Kootenay Muster: Regenerating a Memory of Production in the Precarious Landscape of Nelson, British Columbia

by

Rachael Moulson

Submitted in partial fulfilment of the requirements
for the degree of Master of Architecture

at

Dalhousie University
Halifax, Nova Scotia
June 2021

Contents

Abstract

Interior British Columbian communities exist in precarious conditions considering their landscape and formalizing industries. Community abandonment is common with the instability of resource extraction leaving industrial artifacts scattered across the mountains. This thesis proposes that these artifacts can be re-imagined to act as intermediaries between urban and nature. This proposal is explored in the Interior city of Nelson. The city de-industrialized in the early 1980s with the closure of its mill site. The site became derelict and overgrown with the only remaining artifact, a steel pier, extending into the West Arm of Kootenay Lake. The site's collective memory and positioning is utilized as the foundation for a symbolic community muster point, as the city lacks a physical space on its waterfront. Using methods of site consideration, affordances, essence of comfort and framed views, the community is launched back into its waterway reconnecting a historic network of production through the mill site.

Acknowledgements

Thank you to my supervisor Roger Mullin and advisor Jonathan Mandeville for your thoughtful direction and encouragement to explore during the process. For all the insights and critiques of ideas, each conversation created a new bridge or leap forward in the project, it was a pleasure working with both of you.

I am grateful for the ongoing support from my family through all my adventures and academic pursuits. I would like to thank my Mom, Dad and brothers especially Aaron for always listening, helping and encouraging me. Granny and Poppa for introducing me to the wilderness at a young age.

I would also like to thank all my classmates for being my architectural family. Especially Georgia, Alex, Gab, Cam, Cait, Emily, Paulette and most importantly Jen, for being an amazing friend and roommate to write a thesis remotely with. I would also like to thank Alicia for being my informal advisor since B1.

And thank you to my good friends, Avery and TJ, Avery for your constant support and a special thanks to TJ for being my site photographer.

Finally I would like to thank my study abroad classmates, Yuval, Nina, and Carina for re-energizing my excitement for architecture.

Chapter 1: Introduction

British Columbians are deeply bonded to their landscape. The foundation to respond to current provincial stressors exists in this connection. The interior of the province has long been considered of value because of resource extraction industries and in turn has neglected to recognize its most valuable resource, its communities. This thesis is situated in the interior city of Nelson. Currently it is known for its heritage charm and counterculture community. Historically the city was centred on its industries of extraction, mining and forestry, acting as the regional supply centre for mining exploration. The city transitioned away from being a resource town during the global recession in the early 1980s with the closure of the city's waterfront mill site, Kootenay Forest Products. This marked a turning point for the provincial forest industry leading to increased instability in the sector. Nelson experienced a phase of depression after the closure and has since recovered through the development of a tourism economy. The proposed thesis site is the community's abandoned mill site and remaining steel pier. It utilizes the pier as a grounding point for a community space becoming an intermediator between the community and its waterway. The project builds on an existing network of pilings on the West Arm of Kootenay Lake to reconnect the region through a series of landings for paddlers.

The thesis is approached through the consideration of time and perception. The project's intention is not to impose but to be part of the place, drawing from the collective memory of loss and production to create a symbolic community muster point for events of the extraordinary and the everyday. It draws methods from; Arthur Erickson's consideration of site

Kootenay Forest Products Factory Site on the West Arm of Kootenay Lake showing the log booms and the site's proximity to the Big Orange Bridge built in 1957. (Touchstones Nelson n.d.)

and historical layering, Aldo van Eyck's idea of affordances and the adaption of derelict places, Maggie's Centres ability to provide comfort through architecture and Diller + Scofidio's capability to communicate through representational methods and framed views. The mountains have grounded their communities in geological time and affect the current populations everyday, whether for protection or destruction. Only the passing of time will reveal the outcome.

Terminology

This thesis, as mentioned, utilizes an existing industrial artifact, a steel pier, to increase the proposed project's incorporation into place. It does not seek to displace or remove meaning or memory by imposition or erasure. It simply aims to return the site's functionality to the community. The community in reference is my hometown and as such I have an associated memory with the place and share in the collective memory. The following will define how this thesis understands place, artifact, collective memory and associated memory.

Place

> But because architecture gives concrete form to society and is intimately connected with it and with nature, it differs fundamentally from every other art and science. (Rossi 1982, 21)

The term place, although common and well used, is debated in several disciplines.

Through the lense of human geography place is understood clearly as a cultivation of the natural and human characteristics of a certain location. This includes but is not limited to the landscape, climate, sociopolitical climate, developed culture, history and the patterns of settlement.

When the term is considered through an architectural lense it becomes an act of philosophical interpretation. The term has been debated since Vitruvius and became intertwined with the study of phenomenology in 1945 with the prominent book, *Phenomenology of Perception*, by Maurice Merleau-Ponty (Wijesooriya 2018, 2). This added the idea of perception and the human senses into what is considered a place. Similarly, this thesis utilizes phenomenology through my developed sense of place. I consider a sense of place to

be largely drawn from the natural environment (landscape and climatic fluctuations) and the existing community. In this way architecture is the frame for experiencing the place.

Artifact

> Thus, the concept that one person has of an urban artifact will always differ from that of someone who “lives” that same artifact. (Rossi 1982, 33)

In the *Architecture of the City* by Aldo Rossi an urban artifact is defined as a primary element due to the influence it has on the formation of the urban fabric (Rossi 1982, 87). Rossi relates that classifying an artifact simply by its functionality is rudimentary instead it needs to be considered through its memory, individuality and locus (Rossi 1982, 46). Urban areas in the Interior of British Columbia are formed around industrial sites therefore making them primary elements or the nucleus/core when considering Kevin Lynch’s methodology of urban formation (Lynch 1959, 48). This thesis recognizes the formative qualities of industrial sites and utilizes an existing artifact. This thesis aligns with Rossi’s theory that the urban artifact’s position is established through its memory and imagination therefore allowing an alteration in its function (Rossi 1982, 29).

Collective and Associated Memory

The term collective memory can be understood as the summary of a group’s experience with a particular place or artifact (Rossi 1982, 130). The collective memory of a urban area is what distinguishes and defines it as an unique place and is the underlying structure (Rossi 1982, 130). There is a direct association between the distinctive characteristics of a place and the intensity of the community’s sense of place. In *Dwelling, Place & Environment,* David Seamon and Robert Mugerauer relate that, “the distinctive characteristics

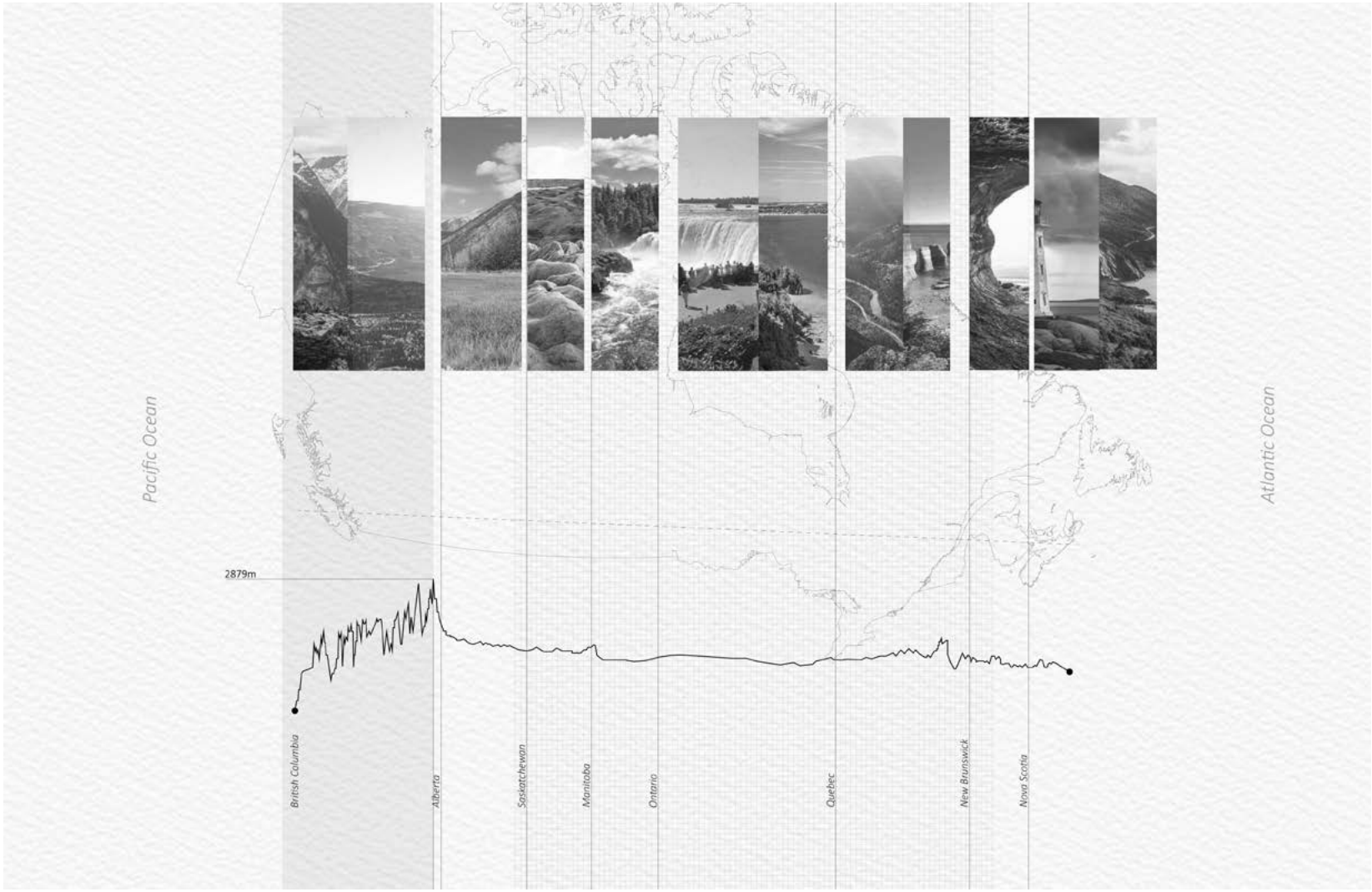
Silver King Mine, near Nelson. (Touchstones Nelson n.d.)

