A Snapshot of the Field

NiCHE 2013 Summer Photo Contest

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The Contest

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A Snapshot of the Field: NiCHE's 2013 Summer Contest

Each summer, environmental history and historical geography scholars and students take off to the archives and the field to do research. And they take their cameras. This summer, NiCHE wants to gather a snapshot of our discipline in 2013, as seen from your snapshots. What kind of photo? It might be one of a historical document or place related to your research or to the field more generally. It might be a rephotograph, à la HistoryPin.comor DearPhotograph.com. Just send in the photograph and an accompanying text of no more than 500 words. We'll post some of the best entries over the summer, and give out a prize for the very best in mid-September.

And what a prize. UBC Press, in celebration of the Nature/History/Society series reaching its 20th title this year, is generously donating an entire set of all 20 books to the best entry. NiCHE will top that up with $200 for the winner and two runners-up. N/H/S series editor Graeme Wynn and series contributor Claire Campbell are the judges.

UBC Press is also offering a 20% discount on all N/H/S titles while the contest is underway. The offer is available only through its website at www.ubcpress.ca. Enter discount code NICH-20.

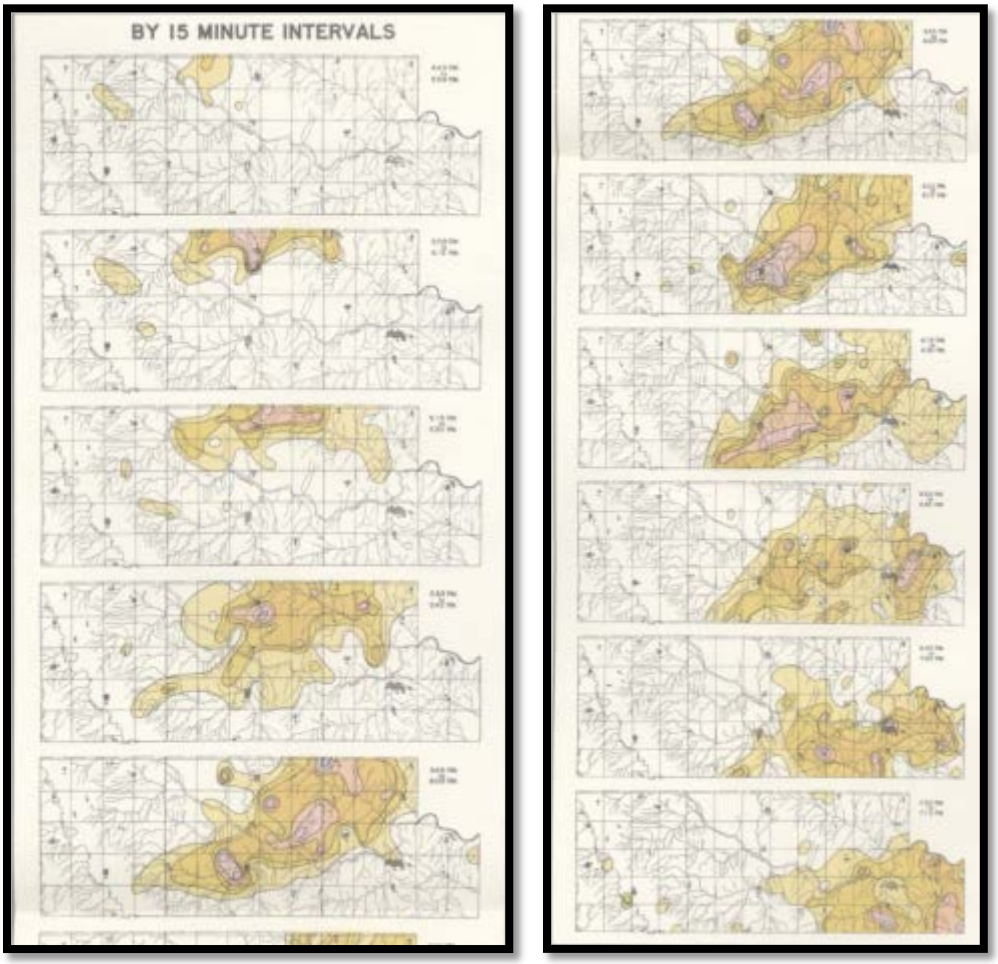
We welcome entries in English ou en français from all over the world, on topics and places all over the world. Send the photo (as a jpg) and text (as a Word doc) in a single email to niche@uwo.caby Monday, 9 September 2013. Enter as often as you like. Please be as specific as possible as to where the photo refers to; we welcome latitude and longitude coordinates. And please be sure you own the rights to the photo and its communication. Have fun! Void where prohibited!

Bergman, James

Harvard University Department of the History of Science
Submission for NiCHE photo contest
August 21, 2013

A Changing Outlook on Climate

The series of maps depicted in this image reflect a storm that swept through central Oklahoma on May 1, 1936. The maps were produced by the Oklahoma Climatic Research Center, part of the Section on Climatic and Physiographic Studies in the Soil Conservation Service. It was funded by the Works Progress Administration (WPA), a government body established to provide work projects for the unemployed during the Great Depression in the United States. A closely spaced network of 200 weather observers—mostly farmers suffering from drought—would take observations every 30 minutes (and every 15 on days with rain), write them on a sheet, and send the observation sheets in daily to the Climatic Research Center, where they would be plotted, connected, colored as maps.



The images produced on this map were exhibited at conferences and in papers as the prime example of a "new climatology." The head of the project, C.W. Thornthwaite, claimed that the project facilitated an

"intimate portrayal of the *life* of a storm," in which its "size, form, and migration characteristics" and its "taxonomy" could be examined.[1] It was hard to avoid describing these images using biological metaphors, and indeed, an article in the *Washington Post* remarked that these images "looked like the amoeba and paramecium that used to be shown under the microscope in biology classes at school."[2]

Although the images themselves may have invited the interpretation of climatic phenomena in organismic terms, this was a new understanding of the project, which had originally been promoted as a way to understand local *variation* in rainfall. To understand why, we need to examine the unique labor relations of the project. The WPA's funding of the project was contingent on the provision of sufficient work for the observers in the area. The network had not only the opportunity, but the *requirement*, to space the observations intervals so close that the movements of the storm to be seen in detail. Additionally, the production of maps required precise synchronization of the observations over a three-county area. To this end, they tried to make the observers aware of the collective nature of the project. The project's newsletter wrote:

> *Each and every one of you is playing an important part in obtaining of material which gives an exact picture of what is happening over the whole area at one time. Your station is a part, an important part, of a vast laboratory which is gaining new knowledge about the details of climatology.*[3]

The language of the "single laboratory" found its way into Thornthwaite's interpretation of the project as well. He described the network as "a single instrument for obtaining samples in different parts of a rainstorm in sufficient number to determine its characteristics."[4] In these images, then, we see not only a new way of understanding the climate of an area, but also the contingencies of New Deal labor relations.

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[1] C.W. Thornthwaite, "The Life History of Rainstorms: Progress Report from the Oklahoma Climatic Research Center," *Geographical Review*, Vol. 27, No. 1 (January 1937): 104.

[2] "Rainstorm Personalities," Federal Diary, *Washington Post*, September 29, 1936.

[3] *Kingfisher Climatic Research Station News*, December 17, 1936, King8isher News Sheet; Box 52: 143C; Records of the Personnel Management Division; Erosion History and Weather Reports (Entry A1-1058); Records of the Natural Resources Conservation Service, Record Group 114, National Archives and Record Administration II.

