Spencer	NB	N	N	Y
14	46.1311317	-63.785667	Cape Tormentine Outer Wharf Lighthouse	Cape Tormentine	NB	N	N	Y
15	46.1311317	-63.785667	Cape Tormentine Outer Wharf Range Rear	Cape Tormentine	NB	N	N	Y
16	47.8226165	-64.9043876	Caraquet Island Lighthouse	Caraquet	NB	N	N	Y
17	47.8083097	-64.8410773	Caraquet Range Front	Bas-Caraquet	NB	N	N	Y
18	47.8044023	-64.8247502	Caraquet Range Rear	Bas-Caraquet	NB	N	N	Y
19	44.9186708	-66.9666876	Cherry Island Lighthouse	Wilson's Beach	NB	N	N	Y
20	46.3352479	-64.6149335	Cocagne Range Front	Cocagne	NB	N	N	Y
21	45.257332	-66.0450008	Courtenay Bay Breakwater Lighthouse	Saint John	NB	N	N	Y
22	46.0174643	-65.9954736	Cox Point Lighthouse	Cumberland Bay	NB	N	N	Y
23	48.0043616	-66.3391152	Dalhousie Wharf Lighthouse	Charlo	NB	N	N	Y
24	44.0050007	-66.0040000	Deer Island Point Lighthouse	Deer Island	NB	N	N	Y
390	46.1990187	-63.138123	Warren Cove Range Front	Rocky Point	PEI	N	N	Y
391	46.1962464	-63.1394564	Warren Cove Range Rear	Rocky Point	PEI	N	N	Y
392	46.6203476	-64.3867231	West Point Lighthouse	West Point	PEI	N	Y	Y
393	45.9499587	-62.7461882	Wood Islands Lighthouse	Wood Islands	PEI	N	Y	Y
394	45.9502566	-62.7461527	Wood Islands Range Front	Wood Islands	PEI	N	N	Y
395	45.9500123	-62.745595	Wood Islands Range Rear	Wood Islands	PEI	N	N	Y
396	46.204443	-63.4967736	Wrights Range Front Lighthouse	Victoria	PEI	N	N	Y
397	46.2071444	-63.5049015	Wrights Range Rear Lighthouse	Victoria	PEI	N	N	Y
398	47.646001	-65.602633	Bathurst Range (Carron Point) Lighthouse	Bathurst	NB	N	N	N
399	47.7951022	-64.9415715	Belledune Point Lighthouse	Benjamin River	NB	N	N	N

Figure 5.2 Screenshot of the spreadsheet used to collect and map all lighthouses across Atlantic Canada. Image by Author.

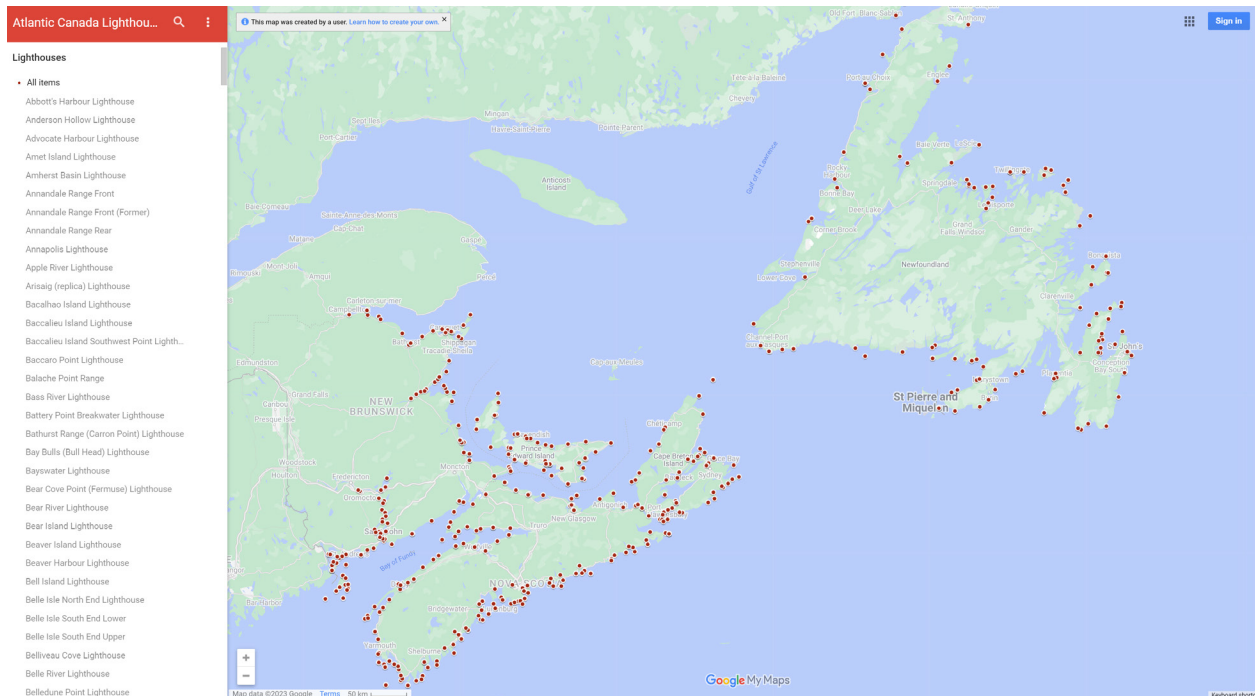


Figure 5.3 Screenshot of the interactive web map created with Google Maps. Image by Author via <https://www.google.com/maps/d/u/0/edit?mid=14IADbvTQSJv6RD-QKJocxDMmNS7zo0s&usp=sharing>

A Network of Lights

Drawing on the results learned from the earlier discussed case studies, this web tool, named The Lighthouse Keeper, will be rooted in an interactive map to connect all Atlantic Canadian lighthouses into a cohesive network. The map establishes these disparate beacons as a system, setting them in relation to one another as well as in their place. The map begins by collecting lists of lighthouses that are publicly available like from the Nova Scotia Lighthouse Preservation Society¹, PEI Lighthouse Society², Canada's heritage lighthouses list³, the 2000 lighthouse catalogue⁴ and various others. Once collected they were combined and cross-referenced to create a master list (Figure 5.2) with a base of the lighthouses name, region, and most importantly their latitude and longitude coordinates in order to correctly locate them on a map by importing the list into a mapping service like Google Maps or Mapbox (Figure 5.3).

This list is now setup to allow for growth, layering in more information and data points over time such as their heritage status, degree of public access, and physical characteristics. It will act as a hub for data collection to organize statistics about the lighthouse community at large to allow for a greater understanding of larger patterns and challenges they face. For example, from the list we can ascertain that of the roughly 400 lighthouses across the 4 provinces only about 35 operate as some form of museum allowing entrance, 24 still operate as staffed light stations⁵, and 51 are registered as a Heritage Lighthouse. This calls into question how the other 350+ lighthouses are being funded and/or utilized and can point the members from these communities towards examples of lighthouses that receive proper funding and generate income and interest on their own to share knowledge and resources.

1 "Lighthouse Lists," accessed January 23, 2022, <https://www.nslps.com/about-us-lighthouses/lighthouse-lists>.

2 "Home - Prince Edward Island Lighthouse Society," accessed January 23, 2022, <https://peilighthousesociety.ca/>.

3 Government of Canada Parks Canada Agency, "Heritage Lighthouses in Canada," December 19, 2022, <https://parks.canada.ca/culture/designation/phare-lighthouse>.

4 Jim Barkhouse, Steve Grant, and Rick Welsford, "The Atlantic Canada Lighthouse Inventory Project" (The Atlantic Lighthouse Council, 2000).

5 Fisheries and Oceans Canada Government of Canada, "Lighthouses in Canada," September 8, 2017, <https://www.dfo-mpo.gc.ca/otw-am/lighthouses-phares/canada-eng.html#5>.



Figure 5.4 Screenshot of the interactive web map created with Mapbox, GL JS, HTML, CSS, and JavaScript. Image by Author.

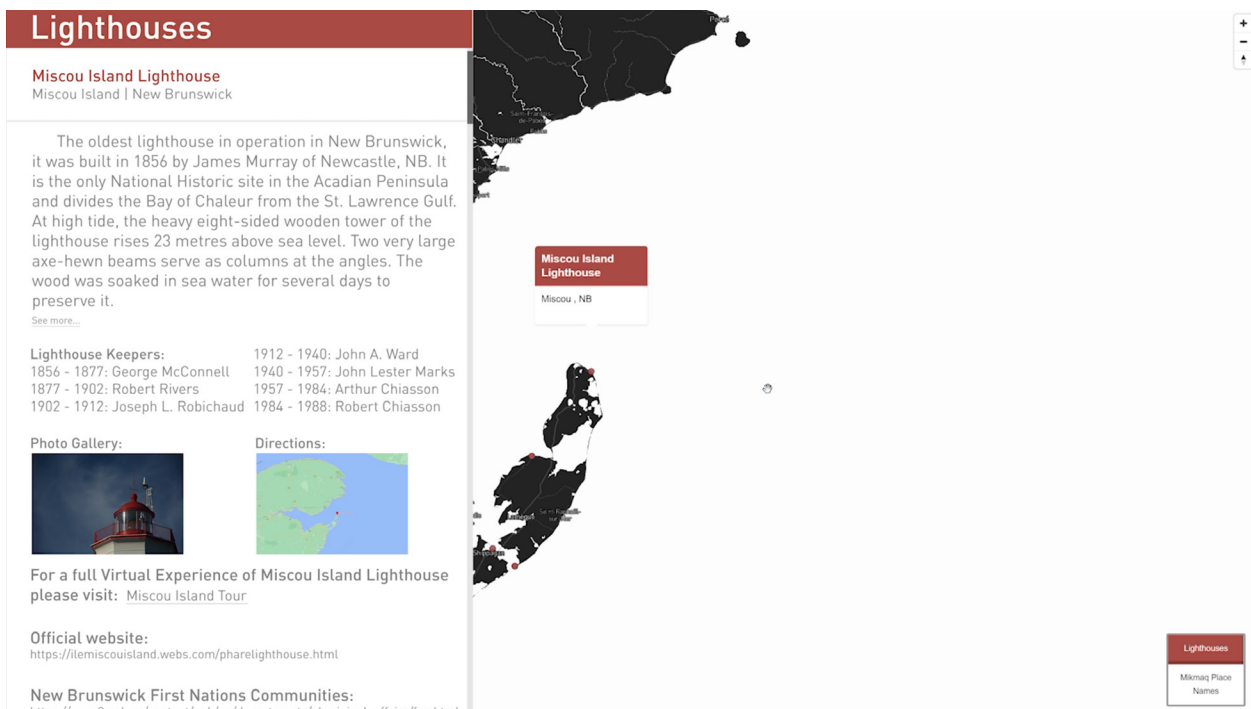


Figure 5.5 Screenshot of the interactive web map created with Mapbox, GL JS, HTML, CSS, and JavaScript. Image by Author.

To ensure all this information can be used by everyone, it needs to be formatted and plotted into an interactive web map. Using google maps provides a quick and basic option but is more suited to navigation and route planning, lacking the customizability to allow for more complex and thorough information to be displayed when a lighthouse is selected (Figure 5.3). To achieve this, Mapbox, Mapbox GL JS, HTML, and CSS are used to plot out and display all the lighthouses with an adaptable sidebar that can act as a list and information hub for whichever lighthouse is selected (Figures 5.4 – 5.5). This sidebar will contain basic information like important dates, lighthouse keepers, and its general history as well as links to its community websites and resources to learn more about the groups indigenous to the land the lighthouse occupies. Taking direct inspiration from the Mi'kmaw Place Names Digital Atlas⁶ the map will also have a toggle between Mi'kmaw place names and settler place names. Highlighted on the sidebar will be a link forwarding the user to a virtual tour of the lighthouse and its grounds allowing users to better experience the building and its stories.

6 "Mi'kmaw Place Names Digital Atlas," accessed February 12, 2022, <https://placenames.mapdev.ca/>.



Figure 5.6 360° camera setup at Long Point Lighthouse, Crow Head, Newfoundland and Labrador. Photo by Author.



Figure 5.7 360° photo used to 3-D scan at Long Point Lighthouse, Crow Head, Newfoundland and Labrador. Photo by Author.

An Immersive Experience

The Lighthouse Keeper also offers users the ability to “tour” a specific site based upon a 3-D scanned digital model where an immersive experience is created. This model is made through Matterport’s photogrammetry software by using 360° photos taken by a 360° camera mounted on a tripod at head height (Figures 5.6 - 5.7). Matterport then recognizes similar points triangulated between the multitude of photos to create a digital model (Figure 5.8 – 5.9). By stitching together, the 360° photos it allows users freedom to look around as they see fit within one photo and jump around between all the different photos taken throughout the site to fully explore a lighthouse both inside and out (Figure 5.10). This model doubles as a digital record of the building, acting as an archive for these historically and culturally important buildings while also able to be used for restoration efforts in the future. Occupying the space, albeit virtually, provides a much more powerful and engaging way to experience these buildings, especially within their spectacular landscapes.

Projecting the idea of digital scanning further in time, over the years multiple scans could be taken and switched between to record the buildings ageing overtime. This could be further explored to capture what it is like in different seasons, as the tourism season is largely centered around the summer, allowing people to experience the harshness of winter these buildings endure or comparing a foggy day to a clear one (Figures 5.11 – 5.12).

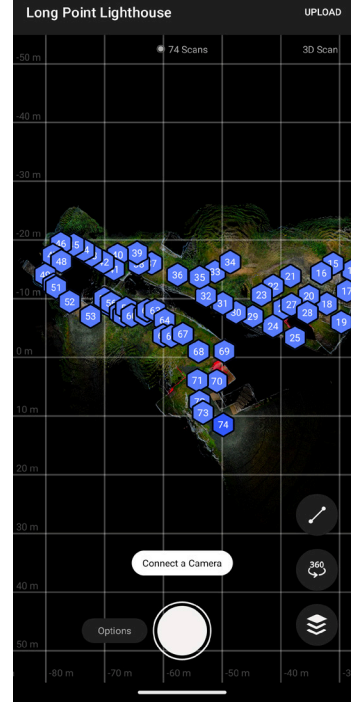


Figure 5.8 Initial digital model of Long Point Lighthouse, Crow Head, Newfoundland and Labrador. Image by Author.

Figure 5.9 Screenshot of 3-D scanning process. Image by Author.



Figure 5.10 Screenshot of the virtual tour for Long Point Lighthouse, Crow Head, Newfoundland and Labrador. Image by Author.



Figure 5.11 Clear sky virtual tour of Hampton Lighthouse, Hampton, Nova Scotia. Image by Author.



Figure 5.12 Cloudy and foggy virtual tour of Hampton Lighthouse, Hampton, Nova Scotia. Image by Author.



Figure 5.13 Virtual tour interface of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.