Logging in Nelson Area Forest. (British Columbia. FLNR 2003)

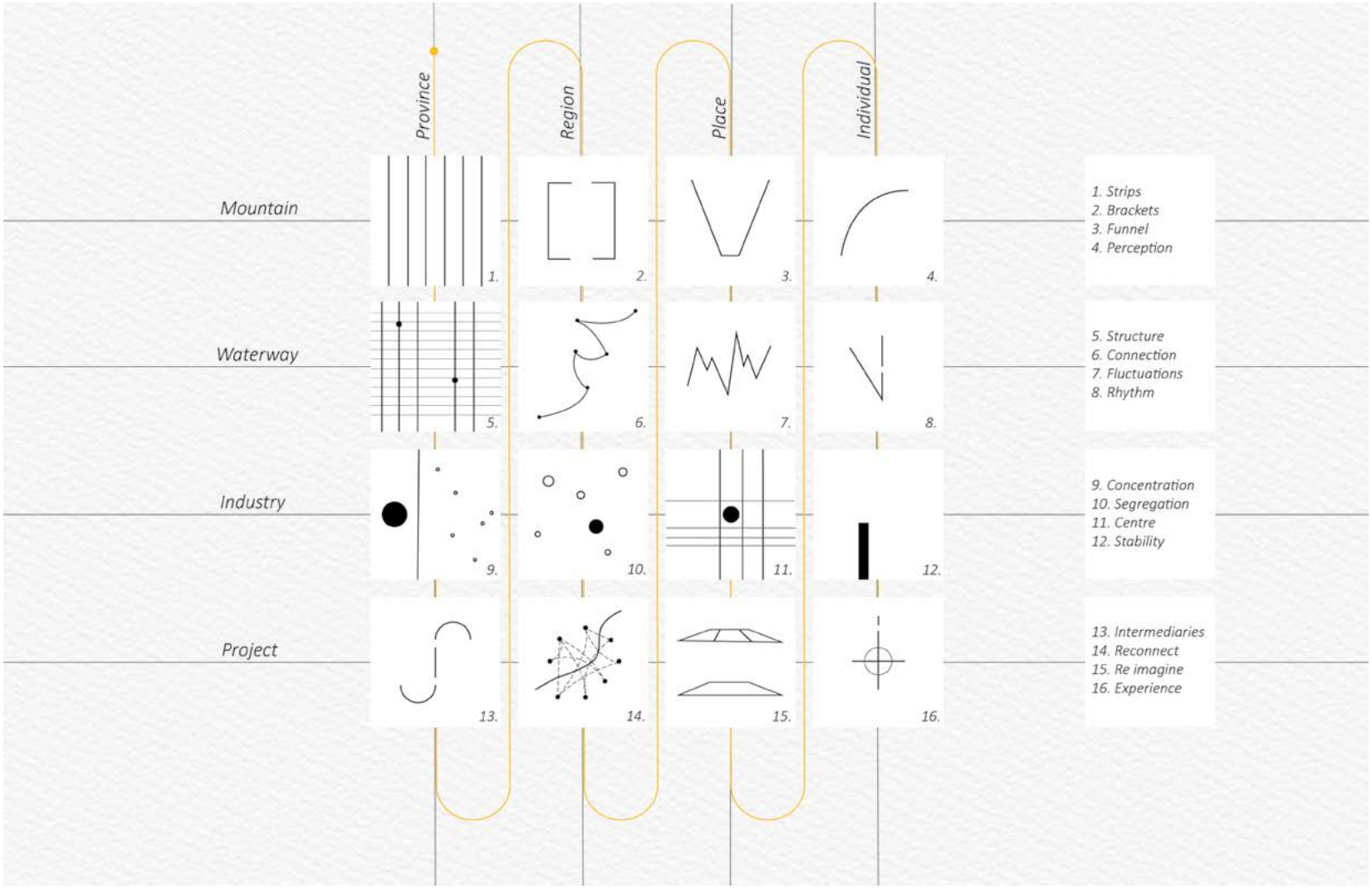
Skating on the West Arm, note the lack of trees on the mountains. c. 1895 (Touchstones Nelson n.d.)

and boundaries of each region, however, are not exactly defined; there is no need for such definitions, since the regions are known already in experience" (Seamon and Mugerauer 1989, 21). Robert Macfarlane relates in his book, *Mountains of the Mind*, "we read landscapes, in other words, we interpret their forms in the light of our own experience and memory, and that of our shared cultural memory" (Macfarlane 2003, 18). This thesis, as mentioned, is situated in the West Kootenays. The region is known as an unique subset of British Columbia. The history and memory of the West Kootenays is commonly passed through the residents by stories and inherited associations to places. Memories are less categorical then history, however the two can be used to develop an understanding of a place. Being from the West Kootenays I have a knowledge of the communities collective memory and have a personal associated memory with the proposed thesis site. Both of these will be utilized in the analyzation of the region and through the design process.

The following chapters will relate the history and formation of the province and region of the West Kootenays in an effort to develop a shared understanding of place.



Map and elevation line across Canada. (Data from Google Earth 2020, Images from D’Amours 2018)



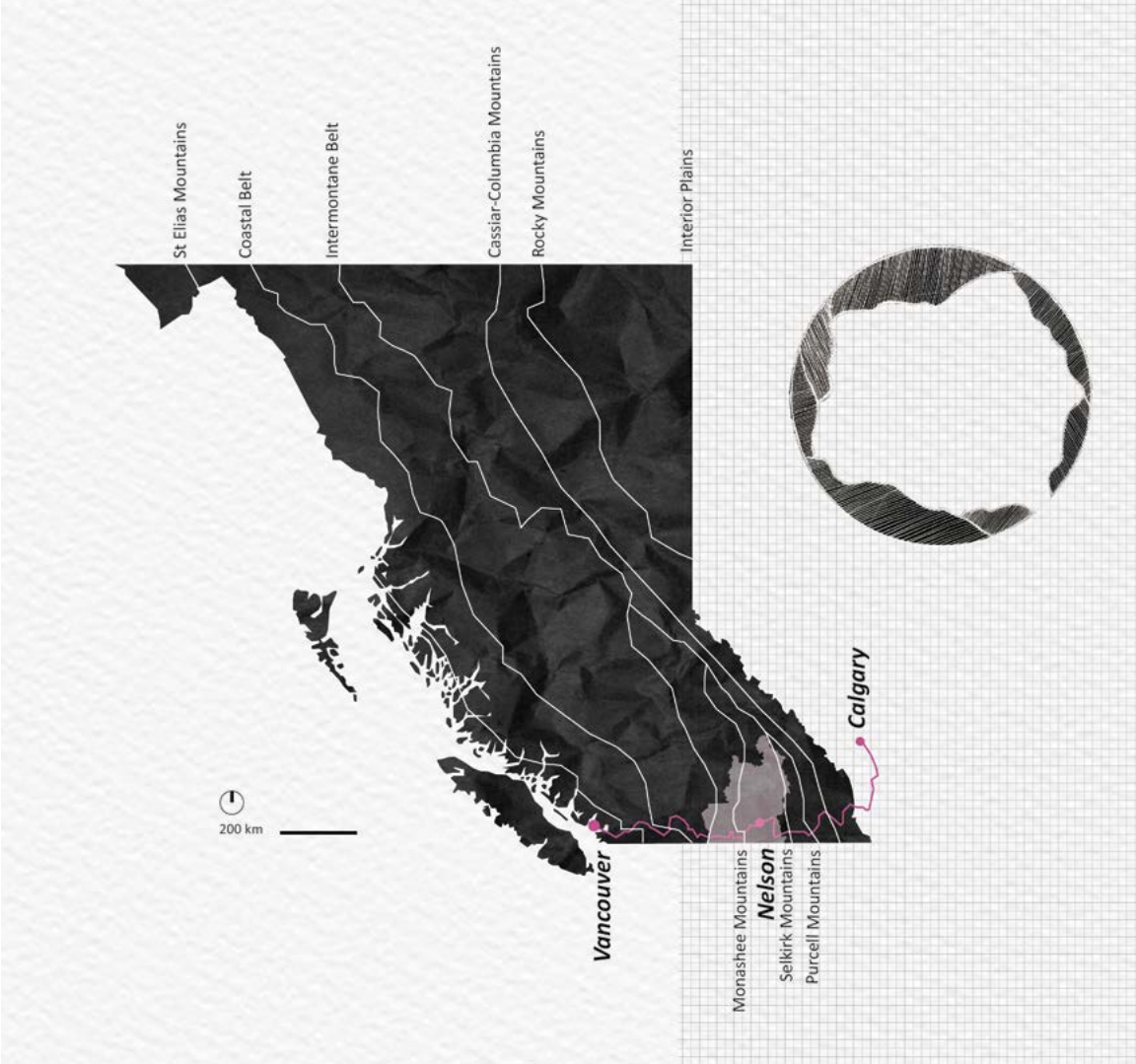
Diagrams illustrating the influence the mountains, waterways, and industries have at the scale of the province, region, place and individual.

Chapter 2: Mountain Province

Conditions of the Province

British Columbia is a province plagued by dualism in its society, economy, and geography. As noted on its license plate it is a land of beautiful landscapes, but this natural beauty is contrasted with a number of social and economic challenges. Economically strong, yet crippled from unemployment in the resource sector, B.C. is both protected and threatened by its natural geography. The current condition of the province is riddled with uncertainty, making the ability for communities to gather together an essential feature. Whether it be for memorializing a shared loss, celebrating a collective triumph, or conversating at the culmination of a weekend walk, architecture has the ability to strengthen our bonds to the place and people around us.

This thesis proposes that industrial artifacts can serve as intermediaries between our everyday lives and the precarious landscape that British Columbians inhabit. To that end, this thesis aims to regenerate the abandoned Kootenay Forest Products Factory site in the interior community of Nelson. In attempts to increase community resilience by utilizing the collective memory and existing remnants of the industrial past to promote community well-being into the future. This is done by developing a symbolic community muster point. It is intended to cater towards daily activities such as seasonal recreation and workspaces, as well as moments of the extraordinary, showcased in its ability to adapt to changing climate conditions.



Map depicting British Columbian mountain ranges. (base map from RDCK 2021)

Mountain Culture

> Returning to daily life after a trip to the mountains, I have often felt as though I were a stranger re-entering my country after years abroad, not yet adjusted to my return, and bearing experiences beyond speech. (Macfarlane 2003, 204)

British Columbia (BC) is generally romanticized for its mountain geography. The province is the “most physically and biologically diverse region in Canada” (Government of Canada 2015). The procession inland from the coast traverses several distinct mountain valleys, each with an individual sensory experience. As Barman relates, “the trend

Pacific ocean near Vancouver.

Painting perspective looking over mountains.

to equate the province with one or more of its ten regions-most often with Vancouver Island or the Lower Mainland-has repeatedly led to misconceptions and misunderstandings" (Barman 2007, 13). BC interior towns share atmospheric qualities; the air is light to breathe, the horizon line is defined by ridges and the sky is unburdened from lights. The Interior towns exist along the provincial waterways extending upward on the mountain slopes. The communities have a precarious relationship with their geography. The mountains provide a feeling of protection and seclusion while at the same time they are capable of tremendous destruction in the form of landslides, mudslides, avalanches, floods, wildfires and earthquakes. This precarious relationship with nature has resulted in a common undercurrent of stress, ubiquitously understood amongst the numerous communities nestled in the shadow of snow topped peaks in the province's vast interior lands.