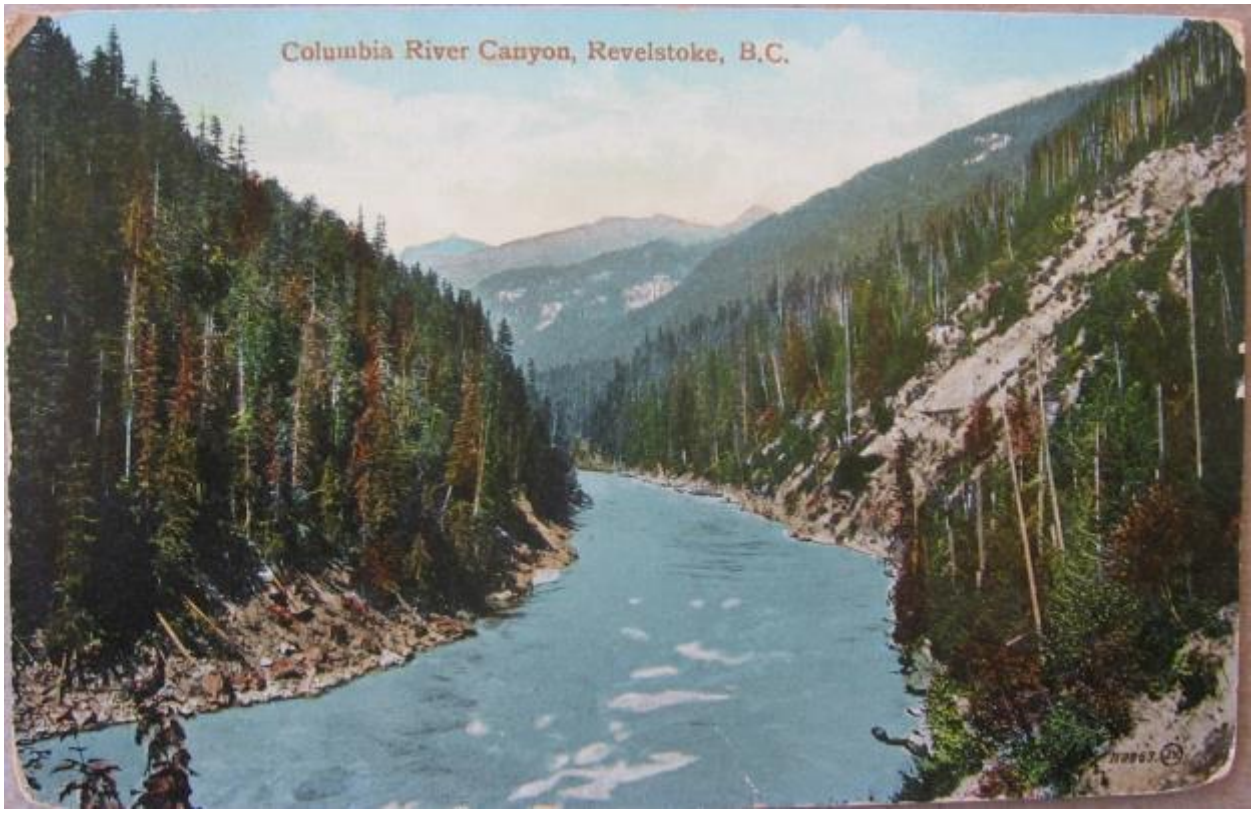
[4] C.W. Thornthwaite, "The Life History of Rainstorms: Progress Report from the Oklahoma Climatic Research Center," *Geographical Review*, Vol. 27, No. 1 (January 1937): 105.

Bradley, Ben

Entry 1

Revelstoke Canyon Dam on the Columbia River

Located just a couple miles north of the Trans-Canada Highway, the Revelstoke Canyon Dam is the most accessible and tourist-friendly of Canada's Columbia River dams. It is also the newest, having become operational in the late 1980s. The fact that it opened many years after the Duncan, Keenlyside, and Mica dams makes it difficult to imagine the Revelstoke Dam as part of British Columbia's era of 'high modern' hydroelectric megaprojects, but it was always a component of the massive plan hatched by engineers and politicians back in the 1950s.



Today when you visit the Revelstoke Canyon Dam your vehicle will be stopped at a checkpoint located half a mile downstream, where a guard takes your names and license plate number and explains that backpacks and handbags are not permitted inside the dam. It has become a high-security environment in the last decade. You can't miss the automatic gates and chain-link fences topped with barbed wire, but less obvious are the heavy steel 'pop up' bollards similar to the ones you can spot outside certain foreign consulates and embassies. Video cameras are everywhere.

This image shows the walkway leading from the visitor centre and power generation complex to the dam proper. It is stitched together from about twenty smaller images. Purely accidental, but I really like how Colin Duncan's 5.5 legs visible here echo the 5.5 penstocks visible on the dam…

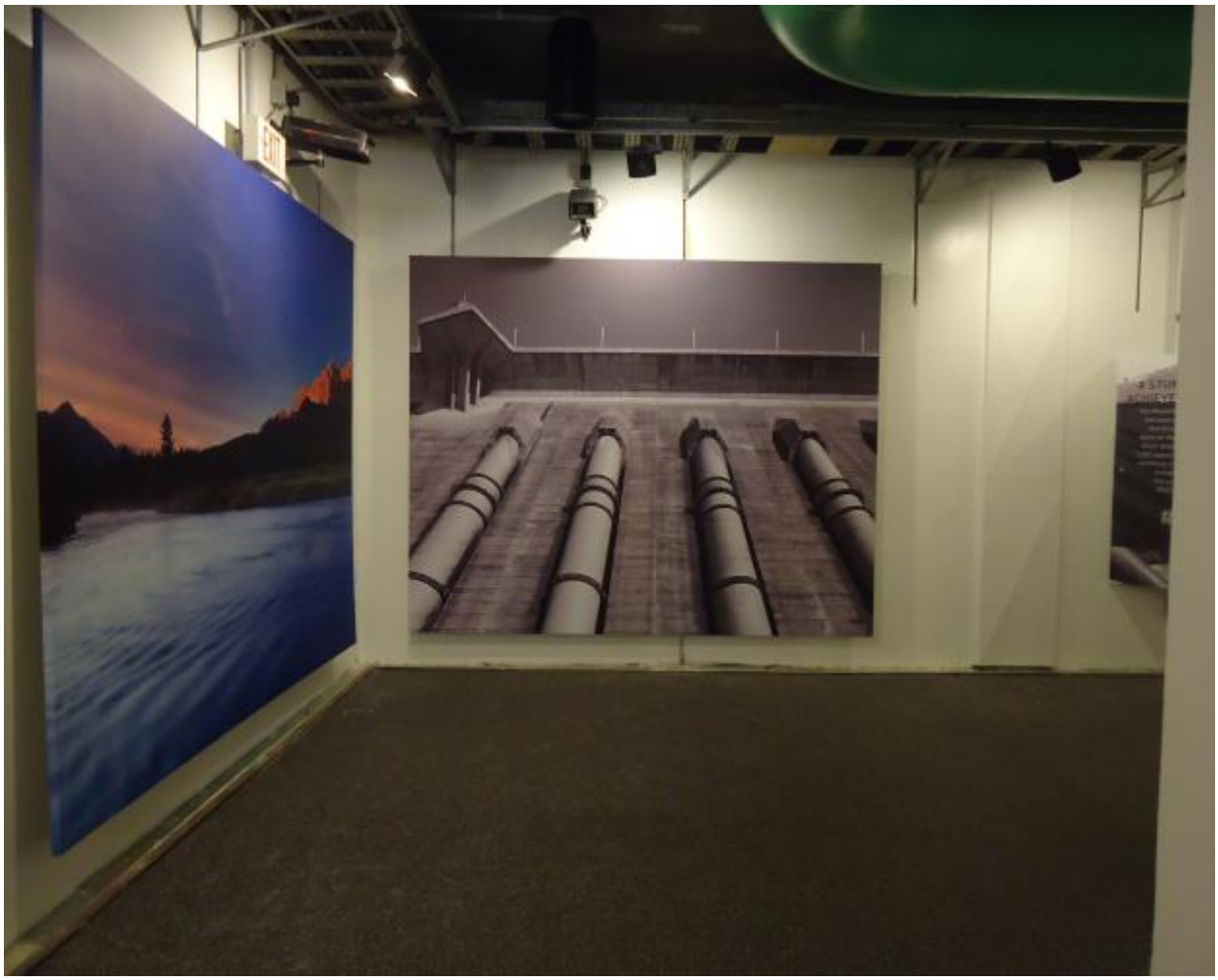
Entry 2

Free Mountain Cabin, near Rossland, British Columbia

This is one of the handful of cabins on Cabin Flats, previously known as Indian Flats, which is located on Granite Mountain, just a couple miles above the town of Rossland, BC.

Granite Mountain was incorporated into the Red Mountain ski resort complex during the late 1960s. However, prior to ski lifts going in on Granite Mountain, many families from Rossland and Trail had constructed weekend retreats in a forested area that was located just a short distance from the foot of the first chairlift on Red Mountain (an extinct volcano turned gold mine turned ski hill). This provided a convenient recreational retreat during the snowy winter and a cool getaway in the summer months. Most of these cabins were built without permission or any kind of property rights – they were simply built in the bush where they wouldn't be noticed by anyone. Indeed, going into the woods to build a free cabin is still a common practice in the West Kootenays. The grandfathered cabins on Granite Mountain are still very much in use today, and an invitation to one is as highly coveted as getting first chair on a powder day.