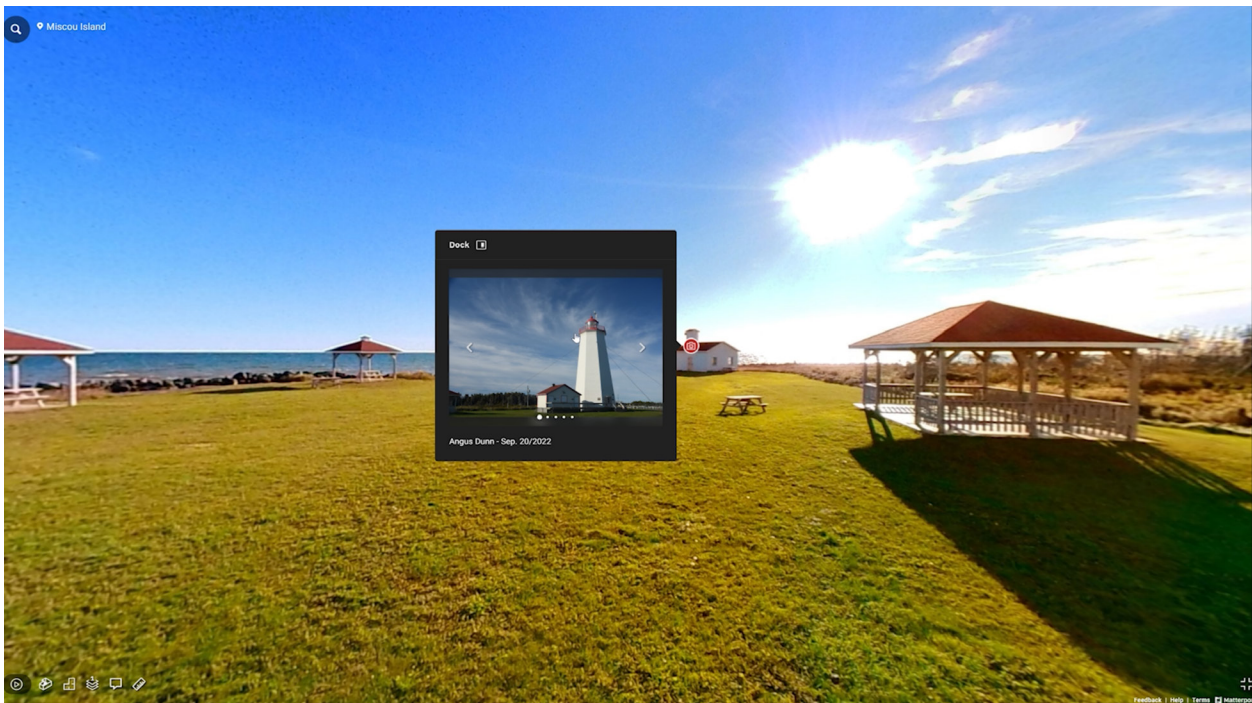


Figure 5.14 Photo by Author (2022) hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.

With the virtual tour acting as a base more information, different form of media can then be layered in to enrich the experience allowing on to learn more about the building and all of its rich stories. Hosting photos within the tour lets a user experience the lighthouse through different eras, seasons, angles, and any other static viewpoint not present in the 3D scan (Figures 5.15 – 5.20). These pictures can also be used to display information brochures or plaques that might be present at the lighthouse but not discernable from the digital model (Figures 5.22 – 5.24). This is especially useful for those who are physically unable to climb up lighthouse's steep staircases, or often ladders, but wish to experience the top of the lighthouse and any additional information that might be on display.

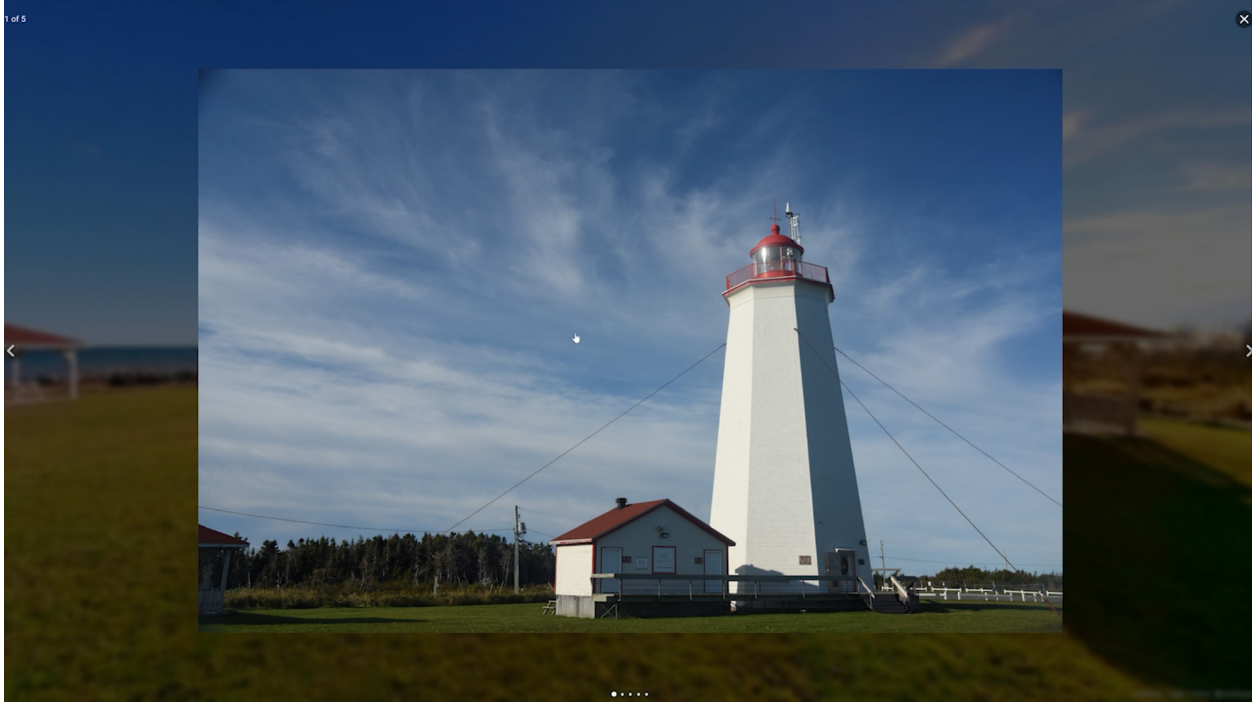


Figure 5.17 Photo by Author (2022) hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.



Figure 5.18 Photo by Author (2022) hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.

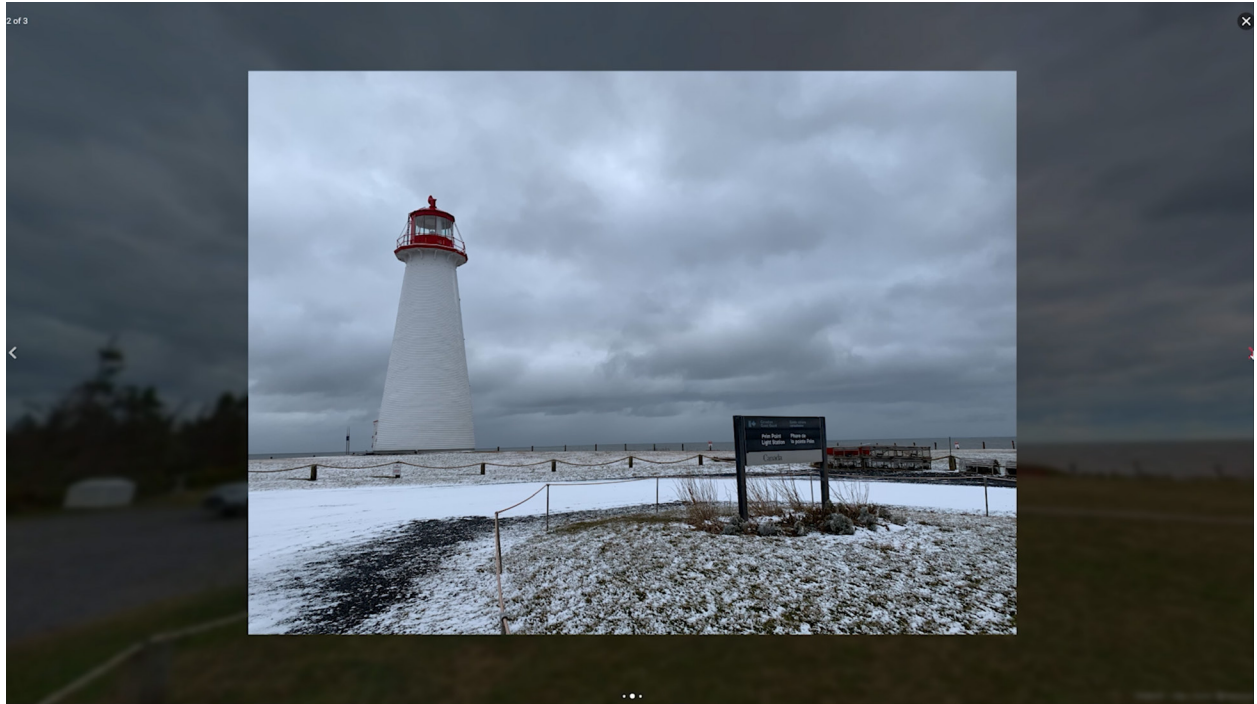


Figure 5.19 Photo by Martha Trivett (2021) hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.

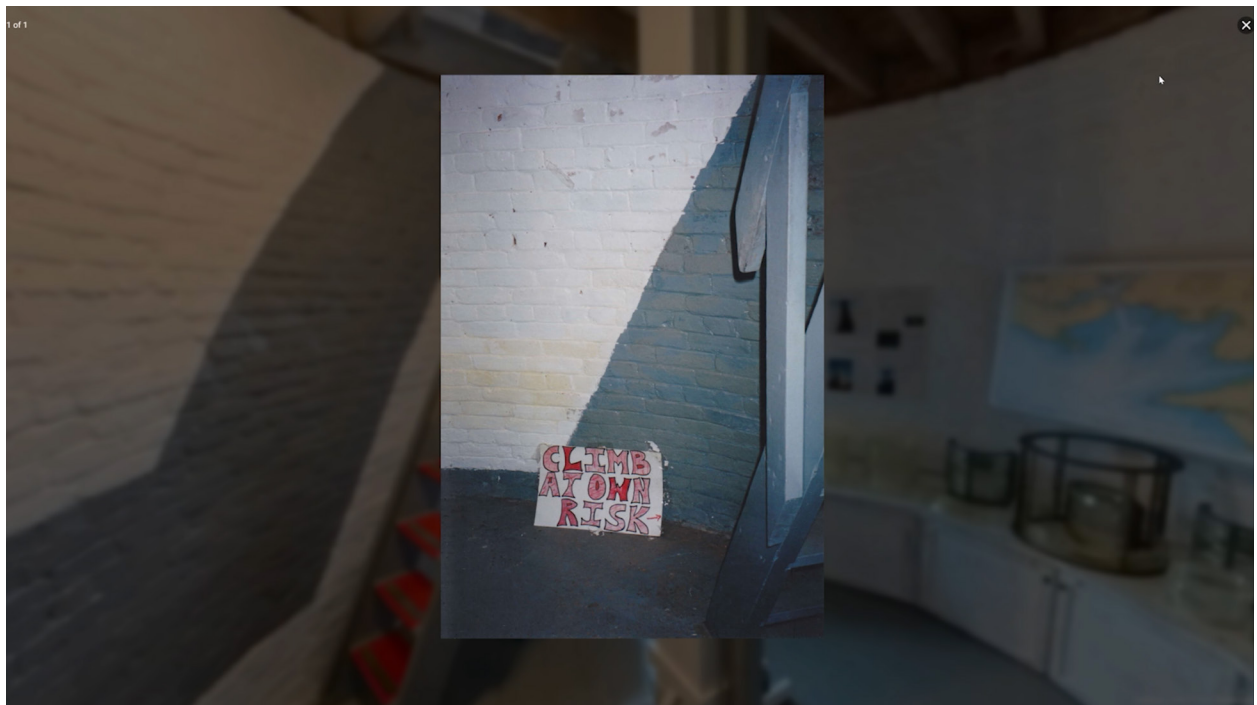


Figure 5.20 Photo by Jim Barkhouse (2000) hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.

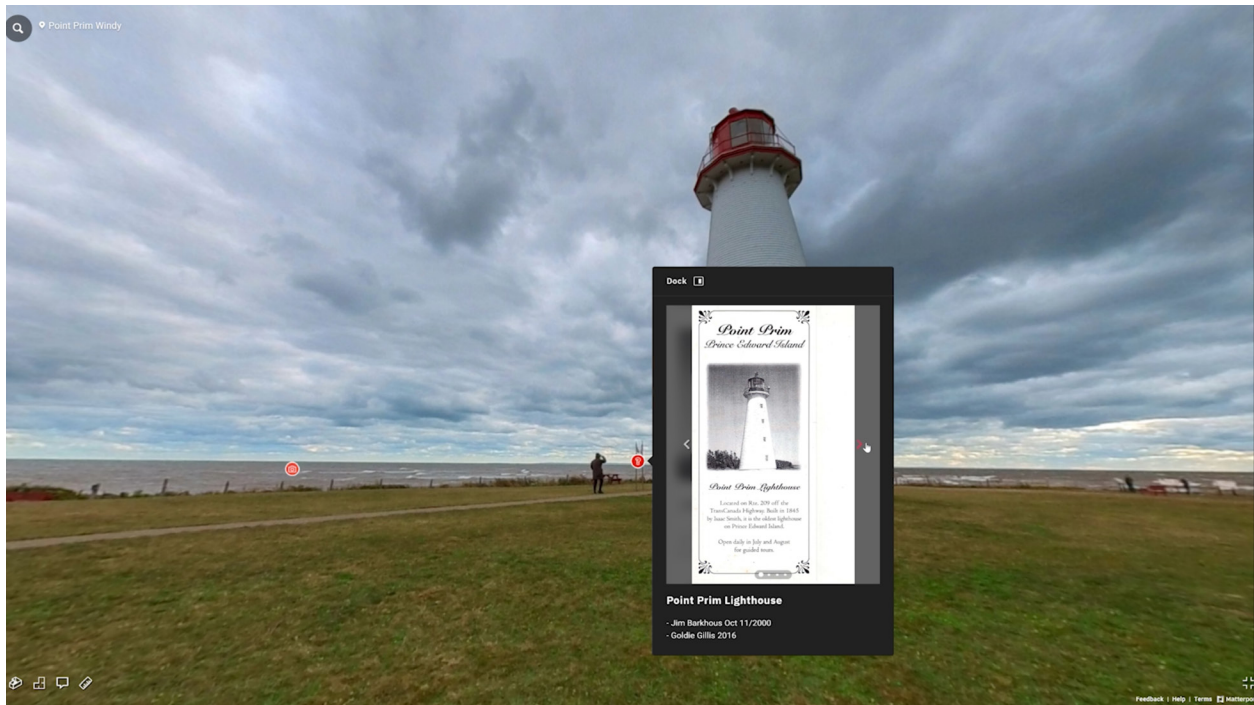


Figure 5.21 Photo by Author (2022) of the information brochure provided by Goldie Gillis hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.



Figure 5.22 Photo by Author (2022) of the information brochure provided by Goldie Gillis hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.