The majority of literature describing the Interior of British Columbia begins with stating that it is isolated, that the inhabitants are isolated by their geography, or that it is populated by those who seek isolation (Pearkes 2002) (Alexander 2008) (Barman 2007) (Rodgers 2014). The result of this geographic isolation is a population that is deeply bonded with the mountain valleys creating a community through a shared understanding of place. Rural isolation, in this way of thinking, is distinct from what is considered isolation in an urban centre. It requires a thoughtful approach to place and people. Seamon and Mugerauer relate, the landscape is generally experienced through the observer's perspective and developed relationship to their region (Seamon and Mugerauer 1989, 23). Interior British Columbians have a distinctive perception of place due

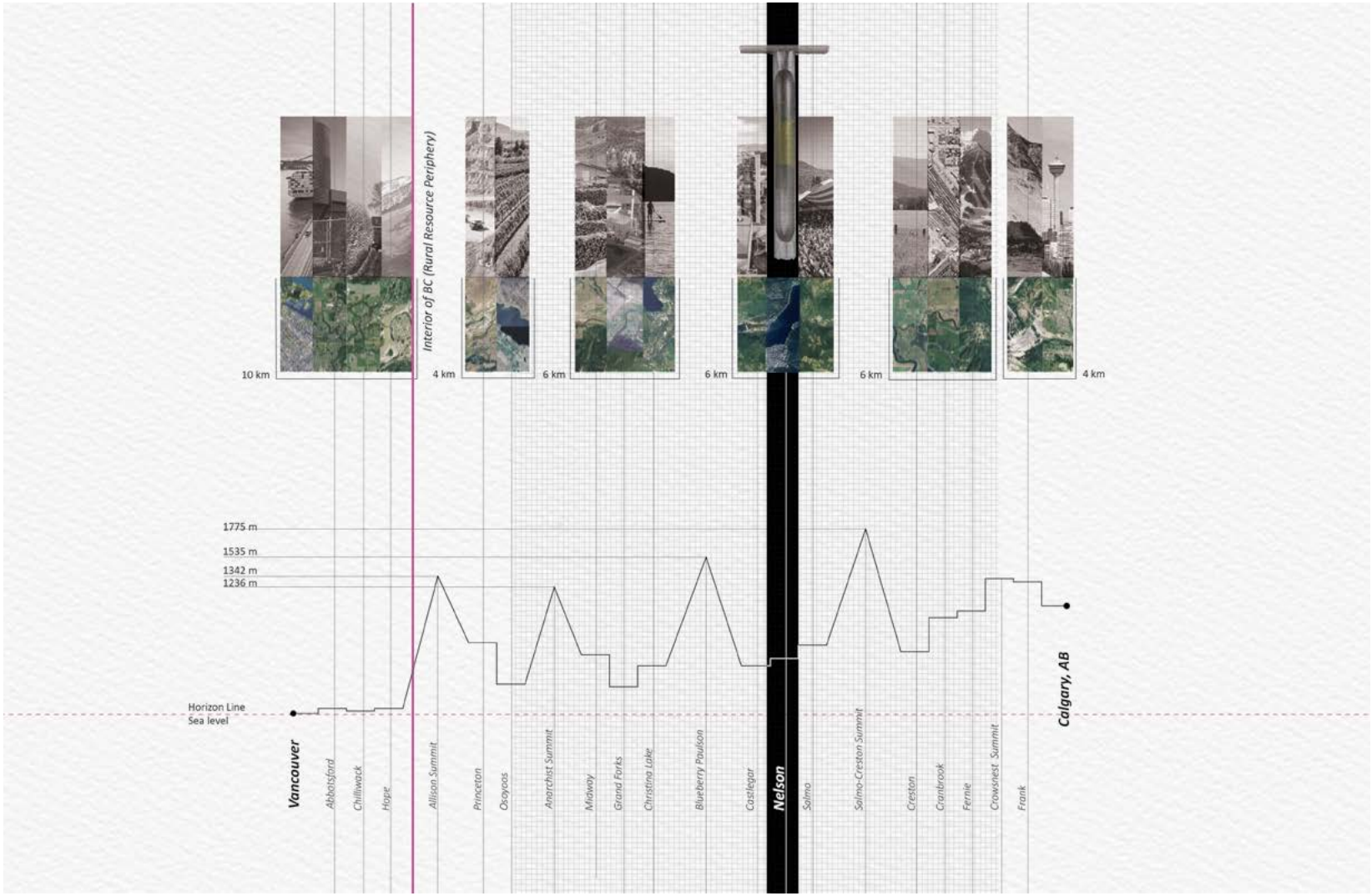


Image depicts the elevation, landscape and major industry across the interior of the province. (data from Google Earth 2020, images from Rockwool 2017, Powderhounds 2020, Shambhala Music Festival 2021, Christina Lake Tourism 2021)

Silver King Mine overlooking Nelson. (Touchstones Nelson n.d.)

Launching the Nasookin, Nelson Shipyard. (Touchstones Nelson n.d.)

Navigational Dolphin on the West Arm of Kootenay Lake. (Touchstones Nelson n.d.)

to their geographic isolation. An endless landscape with curved horizons, whether that be an ocean or prairie land, overstimulate the senses. The mountain landscape brackets the understanding of normal and allows for an imaginative perspective to take form (Kearney 1998, 20).

Landscapes of Production

> The commodity prevails over everything. (Social) space and (social) time, dominated by exchanges, become the time and space of markets; although not being things but including rhythms, they enter into products. (Lefebvre 1992, 7)

The interior of British Columbia was held to only be colonized for its mineral wealth (Barman 2007, 11). The colonialization was initiated in 1852 when reports of gold reached the Hudson Bay Company (HBC) posts (Barman, 2007, 66). As Alfred Waddington relates in his 1858 book, *The Fraser Mines Vindicated*, “never perhaps was there so large an immigration in so short a time into so small a place” (Barman 2007, 68). This was further supported by the completion of the railway in 1885, launching the province into the capitalist economy (Alexander 2008, 17). Over the past century the province has maintained this economic dependence on resource extraction, leading to a fragile state of economic growth. As Barman states, “the province’s rich endowment proved to be both a blessing and a curse” (Barman 2007, 401). In Bruce K. Alexander’s book, *the Globalization of Addiction: A Study in the Poverty of the Spirit*, relates “the continuing growth of free-market society, is the root cause of the current proliferation of addiction across the globalizing world” (Alexander 2008, 20). In the pursuit of material wealth, community well-being and attachment to place has been largely abandoned in the province. As Anna Tsing relates in her book, *The Mushroom at the End of the World*, “modernization was supposed to fill the world-both

Map depicting mill closures and ghost towns. (base map from RDCK 2021, images and data from "List of ghost towns in British Columbia" 2021, "Ghost Towns" n.d., McElroy 2016)

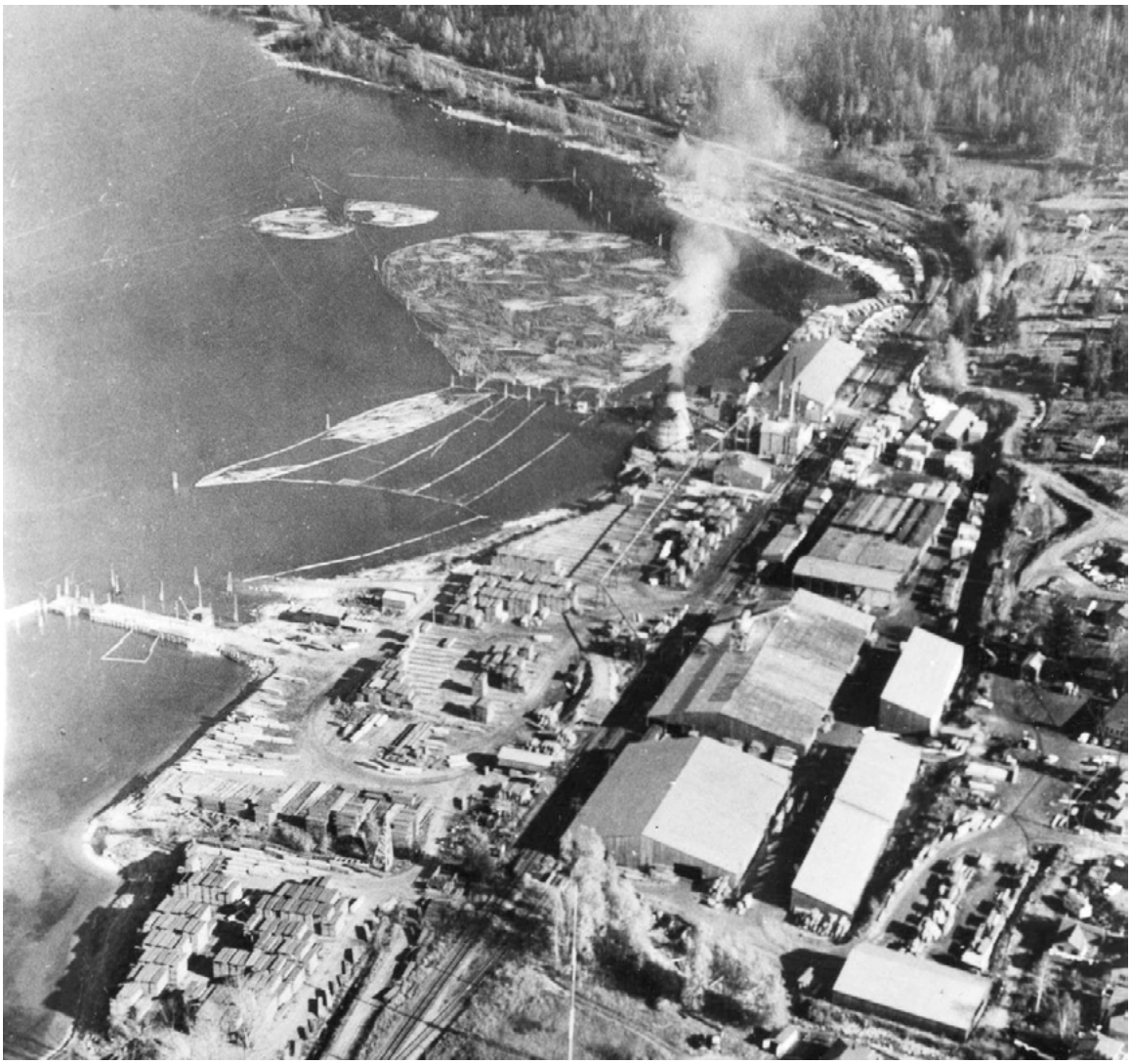
communist and capitalist-with jobs, and not just any jobs but "standard employment" with stable wages and benefits" (Tsing 2015, 3). A community's well-being has historically been directly correlated with the success of its industry, the need to continuously produce. With this ideological foundation, the concept of being in the landscape is non-existent.