Entry 3



Photographs 400 Feet Under the Columbia River

The visitor centre at the Revelstoke Canyon Dam abounds with interpretive devices. Dioramas, maps, huge photographs, video screens, interactive games for children, a theatre with films running on continuous loop. There are also dozens of panels crammed full of text and images about the Columbia River and the construction and operation of the dam. These interpretive devices relate magnificent facts, measuring the dam's various dimensions in terms of dump truck loads, the wingspan of a jumbo jet, the distance between the earth and the moon, and so forth. Nothing is said about the dam's effects on mountain caribou and sturgeon populations, or about how the region's climate has been changed by the transformation of the uppermost Columbia River into two massive lagoons. The place is bright, airy, and surprisingly noisy.

The atmosphere in the base of the dam is very different. The area appears to be unstaffed, although there are security cameras at every corner. Visitors walk through long, quiet hallways, and on even the hottest summer day the air inside is cold and clammy. Troughs run along the base of the walls to collect

the 'sweat' that comes through the pores of the concrete walls. There are few attempts at interpretation, but just outside the elevator that takes visitors to the observation deck 400 feet above, there were these two photographs. I thought their affected 'high art photography' look was interesting, as if it was meant to 'show' rather than 'tell' something about the story of the dam. I also thought they were nicely juxtaposed with the cameras mounted on the walls above them.

Brett, Denny

A State of Min(e)d: Energy Literacy and Oil Sands Policy

The Great Canadian Oil Sands plant demonstrates how tailings ponds were located above the Athabasca River.

The photograph of tailings ponds at the Athabasca River was taken at the Great Canadian Oil Sands plant in 1973, which is now the site of Suncur.[5]

Amidst a summer of river flooding, torrential rainfall, and oil tanker train explosions, two challenges remain in the background: sustainable oil sands production and climate change. On June 27th, 2013, United States' President Barack Obama made a direct connection between the Keystone XL pipeline, oil sands production, and global climate change. This concern is nothing new, and has been continuously used by environmental organizations, such as Greenpeace, to influence public opinion and shutdown oil sands production. In contrast, oil sands companies and the Government of Alberta advocate the environmental performance and economic benefits of the oil sands. Thinking about debates such as this reveals the uncertainty surrounding sources of information and the need for greater energy education.

Intensive energy consumption is an omnipresent factor throughout modern-industrialized society. Canadians are dependent on energy to fuel their cars, heat their homes, transport supplies, manufacture consumer goods, etc. The concept of 'energy literacy' relates to a society's knowledge of energy. A high degree of energy literacy translates to a greater understanding of energy production, transportation, consumption, and associated economic and environmental factors. A recent study by The School of Public Policy at the University of Calgary found that Canadians are generally aware of the

[5] Intercontinental Engineering of Alberta. *An Environmental Study of the Athabasca Tar Sands, Prepared for Albert Environment*, (Edmonton: Alberta Environment, 1973), 65.

importance of energy, as well as the role of individual awareness and behavior in shaping energy issues.[6] However, the same study also found that across the nation, Canadians profess a low level of trust for certain stakeholders in the energy industry, such as companies, governments, and various research institutions. Part of the reason for the lack of trust in information sources is because discussions on energy are so highly contested.

Debates over energy issues are especially evident in discussions on the oil sands. I first became captivated by the oil sands while enrolled at the University of Guelph. In late 2011, I attended a panel on the oil sands, which featured representatives from the Indigenous Environmental Network, Canadian Oil Sands Limited, and the university's Economics and Sociology Department. The discussion was titled "The Oil Sands in the Crude: Stripping Down the Issues." Although a cleverly worded title, it was inappropriately chosen. Each panel member had their own perspective of the oil sands, quoting sources of information that countered the others. Instead of stripping down the issues, the panel only served to 'muddy' an already contentious topic.

Nevertheless, the panel sparked my interest. During the course of my undergraduate degree, I began investigating oil sands development and the reclamation of tailings ponds. Reclamation is the process of remedying and repairing damaged landscapes, and tailings ponds are the massive storage sites used to contain and reuse wastewater. Like most topics on the oil sands, landscape management through reclamation is very challenging. In the late 1970s, former director of the Government of Alberta's Land Reclamation Division, D. G. Harrington, described that the major problem for implementing reclamation legislation was that the "standards of reclamation are not easily defined and when one tries to define them, they are subject to a wide range of interpretation."[7] Related to this problem is the misconception that reclamation is the same as restoration. Oil sands reclamation is crucially different than ecological restoration, because it does not involve restoring an idealized past reference site, or creating a ubiquitous wilderness.

By studying the oil sands, my intent is to examine the competing and coexisting conceptualizations of reclamation. Prior to the 1970s, reclamation in Alberta was mostly based on improving and repairing nature so that it could be used in the present or salvaged for future purposes. Following the 1970s oil sands extraction created vastly different environmental issues that modified how reclamationists interpreted healthy and damaged ecosystems. As described by historian Michael Egan: "the framing of new environmental standards comes in response to the discovery of hazards and those standards are frequently revised as new information becomes available."[8] Reclamation was a reactive and evolving

[6] Andre Turcotte, Michal C Moore, Jennifer Winter. "Energy Literacy in Canada." *The School of Public Policy* 5,32 (2012): 36.
[7] D. G. Harrington. "Implementation of Reclamation Legislation in Alberta." Canadian Land Reclamation Association. *Proceedings of the Fourth Annual Meeting of the Canadian Land Reclamation Association*, (Regina, Saskatchewan, August, 13-15, 1979), 262.
[8] Michael Egan. "Toxic Knowledge: A Mercurial Fugue in Three Parts," *Environmental History* 13 (2008): 637.

process of environmental repair that was shaped by oil sands pollution problems and provincial government and industry reclamation research.

Similar to energy literacy concerns, oil sands reclamation remains a very contentious and high profile challenge. At present, the Alberta government mandates that industry must create a maintenance free, self-sustaining ecosystem with capabilities equivalent to or better than the predisturbance site. In contrast, non-governmental organizations criticize the government for failing to ensure that post-mined landscapes are restored to a 'natural' state. Considering the diverse perspectives of the oil sands, Canadians must remain critical of where sources of information come from and continuously strive to educate themselves on topical challenges for Canadian society. Through a higher degree of energy literacy, Canadians will be better equipped to understand and resolve pressing energy and environmental concerns.

Continuing my interest in the oil sands, this fall, I will start writing a Master's Thesis at the University of Alberta. I hope to continue researching oil sands reclamation, because as historian Marcus Hall recently described: environmental repair "is the mechanism of sustainability; our ecosystems, our economics, our lifestyles can be sustained only through ongoing restorative processes."[9]

[9] Marcus Hall. (2005) *Earth Repair: A Transatlantic History of Environmental Restoration*, University of Virginia Press, xiii.

Coates, Colin

Sheepish in Salzburg

Salzburg, August 2013

An interesting statement on politics in Austria in the current elections. The Green Party sees itself as "Less sheepish than the others." Which Canadian parties would be most sheepish? And which animals better represent the others?

Duffett, Angela

Title: New Newfoundland: St. John's Harbour, turn of the century and today.

Location: Battery Road and Cabot Avenue, St. John's, Newfoundland.

Coordinates: 47.570695, -52.694327

Submitted by Angela Duffett, Queen's University

This photo of St. John's harbour at the turn of the century and today speaks to continuity and change in Newfoundland's economy during the twentieth century. While the harbour remains the city's focal point and all roads and sightlines (with the exception of a few ill-advised 1980s office towers) seem to lead to it, the nature of harbour traffic and commerce has changed greatly. The fishing rooms and smaller wharves in the older photo are gone now and although some fishing boats still make use of the harbour, coastguard ships, container ships, arctic-bound research vessels, vessels associated with the oil and gas industry, and the occasional cruise ship now provide most of the harbour traffic.

As is the case in many cities, change and construction in a heritage district are contentious issues in St. John's. In the wake of the 1992 cod moratorium, oil, gas, and tourism have sprung forward as new

drivers of the province's economy. The colourful row houses going up the hill at centre left might be more in keeping with most people's impressions of Newfoundland, but they are juxtaposed with construction cranes (there are currently several at the harbour's west end, out of the frame of this photo) and massive boats. Although the province has successfully invoked antimodernism as a branding strategy, in reality these nostalgic representations of the province and its people exist in close quarters with megaprojects and industrial demands.

I said earlier that there are no more fishing rooms on the harbourfront, but if you look to the top centre of the frame there is an homage to them in the form of The Rooms, the cultural complex housing the province's museum, art gallery, and archives and whose design and name evoke the fishing rooms where salted cod were once stored. The building's enormous stature and prominence on the city's skyline have not been without controversy – references to The Rooms as "the box the Basilica came in" were a common refrain around St. John's for some time after the facility's 2005 opening (note the Roman Catholic Basilica of St. John the Baptist, constructed 1841-1855, at top right in the original photo). Architectural differences aside, most people agree that the view from The Rooms cannot be rivalled. I conducted most of my research on 19th century merchant families in St. John's here. Suspended over the city while consulting archival documents, I began to construct a mental map of places and spaces associated with the people I write about, overlaying this mental map onto the present-day landscape below me. The Rooms provided a vantage point from which to contemplate the relationship between space and power in both the colonial town and the modern city – a perfect writing inspiration.