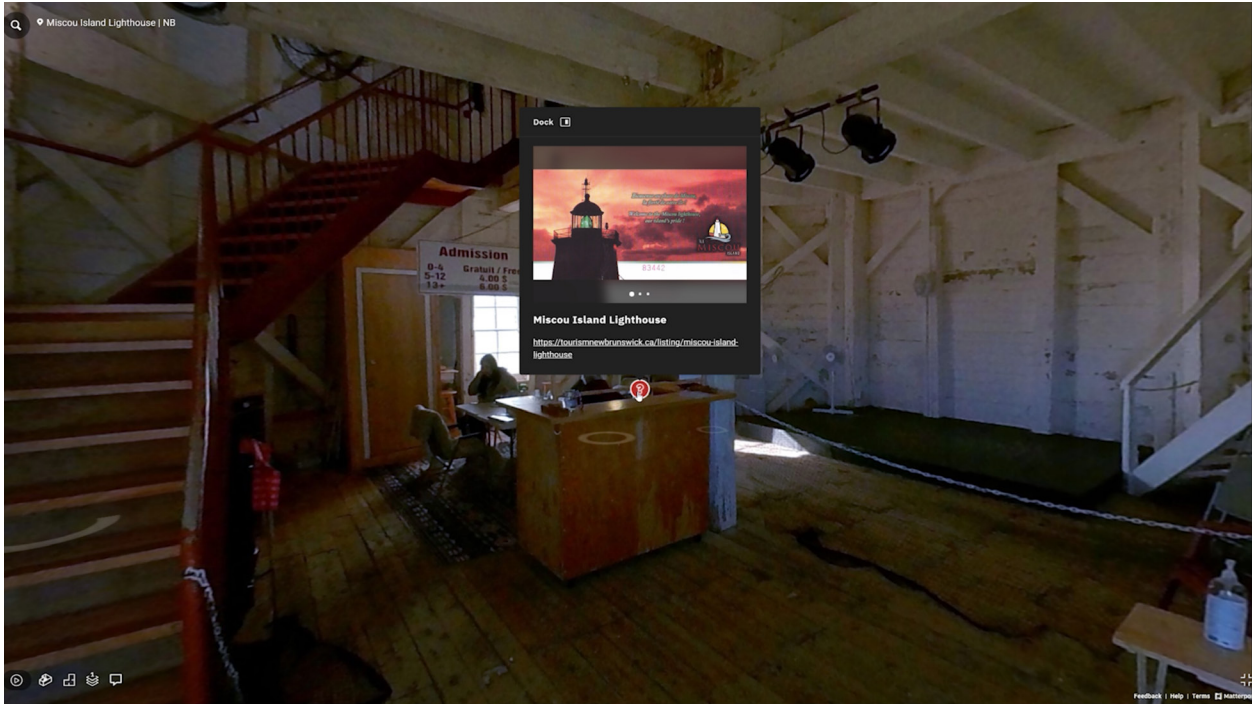


Figure 5.23 Photo by Author (2022) of the information brochure hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.

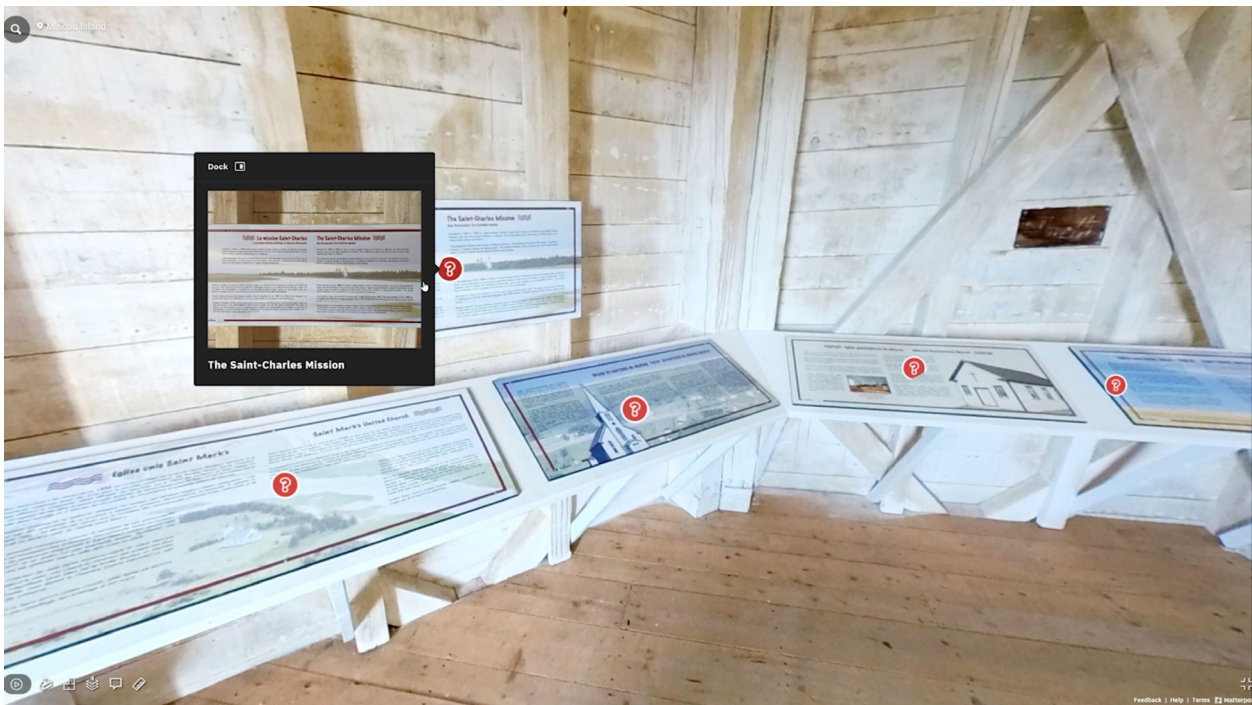


Figure 5.24 Photo by Author (2022) of information plaques hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.

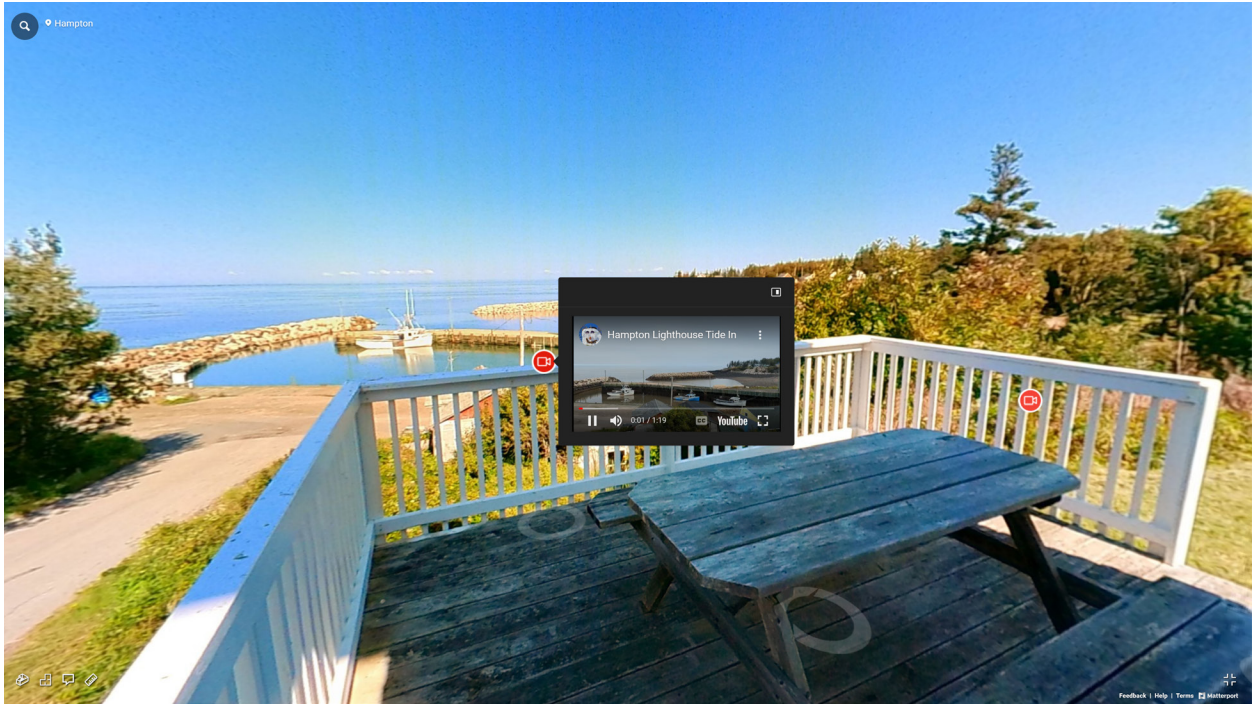


Figure 5.25 Timelapse video by Author of tide coming into Chute Cove hosted in the virtual tour of Hampton Lighthouse, Hampton, Nova Scotia. Image by Author.

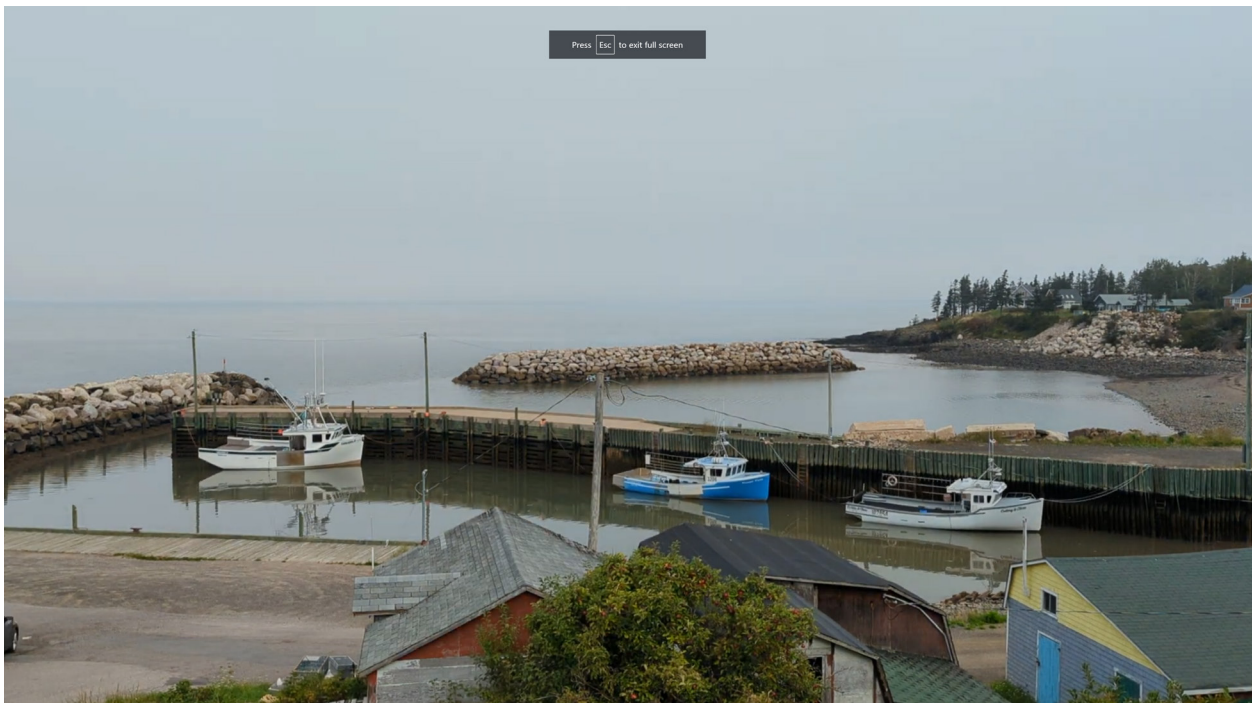


Figure 5.26 Timelapse video by Author of tide coming into Chute Cove hosted in the virtual tour of Hampton Lighthouse, Hampton, Nova Scotia. Image by Author.

Further to hosting pictures, videos can also be embedded within the tour allowing visitors another dimension of media to explore. These can take the form of timelapses of the tide coming and going (Figures 5.25 – 5.26), or to experience a truly intense storm which is the closest one can get to understanding what these structures need to withstand and why sailors relied on them (Figures 5.27 – 5.28). The videos can also be 360° like the tour itself, allowing for a more dynamic interactive view rather than the static images that the tour is based upon. This is particularly useful for showcasing the stunning views at the top of the towers; watching the waves lap at the shore, birds flying by, or passing boats (Figures 5.29 – 5.30).*

* Links to all videos mentioned can be found in the appendix.

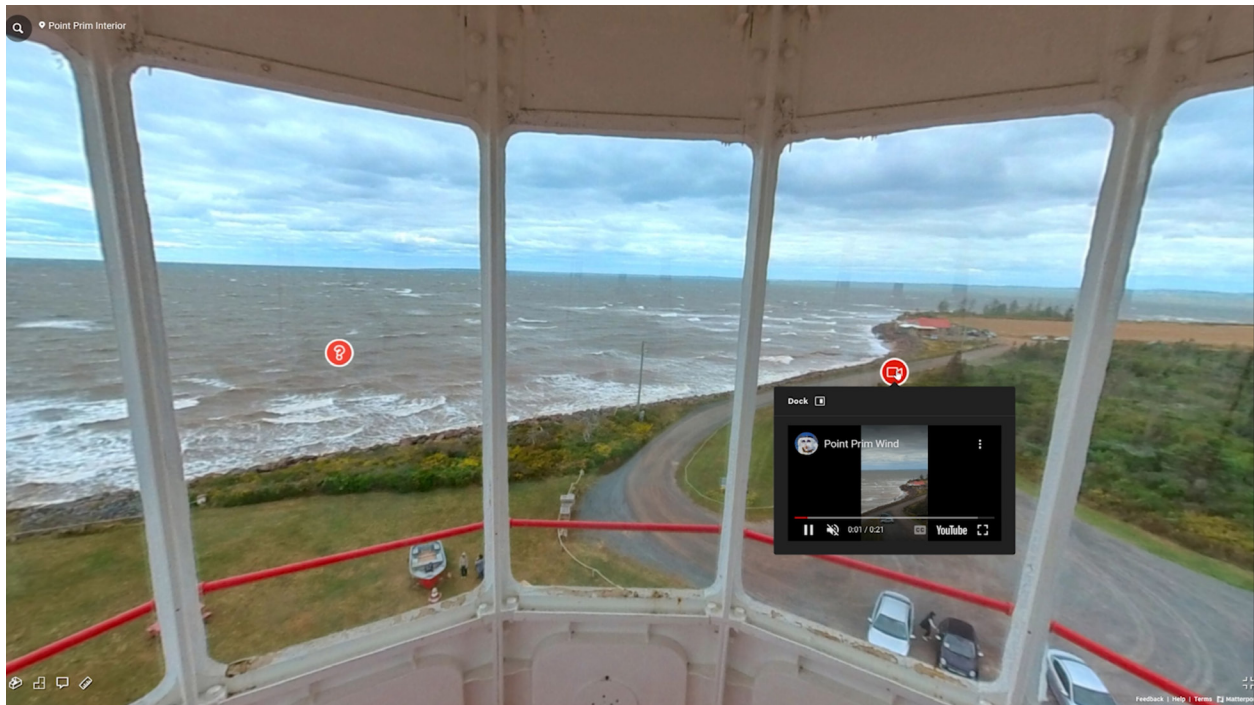


Figure 5.27 360° video by Author (2022) of the lighthouse lantern room hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.



Figure 5.28 360° video by Author (2022) of the lighthouse lantern room hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.