Temporary Industrial Structures

> Architecture enables us to perceive and understand the dialectics of permanence and change, to settle ourselves in the world, to place ourselves in the continuum of culture and time. (Pallasmaa 2005, 71)

With the ethos of value associated with the ability to produce, what becomes of an unproductive, temporary industrial structure? The prevailing Western idea of architecture is a permanent action resilient from weathering and decay. In the article, “Time Matters: Transition and Transformation in Architecture”, by Mark Taylor it communicates this perspective by comparing it with the idea of the Ise Shrine in Japan. The Shrine is re-created every 20 years, the continuing process establishes the importance of the structure in time and place (Taylor 2016, 44). The building method and knowledge is interacted with by each generation therefore collapsing the past and present into a collective memory.

Temporary structures, in Western society, commonly exist for practical purposes and are generally not considered to be of value. Often this is related to the value placed upon the material of the structure itself. For example, in British Columbia there is a perceived abundance of lumber therefore these buildings are considered to be of less importance than those made from stone. This is exemplified by the abandonment of resource towns and structures across the province’s mountain valleys (Kluckner 2005, 9). These places, however, hold a memory and narrative for their communities and as such have the potential to be re-imagined as places of stability through adaptability. The distinction and definition of temporary and permanence creates a hierarchy of importance within our society, what should be protected and restored and what should be left to become overgrown and weathered.



Kootenay Forest Products Factory Site on the West Arm of Kootenay Lake c. 1960s (Touchstones Nelson n.d.)

Thesis Question

How can a memory of production and its remaining abandoned industrial pier be the foundation for an adaptive community space on the West Arm of Kootenay Lake?

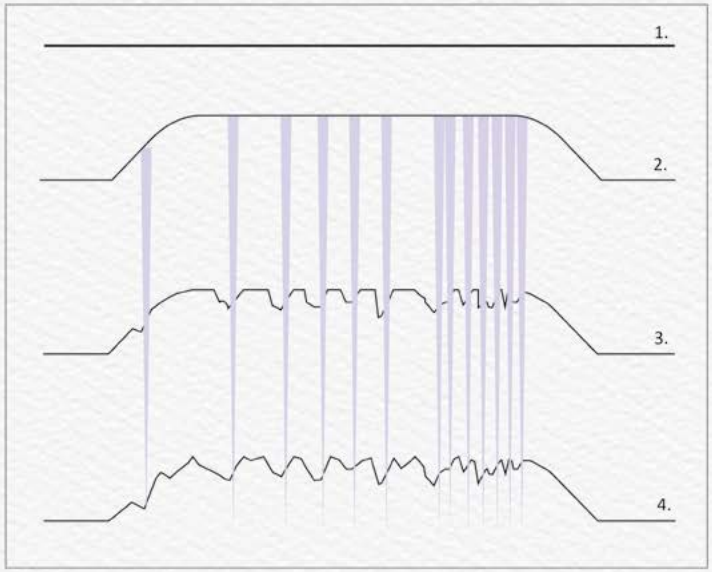
Chapter 3: West Kootenays

Conditions of the Region

> …the communities of the West Kootenays are the product of layer upon layer of diverse waves of historical migration. (Rodgers 2014, 156)

The Kootenays is an area in Southeastern British Columbia and is separated regionally into the East and West Kootenays. The regions are known for their alternative quirks and unique characters. The isolation of the mountains has provided the space for the development of a strong identity interwoven with the place. This thesis derives from the characters that inform the genius loci of the West Kootenays. The characters of the region as Seamon and Mugerauer relate are “landforms, cultural history, settlement forms, climate, or a combination of all of these” (Seamon and Mugerauer 1989, 21). This project is situated on the shores of the West Arm of Kootenay Lake, in the largest city in the region, Nelson. The following will describe the characters of the region beginning with the formation of the landscape.

Aerial photo of Nelson, BC c. 1940s. (Touchstones Nelson n.d.)



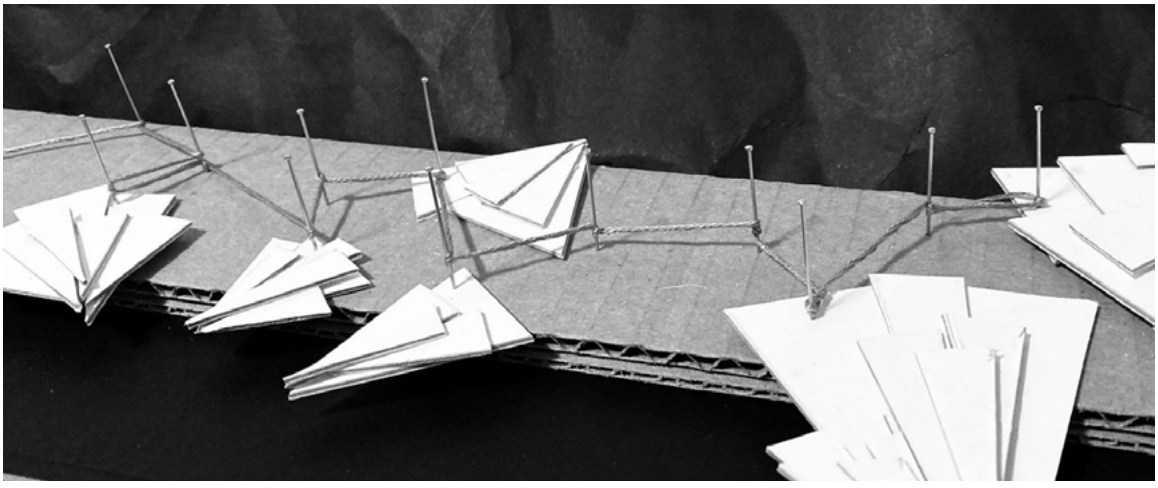
1. Lowlands before collision
2. Collision and uplift
3. Erosion by waterways
4. Continuation of Erosion

Diagram of waterways etching out the province's valleys and an image of Cottonwood falls in Nelson, BC. (data from Turner and Anderson 2009, 28 and image from "Man assaulted at Cottonwood Falls" 2015)

Mineral Formation

> With time, the city grows upon itself; it acquires a consciousness and memory. (Rossi 1982, 21)

The province's mineral wealth can be attributed to its geological formation, ancient islands, ocean crust and the North American tectonic plate collided 170 million years ago (Turner and Anderson 2009, 7). This organized the province into vertical strips north to south defined by the mountain ranges. Fault lines were created during this collision allowing for water to etch valleys. The mountain peaks remain as fragments of an ancient plateau (Turner and Anderson 2009, 28). The West Kootenays are located on this collision zone resulting in the region's rich mineral wealth. The townsite of Nelson was founded on the West Arm of Kootenay Lake after the discovery of silver on Toad Mountain in 1867, establishing the Silver King Mine (Lamb n.d.). It then became the central supply location for mining operations throughout the region (Touchstones Nelson n.d.).



Process model showing how the regional creek fans project into the lake.

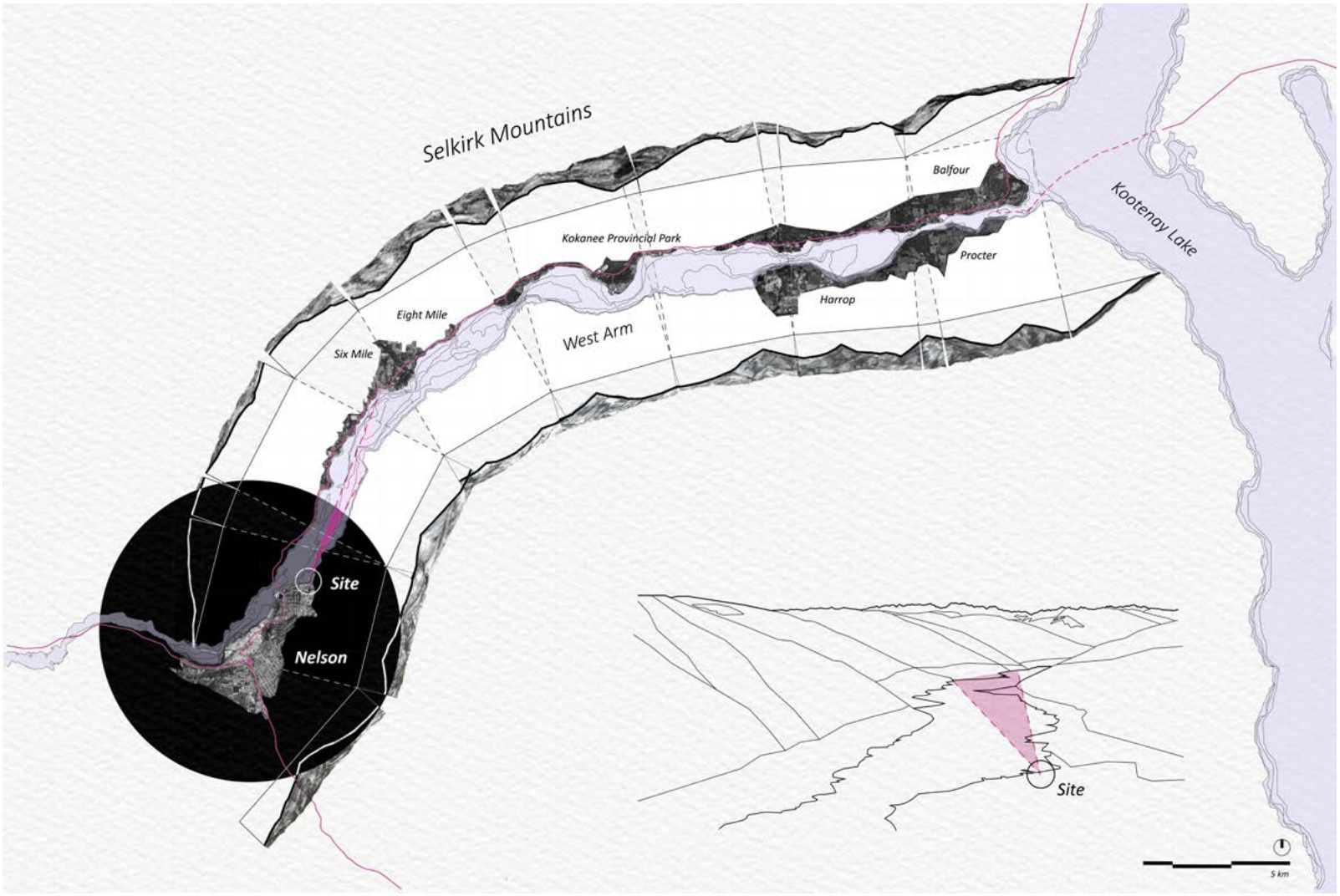
Settlement Patterns

The Kootenays have been a gathering place for over 10,000 years after the retreating of the glaciers 13,000 years ago (Pearkes 2002, 10). The Sinixt and Kutenai First Nations used the waterways to navigate through the steep mountain valleys, inhabiting the lowlands near the shores. Settlement in the mountains commonly occurs on the flatter lands projected into the waterways as it is challenging to build on the steep slopes. These areas are formed by creeks bringing sediment down the mountain slopes. The city of Nelson currently rests on two creek fans, Cottonwood and Anderson (Turner and Anderson 2009, 13). Both creek fans are structured by the placement of the associated industry located on each of them. The city began its settlement on the Cottonwood fan. At the fan's centre was the smelter associated with the Silver King Mine. As the community grew, the Anderson fan was developed into what was commonly referred to as Bogustown. The Anderson fan meets the lakeshore at the proposed thesis site, the abandoned mill site. The city grids shift from one fan to the other as they draw direct lines from the lakeshore.