Photo credits:

Archival photo: "East St. John's [between 1892 and 1904]," The Rooms Provincial Archives of Newfoundland and Labrador, MG 1010 Catherine (Kitty) Power Collection, VA 122-50.

Present day photo and photo editing: Angela Duffett

Hall, Alex

Research Associate at the University of Manchester

Photo: Still vulnerable today?

Coordinates: 52.971981, 0.849717

The Great Wall along the western side of the harbour at Wells-next-the-Sea, Norfolk in early February 1953 and today

This composite image of the Great Wall along the western side of the harbour at Wells-next-the-Sea in Norfolk, England shows in the inset men repairing damage after a catastrophic coastal flood in early February 1953 and the same defensive wall today.

The east coast storm surge and flooding of January 31st, 1953 was the worst naturally triggered disaster in twentieth-century Britain. In the UK alone, it accounted for 440 deaths, over 160,000 acres of flooded land, 1,200 breaches of sea defences, damage to 24,000 properties, and the evacuation of over 32,000 citizens.

The 1953 floods triggered significant changes in British flood policy and management, however despite continued investment in sea defences in this sleepy coastal village the photograph clearly highlights that little has changed since 1953. As the population continues to expand into at-risk areas and with sea

levels predicted to rise, if society as a whole does not remember events like the North Sea floods of 1953, we are at risk of letting hubris, cost-benefit-analysis, and myopic planning policy take control of our disaster preparedness and resilience.

The main photograph is taken in January 2013, whilst the inset is from early February 1953 and was taken by Professor J.A. Steers of the Geography department at the University of Cambridge shortly after the floods struck on 31st January – 1st February 1953.

The location of the photograph is facing north on the raised embankment that runs parallel to Beach Rd, Wells-next-the-Sea, Norfolk, NR23 1DR, UK.

Jorgensen, Dolly

Dolly Jørgensen, Department of Ecology & Environmental Science, Umeå University, Sweden

Photo: 'Just touch me!'

coordinates 63.429145,10.387476

On 23 June 2013, I was coming toward the end of a week and a half archival work / field visit driving tour through Sweden and Norway for my Return of Native Nordic Fauna project. A decided to make a short stop at the Vitenskapsmuseet in Trondheim, Norway, to see if it happened to have any of the animals I

am researching on display. Within a dusty exhibit titled 'Natur-miljø' (Nature environment) on a dimly lit balcony-style floor, I saw this secluded muskox standing in the corner. It is a descendent of muskox caught in Greenland and reintroduced to Norway in the 20th century. It seemed to cry out for attention to break its dreadful loneliness with the words poignantly written by curators on the ground: 'Just touch me!' And indeed it appears to have been touched many times over the years, as almost all of its qiviut, the muskox's softest and most valuable wool, was missing from the middle of its back. Like many other visitors to the museum, I touched the muskox, but in addition to hair, I could feel the cold plastic form over which the skin had been stretched to make the mounted specimen standing before me. In my tactile encounter in the corner, reaching out and touching the muskox exposed how unnatural nature often is.

Photograph and text by Dolly Jørgensen,

Kheraj, Sean

Five Stanley Park Photographs I Wish I Had Included in My Book

Writing and publishing a book is a long process that often requires authors and editors to make tough choices, especially during the revisions process. We add new material, alter existing sections, and cut, cut, cut. One of the most difficult parts of the process can be the decisions about images.

I recently published my first scholarly monograph, *Inventing Stanley Park: An Environmental History*. Stanley Park is one of the most photographed landscapes in all of British Columbia and the City of Vancouver Archives and Vancouver Public Library hold incredible collections with thousands of images of the park. Thankfully, UBC Press was more than willing to include dozens of high-quality photographs. However, not every picture made it into the book. The press accepted almost all of my proposed images, but after I submitted the final manuscript, I discovered more. Here are five amazing photographs of Stanley Park that I wish I had included in my book.

1.) Construction of Coal Harbour causeway, 1917. Source: City of Vancouver Archives, AM54-S4-3-: PAN N54.

You don't get the complete sense of the beauty of this panoramic photograph unless you click through to its full-sized image. This is a photograph of the construction of the Coal Harbour causeway. In 1909, the bridge across Coal Harbour collapsed. This prompted the Park Board to seek new designs for the Georgia Street entrance to park, an area long thought to be unsightly due to the shifting tides which left the western basin of Coal Harbour drained and muddy. Pauline Johnson admired this tidal phenomenon and named the basin Lost Lagoon. The board sought to either fill in the basin or permanently flood it with an artificial land bridge or causeway. Following an acrimonious public debate over the designs of famous landscape architect Thomas Mawson, the Park Board elected a simple naturalistic causeway plan, designed by city engineer Frederick Fellowes.

2.) Cutting the road to Lions Gate Bridge, 1937. Source: City of Vancouver Archives, AM54-S9-: CVA 265-14.

While I did include a photograph of the clearing cut through the forest to build the highway to Lions Gate Bridge in my book, it did not fully convey the extent to which this roadway scoured out a trench through the middle of the park. In later years, park commissioners would refer to this as a scar on the face of Stanley Park. I also like the parallels between this photograph and images from the late 1880s of the construction of the first park road. Just as in the national parks, road-building played a significant role in landscape transformation in the history of Stanley Park.

3.) Third Beach, 1890. Source: City of Vancouver Archives, AM336-S3-2-: CVA 677-206.
I did not examine the beaches along the shores of Stanley Park nearly enough in my book. This photograph of Third Beach in 1890 vividly illustrates the massive transformation of the shoreline of Stanley Park that occurred over the course of the twentieth century. One of the central arguments of my book is that humans altered the ecology of the Stanley Park peninsula more substantially after it became a park in 1887 than any other time in its history. This part of the park is now a sandy beach enclosed by the popular seawall. It no longer exhibits this rough, log-strewn appearance.

4.) Cummings' Cottage in Stanley Park, 1928. Source: City of Vancouver Archives, AM640-S1-: CVA 260-45.

This photograph was taken just a couple of years following the Supreme Court of Canada trial that led to the legal eviction of the Brockton Point villagers, a community of mixed Aboriginal-European settlers who had lived on the Stanley Park peninsula since the mid-nineteenth century. I explore this case in my book, but Jean Barman's *Stanley Park's Secret* goes into much more detail. This photograph illustrates a point I try to make in my book regarding these so-called "squatters." City officials used the term "squatters" as a way of implying that the families who lived at Brockton Point were illegitimate transients who lived in shacks. These photographs, however, reveal that their houses were permanent, well-established dwellings. This was the home of Tim Cummings, the last person to live at the Brockton Point village.

5.) Aerial photo of Second Beach, 1930s. Source: City of Vancouver Archives, AM54-S4-: Air P104.

This is one of several incredible early aerial photographs of Stanley Park. These images provide excellent evidence of some of the broad-scale landscape transformations of the park. During the course of my research, I was surprised to learn just how much the Park Board altered the environment of the Second Beach and Ceperley Meadow areas of the park. This is the isthmus that connects that Stanley Park peninsula to the rest of downtown Vancouver. Prior to the 1910s, this area would periodically flood at high tide, leaving Stanley Park an island. Beginning in the 1910s, the Park Board pumped fill from the bottom of English Bay onto the isthmus to raise it and prevent it from flooding. You can see in this image just how sparsely forested this part of the park was in the 1930s. Because the trees in this area tended to be sparse and often fell during wind storms, the Park Board built a number of recreational facilities in this part of Stanley Park, including tennis courts, an elk paddock, a golf course, picnic grounds, and a bathing beach with a saltwater swimming pool.

While I did not included these five photographs of Stanley Park in my book, you can still find dozens of great images of the park in *Inventing Stanley Park*. With such an immense photographic record, visual evidence played a very important role in my research, but there are only so many pictures that can fit in one book.