Figure 5.29 360° video by Author (2022) of the lighthouse lantern room hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.



Figure 5.30 360° video by Author (2022) of the lighthouse lantern room hosted in the virtual tour of Miscou Island Lighthouse, Miscou Island, New Brunswick. Image by Author.



Figure 5.31 Story told by Goldie Gillis hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.

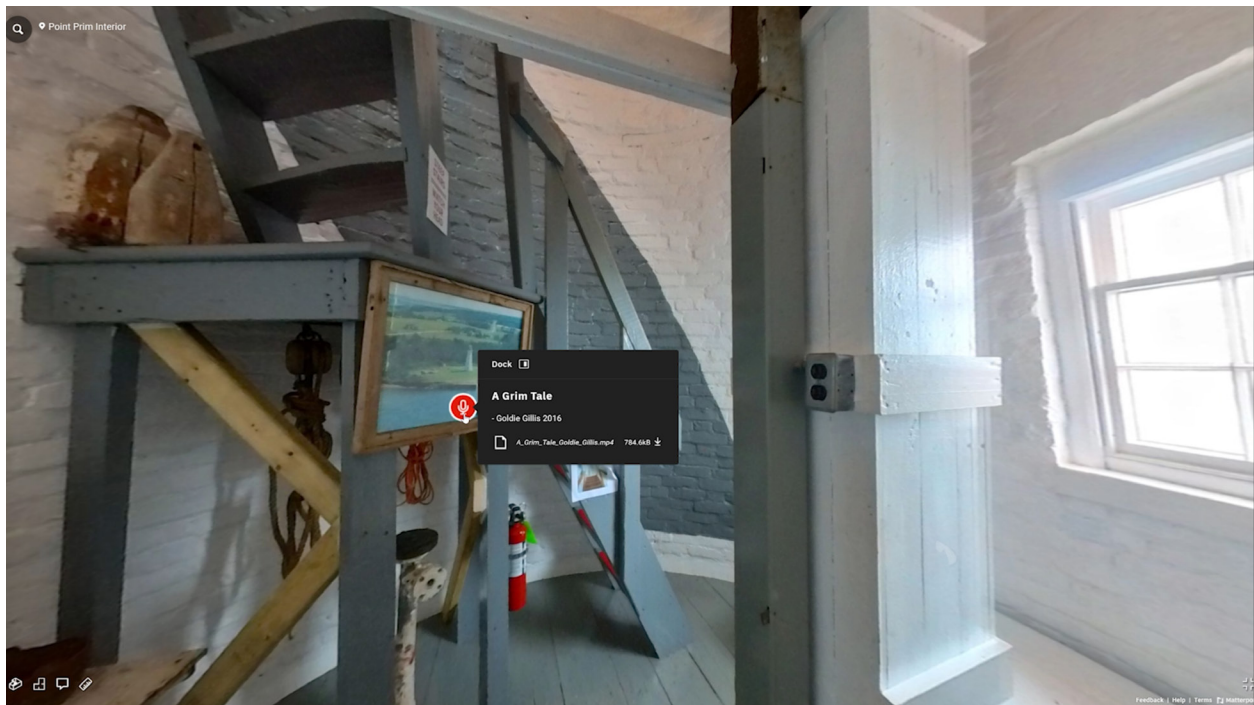


Figure 5.32 Audio recording of a story told by Goldie Gillis hosted in the virtual tour of Point Prim Lighthouse, Point Prim, PEI. Image by Author.

Text can be used to impart additional information on certain features or to host stories told by lightkeepers or their families (Figures 5.31). Another way to tell these stories is through audio recordings, adding the power of oral histories taught to us by the Mi'kmaq (Figure 5.32). Recordings can also be used to illustrate how loud the wind can be, or the haunting foghorn echoing out into the distance.

Rooting these different form of media within the space itself, albeit virtually, allows for much more convincing and immersive storytelling to truly learn about these buildings and their communities. Usability on both the user and developer side will allow a wider array of people to become engaged by these stories while the subjects of these stories can freely create their own curated virtual experiences. With the ultimate goal to transfer authorship of a lighthouse's submission within the tool to its community, different lighthouse groups can share resources between each other as they all share a common goal but are, as of now, largely disparate. This tool aims to bring together these different communities while raising awareness of them and their histories to a larger audience, ultimately achieving what The Atlantic Canada Lighthouse Inventory Project set out to do over twenty years ago.



A photograph of a bright blue sky filled with soft, white clouds. In the bottom-left corner, a portion of a white building with a red metal railing is visible. The railing consists of a vertical post and two horizontal bars.

Part VI: In Conclusion

Conclusion

The Lighthouse Keeper seeks to solve three main issues that coastal communities across Atlantic Canada face. First, these towns and villages are largely disparate, by connecting them together into a network through the interactive map they can share resources to tackle designation processes and battle against their shared climate change threats. PEI's lighthouse tourism acts as an excellent start, demonstrating the power this network can provide. Second, these small communities lack the resources and technical knowledge required to create a sufficient internet presence to both record their histories for future generations while sharing it to a larger audience. This is made evident through the disconnect between the preliminary research done from afar and what was learned through interviewing people from these communities directly. The virtual tour acts as a digital archive while allowing a wider array of people to experience lighthouses. Lastly, the first two solutions synergise to increase tourism which provides an increase in funding to tackle the high maintenance costs of these buildings, especially due to the threat of rising climate change.

It is naïve to assume all 400 lighthouses can be saved to a similar degree, if at all. The tool is a way to preserve some facet of this beautiful typology for future generations to experience. The Lighthouse Keeper also demonstrates the importance of the physicality of this typology as the tool can only act as a facsimile of lighthouses material reality, never fully achieving the true wonder of these beacons. The reliance of the multitude of different media within the virtual tour showcases the difficulty of translating the true experience of inhabiting these spaces, making it clear to users the importance of visiting these spaces. The virtuality allows for greater reach and a wider audience enticing them to make the journey to these isolated communities.

Naturally, there is an unfortunate understanding that by providing the path of least resistance, the lighthouse keeper acts as a scapegoat for people who do not see value in physicality. Either pessimistic, or realistic, the virtual tour and 3-D scans could act as a "good enough" form of preservation for certain actors to justify demolishing the true buildings. As demonstrated throughout the work, people in these communities are infatuated with their lighthouses and have gone to great lengths to prevent their loss. It would

be disingenuous to ignore the inspirational efforts they have made over the years when designing a way to give them further aid and support. However, translating this strategy to other building typologies or built regions could result in a better case to be made for the dangers of virtuality over physicality in the heritage landscape.

Reflections: Why Me?

The inspiration of this thesis stems from the Hampton Lighthouse in Nova Scotia of which my great grandfather Vernon was the keeper of for 30 years. Growing up I'd hear tons of stories from my grandfather and father about what Hampton was like and how life seemed to revolve around the lighthouse, especially about when my grandfather was growing up with his dad as the keeper. One summer my family and I made a road trip out east and I got to visit Hampton for the first time and finally experience the immense tides of the Bay of Fundy and visit the lighthouse. I was overjoyed to be experiencing this monument to my family's history but something about its majesty conveyed by the stories was lost. It was no longer a beacon guiding townsfolk back to shore, it was now a small gift shop employing a high-school student over the summer. This is where I began my research, I wanted to breathe new life into the lighthouse typology.

At the beginning, the research was spent looking into adaptive re-use projects and ways to augment the program a lighthouse could provide. There is precedence for this of course like the West Point Lighthouse turning into an Inn or the restaurant Lighthouse by 540 in Fredericton. This approach seemed fitting for an architectural master's thesis; take 2 or 3 case study lighthouses and design retrofits/adaptive re-use projects to give them a new lease on life and make some pretty drawings for my portfolio. The more I learned about various coastal communities that were similar to Hampton, I started to realize the systemic issues these anachronic buildings faced. It felt wrong to ignore the larger scale questions I was asking myself and I wanted to think of ways to address the community as a whole rather than focusing on a couple lighthouses, ignoring hundreds of others.

A different approach to lighthouses I was entranced by was the array of different architectural and technological features the lighthouse typology contains. Wood Pepperport, Cast-iron

plate, Straightpile, or Wave-swept, a litany of different forms lighthouse towers can take on. Each tower form is dependant on weather, site, material availability, height requirements and so on. Resulting in a wide array of architectural conditions. The lenses themselves have a range of different types like different orders of dioptric or fresnel. Lighthouses are a typology of pure function, every architectural and technological decision is made with a clear purpose to fulfill. This fascinating quality enticed me to create a compendium of lighthouse features to catalogue these differences and why one would be chosen over another. As rich and interesting as this sounds the research and knowledge already, mostly, exists within the lighthouse community resulting in my agency in the work to be extremely limited. For example, the Historical Lighthouse Preservation Handbook goes through all tower construction and foundation types with reasoning as to why one particular combination would be used.¹

The biggest take away from researching lighthouses through the lens of adaptive re-use or as an architectural catalogue is that I learned these tiny communities all really love lighthouses, doing all they can to save them, and that they are all largely isolated from each other. By zooming out to understand the larger systemic issues these communities face, and to treat lighthouses as characters within the narrative of the region, I was able to approach the true issues at hand to provide a more fitting solution to this beautiful typology and community.

An Elevator Pitch

Once I switched from adaptive re-use to mapping and virtual tours, I started familiarizing myself with these new disciplines and realized that I did not have the capacity or resources available to adequately create a fully polished version of The Lighthouse Keeper. I was able to understand how, in principle, to create every facet of the tool but knew there were parts I would not be able to fully flesh out. For example, I learned enough JavaScript and Mapbox GL JS to implement the interactive map complete with pop-up boxes, expanding side bar, and a toggle between Mi'kmaq and settler place names. But combining that with enough HTML and CSS to populate that sidebar in a user-friendly fashion proved to be taking up too much time that I needed to be spending on other things. This realization led me to frame this thesis as more of an elevator pitch as to what the tool could be,

a kind of framework for a product rather than the product itself. The demo video became an instrumental tool in that as I could easily 'fake' the aspects of the tool that I was unable to sufficiently implement with clever video editing. As noted at the beginning of Part V the YouTube links to the two final demo videos are at the top of the appendix.

As this work is essentially the initial elevator pitch of what this tool could look like, there are many ways it can grow and adapt in the future. The first next step that I think is integral to this work is aimed around the authorship of the tool. Ideally each individual lighthouse community would have full control over their own lighthouse's submission and resultant virtual tour. This would give them the agency to fully curate the experience to best represent them and their lighthouse. Each community has a vast collection of stories to tell but lack the platform to properly disseminate them. Allowing authorship in the tool gives them that platform to reach a wider audience in an achievable and accessible way.

The Grand Tour

From the very beginning I knew I needed to take a trip to the east coast and conduct site visits, there was only so much I could learn from my room. I needed to talk to the people for who I'm writing this thesis for to truly understand the problems they face and what they think solutions could be. On August 20th 2022 I left for my roughly 8,000km journey across all four Atlantic provinces. The trip was fabulous, I visited around 40 lighthouses, took thousands of photos and hundreds of videos. Best of all I was able to talk to so many fabulous people who were kind enough to give me the time of day and share some of their world with me, a few of which are present in the thesis. Due to the timing of the trip, I was at the very tail end of tourist season so there were a lot of lighthouses I just barely missed being open. Sometimes I was able to contact people within those communities who were gracious enough to give me private tours. Unfortunately, the trip was cut short due to the arrival of hurricane Fiona, as I was living in my car for the duration of the road trip I was not capable of weathering that storm. I was finishing up the PEI leg of my journey when the hurricane was on the horizon leaving me with only two days to spend throughout New Brunswick which is why it is the least represented province in the work.

Final Thoughts

Lighthouses are a magnificent and unique building typology with so much depth, history, and complexity to their stories that could never be fully encapsulated within one thesis written by one person. This work serves as a love letter to the Atlantic Canadian lighthouse community and is a product of massive appreciation to everyone I talked to and every lighthouse I visited over the course of the research. May these beacons of light live on for many future generations to experience and enjoy.

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Appendix

Additional information to further understand the thesis that is unable to be shown within the document itself the most crucial of which being the Demo Videos below.

The Lighthouse Keeper Demo Videos

Videos demonstrating what The Lighthouse Keeper would look like as a finished product. The virtual tours and interactive maps exist but due to resource restrictions are not able to be as interconnected as depicted in the demo videos and they are not able to be publicly shared.

Miscou Island Lighthouse: <https://youtu.be/aEG9JueCOMg>



Point Prim Lighthouse: <https://youtu.be/iyFnE4jPHb8>



Atlantic Canada Lighthouse Google Map

A public map created by the Author of all the Atlantic Canadian lighthouses hosted on Google Maps shown in Figure 5.1:

<https://www.google.com/maps/d/u/0/edit?mid=14lADbvTQSJv6RD-QKJocxDmMNS7zo0s&usp=sharing>

Additional Videos of Lighthouses

Various videos taken by Author hosted within The Lighthouse Keeper as shown in Part V.

Cape Spear Lighthouse at Night: <https://youtube.com/shorts/81nUEkgYHV4>

Hampton Lighthouse Tide Coming In: <https://youtu.be/q4l7FSMNnxM>

Hampton Lighthouse Tide Going Out: <https://youtu.be/CgzbWxeqi1g>

Point Prim Lighthouse Wind: <https://youtu.be/pcPgtYhLvSc>

Point Prim Lighthouse 360 Lantern Room: <https://youtu.be/LFl0IE05TbA>

Point Prim Lighthouse 360 Sunny Day: https://youtu.be/hlui_Qkp6S4

Point Prim Lighthouse Plane Fly by: <https://youtu.be/esjc9cG-sKg>

Point Prim Lighthouse Lantern Room Wind: <https://youtube.com/shorts/0ZV-HSDjPOA?feature=share>

Miscou Island Lighthouse 360 Lantern Room: <https://youtu.be/KkFqXF6TOyk>

Miscou Island Lighthouse Balcony: https://youtu.be/Y77gDM3c_P0

Interview Transcripts

Transcripts of interviews conducted through the course of the thesis which has been reviewed and received ethics clearance through the University of Waterloo Research Ethics Board (REB [44365]). The transcriptions have been auto transcribed from an audio recording, the software is not perfect resulting in imperfect transcriptions but provides a good record.

Jim Barkhouse, September 07 2022

I mean that's why everything is so well documented. And so you'd be fine if I reference to you in my thesis. And would your full name is defined? Yeah, and Steve Grant and Steve Grant.

Okay. Work with. Look at two of us. He's he actually a few weeks ago, go figure. No he was a driving around. He came across this little lighthouse packages. That's cute. Never it ever forget but he's worked with the coast. I guess transport calendar coast guard for many years.

Oh he retired we both sort of retired coincidentally and then we were commissioned by the Atlantic lady host Council to do this. Talk about a month of October back in 2000. Okay, two years ago. And so it's whether it was almost like this, you know, it was pretty dry that fall which was, which was nice.

We were able to work almost every day. This has been great weather for my trip to it and we were working. They like little dark. I mean, we were taking pictures of Saint Andrews in the dark. Yeah. But you get the reflection of the late so it's an interesting nighttime pictures.

Yeah. It's a great getting it spinning muscles in the fog girls into and you get it when I spoke about how it's just yeah I have a lot of that especially in Cape open cape spear ran, the eastern point of Newfoundland. I got like the fog roll and the perfect moment I got the like those awesome just really, really satisfying.