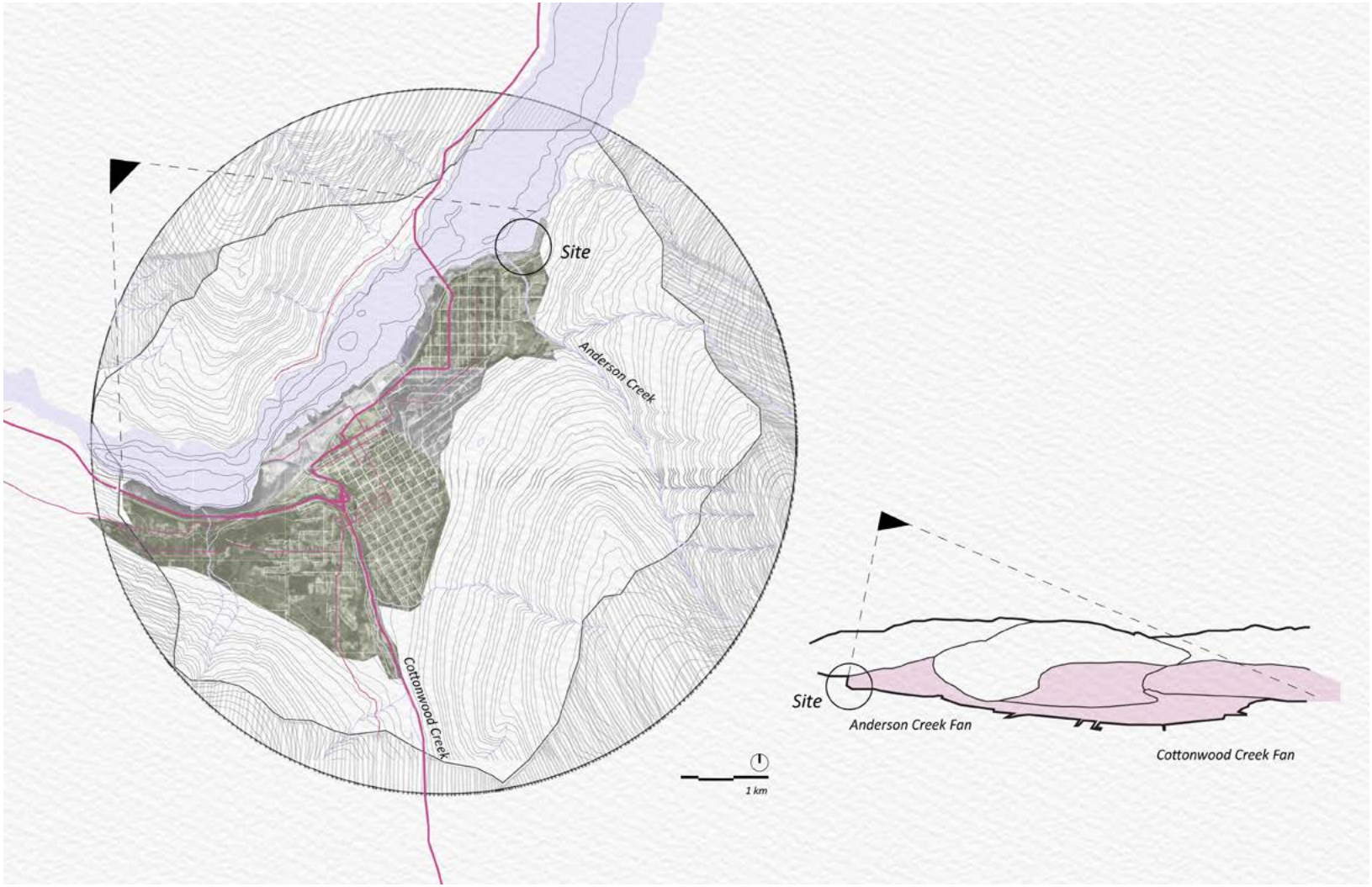
Due to Nelson's population size, just over ten thousand, the Anderson and Cottonwood creek fans have been structurally engineered to reduce the landslide hazard from the spring rains. The communities up the West Arm of Kootenay Lake have to monitor the creek levels and evacuation orders are given yearly by the Regional District.

Water Transportation

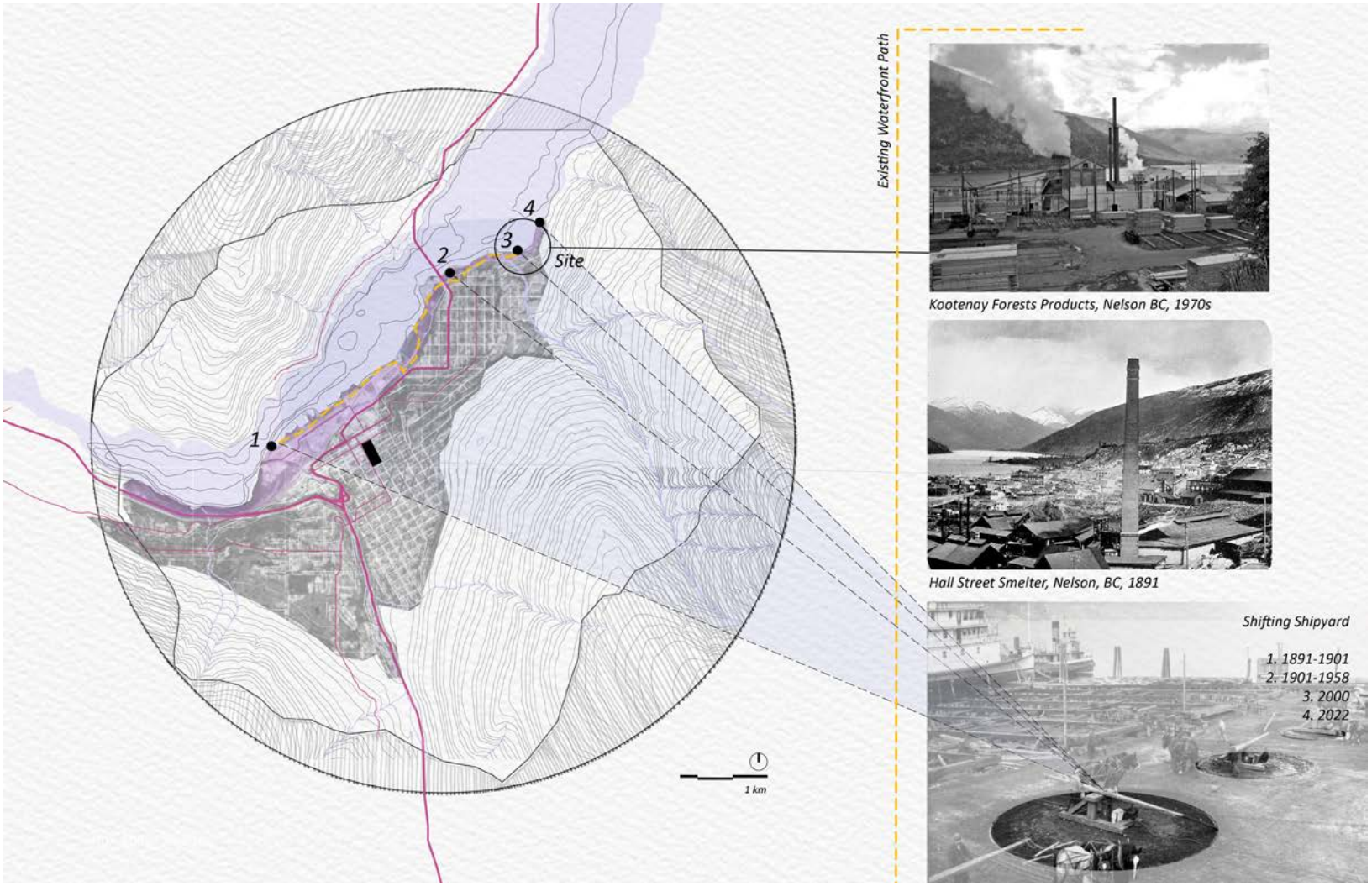
As mentioned, Nelson was the historic central supply location for the region. Historically Kootenay Lake was the main conduit for regional transportation connecting the



Map of the West Arm of Kootenay Lake with sections taken through the Mountains bracketing it. Places of Settlement/Creek Fans shown by images. (data from RDCK 2021, Google Earth 2020, Peakviewer 2021)

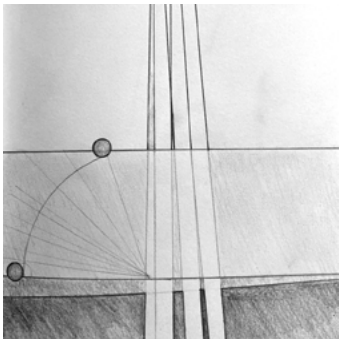


Map depicting the placement of Nelson on two creek fans. (data from Google Earth 2020 and RDCK 2021)



Map depicting the forming industries of Nelson. (data from Google Earth 2020 and RDCK 2021. Images from Touchstones Nelson n.d.)

communities edged along the lakeshores. The vessels that provided this transportation are referred to as Sternwheelers, as the wheel is located at the rear of the vessel. The Sternwheelers, were built on the once industrial waterfront of Nelson (Touchstones Nelson n.d.). The city has had four different shipyard locations since its formation. This thesis directly interacts with two of them and engages with the waterfront path which begins at the original shipyard and ends at the current one.