LeClerc, Emma Kate

Emma LeClerc
M.A. Candidate, Abandoned Mines in Northern Canada Project
Memorial University
St. John's, NL

Abandoned Pine Point mine

In the Northwest Territories, the abandoned Pine Point mine is stamped on the boreal landscape. This colossal abandoned mine is located on the southern shore of Great Slave Lake (approximately 60° 52' 13'' N, 114° 27' 21'' W). When the Pine Point mine opened in 1964, it transformed the subarctic, boreal forest into the desolate moonscape it is today. The Pine Point mine was part of a wave of federally-backed industrial expansion that occurred in the 20th century throughout northern Canada. It was an extensive open-pit operation that produced more than 12 million tons of lead and zinc ore and ore concentrate over its 25 year lifespan. When base metal prices plummeted in the late 1980s, the Pine

Point mine shut down. Over 40 pits remained open, the attempts at tailings revegetation were unsuccessful and waste rock, as shown in the photo, was left piled around the mine site. Because remediation standards at the time addressed little more than physical hazards, the abandoned mine was not restored to its former environmental condition.

Taken 25 years after the Pine Pont mine shut down, the accompanying photo shows the stark difference between the poorly remediated mine site and the unmined, adjacent forest. I was struck by the dramatic boundary where black spruce is overtaken by white waste rock. It is difficult to imagine that this abandoned site was once dense boreal forest, actively used for hunting and trapping by the nearby community of Fort Resolution. It is even more difficult to imagine that 25 years have passed since abandonment; the site seems frozen in time. But it's not frozen, of course. My research examines how this abandoned mine has changed in the post-industrial era. I am interested in how this post-industrial landscape is dynamic, in terms of the physical environment and the ways that contemporary hunters and trappers are using the poorly remediated space. I am investigating whether any vegetation has begun to recolonize the rocks and how people are navigating this site of massive environmental disruption and minimal remediation. I hope to discover what the Pine Point mine has become now that it is no longer being mined.

MacEachern, Alan

A HistoryPin image incorporating photo of RW Cautley's inspection for Cape Breton Highlands National Park, 1934 (Canada, National Parks Branch / Library and Archives Canada, PA-121449)

MacFadyen, Josh

July 24, 2013

Once a jumping off point for swimmers, this lighthouse is now 600m from the channel at St Peters Harbour PEI due to coastal accretion. Historical photos courtesy of Carol Livingstone, PEI Lighthouse Society.

At the start of the summer NiCHE asked for our favourite and most meaningful photos from summer research or vacation. OK I'll bite. I've seen some amazing landscapes and images so far this year, being lucky (or maybe foolish) enough to have travelled fromVancouver Island, BC to Twillingate Island, Newfoundland, and spent at least a few hours in seven other provinces. But the most meaningful photos to my research have been of the lighthouse at St. Peters Harbour, Prince Edward Island, the earliest in 1917, another in 1965 (both courtesy of Carol Livingstone), and the latest taken by me in July 2013.

I've never actually come across a lighthouse in my research, but something keeps bringing me back to the north shore of PEI, and to St. Peters Bay where this structure is testament to a changing coastline. My research is mostly about how Atlantic Canadian farmers procured fertilizers and fuels from wildlands, but I've also been interested in the use of aerial photographs for studying bothland use and landscape change. Alan MacEachern and I discussed St Peters and other North Shore landscapes in Time

Flies, a poster at the American Society for Environmental History in Toronto this year, and I recently wrote about mussel-mud digging farmers a little further up St. Peters Bay in Land and Sea. The aerial photographs show that the landscape has changed dramatically since 1935, but it wasn't until I visited this particular lighthouse — ironically difficult to spot on a vertical air photo — that I realized how extensively this coastline was shaped by the sea.

Walking along the shore west of St. Peters Bay, it does not seem obvious that the early twentieth century beach was once over 150 metres landward. But the location of a square tapered lighthouse nestled deep in the sand dunes, and the ruins of a wharf in a shallow barachois pond beyond that provide some clues. Photographs and aerial photos from the last ninety-six years show that the lighthouse was once flanked by flat beaches and the St. Peters harbour fishing wharf (see 1917). Sand was constantly collecting on these shores, banking around the lighthouse by 1965 and filling in the channel to the Bay. The wharf site was abandoned in 1951, but the lighthouse remained an ever-fixed mark, a datum in the rising sand. When I was exploring the site a woman told me that her grandfather once fished from the wharf and her uncles used to jump from the top railing into the nearby channel. Now the wharf is mostly buried and the lighthouse is 600 metres from the channel leading into St. Peters Bay.

The accretion of sand around the mouth of the harbour has long been a problem for local residents. For most of the history of this landscape there was of course no lighthouse or wharf at all. When the Mi'Kmaw first appeared on this location the ocean was much lower and further away, and Prince Edward Island itself wasn't even an island.[1] By 1719, Havre Saint-Pierre was resettled by Acadians, becoming the original and most important Acadian fishing village on what they called Isle Saint Jean. In 1752 French travel writer Thomas Pichon complained about the limited access for large ships and reported a "sand bar that forms at the mouth of the harbour." The main approach to unwanted accretion is to build large berms in places that would collect the sand before it entered the harbour. These improvements were demanded by PEI officials in 1857 and carried out by Ottawa in the late nineteenth century. But still, engineers could not keep the sand from covering the wharf, entering the channel, and drifting over the lighthouse walls. Thus, St. Peters lighthouse is slowly going the way of Anakin Skywalker's movie-set home (to which many say good riddance); Anne of Green Gables' house in Cavendish, PEI, seems safe enough for now.

Lighthouses were critical infrastructure in the nineteenth century. To many travellers they were more familiar and important than traffic lights are to us today, but now that we mostly travel by land, and navigate by GPS, lighthouses are at risk of disappearing. The risk is not just financial but also environmental. Most PEI lighthouses only make the news when their sandy perch is threatened by coastal erosion. As Federal funding disappears and climate change exacerbates coastal change, the outlook for lighthouses is darker than a night of heavy fog. But some lighthouses actually find themselves further from the ocean every year, and in St. Peters Harbour the lighthouse is a beacon for another kind of landscape change.

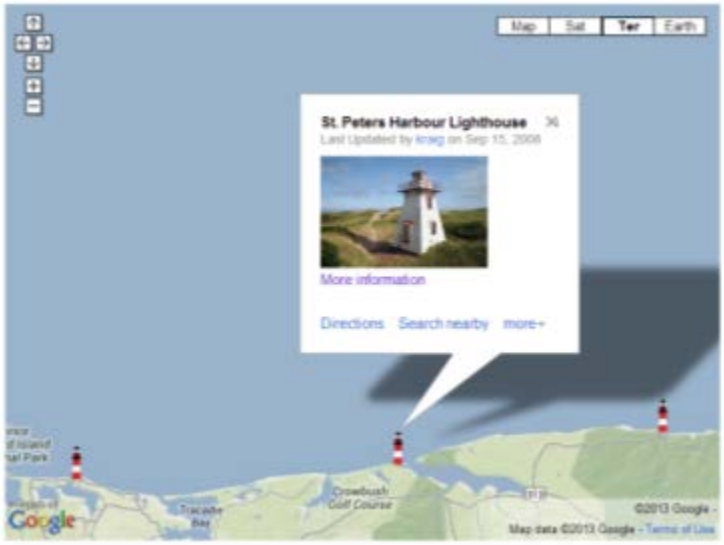
The more we learn about climate change, fragile coastlines, and our own unpreparedness for flooding (for example in Calgaryand Toronto), the more we know we shouldn't be building our houses on the

sand. Coastal erosion has caused a major disturbance to estuarine habitats and human infrastructure in Atlantic Canada since the early twentieth century. Many parts of PEI's north shore are eroding at rates of over 1 metre per year, and sea level rise and the increased frequency and intensity of storms in the twenty-first century suggest it will get worse. The human response to this information has not been promising. The proliferation of residential, recreational and other infrastructure in the St. Peters Harbour area suggests that people will build asclose to sensitive coastal areas as possible.

St Peters Harbour Map – Showing development and lighthouse, 2010.

People will also build over heritage areas, perhaps even unwittingly, without a better understanding of human ecology and these historical landscapes. Tracing these shifting landscapes is no simple task. The Greenwich section of the Prince Edward Island National Park is located across the mouth of the St. Peters Harbour, and although it presents an excellent historical and archaeological survey of the inhabitants of St. Peters Bay, it does not identify the location of important nearby sites like the 18th century village of Havre Saint-Pierre, the 19th century harbour improvements, or the twentieth century Provincial mussel mud dredge. Environmental history, including methods such as the interpretation of aerial photographs and historical maps, can help identify these sites and their significance to local ecosystems.

Environmental history is required for more than a commemoration of lighthouses and Mi'Kmaw, Acadian, and Canadian homes and fisheries, but also for an understanding of human ecosystems over time. As Matthew Hatvany has argued, coastal change is highly complex and requires an awareness of both long run history and the ways we think about science.