So, just for a sick of the recording, what was what is the lighthouse Protection Council? It's a, well, volunteer base. It's a volunteer society, in Atlantic candidate to do what you're, as I understand to preserve the lighthouses and make them accessible to the public, right? We're we're always practical.

We also investigated like the safety features and like point the pro you would, you would not the public. That's the nuclear power plant and it runs like, right? Okay, we were able to get there and excessive, but it wouldn't be something that the Taurus would be turned it normally getting access to or if they were dangerous circumstances around me, most of them are in it.

Hazardous location for shipping. Right. Maybe Steve banks and things like that, but and I felt like Louisburg almost like those old houses that use like the Mercury for the light. Just can't go in there anymore. Well, about most most of all had led paint on them. So also let them for shoes.

They've spent a lot of money building. Yeah, network around it and then cases scraped it off, but right, most pain up to 25 years ago, we had led then again hosting everything. But so we were checking for hazardous, things like that. You may run into somewhere used to be illegal to grow too much marijuana around slightly put my hand up inside, a lock.

On the blocks are. And was it was it was fertilizers. It's all the full of really didn't want us up there. But yeah authority we had a keys right? Yeah, So we never get chased away from anybody, but we had a clipboard. He looks important. So yeah Steve let's drop you always use, right very official.

So they got used with Steve Granny, said work for the Coast Guard at the time Fort when he had retired, how to work his understanding of navigation and you know all the chart, you know, navigational? Right. Here's better at longitudes and latitude. And I was Sometimes we had I had to search it up.

I'm glad I don't need to worry about and, and also like, the, the connections to get access to the ones because the Coast Guard owns. Most of them. So yes. So that now there are some of their own by the communities now. Yeah. Or have passed over to the communities.

I don't know how many I've seen some but four point down there, Liverpool like a little museum and for it. No, but that's done like heave that night. I guess it's for it's one in Liverpool too. Another fort. Oh yeah. But you know, a number of communities in PEI, certainly made good use of them like West Point the in now anime or yeah, the only brick one.

I think was ever it was round but the brick and it's on the east end of PEI and it was round but it was made of brick eventually had to cover it with shingles because of the wind and the erosion of the same was eroding the bricks away. So they So there was a lot of and we learned that they learned.

Yeah over century. It's like in the long point lighthouse in cooling gate Newfoundland, it was originally stone I think and like that earthquake that happened in the 1920s, like cracked the whole thing. So these in case the whole thing in concrete it's okay like the weather is just that insane.

Yeah, they ever got some of these lighthouses erected, you know, I mean, they're on rocks and stuff and it's quite and they're in the middle of nowhere too. Like how they get stuff. The materialize way of another is a little cut in the rocks. Like this Roman they can get in there, but right, but they used before power, you know, engines and stuff, like rode in and horsepower or boat power.

And then yeah when she doesn't say, yeah cut But tides and winners and stuff like that. It very ingenious contractors and but they had good designs. And so there's good references out there and say most communities happen interested in preserving their facilities. Yeah. Right. I think we always find somebody in that community.

That's a list of there is a list there, a data like in the municipalities the municipal contacts within the problems that leads are old names, the phone numbers and stuff, right? During Annapolis rolling. It's like the talk to somebody at the municipal office. Like they would always right, okay?

Be available. Thank you, very badly, pretty good. And and so we have the whole list of those people. Okay. Thanks a nice list. I'll go through that. Yeah cuz I'm gonna have to Hampton soon And I think it's last time I was there in 2014 I think it was open as like a little museum thingy and there's like a summer student working there.

Yeah let's check that out but if I have the contact and that would be easier, I'll still look for that. Very cool. And then how did you get involved with this too, with Steve Grant? I zero. I would the This involved in the social tourism Association. I was a had been in business that I would when I was in government as an MLA Minister Fisheries in, get the feet in the 98 election.

So then next year, just plate around marine but still involved very much of the tourism sector and so that the people were involved invited us to join this project. And so the paid as a minimum wage to everything, Expand the expenses. So we got our gas and the lodgings and meals.

And so I had symmetries in the photography. And yeah, those Rick Wellsford. And it was like lady who's since deceased, but she knew him might pass experience in tourism. Right? What we're exploring and okay, settlements. You spent you don't do all this in one month. That's all one month.

Okay, the way we were moving. Like, yeah, we started. We did get home and Saturday, I guess and Saturday or Sunday. Then I had to get down the Bridgewater to get most of time. You go to Bridgewater to a photographic shop and get these process or whatever. Whatever time you said, we may have been in Charlottetown or something, try to get them done, keep up it.

Because if I didn't keep them up to date, mark everything in heaven identified, it would have got out of control, lost the area and then didn't have a computer, the play with it. Yeah. It's all filled and then I was like go and take like hundreds of photographs and I'll do that later when I get back.

That's I really don't need what gonna do. Yeah, I mean I could spend months going back and doing stuff. Yeah. I mean, I'd be very interested to digitize all of these. Oh you're welcome. And you can digitize the, the negatively great, you can do it. I think, I my pattern uncle might have the means because we did something similar, like, although my dad shot on slides, first photography.

So yeah, just has all this slides a while ago. I have to do challenge, you could do those. Yeah. So I might have the means to do that. Yeah, that would probably be outside of my thesis I mean after I'm finished that just for a fun thing to do but yeah that is a very integral piecestor I think.

And so, once you work like death for that month and then you gave us all to the council me, know what I did scan these into a, a lab board desktop Mackintosh over Bridgewater and ALC had an office setup. So I did digitize it, but I don't have that record that.

I don't know what, you know that I think well sorted at the time was okay in charge of that. And but I learned how to use this Mac, just no scan those in there, right? And you keep a good record. So they did get you did justice at one time or scan but and they used all just off the pot, just off the prints.

I didn't do the thing, I didn't use the negatives, right? Just prints. Okay. So they use what I use all the pictures for then. Once you gave it to them, you know, I don't know what it ever. Yeah. Just gave it. They were gone. They were gonna work with Coast Guard, or transport candidate to to, and work with communities, like that.

And shove this lady that was very much involved Shelbourne area. So they some of the lighthouses down there. I

think the communities have put a lot of interest in them and text them up. And but so I got they were they were working. I don't know. The contacts we had and Coast Guarded transport but they would have been working with them and you know, I think those agencies want to see them preserved and communities want to preserve them.

They're not really essential anymore for navigation, but they're there that they start certainly help though. Somebody has a broken down. Sailboat. No power and it doesn't. Yeah, it might help. Yeah, I don't for commercial work. It's not a essential fisherman. Most cases have very elaborate electronic. So you don't I mean I have little boat with a chart plotter yeah that's on your phone just never some people put them on their laptops and yeah.

you always says laptop and you can let download the chart marine charts, right? I don't have I don't use a depth sounder anymore because this precise, you know, the plotters are precise within a couple feet, right?

Okay, interesting. And and how long did you work in the tourism industry as well? Around you? Well, I had a hardware store from 1971 through till 87, but 840 in there in the politics, always ball Interested here. Well representing this area, the provincial. Yeah, okay, yeah, okay. And then in there I was in government I was in the opposition for a number of years so I was towards my credit.

So yeah, enter in the lighthouses, but we were working hard part of the government structure to, okay? Blue nose is fairy. Was blue nose. Schooner there with him lady. The one to say a lot and work on it. Minister times it with the women can't say, Alana because we don't have accommodations.

Well, I knew I had another friend that had worked on it and had sailed on it and years before. But so it's part of being the critic and I'm stand out there being interviewed. But the TV TV camera and I'm positive with your stand, still. It's just in front of the legislature.

Oh, very cool. Yeah, okay. But the night if 93, I was men came minister. Fisheries the middle 98 right now, you see? So there was a lot of involvement, but not, not hands on and directly with lighthouse, but yeah, but yeah, official community and tourism and stuff like that.

Okay. Now tourism this community where I live here is basically tourism. So, yeah, it's a saline, not so much. Fishery commercial fish enough tank. Open Lunenburg just out of the head of the bay. But but like my grandfather, my great grandfather was a captain on the ceiling vessel Fisheries officers and So right, we grew up grew up in the sort of fishing community.

Yeah. Yeah, you still alive, still Just power but my son might not know Martha's mother. And father have a sailboat, dude. Keep it over again point. But the sheer didn't get launched because her sister had a baby so all right. Yeah she said but yeah. Okay Edinburgh. Yeah, she her sisters, right?

Yeah, yeah, yeah. So she's a little girl person July. So that's a picture is. Yeah, happy day. Yeah. Out interested in then in your opinion on what they did to Peggy's cove recently? Yeah, I haven't gone down. Just a summer. Just a crap but little public, still locked down to the, on the Black Rocks and the edge that you see pictures occasionally people walk in and think like it's insanity.

I mean that's they don't realize. Anyway, in a way, they're gone. Yeah, I mean we've had several dieters of last year But most well, all the people I've ever talked to. This is a good. The platform is great. Yeah. Accessible for disabled people. Mm-hmm. That wheelchair or others. And yeah.

Oh you get older. You can't walk up and climb up the steps and stuff. And So now that most people are very pleased with that. And yeah, interesting to me because it's that whole like platform thing was designed by one of the like premier Canadian Architects. Oh my Gandhi.

He out of LFX. I think he's from Waterloo actually from his going here. What's his name? Omar Gandhi. Oh, I'm fairly certain as the architect, the designed it, I think is an obviously trying to now as well, so maybe back in Toronto but he started in Halifax here and so it's like one of the the foremost versions in Canada.

At least of like an architect's intervention of to like update a lighthouse area um, to capitalize on the tourism in history and it seems to be working. Extremely well, I mean, it's Cove. So it's like the most oh eyebrow one possible but yeah, it's really interesting to as an as I got an example of like this matters to people, people want to go see these things.

So and get accessible. But you know, still people can walk over the rocks and they just can't. Yeah, just can't refrain from getting down. They don't realize, they just don't relay the signage. And somebody came up with a signage program that or some of the device, you can't put a chain.

You can't put a rope, you can't? Yeah, it's hard because like no matter. If you put a rope people walk over, you press line, people want fences. You can't do. Yeah. And they're not, the ocean comes in. That's good pound, anything important? And not from a coast, they don't understand like how much power that water has.

Yeah. Put them all in. Yeah, but yeah. And how much, you know, yeah because that would be super useful. Oh yeah,

I'm just redoing what you did. But yeah. New technology basically. Yeah. But it's really awesome because it's at least for like the validity of like why I'm writing my thesis like it, there's a reason for it.

And it's it's clear that This is a problem that needs um people working on it down, but that is there. I mean, it's on your site locations. Everything is precise and that's and then do, you know, something 98% of them were that. All I feel that we're inaccessible to us and yeah, that's my problem do.

It's like, whenever it's like, one of the, whenever the lighthouse is still owned by the Coast Guard. I just like, get completely walled. Like, I don't know idea how to get that contact, but if it's on my other community, I just like started conversation to someone that's bringing out a cafe and they'd say, oh, it's this person has the key.

So talked to them. Like, okay, I talked to them. Yeah, pick you up. Okay, cool. Yeah. So there's like little chain that you can get in. Yeah, about most time I think most people all right private of their lighthouse and they want if you just hit the right person.

Yeah exactly. Tim Hortons or something? Yeah, really cool. And then I don't know if you would, but would you have any idea of like how the relationship between like the Coast Guard? And the communities happens of like, how like they like show the government that they the community is like fees economic feasible, enough to take control of light out.

Yeah, that work. I would think with their musicalities. I would think it has most of these people have done. It have been members of families, they just know the coast guard the contact and I don't whether the or they could go to their federal. Level member parliament provincial, it's a federal jurisdiction.

So you go to your member of Parliament, but the municipalities have a lot of knowledge at the Barrington or Annapolis Royalty. The senior people didn't would have or the planners would have knowledge of anybody in the community. And so I think we have, I think we have pretty good list of major communities within the province there.

So, it's yeah. They and if people start up a little organization society that volunteer type of thing, they would get a hold of their municipal people and maybe they're in LA, and maybe they're certainly the MP with get them contact with the with the Coast Guard, right? Okay. Contacts.

Here would be all 20 22 years. Mostly have a retired more than half. Maybe let's see how it goes. Okay. And then also I don't not sure if you would know. What's me? I'm interested in is like because some of them are like designated under like the there's like that federal designation of heritage lighthouse, right?

But there's also different provincial versions of like federal buildings. Like there's like all these different types of designations and stuff and I have never reject. There's a heritage Act and most likely each province. Right. And so they would and our municipate. Like we have historical society which we I was involved with that.

So we're taking the lead to identify properties that were just something else would know only people, from within the community would really have an idea what their old houses and properties, and then have them designated, but they would have to go to the municipality. And and it's under I think provincial legislation but that's about.

These are so the sort of a network of all levels of government, okay? So but at the bottom line is that numbers of the community would need to gather like the history of the building and make a case to their nationality or whatever. Yes. And okay so it's on okay.

That's yes. That's what People with a local knowledge and yeah. And many communities do have a historical society, Right? Home Bay has one Chester, not got it. I'm not sure everybody does. But most because even small villages, you know, the one preserve their school, their church or something. Okay.

And they need help to do it. Yeah. They're like then you guidance because again you know most of many of them would be better educated but many years ago their farm families, fishing families and they don't have all the wear with all of the skills but now everybody has a phone.

Yeah. There's a whole there's a, the whole generation of people. Now that since I've done it. Yeah, we didn't have digital phones. And yeah, or digital cameras. I didn't have it. I have film camera. I'm already said that. That's one of my main, like, therapies last me like, oh, why are you doing this?

Like, one of my main reasons is because a lot of these smaller villages and towns don't have the means necessary to gather their own information of their own histories in order to make a case to the government about it. Put it on YouTube and you could exactly how people monetize that.

Yeah, that's I'm trying to do, exactly make a place for it online that you can collect at all. And then it'll make it really easy to show the government. Hey, this spot. It's really important to us. Have to love your history here at all is. And this one hub hit case for them get more funding to help fund it Because I remember up in Gabourey escape Breton just south of Louisburg.

Yeah. And they wanted to move lighthouse because it's right on the Shoreline was eroding. Yeah, but they're kind of like 78 people. Yeah, they have right grandfather grandmother came from there. Oh. Really? What? No her grandmother came from there. Oh no. Hey yeah. That's so cool. Yeah, we were up there was a nice little community.

Yeah, it's really cute. Yeah. It's really nice but they They obviously couldn't fund mutant getting it move. So they, I forget, I don't know exactly how this work, but they had students from Okay, Brent University work with them, like, younger kids, obviously and go onto like national competition of some sort and raised \$50,000 to do that, right?

I mean, like, they were built by fishermen and, you know, community people. I mean they've set up a little construction company but the knee facade knees that they use the same as on ships. I mean, because they're all everything is fitted so well. Yeah, beautiful. So now it's a yes stairways are just like that.

Yeah then newsberg and everything pictures of like the forts and the people dressed up I was thinking pictures of like the wood joinery and all those joints for those like those massive buildings were so complex. Like it's shaved down that way there's like a notch in there with the breaker over on the lighthouse site which was around the harbor.

Yeah, I went to the White House and to the fort um went to both. I've never really gone to the Fort. I've seen it. I've been buying, but Ever most times I was in Lewisburg, it was foggy, but the day we went to look at the lighthouse. It was perfect.