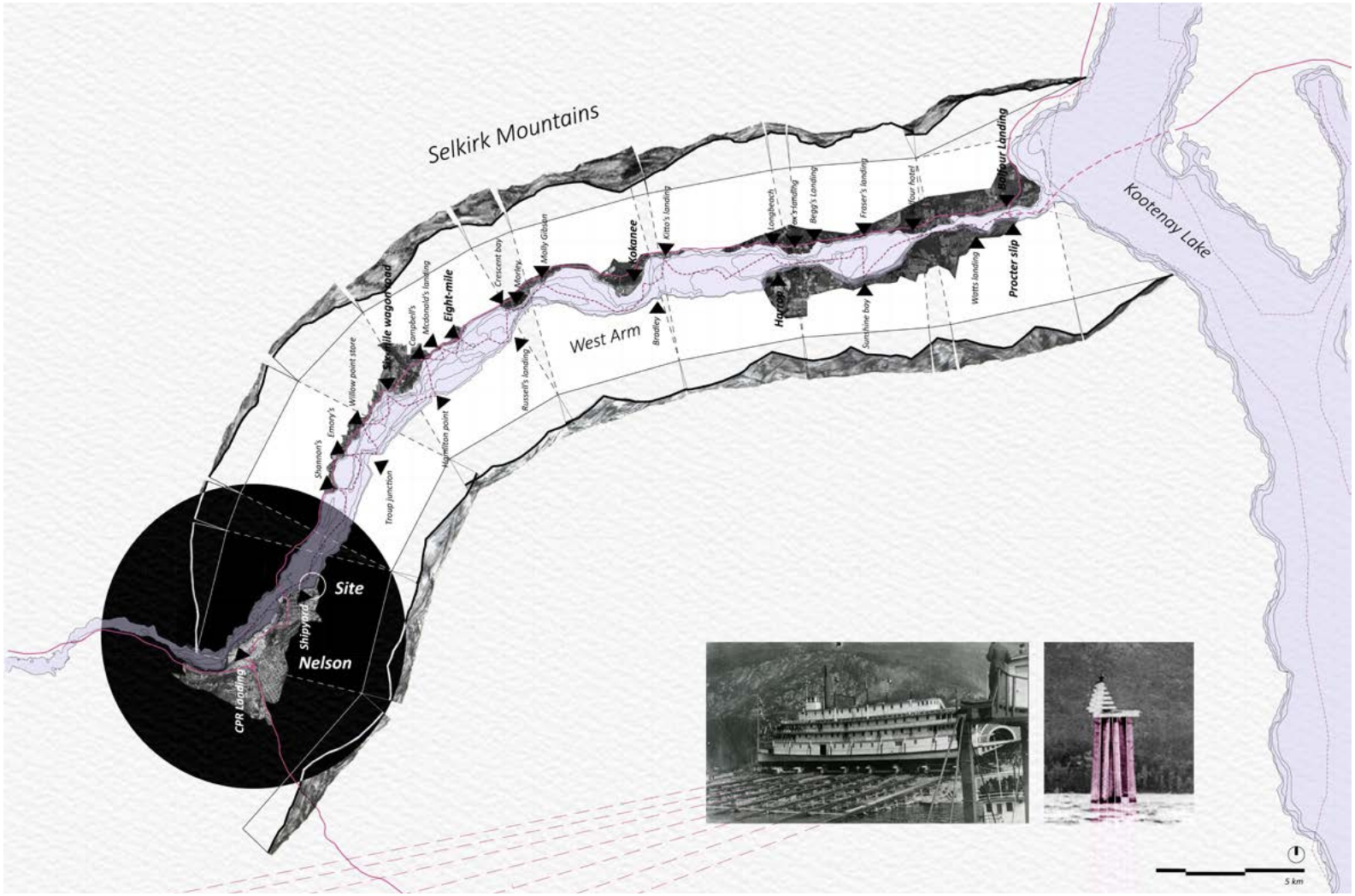


Pencil sketch of pilings with the change in the water level.

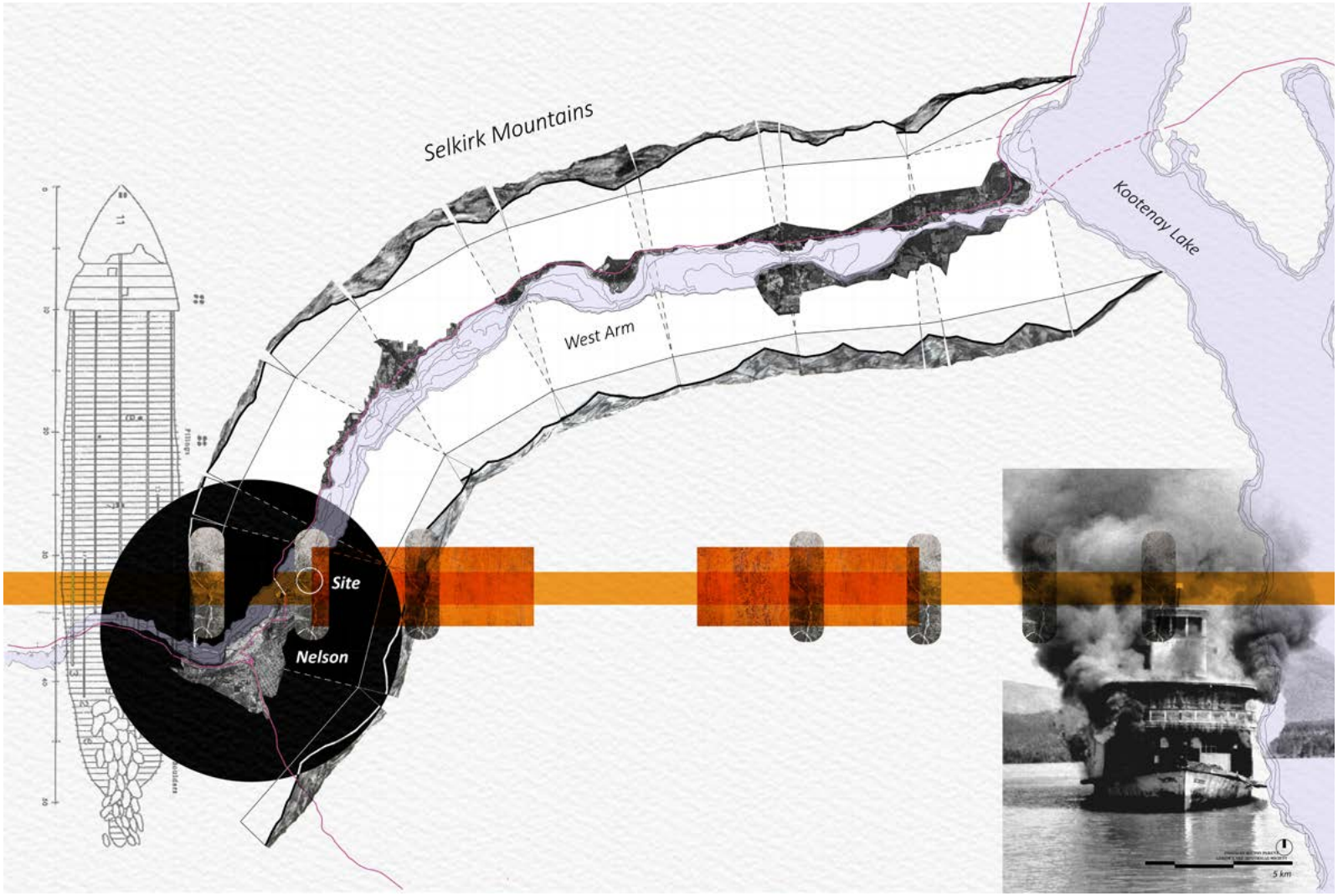
The landings for the Sternwheelers were marked with pilings, a group of logs driven into the lake bed typically held together with steel cables. These pilings remain, tracing the once productive landscape of the lake. The density of the pilings is the greatest on the West Arm of the Lake as the narrowing of the valley offers more protection for settlement than the Main Lake prone to large waves and wind storms. This thesis uses the historic landings to reconnect the region through their waterway, this will be discussed further in the following chapter.

In 1957 the Big Orange Bridge (BOB) was built eliminating the need for water transportation on the West Arm. The cable ferry and sternwheelers were retired sequentially. Some sternwheelers were set ablaze on the Lake creating a spectacle for summer festivals, others were driven onto the shores to decay leaving their hulls as sites of exploration. One was turned into a house and one remains as a floating museum in Kaslo (the largest village on the Main Lake of Kootenay Lake).

The construction of the Big Orange Bridge marked a shift in the community’s relationship with their waterway. Before its completion, the West Arm was the main channel for



Map depicting historic network of Sternwheeler landings on the West Arm of Kootenay Lake (data from RDCK 2021, Google Earth 2020, Peakviewer 2021. Images from Touchstones Nelson n.d.)



Map of the West Arm of Kootenay Lake showing the affects of the construction of the bridge. (data from RDCK 2021, Google Earth 2020, Peakviewer 2021)

Wood planks loaded on train (British Columbia. FLNR 2003)

Skidding lumber (British Columbia. FLNR 2003)

Matchbox Factory Nelson (British Columbia. FLNR 2003)

transportation, production and connection in the region. The bridge elevated the population's everyday interaction with the waterway and in turn changed their perspective of the landscape. Our perception is defined by the way in which we move through it; walking, paddling, boating, and driving produce different experiences of the landscape. The bridge has since then unintentionally become a local tell for storms, as it makes a whistling sound in the wind.

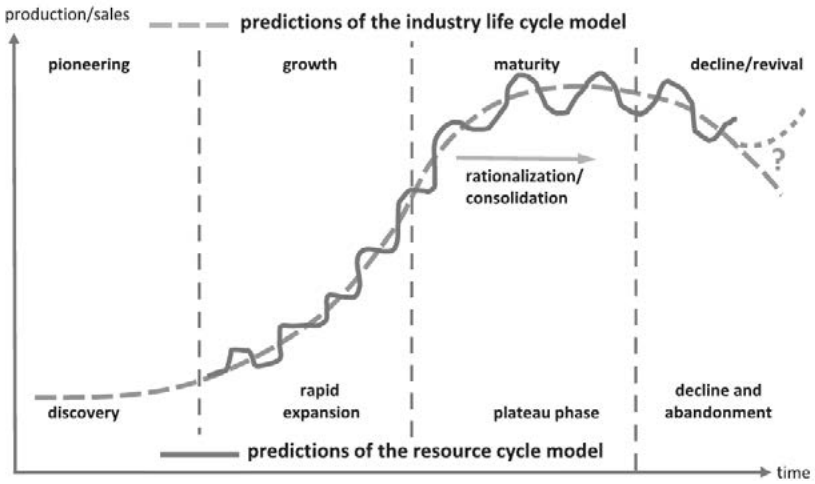
Forestry History

Although Nelson was established for mining exploration, it promptly transitioned to become a forestry town. In 1897 the city of Nelson was incorporated and the regional Timber Inspection Branch was founded, one of the first in British Columbia (British Columbia. FLNR 2003, 15). By 1909 the forest industry in BC accounted for half of Provincial Revenues (British Columbia. FLNR 2003, 16). The lumber historically harvested in the Kootenays supplied the construction of the railway and infrastructure across the Canadian prairies due to the region's proximity to Alberta (British Columbia. FLNR 2003, 22). Historically, a wide variety of lumber products came from the West Kootenays; "logs, cedar poles, mine timbers, cordwood, fenceposts, railway ties, pilings, dimension lumber, shakes, shingles, fruit boxes, ammunition boxes and matchstick blocks. With the advent of telegraph and telephone communication, there was a large market for poles, and for a time, the West Kootenays was BC's biggest pole producing area" (British Columbia. FLNR 2003, 22). With this knowledge, the commonly romanticized mountain landscape is a fabrication with the majority of it having been impacted by human activities.