Postscript: I discovered that the title I was planning to use for this piece, "sea change," was scooped by Lapham's Quarterly on the same day (The LQ podcast Out at Sea features some exquisite readings by Lewis Lapham). "Washed up" or "Beached" lighthouse didn't have the same ring to them, so I went with Swallowed by the Seashore.

Macfarlane, Dan

I picked photos that following a theme of the ways that humans interact with rivers, turning them into hybrid waterscapes, which is what my research generally focuses on. These photos were taken on the St. Lawrence, Rideau, and Ottawa Rivers.

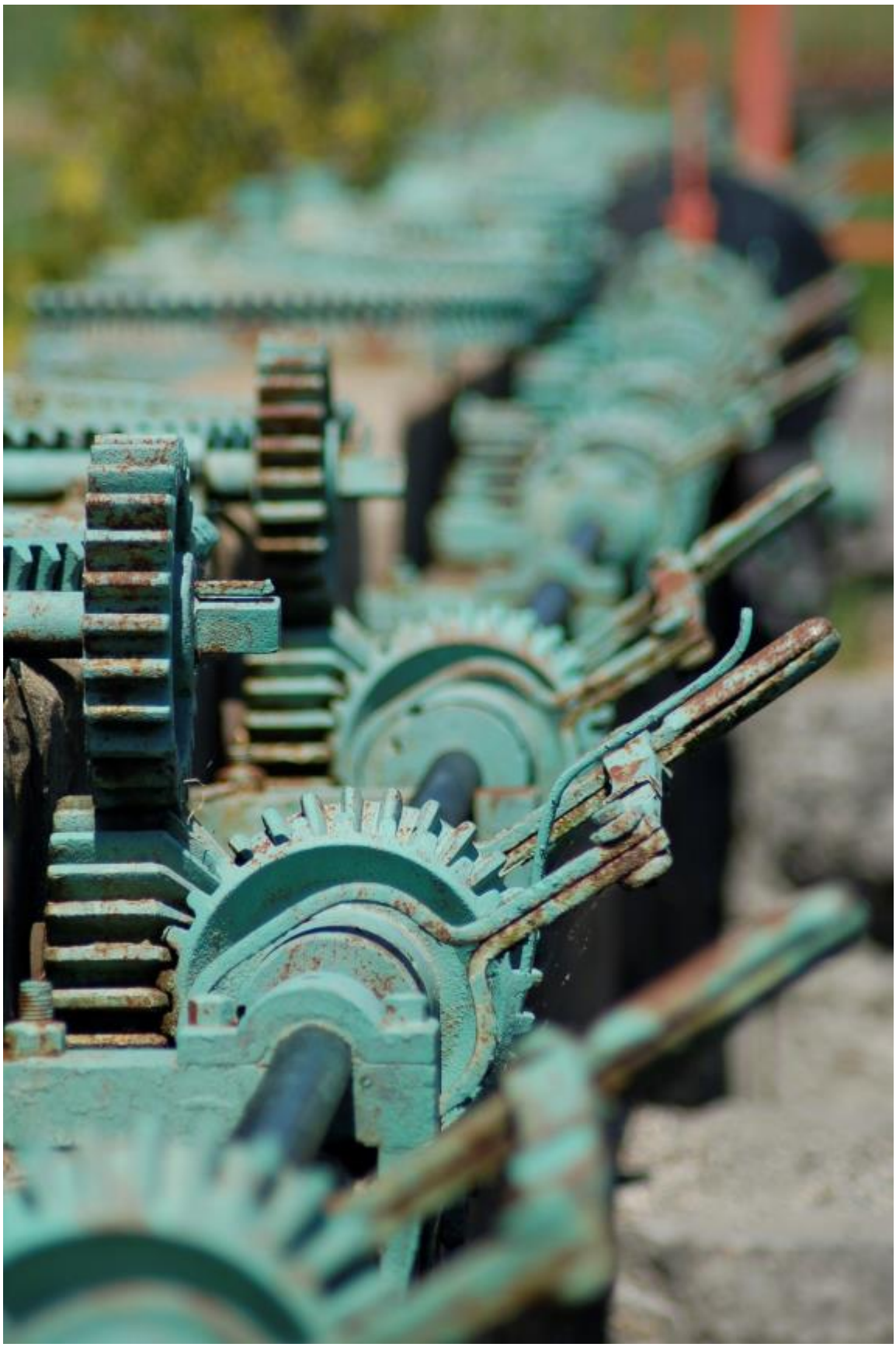
Entry 1

Old Highway No. 2

This seemingly innocuous piece of asphalt is actually the remains of Highway No. 2. It used to be the main highway between Toronto and Montreal until it was flooded out in the 1950s by the St. Lawrence Seaway and Power Project. One can still easily walk out along the highway, as well as remaining sidewalks, into the Lost Villages. I found the juxtaposition of a road leading into water a bit jarring, a situation exacerbated by the knowledge of what represents.

Entry 2

Gears



This row of gears is on the old Cornwall Canal. A number of the locks are extant because this portion was upriver from the dams that put the remaining old 14-foot canals on the St. Lawrence under water. I liked the texture, symmetry, and the opportunity to play with depth of field. I had initially envisioned this in black and white, but because of mix of teal and rust I think I prefer it in colour.

Entry 3

Deschenes

This picture was taken on the Ottawa River at the Deschenes Rapids at Aylmer, across from the west end of Ottawa. The ruins are the remains of a century-old dam and hydraulic canal that channeled water to various mills and hydro-electric plants. I was attracted to the various contrasts at work in this scene: the juxtaposition of the foregrounded modern graffiti and apartment towers with old ruins and seemingly reclaimed rapids, as well the contrast of stark colours of the tags with the lines and forms of the dilapidated structures and the boiling water.

Marti, Steve

Entry 1

State Library of Western Australia 304412PD, Demolition of buildings next to General Post Office.

Entry 2

State Library of Western Australia 304413PD, Demolition of buildings next to General Post Office.

Taken at Forrest Place, Perth WA. Bordered by the central post office and the railway station, the proximity of these traditional transportation and communication hubs has made Forrest Place the social centre of Perth. Despite the decreasing importance of the post and railways, Forrest Place remains an important public space because of its transformation into a commercial district. These archival photos capture one phase of the physical transformation of Forrest Place during the 1930s, while contemporary photographs reveal the plaza has retained its cultural gravity as a shopping district. These changes reflect Perth's growth from being the small, isolated administrative capital of Western Australia into a bustling metropolis on the edge of Australia's mining boom. Sourced from the collections of the State Library of Western Australia and reproduced with permission of the Library Board of Western Australia.

Entry 3

State Library of Western Australia 112370PD, Wreath Laying, 1928.

Entry 4

State Library of Western Australia 112371PD, The Last Post 1928.

Taken at Monument Hill, Freemantle WA. Memorials to the First World War have become part of the Australian landscape. The bodies of soldiers of the British Empire who were killed overseas were not repatriated for burial so in the centre of every city, suburb, and small town in Australia one can find an obelisk, plinth, or stone soldier on which the names of local volunteers are listed. These cenotaphs act as a site of mourning that could connect grieving families to the absent grave of their loved ones buried overseas. The pairing of archival and contemporary photographs creates a third link with the generation of grieving mothers and fathers who erected these memorials during the interwar years, but have themselves passed away of old age. Sourced from the collections of the State Library of Western Australia and reproduced with permission of the Library Board of Western Australia.

Entry 5

City of Sydney Archives 035\035659 Construction of Anzac Memorial and Pool of Reflection.

Taken at St James Park, Sydney NSW. Memorials are designed to look timeless. Pairing this archival photograph of construction workers building the Pool of Reflection in front of Sydney's Anzac Memorial with a contemporary photograph provides a reminder of how recently this structure was incorporated into the grounds of St James Park.

Entry 6

PH30-1-4397 View of early Hobart city transport. Tasmanian Archive and Heritage Office (TAHO)

Taken at Franklin Square, Hobart TAS. The modes of transportation have changed significantly in the last 100 years, yet Macquarie Street remains an important thoroughfare for public traffic in central Hobart.

Entry 7

NS1013-1-1757 The Chapel, Cascades Factory (Women's Prison). Tasmanian Archive and Heritage Office.

Taken at Cascades Female Factory Historic Site, Hobart TAS. The Cascades Factory was a penal institution for British women who transported to Van Diemen's Land during the 19th Century. The austerity of the current site reveals the effacement of Australia's convict past and the struggling resurgence of this chapter of Australian history. None of the original buildings remain, yet the compound has been granted the status and protection of a UNESCO World Heritage Site. The minimalist restoration that only mark the contour of building floor plans reflects the challenges of reinstating a historic site dedicated to women convicts in a country defined by masculine archetypes such as the bush hero, the Anzac, and the athlete.