The women's offshore waves were coming in. I might have pictures away the way right, incredible. Yes, but yeah, and all the rocky clips, right around it. It's really, really cool. So, half pictures were, yeah, It's crazy to me that like that's the first lighthouse. Well, that spot is the first, I hasn't Canada.

Yeah. And it's it's a national historic site and it's just such disrepair. It's like I was there yesterday. It's like, it looks not good. And like, as a sign that says, like warning falling concrete because it's fault, it's literally falling apart. And it's like piece of punk. You have like broken off.

Like what? It's crazy. I don't know who makes the decisions, but let's again, yeah, if it's historic site, it should be national historic, you know, federal government. Yes. But you have to people lobbying. Yeah. And hello. I catch. You won't come in. She can get out the doors. You won't come through the door.

Yeah, looking at me. These are the phone numbers associated with each lightest. Got it. I mean, I who knows if they're still. Yeah, that's fine. That's good stuff.

Oh, that's near Windsor, right? Yeah that's probably having their Tomorrow or Friday I think. Yeah just in Halifax just doing some stuff this morning that like that down on. Oh my go back, it's good. Yeah. That's Whether it's gonna be good for a few more days anyways because you the whole month could be like this, but didn't have a whole lot of rain last month with two inches.

But so it's started the woods and things are pretty dry. You're sailing and boating stuff. What's the closest lighthouse for Chester here. Did you ever use one back for all your fancy toys now's? No. I mean it the there was a street light on the government wharf in Chester and I completely large.

And so, sometimes I thought I had proved at night, and I had some young people out on an island there, that, we're doing bird program, and turns and stuff. And when I was coming back to that light and also not disappeared and I turn hard right there was a big 45 foot fishing.

Boat coming out the harbor. I didn't see his red or green lights. He didn't see mine but I just turned on it. He went by me just a few feet but he had these two big flood lights on the back of it running the back of course. But but when I saw the light on the wharf disappear just heartfelt I don't travel at night anymore.

Yeah, I don't blame you. Oh God, that's scary. Yeah, it's so dark out there. Yeah, I didn't also and I was driving fairly fast because it was not. Yeah, didn't expect any motions there? No, I got it but you that can happen. So, You don't have one for the harbor here in Chester it's I'm quite a round.

It's just why I live in the veins. Yeah it's not. The problem is not being able to get to any of the I mean, any of the same problem of getting out to the ones out on the islands and stuff. Yeah.

Hello, chart. Harbor here. So we're just over here, right? The villages, my fact, my family, and I grew up to bring here that cold, This was quick and that's where the kids at night time in about here, when all those of the lane here stops. So, I also used to.

It was an artist. He used to do this paint these up. I wanna remember that that somewhere. That's a cute story, using a street light as widows. Well, we're heading to spell. You need The boat actually on. Oh, spooky. Mmm. Never know when your leaves in danger. All right, thank you so much.

I don't really, really amazing. You want to take those with you? I mean if you're offering yeah, sure. Or otherwise, it tell her. She did a great job. Yeah. And or maybe one or two people and maybe a lady in the community says, I want to

want to do this and with more information, they might be able to do it.

I just don't know what the lighthouse Council had done But there's each province had a an association and presumably still do but I just didn't get married to it.Yeah. Yeah. There's the Nova Scotia Lighthouse Preservation Society and is the PEI one that's similar.I think I don't know.

Nothing Brunswick has one But that is haven't been no responses right? From me.So yeah maybe it's just too soon but yeah, we'll see.All right. Too much of your time here. Well, not a problem.Yeah, this has been really great. Are you sure I can take all this?

Brinton Forbes, September 12 2022

Etc.So yeah, this I'm trying to click.There is something We will have in here. A little bit of the history of you. Be a great grandfather. Yeah. My great grandfather was Vernon done.Who was keeper here for 30 years.And then because his father-in-law was Herbert Foster.So also one of my great grandfather's I guess who was before him.

I think 12.And this one, this is a little bit of a thing written by Annie done. Yeah, that's my grandma there, right?His wife.

Originally Foster. Yeah, which is this Fosterous.Yeah, you know really?We're all sort of. Yeah. Yeah. Weirdly leave it or not. Yeah. That's just gives a little bit of a history. Yeah.And but, yeah, this was The second Lighthouse to be turned over. Yeah. For to a community in Canada.

Yeah.And it was just by the grace of God.There was a somebody living in the staying here in the summer and the federal government real decided that they didn't need to use this any longer and all the lighthouses, and they came to tear it down.No, this woman came.

She's from the States.And this is Tyler and she said not, you know, there's no way you're going to tear that down. Yeah, or it'll be over my dead body.And so she's sitting on the steps Then like any government agencies, they're not going to kill her though and just the building.

The treehouse. Go to the next place.So they go to Fort Lawn and that one's gone. Oh, we were trying to figure out me and Ann. Why Portland, how would have in Fort Lauren? And so that's it, was it? Oh yeah, it was all at that same time. 2019 ninety, eight, ninety nine, huh.

That the government decided that GPS would replace all of these. Yeah. And there is no longer any need if destroy them. Wow. And this one is just so very basic. Oh yeah.But the one in Port Lorne was had real character.I don't think it's in the picture of it looks like what looked like it has a big big window to the front of it.

No, like interesting.And I understand that the school burned down in Portmore at one time and they held classes in their.I know interesting.I mean that.Yeah, because I had an uncle that lived in Portland.The Britain Road comes down straight and down into Portmore, right? So, they were sea captains and shipbuilders back in the 1800s.

Yeah.Every community, the truths the snow, They Heelys are I can't think of all the names. Yeah that were from this area Fosters we're probably involved.There's a book.I have a book here somewhere The vessels in the cement with this.This was right from the valley rate along the north of the north side of Nova Scotia and it describes all the different villages.

And and what the names of the captives, are the shipbuilders blah blah.It's just and because that just give you that fish a little bit, the story, the Hampton Lighthouse.Yeah.So, we're going to university University of Waterloo School of Architecture, just the Rubiel, no HTML.Don't know.

And yeah, Waterloo down here you'll be okay review.That was just ship one of these.It was that the steamship oh there you go. Want to do? Yeah, one and two but in the oil for the lamp, right? Yeah.Yeah, very neat.

Provincially designated. Do you know what that process was like? Were you part of that this time?No.

There is two.Ladies saw the potential the need to keep it actually and they did that.There is a lady on the corner, right across the street where her ancestors lived the bigger hole. Okay?Yeah.Know northeast corner before the before, the community hall, right, that house. So lady, that lives in there, she's still alive.

That is one of the originals.Gotcha, she could give you a really good description of the work.They had to go through in order to get the ownership or just this turned over to the community hours of work. Oh, I'm sure. Trying to raise money to. Yeah.Then you have to make a business plan.

They really didn't have any background that at all.Mm-hmm.The Heritage part of it, she would she knows that hurt.

I've been involved against this maybe 2010, right? So we first started to spend all our summers here.

Do you athletic at all? Sort of. Yeah. Rock line for the basketball or volleyball. Yeah. One of the one of the other. When you're tall, either bathroom volleyball. Yeah. Play volleyball for a while and then I started going to university. I couldn't do that anymore. So I started rock climbing instead, that's been really fun.

Sure. So, because it's always volunteer based, right? North Bay and I was happy with you back my mind, I found out, we could go to service Canada, there's a meeting. And the meeting was about to a lot of any organization could go and learn how to get. Okay, I'm going.

Yeah. They have to say some of the executive at the time didn't didn't really like that idea. And I went with the mandate to look into it and I did. And so I would come back but not excited. We've got the thread, what's our first? - Good to do companies some thought.

Oh God. We have them help over people. Intending. The village the painter. I said, no, their historic interpreters. They are here to agree and keep this place open So many hours a day, five, six days. A week, one day closed, since the middle of the way. And So it reluctantly it went through with the breaking tie of the president at the time and next day a bunch of reside That was Wow and that's fine, It works a lot better smaller, there's 10 or 11 of us.

So, and being in business, I have fairly good hand on how to make money. And so the thought, well, you know, we should have eithers for people to and this was already a design. Yeah. So you get it on hats to get it on. Yeah, sure. It's easy. Just, it's just, it's just and they're pretty, there's they're nice.

And the most of them were like one is in the back of this one. Yeah. Originally everything evolves and result file over the years. Yeah, I mean I just I've been here a couple days and there's quite a lot of traffic that comes through. I'm surprised that saw you got a sign there.

Oh yeah. Of course. It would be. Oh Is it just here? Then that's just one year and those books on top of the door. There are all full. Oh, the place open and just put the date in your knee where you're from and comment. Great! Great grandfather. Vernon done and Herbert Foster.

Yep. Lifekeepers back in the day. So it's worked out. Well, let's see. And so now we're trying to find younger people to take. Yeah, so there's a lot of new newfolk and a lot of for sale signs around. So hopefully they they had the backgrounds, you know, my first home that I remember was really across the street from Frank Hall's place.

Mmm, and father's place. That was first five years. My life. Then bridge down, We're trying to quite big too. That's right, yeah. Glad we're back not being nice that pretty well it. Oh, yeah.

Goldie Gillis, September 14 2022

I just went listening somewhere, but it was in Charlottetown. Yes. Yeah, So I think he had a brilliant design to point friend because we got a lot of wind here. And if you notice all the other White House's are optogon are forsighted kind of square shape, which what would structures, but the round works right here is going to be, right?

And you know, round of history. Yes. Oh and you know what? All these business, all original those chloroplars. And I think the scared threads, you can see how worn they are. Of course, we've added the railing last weekend. No reason for safety purposes. But yeah, most of it is the original Now.

You very much, Okay? Have a great day. You're going to the top. Okay, that's fine. Would you like some information? Never get this out. Yeah, okay. Well, welcome First one built in 1845. So if you do the math, This white house is a hundred and that's almost 77 other way.

Yeah. 77, you know so anyway it has stood up. Well of course you know it's required. Okay, bye. Have a good day. Original Playhouse music Canada. No, not the oldest. Just the oldest on PEI. The oldest one of the original structure, This is the original. Yeah, everything's basically the original.

So for in the Lightroom, we've had to put in some new windows and we've replaced all the steel girders on the Capitol, and we're the only round brick lighthouse. So take note of the brick, You can always see the brick from the inside It shingled outside. Now when I see design, we drove the plan for our lighthouse, he specified that it would be brick only brick and it was great to the exterior for the first few years of operation.

But the bridge started to deteriorate With all the salt spray and the elements here. So the government chief the building and shingled at, this is the good follow, This shows a reshuffling of the lighthouse but it kind of gives you a look into the unit inside walls there. And the walls of our lighthouse are very thick as you can see like from you know the worth of the window and the door frame.

And so on, Now this tells you about our keepers. Our first keeper Johnnings. Sherrilltown lived right in our lighthouse. So, when you climb the third level, you can see his quarters. You're going to see you would never fit in what his best. Oh no. Yeah. Anyway so it's very cracks face.

So eventually the government built separate dwelling and this is what it looked like to keep us cottage for our keepers. Keepers live to your alone. That building, even though it's a separate building, it's still very small. So the fan back, then the family, it's like Angus, he had a family of seven children, so it was the families, couldn't move here and live here, so they had the family firm back up the road and the family lived.

Not too far away Anyway. So the longest paper was saying is he kept our life for 35 years. I have a direct connection through marriage to eggs. My husband's grandfather was Angus Murchison. Yeah, so I know a lot of the inside history and stories, directive. Yeah, grandfather was a keeper as well for 30 years at the same time.

Here it actually. Yeah. What light Hampton? It's another Scotia on the Bay of Fundy. Really. Small town, really small. Oh yeah. I have to think of spell it for me, a Hampton. I know, right. I know the area. I know the area. Yes. And that was really, but I've never seen the right time.

It's really kind of square pepper bought one. But well yes, you got a bit of history background. History connected with lighthouse's. My name's Magnus dude. Oh, it always my crazy. Our last keeper was Madsen. He lost his job because her life was made automatic. 1969. So no more need for keepers.

Now, just gonna interact with second. Hi, Welcome. Are you going to go to the top? No, we're not. Okay, so you're welcome. Just for directions. And then I'll be free to answer you.

Okay, so tell you what's up, You can ask me something you know I'll tell you a little bit about our methodistic lighting. This is what we started with simple open flame lamps and the first fuel source was seals oil in the local supplies. Then it went to kerosene and very ineffective method of lighting but that's all that was known.

At the time, They added more lands to try to make it more effective. It wasn't until the Fresnel lens was invented. Probably move all this through your grandfather Anyway for now lens. And that invention gave mariners some effective method of lighting. Our fourth order, Centipede mobile, the ocean for 17 miles.

We know, longer have our fourth order in the, in the right room isn't like it's in the gift shop on display the government. Replaced it with a modern looking thing similar to this much smaller. And it is powered by electricity, but it has a solar eye in it, so it's not on my day, just right now and again So it is more energy, efficient and probably a little more powerful too.

Very few. Yeah, yeah, that's available in a good job. Let's should wish for it. And you have any any questions further down the road about our lighthouse? I've done a lot of research on our lighthouse series so when it changed over in 69 being automated, did the Coast Guard take it over or multiplicative maintained oh, right?

Okay. Yes, they did up until The point for him lighters society which is a local group, took it over in 2016 if I have the date, right? It's in here. Yeah. Yes, the Coast Guard and federal government kept it all maintained. 2011 took over management of the light test.

So immediate how they did that it's like asked for oh it was quite across process, Let me tell. Yeah, it didn't happen overnight, I'm sure it took a good number of years and was the time when the federal government started digesting all the White Houses flat. So our We have a very good strong, local group of which I am on the board of and so we decided that we need to keep our lighthouse.

We want to preserve it for future generations to enjoy. And so we worked hard at it. But yeah, eventually all came the boat. What do you work with the federal government? So a lot of paperwork in red tape. Yeah. Yeah. It was, yeah, it's quite a process. But so now, the society has all the maintenance costs and not keep of the lighthouse, the grounds and this gift shop except for the light in the Lightroom, see our light is still functional.

So navigation A, Yes, exactly. So, the federal government comes in a record basis, and they check that right. Come Interesting. Yes. So this is my lighthouses. There were similar where, like, the Coast Guard or that I own like the tower, and then like the dwelling and the ground by the town, some things I've never seen it.

Where, like, it's just the light that they still. Like, you have to leave the tower. Yes, we do. And then so because it's also a federal, it's a federal white heritage lighthouse. Yes. Did you get me a funding from that and also provincial leader who right into like preservation of our bank?

We started with nine acres here. Now we only have 3.2 left. We cannot move this white house being brick. So the government is sunk like we've been able to get funding to protect our bank. We've got to see wall all across the front and all down the south side and then that started to under your mind.

Mind your blasted a good number of years but it started undermine at the base. So now we have that. Seawall. It's all hidden in behind the granite stones with truck. Differential description. So we got funding for all that That was six

acres to erosion. Yes. Oh yeah, Yeah. I know.

Yeah, being a point C sticking out and a strong currents. You know, we got a reefs at both, their four miles, We have another eight out there too. It's a gas buoy, It's a growner. It has audible grown there to it, plus a light, so that marks the four miles of there.

So, that's a further age to mariners. I'm just gonna I have a little strong map in here that shows the points when it was shows like the erosion little page.