Wooden flume (British Columbia. FLNR 2003)

Instability of Forestry Towns

The Forest Industry currently accounts for 27% of the province's manufacturing and export value with the Interior of the province accounting for 73% of the harvest (British Columbia. FLNR 2019, 1). The early 1980s global recession is considered a turning point for the BC Forestry Industry (Edenhoffer and Hayter 2013, 143). It marked the plateau of growth rates and signalled the continued pattern of curtailments and permanent mill closures across the province (Edenhoffer and Hayter 2013, 143). Kootenay Forest Products closed during this economic turning point. More recently, the forest industry has been devastated by the mountain pine beetle infestation, wildfires, and changes to the softwood lumber agreement with the United States (Joseph and Krishnaswamy 2010, 128). This led to a number of mill closures in 2019 and increased unemployment, showcasing the interior of BC's vulnerability (Lirette 2019).

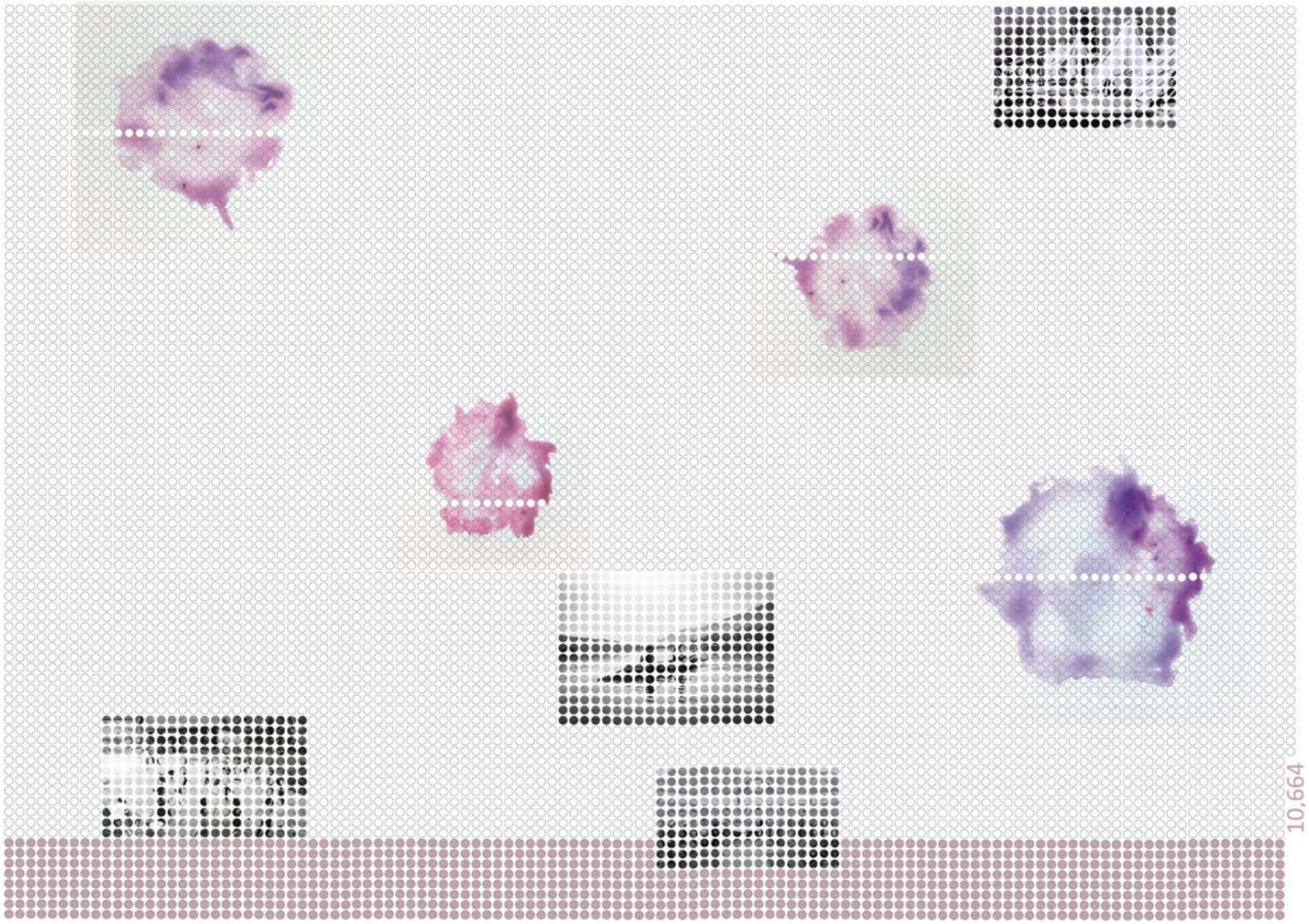


Resource Extraction Life Cycle (Edenhoffer and Hayter 2013, 144)

Idyllic Haven and Queen City

Nelson is known as the cultural capital of the West Kootenays and is commonly referred to as the Queen City due to its large number of heritage buildings. Nelson has a population of 10,664 residents and provides services for the regional population of around sixty thousand. The city is recognized nationally and often internationally for its alternative communities and counterculture, having been written about in several prominent news sources, including the New York Times, the BBC, and the Globe and Mail (Rodgers 2014, xv). The origins of the counterculture stem from the migration of thousands of American draft dodgers to the West Kootenays over the course of the Vietnam War (1965-1973), seeking refuge in the isolated mountains. The choice of the West Kootenays was not unprecedented, as the region was also the destination of earlier generations of Quakers and Doukhobors (Russian Anabaptist) (Alexander 2008, 17). Both Quakers and Doukhobors are pacifist groups that settled in the West Kootenays to escape political pressure and judgement to conform to militarism (Rodgers 2014, 7). As Rodger relates, “the Quakers and Doukhobors-who

Existing pier extending out into the West Arm of Kootenay Lake.

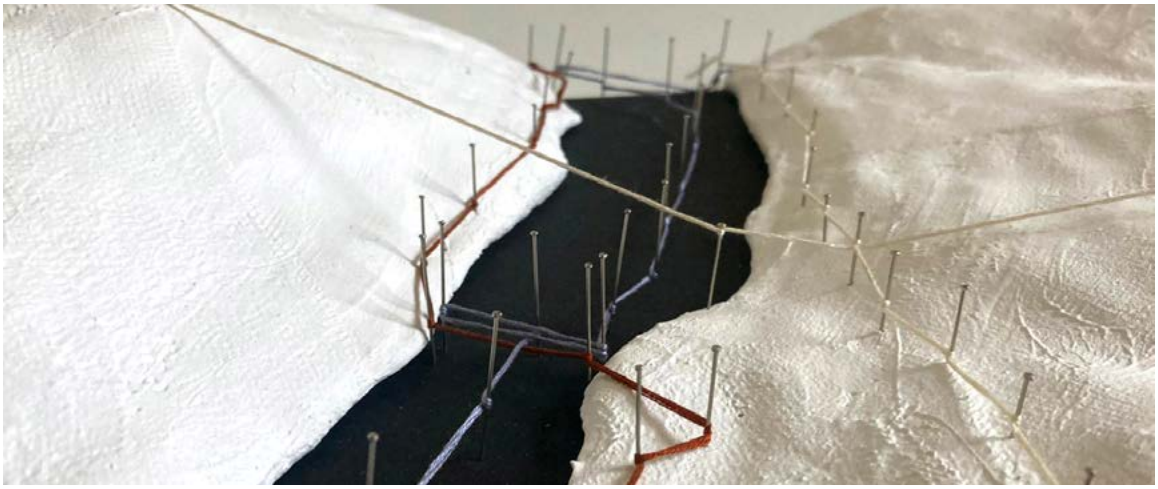


10, 664 dots represent Nelson’s population. The coloured dots are those that moved away due to the mill closure. The photo dots represent the historic layers of migration to the West Kootenays. (Image from Touchstones Nelson n.d.)