Entry 8

Unidentified Maori group performing a haka at the Basin Reserve, Wellington. Rowe, R K, fl 1962:Negatives of Wellington, Otaki, Wanganui and other districts. Ref: 1/1-003754-G. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/22889122

Taken at the Basin Reserve Cricket Grounds, Wellington. The barren slopes of Mt Victoria behind the group of Maori performing a Haka at the Basin Reserve Cricket Crounds (circa 1900) provide a glimpse into the turbulent environmental history of New Zealand. As pastoralism and the dairy industry boomed with the advent of refrigerated shipping, large tracts of land were deforested in favour of pastures, while non-native grasses were introduced for grazing. The effect of these aggressive farming practices were not fully understood until the 1970s, when scientists quantified the alarming rate of erosion on New Zealand's slopes. Efforts have been made to curtail these effects by adapting grazing practices to allow for the reintroduction of native grasses, while the establishment of natural reserves, such as around Mt Victoria, have provided space for reforestation.

Entry 9

Crowd at Queens Wharf, Wellington, during the 1913 Waterfront Strike. Smith, Sydney Charles, 1888-1972 :Photographs of New Zealand. Ref: 1/2-046169-G. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/22836257

Taken at Post Office Square, Wellington. The wharves of Wellington Harbour were the site of the 1913 General Strike. The origins and legacy of the strike are still debated by historians, but the event remains one of the largest and most violent episodes of class struggle in New Zealand's history. The transformation of the wharves from an industrial site into a tourist location reflects how New Zealand's shifting patterns of commerce to favour the tourist industry have changed patterns of work and employment, as well as the cultural significance of certain places.

Entry 10

United States troops, Oriental Bay, Wellington. New Zealand Free Lance : Photographic prints and negatives. Ref: PAColl-5936-42. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/23136837

Taken at Oriental Parade, Wellington. These United States Marines resting during a route march on Wellington's Oriental Parade mark a transitory phase in New Zealand's diplomatic history. At the outbreak of the Second World War, British forces including the New Zealand Expeditionary Force concentrated on the defence of the Home Islands and the Suez Canal. Japan's declaration of war in December 1941 left New Zealand vulnerable to attack. The arrival of American Marines to New Zealand in 1942 marked the beginning of the small dominion's transition from the British to American sphere of influence which culminated in the ANZUS Treaty of 1951. Environmental and pacifist movements in New Zealand were the undoing of the ANZUS Treaty, however, when the Labour Government announced in 1984 that it would enforce a Nuclear-Free Zone within New Zealand. These measures required allied navies to disclose the presence, or admit the absence, of nuclear warheads from fighting ships entering New Zealand waters. The New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act of 1987 strained diplomatic relations with both Britain and the United States but won New Zealand independence from international military obligations.

Massie, Merle

Mt. St. Helen's:

Visiting Devastation

Merle Massie

The canopy of evergreens and deciduous shake sprinkled sunlight across our truck as we drove south from Mt. Rainier, back and forth, back and forth, back and forth, following Forestry Roads 25 and 99 that, for reasons that were abundantly obvious to Canadian prairie folk, were closed in the winter. The gelatinous green tunnel left my husband yearning for something – anything – to look at. I preferred the tunnel to the glimpses of 1000 foot drops. Straight down. I gripped the wheel and stared past the hood.

But once out of the woods, the views shocked and awed.

The road to Windy Ridge Observation Point, overlooking Mt. St. Helen's, is a trip I would recommend to any environmental historian interested in the intersection of humans and nature.

I remember when the mountain blew. In March of 1980, scientists at the United States Geological Survey warned of the mountain moving, growing a bulge on her north flank at the astounding rate of five feet per day. The USGS drew its 'red zone', under the expectation that the mountain would 'blow its top' straight up, as volcanos were wont to do.

Mt. St. Helen's had other plans.

On a quiet, beautiful Sunday morning, the 18th of May, 1980, the northwestern bulge slid down the mountainside in what Forestry Reserve interpreters describe as the largest landslide in human history. It careened five miles down into Spirit Lake, raising the lake by nearly 200 feet. With the weight of millions of pounds of rock pressure released by the landslide, the mountain – in pyroclastic clouds of boiling hot ash – exploded. Sideways first, then up.

Trees melted to ash, adding to the debris. The 300 mile per hour lateral blast and landslide filled Spirit Lake with ghostly tree trunks that, thirty odd years later, float starkly white. Further out, the blast flattened the old growth forest, spilling it like toothpicks across the ground. At the edges of the blast zone, the heat scorched trees, killing them standing. They remain, sentinels and witnesses to that day.

The volcano devastated 230 square miles of forest, rivers, lakes, canyons, and wildlife, completely remaking the landscape.

Fifty seven people died, most of whom were outside the red zone. The sun was blotted from the sky in nearby towns, turning day to night. Ash fell like grey warm snow across the Cascade and nearby Rocky Mountain ranges. Televisions and radios hummed. Disbelief reigned. Awe bowed heads.

Our visit combined memory with vision, tying the mental images from those long-ago days with the devastation of the countryside that, so many years later, stubbornly struggles back to life. The US Forest Service, acting on Ronald Reagan's instructions, set aside the blast zone as the Mt. St. Helen's National Volcanic Monument.

Go.

Mirandola-Mullen, Jacki

South Wilson Avenue, Cape Cod National Seashore

S. Wilson Avenue, Cape Cod National Seashore, Wellfleet, Massachusetts, USA
(N 41.9223°, W 69.97761°)

South Wilson Avenue in Wellfleet, Massachusetts lies within Cape Cod National Seashore. When President John F. Kennedy signed into law a bill designating this new park in 1961, homeowners who had built their homes since September of 1959 were forced to sell their houses to the federal government.

When buying back houses, the federal government allowed residents to retain use and occupancy of the unit for 25 years or life. Once this period came to a close, the National Park Service assessed the structure. Based on its condition, the Park Service then either rented it out as seasonal employee housing or tore the house down, allowing trees, shrubs, and grasses to recolonize the scattered lots.

Wilson Avenue represents one street where heavy building occurred in between 1959 and 1961. Some houses on Wilson Avenue have been demolished, while others still stand. This collage is of three adjacent lots on South Wilson Avenue, facing east (beyond the trees at the road's end, a steep cliff yields to the rumbling Atlantic Ocean below).

Closet to the ocean, the house at lot one no longer stands. Trees hover close to the earth here, where sharp salt sprays and energetic winter storms stunt plant growth. At a central clearing, grasses grow on a flattened surface. The house that once rose from the ground in this spot is gone, but its foundation provides open space for sun-loving vegetation.

Lot two is the only house on eastern South Wilson Avenue still standing. The house was built after the 1959 deadline, but the cash-strapped park has yet to condemn a few remaining homes within its authority. Daylilies grow before a split-rail fence, protecting a carefully manicured lawn surrounding the quaint cottage.

Lot three, like lot one, was the former site of a house, but the added hundred yards of protection from the Atlantic has enabled trees here to grow tall in the fifty years since the house's demolition. Daylilies still grow in the former garden beds in a line almost identical to those of lot two. Fifty years without a gardener and these flowers still bloom in perfect synchronization, bereft only of a house to buffer.

The Atlantic Ocean erodes the cliffs at the end of South Wilson Avenue an average of three feet a year—that is, Wilson Avenue becomes about three feet shorter annually. With the onset of climate change and increasingly intense storms brought by warmer water, this rate is increasing. Storms the past two winters have eaten away chunks of these cliffs between twenty and thirty feet—*each year*.

Owners of these properties certainly felt dismay when the U.S. government forced the sale of their cottages in 1961. Yet, in the transient, glacially-created landscape of Cape Cod, where sandy soils succumb to the Atlantic's torrent every year, only the standing house will feel the ocean's advances. Empty lots have no houses to lose, and no human inhabitants will mourn their inevitable toppling into the sea.

Murphyao, Amanda

This triptych showcases the life of trees. I took these photos during CHESS 2013, which focused on the logging industry on Vancouver Island. The first (far left) shows one of the last stands of first-growth forest on Vancouver Island, as explained to our group on a tour by Richard Mackie (author of, among other books on lumber, *Island Timber* and *Mountain Timber*). The second shows an uprooted tree stump along the coast at Rathtrevor Beach Provincial Park, where Graham Wynn explained the area's transition from forest to farm to park. The third shows the library of Robert Haig-Brown, local author, avid outdoorsman, and conservationist, bringing the life of a tree on the island full circle, from "stump to dump" and from green leaves to blank pages.