Yeah, here we are See there's a real point that stuck out there. And then with time and see, like you've got it, it's happening. So we've actually The last bunch of rock, like it extended to about there. And just within three years ago, we extended the right past the Chowder house.

Hmm, that's crazy. So it kind of gives you and you can because there is a life that's going to in Cape Breton but it's a small wooden square pepper pot one and but they were right on the edge and they're still learners also eroding quickly. And, but the mandatory funds to move there is these like, cut it in half and move, because it was so small.

Right as possible. This thing doesn't know and here I'm PEI. The several that have been moved by Kate Bears. Move back, Surrey lighthouse and East Point there., preserve as quickly. And then When did it become designated heritage Provincial and federally? You know, when that happened or just kind of like always been that way, those things kind of started, you know what, he answer that because I still don't know, like a bit bag on the application process of how communities get the White House is to be designated.

All right. Yeah. You know what, our secretary treasurer? She's she's a whiz at getting the funding and she was the one that kind of walked us helped the group through it. So she could be a contact information Doreen during Houston. She's on our board. She probably could explain better two than what?

I could. Let's see now yeah, federal heritage site. I wonder does it say I'm a little plaque that we have up there, just outside the door, Is there a date there? You know, by the chance. I mean, just about say, if the government's Canada and like red, would they say, but it's all pretty like government speak and stuff.

So I was wondering want to get some people who've gone through the process and what it was like for that actually go through within, right? Because on Webs I think the government is the explanation for how it's supposed to happen, but I know there's like way more. I think with all just what they say, took a lot of communicating and with Coast Guard and, you know, back and forth for proper years facility.

Here you go to the top because we are okay. You have to do it. I'd like to just see. Yep. That's fine. You just very good. Would you like any information about our life before we go to the top? Okay? Welcome to the oldest lighthouse on, for example, IslandGuilt in 1845 so that means for 177 years old.

Goldie Gillis, September 15 2022

A very good. I mean, it's kind of a brim story but it actually is her. It actually happened. One of his daughters. Rola was her name. She happened to come down with her dad, in the spring of the year. One of the years that they opened up the lighthouse.

Now, you know, the straight free solid here, Not so much. Now's back then interesting colder longer. Anyway, So when the ice went and just pin down, opened up the lighthouse tended, to the light, got everything in working order. And meanwhile his daughter was on the shore growing around. And so she came from a distance to see something he right at the water's edge.

So she went back to tell her dad. She thought it was a seal so she told her dad I see something out. There was probably not going down. And so anyway today and this went to check here. Now, I have to go back a bit that fall before there was an airplane accident, right?

It was during the second world war and about the big snowstorm. Squall came up, total blizzard conditions, very quickly. And the airplane went down. Just open the point from, oh, really and crashed into the water and they never found anything. We come down At that time, right? But anyway the following spring, Thanks my window with this guard and it doesn't.

All right, so that actually happened to it and you know the stories that kind of read story but yeah, So very much it's part of your visit here.

I have just oh yeah so did you get to the top? Yes. You already be careful. Stairs are steep. So what was the story you said? Oh yeah. Oh that's just part of the family history, connected with Angus or not the keepers. They were saying this after time and so it's telling those folks memories of my husband's mother coming down and spending some of

the long meetings with your dad here.

This is very isolated lonely you know back then. Yeah. So then the story about the other dog or discovering the body of a pilot from the airplane farm crash. The next spring will be productive test. That's terrible. Yes, It is very heavy. Terrible minutes longer, you know, So it does owned by a single family.

Just one family. No, no, we've had various keepers, the very first paper was John Ames of Charlottetown. And He lived right in the lighthouse on the third level, So that was quarters. So so small and cramped, The government, then built a separate cloudy and this is it here first cottage.

So the keepers lived here that by themselves that the building was too small for the families to join them, But the family farm was just four or five miles back up the road. So family was not far away, But however, it wasn't lonely. In isolated, here is youngest to make sure the light is always always and right.

And everything was in the lamps were in, you know, good working order. And he had all the maintenance too. And the responsibility of keeping things arounds, good looking and we have lots of duties. And so you have to be there seven days a week. Yeah, at night. Yeah, I'm not doing that.

Not during the day because Mariners, did not really need their life day. The structure itself, unique structure. It's white, what the hell? Just in itself. Plus, we also have another aid to navigation 4 miles of. There's a rock out, shallow rock reef, that runs directly out in front of our lighthouse.

So there was another aid out there and it's audible is a sound associated with it. And you can tell you kind of funny story connected with that One day, I had some folk command. Now, if the wind is the right way, wouldn't be today is to, to stay for breeze, But if the wind is the right direction of bring that sound right angle and it's a weirdest wonderful sound.

So, one day had to folk come in, and they said, do you like a ghost around here? I said, no, why You were hearing these awful, ghostly saddles last Friday. And so here was the the grounder we called it a verona, but it's another eight to navigation. Yeah, You have a keeper had many duties and then on a foggy day imagine having to be out there at the bank and to be continuously sounding.

This is manual and we never had an electrical concord, was only the manual, How many time, how often do they have? Every five or two weeks problem and it would be outside. Yes. They would have to get it to the bank closer to the water because as you know, sound travels better for the water.

Years away? Yeah, but Spice comes up. Oh wait. I want a video him doing it but that's okay. I want to hear the sounds. You should do it learning, You're not going to do it. She good even I know she's always. Okay, She looks like a boy. I'm sorry.

Oh, just a corner of you. Yeah. You will literally touch it. If no one was watching, Philip. She touches everything class up to Macy. They know So it. Yeah and my mom that's just Edmund honey and At the end And normal eliminary you having my mom. You.

Oh, it sounds. You do it faster. It's even louder. Yes. Yes. Okay. Wow, You can almost get it going continuously like you bellows get inside, leather bevels. Yeah, it's a real artifact. It's none of our original years of visiting different lighthouses. I've never seen an old originally I was rather electronic.

We're very fortunate to have that again. Me was that station here that piece that brought here. It's been here a lot of times. They'll say this is typical of but oh yeah no no no. This is belong to point other. This bias there is this. What do they do with their loss again?

Oh that's used to the food industry. I got that ice cream. It's the biggest faster. Okay. Oh she's getting oh they use it. It becomes a face kind of. It's a natural thickener and stabilizer. So that's why they use it in the food industry. It's also another jello to taste shaving cream skin.

Lotions paint industry. Uses it as a clarifier. No not. So it's still, it's fear. And so it's still used today. It's still collected than you. Yes, it's still in use fat, That was the most tree has kind of gone down by over here. It was the don't know what happened.

It just doesn't grow like it used to on the rocks and it doesn't wash in ultimately nicknamed. So the industry is gone down significant but the Philippines the countries with warmer, warmer water, temperatures, coffee mug and last arms, it grows faster. That's where the biggest supplier of it but still used in the foodings.

Okay. Parish lost. It's really slick when you try to walk on it, when it tight? Yeah. Well. So you yeah, it's great. You, thank you very much, take care. Do you need our ticket? You need it. No, No. I just need to see it as a group of purchase.

It's inside. It leather bellows, you know, When you make like, wait a little bit for a fireplace then. Yeah. Just actually

yeah. You made the McLarge. Yeah. Need a favorite stories with us? Pardon. You know, favorite story of the lighthouse? Um, well, I can tell you about Angus himself again about how after being here for 35 years.

He got so used to the intensity of the lightsaber, The keeper Scottish was just out here and the light shine right in him in the bedroom, rather to keep this left. So he became so accustomed. He when he was sleeping, of course I guess they didn't really sleep sound.

Sort of like particularly yeah. Anyway. He could sense when the lights started to get dim would just wake up and come in and refuel the less and tend to the duties. So you just, you know, got a built-in sense of the one at the license getting dim. So that's pretty cute.

Full passport, Well, because we had already been just found out this morning and made it again over to West Coast. So and I'm glad you got this because this is an excellent. And effectively shows on the back We went to some of these. We used these to go inside here, It really was HR.

Oh yeah, that's something maybe, right. I know that I was just three. They're free over there for more. No, no actually investment. When you first here But I'm gonna have you do the platform because okay, this campus in me, you call number up. Well, to think that they had to get that.

That is very heavy excited with. So they would they carry it back and forth? Yeah, from the main level here, store here and some heavy energy today because sound sharp is better over water. These were like original stairs but like, I mean, sorry! This is what the original stairs.

We looked like As far as I know those, everything is the original except for the railing really good for back to us. So they want to pick without a room. Yeah, they just had that others, like the opposite side. Did you notice how it's grooved? You can use that as a railing.

The bricks. No here right here. Oh okay like a handbrake which armor. Oh, and that's all they had crazy. Now, they had to be physically thick to keep waste because they were hauling drums of fuel oil up and down, you know, and the big, big drums, the big barrels, a fuel oil was stored in the oil shed, which was another little building that, so that they had to go back and not last.

Look, we're not going up. My knees are. I mean I'm gonna need these surgery At the top. You know, is it steeper than this about? Yeah, well you know what? It's not actually steeper. It's just that it gets narrower and closes in more, so it's tight just very tight.

Yeah, it's worth. That's the way you would describe it. Yeah. Yeah, It's not really walked up. You know the hole in the rock on the it highway? Yeah, that's where we were. Okay. Yeah, the water was not yet. So in the walk over the rocks so she's diet today.

Yeah, I don't like, are you guys going down right? Above cabin, dish here. Yes. Okay. Oh, so we have pictures of us out there in the middle graph. Like, there's a metal stairway, we came down it. Yes. And then because the tide was starting to go up and walked all the way out there, but it was just starting to go out.

So we walked on the rocks. Oh yeah, she's really well. He rough sure there. Oh yeah. That's a distance. This is the distance. We first. Get down below the stairs. What we're both is not happening. That is so like, At least eight overnight here. There's two separate. Drives are in this dress whole page and then round number 20.

Yes. All right. That's close to what we call the tea cup. Did you want to do again international? It's like a national issue. It's all serious. Kind of the national leader here. What happens what there's like a female. It was like two roads that were like like a national.

Like you have to pay a fee to get into on the season but yeah, one was one way. One was somewhere in here. Okay, so you gone there earlier, there's a play. It's, it's like a parseway and there's a, there's a tools. Yes, we go out in one of the pull-offs you walk down.

You can see it on the right from that, pull off of you go down the stairwell and, you know, see, that's from up. So my friend over there. Oh, you want. That's so fun. But if you want to see the top can play, This is it off from up here?

Yeah, it's the top of here up here. You Hello, beautiful. God is really, I wish I could welcome. Just read. Thank you Next best thing. Oh yeah, it's close. You just in that bracket over a little faster.

Bye-bye <, just love. Okay, he didn't come back yet, you understand just so he can see the size of it because yeah. All my would love someone like this. He's a pilot in the name but he's really loves. I want to do it. You can video it for Omar.

Well, you can send in the other one, but if I just want you to stand next to see, he can get the idea of how big it is.

Yeah, I'm gonna set up a picture, I'll send you the video and then you can send him the video of it. Yeah. The other

the other one we have one of an it was actually stationed in Japan. We keep thinking of pictures but we can't send them anything. The Navy blocks all images because they don't know what's coming in and out thought well, it's early.

Yes. Yes. Yeah, We never know where it's been until we put after your calls. This is what we went. Is that going up to the top? Is that where the tongas a little bit down? No. No, it is well that looks like maybe But fourth levels and then the top, there's another little level short stretched stairs to the left That's when it gets very closely.

Students small, closing prices and cloud of me. It's the, this is the just disabilities. What is their name was? By the way? My name? Yeah. Goldie G o. L d. I e Gilles stories. Angus, of course Angus. Yeah. What done done deal? Good. You future And it's just a sec.

It on the back here. Here and phone or email maybe? Yeah, not understanding and possibly in the second wish I had my curve here with me. Would you like me to get my email? I can give you my email If you just send me one. Then I don't have it.

Oh yeah, you sure sounds good. Yeah. Yeah. Love to hear from you and that other play. Your story the treasurer. Yeah, yes. So Yeah, Angus dot done at some Patago.ca, great, awful handwriting. So if you I got us an email, Do you have much longer here on PPI? I just got it today.

So probably be here another maybe a week or just under a week maybe. Yes. But and so, so you wanted to know, I'll ask Doreen, oh yeah, you wanted to know the process that's involved to to like how it became federal heritage and all like how you applied for the funding eventually federally, not all that.

Oh like you're a relationship of like playing friends society with like the federal provincial governments. Like how that process works, the nitty-gritty. Okay. All right then well I'll see what we can do. Yeah, Nice meeting you.

Jackie Brown, September 16 2022

You went on which one is not open, right? And then we were Prim. Yeah. And it's open to the public. And it's owned by a point from community group, right? And we drove through woods Wood Islands. Yeah, we're staying at Northumberland Campground So we drove there. We were too late.

They were closed. We can still do it. Tomorrow. We wanted, you know, this area has the most lighthouses of the entire province that are open to the public. But this map will tell you, which White House is. There are, you know, and it's just, it's the, once in red that are and then the key tells you that they're pride that, if they're on private land, if their commissions.

And then the one up on the west southwest coast. That's what you stand Westpoint. Yeah, we visited that the last time we were on. Yeah, West Point is the one of the only two that are painted black and white black and white stripes. Yeah. And that is because they sit very low on red sand.

It's very red sand, and that side of the island, the same as brick red. And when the sun shines on that red sand it with the white lighthouse, it made it disappear. You couldn't see it, right? So they got permission to paint it with black and white stripes on it because of the visibility issue for but all yet.

But it had to have a red lantern because all the other lighthouses have to be white with red trim. That's the Coast Guard in Canada it, in Coast Guards. Decreed that all lighthouses are white with red trim because that's the Coast Guard colors and that's Canada's colors, but only West Point and Tignish Run got dispensation to put the stripes on it because they sit on a very we sit right on the beach basically, and it's a brick red sand beach in the reflection that makes them invisible.

So, that's wonderful. It's about them things. Yeah, no. Yeah, Well that being a very, very visible by contrast. Now we the range lights, the rear range lights, they often have day markings of vertical, stripe on them and that's always red here. Yeah, always right? Yeah. Pretty much. You yeah, the states don't seem to have this same cohesive rules, maybe we're just like more rules.

It's a different to the coastly down there. Have a different mission. It was more in the law enforcement. More frozen Canada before we can Well, the Coast Guard is more about, you know, protecting the shoreline and we have a Coast Guard helicopter that flies over us every spring and he his jumps to go and check the wars and make sure that the wars are in good shape.

So they take a look at the wars. They take a look at the coastline. They really don't do much with the lighthouses anymore but they use And they still come and change the lights, right? So you have no likely. Thank you very much, it. All right. Well, the new light invents, solar operated.

It can be seen eight miles out but the Fresnel lens that sits on the second floor. Yeah. That could be seen 20 months,

so it the new light is nowhere near as powerful. However, it was deemed sufficient for the traffic that we now have, Whereas, back in the 1850s, this was very, this area was very heavily trafficked mainly because they built the ships up here, right?

So the sailing spoon is that they built up. They're all had to sail down here to wherever they were going to, right? So that would have been a lot of the sailing spoon is coming up. One of the coolest things I saw last year was the blue nose. Came in, from Halifax on sailing up the Montague.

And it sailed right by here, right up the river, just the way they would have done. Oh, cool. And under I had been on the blue nose, a number of times but I've never seen it on the water under wholesale. And that was a very different than seeing it with just its mass right in the harbor, right?

Because you because you can go on the blue notion K and you can go and tour it And how effects, right? I think that's when we went it's near the fishery of museum. Yeah, I think it might have been in court. I'm yeah, it's but it was here for a tall ship's thing.

Anyway, it was kind of neat to see it because it, you know, it would have been one of the sooners that came up and down this river because this Montague River turns into the brew male cardigan and Monica. It's three really large rivers that kind of meet together, the confluence of the three.

And that's known as Three Rivers. And that's where the shipbuilding industry was, It was quite a large one, back in the 1850s. So all that traffic, you know, would have come in and all the traffic from Charlottetown and given that in the 1850s, there was probably more traffic than there was land traffic because this was an island, the causeway was man-made, and it was made in the 70s or 60s.

So, before the 60s, this was truly you more than I. Yeah. Both pan more island here. Yeah. Because will you take a causeway to get to it, right? But back then it was an island. It was surrounded by shallow water. So, The native people used it as their fishing ground making over in the canoes.

Well, thank you very much for Thank you. You just powers on now. Oh yeah, We did lose it from very long. We only lost. It was steamer in the harbor view and online for lost and then we thought I and they were enough hours. You anyway because I because normally I press a button.

Deal when this was designated heritage. It was designated heritage by the Provincial government in 2013. And by the federal government in 20, 17 18 or 19, I can't remember. But there's a plate outside but it was after but 13 it was designated heritage by the province. So we got the provincial plate then and then the bed it would have been 17 or 18.

Hmm. And then you know how that process works like did your community here? Yeah. And like for the prophets easy. Oh, that's it. Just takes forever, but we were already in the process of becoming divested. So therefore with feds things just take forever, that's just the way it works.

So, what you need to do for that, I can't remember. Hmm, I think it was part of the diversity. Sure? Because the domestic took from 2013 to 2016, it took three years and I think this was part of that process but we didn't actually get the plaque until and a year later And I think it's just because it took them that long to make the black.

Truly, I think that's because I think they made a few of them. So we just had to wait for the black. And then we got like a whole series of instructions on how to mount it which we did listen to them. Yeah. Part of the hell. Yeah. So the vegetarian had like prove that you had enough resources in order to properly maintain it or whatever.

That was yeah, just submit a business plan and we had to sign a contract stating that we were keeping, you know, public for a period no less than 30 years and that we were maintain it and we had the right-of-way and that that'll do one is you to keep it, open to the public the part of it here because so many letters of the Coast Guard.

Still owns are not open. That's right, That's exactly right because we were community nonprofit group. That's I mean there was some pressure on the government to open the lighthouses and make them available to tourists, But nothing about it, they were trying to, they were trying to divest it to us because as they said their mandate is the safe navigation of ships, It was not a care and feeding of historic lighthouses and the province didn't want them tourism.

Didn't want them because tourism is basically a marketing group. They have no bricks and mortar. They have nothing and heritage didn't want them and the government PI didn't want them because there was no budget attached. So they would have taken them. I think if there was an annual budget for their maintenance, but because there wasn't, they didn't want them.

So they went to a community nonprofits because there was no budget to and that's why the community nonprofits had to submit a business plan. Saying this is how we're going to pay for this lighthouse. And that's how that works because it was all really all about the budget, right?

No. So, they gave us a one-time grant to help us with our restoration, and everybody got a different amount, every

lighthouse got a different amount and apparently it was based on how much the government would have had to have spent to demolish the structure but weirdly morbid, That is weird.

That's the way it worked. Because I guess they figured if they had to demolish the structure they would have they would encourage a certain cost. So once we've bought it, they gave us that in a grant form, a one-time only thing and but we all got a different amount.

Yeah whatever. Yeah. So because they would have otherwise had to demotion, but they didn't take into account the sale of the property, but they were going to keep the property because they were going to because the lightness up there and the tower. Now, it's a perfectly good outdoor, light it can sit outdoors on a pole, right?

So they just do like a lightweight steel power. That's exactly. And they would have just it would have been just been a light on a stick. Yeah. So I guess they would have maintained that property just to have the pole with the light on the top. So that's the way they did.

And then that's when they replaced all the lights, right? And that was in 2010. Okay. Because before 2010 this was maintained by the Coast Guard. Yeah. Remotely with a generator and it was the original clockwork mechanism in the original Fresnel beehive lens. But when they came in, in 2010 and replaced them, it was so that if we didn't get the White House's, those lights would still work.

Even if there wasn't a lighthouse or attached to it. Yeah. So the that one time demolition grant was from the device, the messenger? Yes. And then from the since you're both provincial and federally heritage, do you get renewing grants from those only from the provincial government and that we can apply for that.

Every three years we have to make a separate application. It has to be for something specific and it has to be for the exterior. So generally we use it for paint. Yeah, right or and the first time we got it, we used it to repair the windows because they were their sales and sashes were bought, and then there was all that.

So the first time we used it was for window repair. And then we got it had again twice and both times was for exterior, painting, but that's \$3,000 every three years. So therefore, it's about a thousand dollars. Yeah. And that's what it pays for his paint. It doesn't pay for a lot.

Yeah. Thanks for paint. And then how often I reshingled it yet it was just at East Point and they're racing going right now, Every shingling in an aluminum siding. Oh, I don't do that and so and looks the same. Wow. It's fake shingles. Yeah, they're actually aluminum. But yeah.

No, we are reshingling. We will continue to repair ours in would because it's more of a pain in the ass. But this is becoming one of the more authentic like, yeah, because a lot and what happened with some of the other lighthouses, like sea cow pawn, just got divested this year like the last couple of months, but when the federal government owned it before, it was divested, they did the whole outside in aluminum shingles before they gave it up because they didn't have to follow any of the heritage rules.

We had to follow the heritage rules but the federal government didn't. So, all right, is East Point, not Heritage, then I don't know. And that's a really. Yeah, I thought they were but I don't know how they got away with it because we tried to when we were doing redoing the windows because there was so badly rotten and they still stick and you can't open them.

You paid a lot of money. Anyway, we wanted to use the composite lumber in white so that it looked like regular wood and we would have had them custom milled to be the historic windows but just not made out of real wood and we were told no more. So and now we see the other lighthouses.

Going, aluminum shingle, and we're going ourselves. Couldn't be what the heck here. But anyway, so it made me wonder if they apply to be heritage, but I believe our heritage status was part of my divestiture, but I wasn't the person that did that on the board, then I was on the board, but that was probably started the year before I got there.

So, I assumed it was part of the vestature, but maybe if they Contracted for it before the, I don't know, I have no idea. Has it really ticked me, right off? I know that there I know that Bear did it before they got the lighthouse in their name because they took their grant money and they move their lighthouse.

Yeah, So yeah. So we decided to, I haven't renovated. I mean, you know, they didn't restore it. We took our money and restored it. Now, we haven't spent all of it because we seem to be doing it bits and pieces, whereas they seem to be sort of doing one thing and then there will be no more.

So interesting to see what happens because we make enough money from our lighthouse and tours you to keep the property maintained and to keep the lighthouse in good shape, What we don't have, which is a huge concern. We don't have the kind of funds that we need to do Shoreline protection.

Yeah, that is our biggest thing that we, but we need bigger money than we have. Because what we make here after you know, staff and profit and you know, all the rest of it, what we have here does the basics and we keep it main-

tained to go on, but but not enough to build up position is like, having a million dollars.

Yeah. And you haven't. So it's a point prim and I think they use their deficiture their their first grant to get that for. All right. Oh no longer giving out, but the problem is, we can get some money from the feds. We can get some money from the province, but we can only get up to 75%.

We still need to put 25% down. And even that yes, more than you can handle can handle and the worst part of it. It's not even that the worst part of it is you have to have it all complete before they reimburse. You which means that as a volunteer board of directors, they have to get personal lines of credits or loans to guarantee it.

Get the contracting done, get it done. And then hopefully maybe they won't change their what is, you know, they could change the policies because of the years, it will take for that work to be carried out and finished anything you want to change that. And in the meantime, the volunteer board of directors is on the book because I was, I was on board of directors and many because you or that they're going to change policy or there's going to be a new government.

Yeah. And the policies change. So then the board of directors, something up and there's only six of us. So what happened a million dollars? That's a fair chunk of you. Yes. Just the smidge. Yeah. So it is a bit of a, it is a bit of a catch 22.

Yeah, That seems to be good. Yeah, I'm writing my thesis on lighthouses, on these coast and then architecture, graduate and Ontario. So in like traveling, our new feminine end of Scotia, not BI just like houses, and it's been so nice coming to PEI because there's so many open and like each community's, I'm still curious like what happened to PEI?

Wherever like everything is so well, maintained and run whereas like a lot of places no discussion Newfoundland. It's it they don't have anybody to run. Yeah. It's nobody some of these communities are very remote. Yeah. And if they don't have a community to run them. Now Newfoundland still has a great number of their lighthouses are still man by the Coast.

Yep, they are man lighthouse. So it's just like different thing but a I don't think that we have the same danger factor. Yeah. And And secondly it's mostly you need a community, to take it over and our communities really small. There's only seven of us. That's small. Bunch of people to try to keep this thing going.

And I'm the one that does 90% of it. So, it's like a one-man showing. It's not always the easiest thing ever. Other lighthouses have a community development groups behind them. Wood Islands has the Wood Island Development Association and making money from the ferry and all that stuff. Oh sorry and values.

And they give that part of that to the lighthouse. Because it's part of their umbrella. Group Surrey is with the necessary harbor authority and the harbor. Authority has a boat business that the boat like storage business about a marina. I'm trying to say and also have the caribou fairy, right?

That's it. What islands? Oh, the wood island. What is the three fairy go? Okay, Britain. No, this there's a surrey fairy and it goes to build a metal end, the Magdalene, right? That's where the Surrey theory goes, but they also have a boat building business not building. Sorry boat marion storage buildings and they have a fish storage business but it's all part of the harbor authority.

Yeah. And so they just put a donation box in there so they don't actually have it stuff that's just there earlier because they get money from you and asthma and Kate Bear and ourselves and premise but it's like rim has more money because they get the tour buses from Germantown.

Yeah and they get quite a few tour buses. We do not because we're too far away. Yeah so ourselves and prim we have like that's all we have. We just have the visitors that come here. That's it. Kate East Point is part of the East Point Development Association, tourism Association which includes the Elmira Railway.

So if there are every, if there are other tourist attractions in the area and they group together and they kind of share the wealth, but we are not in that position because we're a beach. We're still affirming, efficient community. It's nothing else here. Yeah, so that's the way that works.

So every lighthouse is quite different in the way it operates and seek, how head is interesting because they just got to vested and they're still trying to figure out what to do. Now that they've got the lighthouse, they still, they are not open to the public yet because they're trying to figure out what and I'm surprised because I thought they would have had their business plan submitted.

But maybe. Yeah. Right changed, you know, rules change, right? Or maybe management within their community change. Yeah, exactly. So they're not sure and we go upstairs, you can there's a charge to go upstairs. Adults are five dollars. Oh yeah. So anyhow, that's it's we do have an umbrella group but unfortunately, it's I think it's becoming defunct fast.

I'm necessary treasurer of that group and then the chair of that group is battling cancer and it hasn't been active and

it was the umbrella group to help all the individual lighthouses go through the divestiture process. But we've already done that now, right? So, the woman that really was very instrumental in getting the lighthouses and PEI saved and became part of the national team.

A group and traveled all over Canada different lighthouse. Things. Her name was Carol, Livingstone and Carol was tireless. She's been working at saving these lighthouses for years but Carol now has Alzheimer's. So that's a problem. Is the spirit. I've got one. Yeah I might have society, they produce this bush.

Yeah, so I think I am going to have to go because I'm the last one standing in this group. I think I'm gonna have to go to tourism and say, you got to take this over. Yeah, because we know we don't have a mandate anymore. The mandate preserve PEI lighthouses and that's really been, you've kind of hard for filled.

Yeah. So what they were doing is just we were meeting and we were discussing our individual issues, which is good, because that's why I know about other lighthouses because I have contacts and some of them already know the public, but they still have community groups, even though they're not open to the public and they do take memberships as we do.

So it's just an interesting Anyway. I don't know what we're going to do about the the provincial group, It has a good website. Last year we did put together with a new website So we've got a website, we've got a brochure. So basically it's become a marketing organization which tourism does that's what tourism does, right?

So that tourism should be able to. Yeah I'd like to give this back to tourism because honestly yeah all the volunteers are older. They quit health problems? Yeah. I mean it's just an old it's a group of old people So I think we have to give it back but the woman that was the liaison that had lighthouses under her particular portfolio in tourism has retired.

So I have to find out who that person is interesting and then when I talk to the membership to some of the email saying, this is what we have to do. Oh no, we want to still meet. We want to still meet. I'm going. Yes. But what are you actually doing?

What's the point of you still want to? Yeah, They just want to be just and it's great to get together and we can still do that, but we can't and we have money in our account which was given to us by tourism to produce this brochures and they haven't done it.

Shoot. I thought it might say, but it's not going to Just thank you and you want to encourage your English. Have you over the years with the contact with the Nova Scotia group at all? I'm really good? No. No, there was the New Brunswick. People called me, it was Cape German, which is right at the bridge.

Oh, yeah. And they were restoring the lighthouse in New Brunswick, right? At the bridge and they called me mainly because they wanted to find out how much we charged and all that kind of stuff. So, they were really just interested in because they'd already gone through the process and they were in the process of renovating.

So they just wanted to know kind of how we operated the business, right? Yeah. So and it's, you know, we're basically just an independent nonprofit seasonal business? Yeah, basic, that's that's what we are but we have. I know there's so far moved from The province itself. I thought both the Novation PI ones were like part of like like provincial organizations completely voluntary.

Very interesting. It's weird how like big a part of like the Canada's national image especially Atlantic and international image is like my houses and have no interest. They would be very interested if there was budget attached to you but it's not. So therefore they're the Coast Guard is very clear shift navigation and navigational lights are something.

They're very interested and don't get me wrong with the Coast Guard guys. Love lighthouses? Yeah, but the big, what the big demise happened under Harper's government because he wasn't much of a Atlantic Canada fan was and number two, he cut a lot of funding to the Coast Guard and they maintained their own machine shops.

Because when a part was needed, you couldn't go to Canadian Tire. You had to machine the parts for these mechanical because they were a mechanical. At the time, they were the Clockwork mechanism that gears anyhow and such. Yeah. So, they had to maintain it by building a machining, their own pieces, and they lost their machine shops.

So, their budget was cut. So drastically, that started the demise of the lighthouses in the local. Didn't really pick it up. That's really good to know. Well, some that so I've heard you got a research that because I've never done much more anywhere. So look at that more is yeah that's interesting.

I'm sure. No I pick up a lot of stuff I do. I'm a history major myself, so I do a lot in this kind of research and I talked to an awful lot of people over the last 15 years. But but I that is what I've heard and I it was Postgarth guys, just stealing off and then you just inventing so I, yeah, take whatever.

Yeah, because it was right with the birds interesting. Hmm Yeah but if you have any questions I'll give you my car. Yeah, that'd be great. That's my personal email, and then that's the lighthouse email. So because excellent, this once