Nation-Knapper, Stacy

Department of History, York University

Photo: "Sculpting History"

Coordinates: 48.5450, 117.9008

Colville, Washington is a town of about 4,500 people near the Columbia River in northeast Washington, approximately 60 kilometers from the international border with British Columbia. In the process of

conducting dissertation research on the memory of the fur trade in the Columbia River Plateau, I came upon the "Historic Colville Clock Tower" pictured here. I am interested in the ways in which the fur trade is depicted in the Plateau region and the historical narratives that have been created around commemorations, reenactments, and historical markers like this sculpture/clock tower in downtown Colville.

There is currently no interpretation accompanying the clock tower because, according to multiple town council meeting minutes for 2013, considerable thought is being given to the interpretation that will eventually become part of the display. Several drafts of possible text have been brought before the council and discussed, but none seem to have been agreed upon by the August 13 meeting. The Colville Chamber of Commerce describes the sculpture as the "Historic Colville Clock Tower on Main Street and Astor Avenue, which features a Native American fisherman, a logger, a miner and a trapper encircling the base with an eagle's nest atop." The men depicted in the sculpture reflect some of the activities undertaken by humans nearby over the past two centuries. Colville was once a Hudson's Bay Company post, established in 1825 to replace Spokane House, and near the site of Kettle Falls on the Columbia River. Kettle Falls had been a bountiful salmon fishing ground for Kalispel, Colville, Sanpoil, Spokane, and Okanagan indigenous peoples for thousands of years before it was inundated following the construction in 1942 of Grand Coulee Dam. In the 1850s gold rushes in the surrounding mountains brought prospectors to the region, leaving the hillsides speckled with mineshafts. Those same hillsides supported a logging industry that continues today, now dominated by corporations such as Boise Cascade.

This sculpture is one way that the Colville community has chosen to remember the multiple pasts of people on the Columbia River Plateau landscape. I look forward to returning to the area and learning what the town chooses for its interpretive display.

Neufeld, David

Traversing Yukon Landscapes - Yukon Arts Centre Summer Art Show

From Yukon Rambles

SUNDAY, MAY 19, 2013

River camping has been an important part of our family's life. For years we made annual canoe and boat trips on the Yukon River or its tributaries. The highlight of everyday was finding a campsite and making it over into our home for the day. I have always been fascinated by the character of our interactions with place and the dynamics of how we, and many other river travelers, find home every night. As part of my research into this process in the summer of 2011 I invited Nicole Bauberger, a highly regarded Yukon artist of place and journeys, to paint the Yukon River between Lake Laberge and the town of Carmacks, some 300 kilometres down river.

This spring it was my turn to be invited to participate in the Yukon Art Centre's summer art show, Traversing Yukon Landscapes in collaboration with Nicole. I had co-operated with artists in shows before but this time I was being extended an invitation to be an artist. For some time I struggled to understand how I could transform my historical questions and forms of communication into those of the fine arts. Nicole encouraged me to find my own way. Drawing from her fascination with the tarps I'd set up for our river trip I considered how I could incorporate them into the show. This was easy to do and helped me set up an approach that considered a river journey as a piece of art - the skills, materials and activities that allowed an engagement with place were also the tools for making a "home" every night.

Last fall I attended a community session on the Whitehorse shipyards. A number of seniors showed slides and remembered their youth. Interestingly these memories were not expressed as a series of events, things or places, rather it was the network of relationships with other people that had meaning. And these relationships made up place.

In my attempt to incorporate this idea into my art I considered how nature was an active partner in the creation of place or home. I queried our western predilection for structuring nature as a chrono-geographic matrix, in the process transforming the possibility of place into a platform for our human prowess and desires. How different from the memories of the seniors. How might nature see us?

And what do we see when we are outdoors. In addition to Nicole the artist, I've traveled the river with my family, land use planners, First Nation Elders, geologists, and studied the river in archives and map collections. But the river valley is not just a geography, rather it is a vibrant network of people, their stories, memories, knowledges and experiences bringing meaning to my own passage. How does one recognize the pulsing life of a place if we only consider the autopsy report of a cadaver?

Nicole's paintings were the centre piece of the installation. Evoking the journey, through both the eleven paintings completed on the trip and the annotations describing events, moods and observations, the exhibit reinforces the sense of a lively connection to place.

By Thursday afternoon the gallery was ready. Last minute trimming and placing of work, artists hustling off for a shower and fancy opening clothes, it was a calm and ordered space. The staff of the YAC Gallery had been enthusiastically helpful and supportive as we worked to "fit" our pieces into the gallery. For me it was a pleasant surprise to have such unbounded help in setting up Mahsi cho YAC.

I was pleased with my "campsite." Every item was real - a historian must work with facts after all. Equipment I decided I could spare for this season's boating, but each item marked with the signs of its presence in and contribution to making place. The campsite is just being set up, the visitors have to figure out how to make it home. The doors open and the visitors begin their exploration of the different traverses made the artists.

Rueck, Daniel

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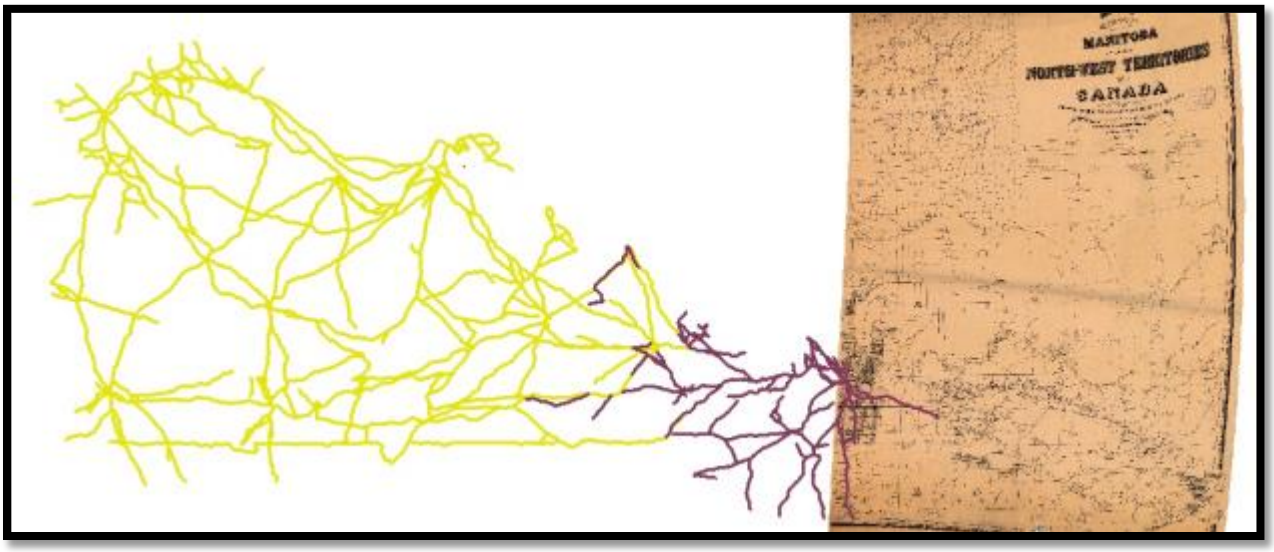

Rueck - Cart Trails Early Goings

Dear NiCHE

Attached is my submission for the snapshot contest, a screenshot I took while using GIS software to trace out the cart trails that crisscrossed the northern Prairies in the 1880s. This summer I have been mapping out the travels of a particular Dominion Land Surveyor, Otto J. Klotz, as a way to better understanding Canadian colonization of the Prairie West. Klotz is not well-known today, but he left a rich personal diary with an entry for every day of his adult life. Using Klotz' professional surveying notebooks, it is relatively easy to spatialize his travels for the days when he was working to create the Dominion Land Survey (the rectangular property grid that covers the Prairies from western Ontario to parts of British Columbia). It is easy to know his location because his notebooks give his coordinates for every day he was in the field, but how could I map his locations for the days he was traveling to and from his

worksite? His diaries sometimes indicate which cart trail he traveled, but cart trails no longer exist and I didn't know how to find where they ran. Thankfully I was able to find some high quality digital images of NWMP and Dominion Lands Survey maps from the 1880s that showed cart trails (thank you University of Alberta libraries!), then referenced them, and began to trace out the trails.

The image I have submitted shows a work in progress along with a georeferenced DLS map of eastern Manitoba and western Ontario. The network of trails revealed by the image shows that the pre-railroad land transportation network was well-established and wide-spread, and that certain places that are ghost towns today (like Fort Elice, the busy node where maroon and yellow lines meet) were central transit hubs 130 years ago. When I complete this work, I will provide the U of A libraries with the georeferenced maps and shape-files for the cart trails so they can be made available to other researchers.

Thank you for your consideration!