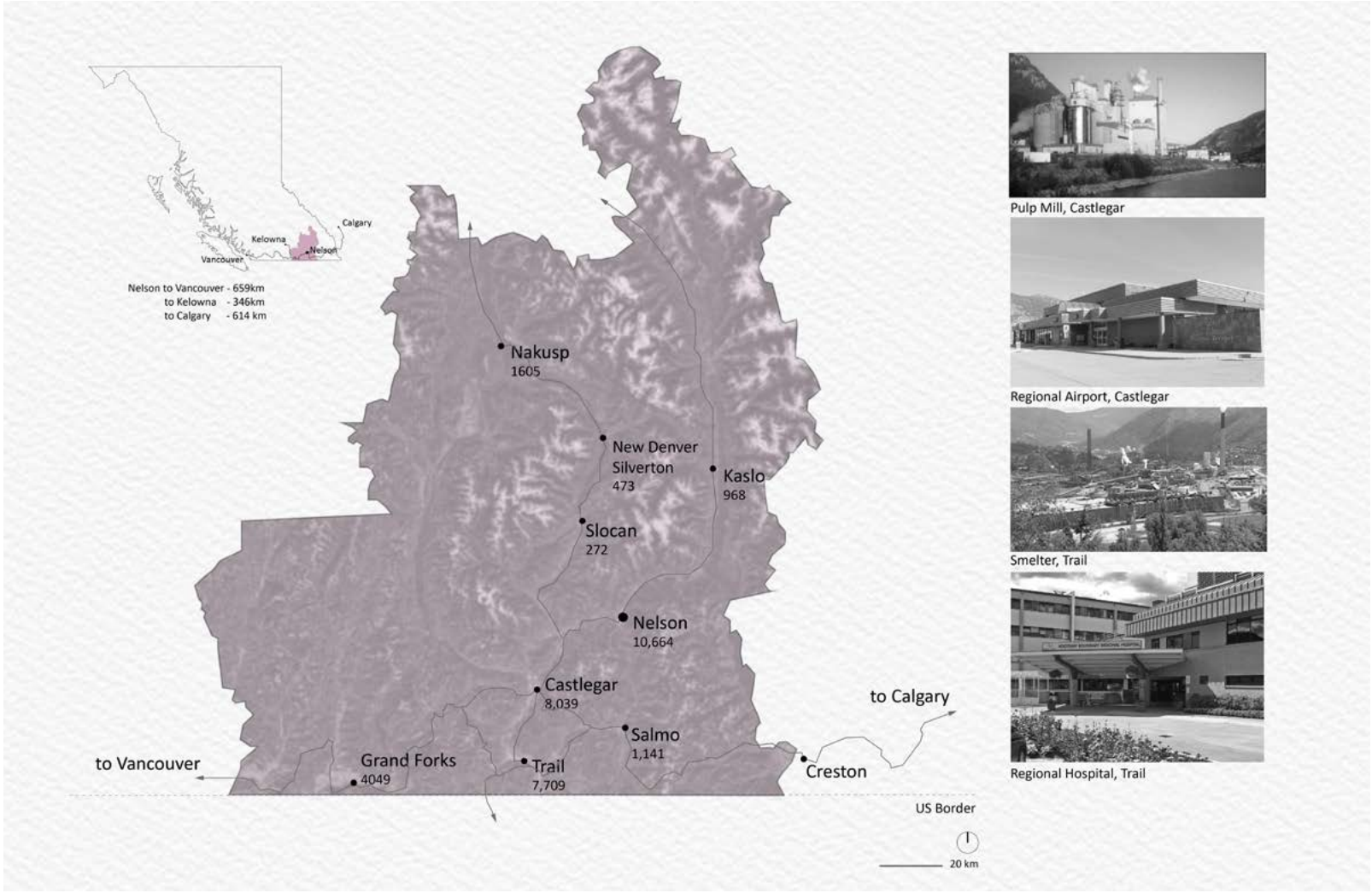
encouraged them (when speaking about the Draft Dodgers) to employ countercultural ideals to shape a community in which experimentation in alternative lifestyles was normal, importance was placed on artistic self-expression" (Rodgers 2014, 8). This counterculture influence is contrasted by the resource extraction economy that supports the majority of the communities in the area. Nelson separated from this in the early 1980s, as mentioned previously, with the closure of the community's mill, Kootenay Forest Products. Due to this closure, many people were out of work which resulted in an emigration of approximately 1/10 of its population. The city entered a period of depression marked by the boarding up of the main street. Nelson however successfully transitioned after the closure and is frequently cited as an example in British Columbia for being a resilient community. Its survival can be contributed to its established counterculture, marijuana production, and recreational economy, including Whitewater Ski Hill (Nepal and Jamal 2011) (Paris 2018). Currently, Nelson's employment statistics comprise of a wide range of fields as many are creative with occupations prioritizing place over standard employment opportunities. There has been an increase in those engaged in tech industries with a significant amount of the community being employed remotely without physical workspaces.

As mentioned, Interior towns are typically supported by a single industry and are designed to provide the essentials for daily life. Regionally towns are interwoven with their neighbouring communities to form the population base for services, such as health, airports and entertainment. In the region of the West Kootenays, Nelson, Castlegar, and Trail act as an interconnected system providing services for the surrounding communities. Trail is supported economically

by smelting and mining operations and provides the regional hospital. Castlegar is supported economically by a pulp mill and provides the regional airport. Nelson was supported economically by Kootenay Forest Products but now draws visitors to its established arts community and cafes. Nelson offers a wide variety of outdoor activities and cultural events for its population. It is a relatively friendly place with a strong community identity drawing from its countercultural influences. The community has been rural gentrified by counter urban movements showcased by its high property values, large number of restaurants (over 50) and most recently the development of several breweries (4). This has created an exclusivity to the city in comparison to its neighbours, Castlegar and Trail, and in that context has also caused obstacles within its community.



Plaster model of the valley with the red string representing the highway and the blue string representing the main channel of the West Arm.



Map depicting West Kootenays interconnection. (base map from RDCK 2021, Google Earth 2020 and images from Keating 2012 and Kline 2021)

Hybrid drawing showing the industrial timeline of Nelson. (data from Google Earth 2020, images from British Columbia. FLNR 2003, Paris 2018, Powderhounds 2021, Touchstones Nelson n.d.)

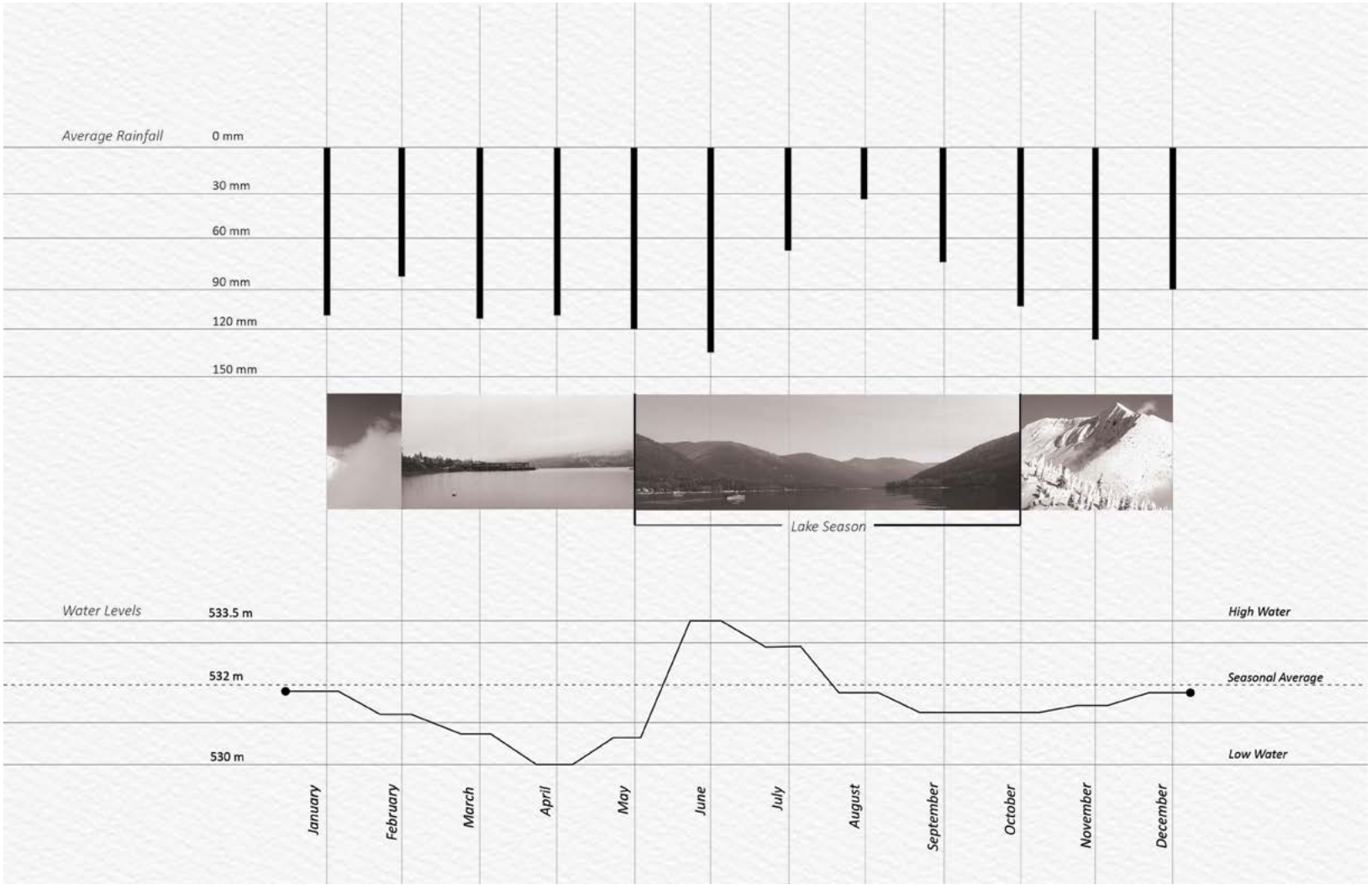
Chapter 4: Seasonal Fluctuations and Community Stressors

In the precarious landscape of the mountains there is a balance to the yearly events. This is governed by the natural phenomena of precipitation. A particular rhythm of snowfalls is required to achieve a healthy snowpack to hydrate the landscape in the hot summer months alleviating the wildfire hazard. Similarly, spring rains are essential, however flash flooding commonly causes landslides and regional flooding. The mountain valleys serve as a natural funnel projecting water downwards at the communities settled on the lakeshores. The natural environment is constantly in flux and requires an architecture that can shift and adapt to the conditions of the time.

Conditions of the Place

> Time, too, bends and alters. In the face of the geological time-scales on display, your mind releases its normal grip on time. (Macfarlane 2003, 203)

There is an understood pace to mountain communities. The West Kootenays are often associated with the phase *Kootenay Time* colloquially meaning that the population operates without the stress of being on time. This occasionally leads to stereotypes and misconceptions about the communities. In the region there is a divide in the understanding of time. The communities that have an industry to regulate them through shifts and those that are dependent more on the seasonal tourism influxes. As Lefebvre relates, “each of us has our preferences, references, frequencies; each must appreciate rhythms by referring them to oneself, one’s heart or breathing, but also to one’s hours of work, of rest, of walking, and of sleep”



Charts depicting the seasonal fluctuations of Kootenay Lake and the annual precipitation in Nelson. (FortisBC 2021)

Collage depicting the change of usage of pilings (historic image from Touchstones Nelson n.d.)

(Lefebvre 1992, 11). This suggests that the closure of the mill site in Nelson shifted the understanding of time within the community. As Pallasmaa relates, “buildings and cities are instruments and museums of time. They enable us to see and understand the passing of history, and to participate in time cycles that surpass individual life” (Pallasmaa 2005, 52). There was a rhythm to the harvesting and processing of the lumber, historically this was interlinked with the seasonal fluctuations of the water levels.

Industrial Rhythm

Kootenay Forest Products was connected to the region through the harvesting practices and transportation methods. Due to the steep terrain wooden flumes became a common way to transport logs out of the woods to the lakeshore (British Columbia. FLNR 2003, 18). Once on the lake shore, the logs were dragged onto the mud flats during low water and tied into booms, using the seasonal high water in the spring to float the log booms. The wooden pilings, similar to the ones used for the Sternwheeler landings, were also used to tie up the massive log booms and currently serve as markers (also known as navigational dolphins) for sand spits and bases for osprey nests (British Columbia. FLNR 2003, 19). The pilings have continued their usage, shifting their purpose from industrial to animal habitat and recreational marker. BC parks has since designated the pilings as Wildness Trees. The pilings' ability to transition usages is a reference for how this thesis can be considered. With the addition of simple nesting platforms, the decaying pilings become an optimal location for Osprey to live and fish, providing them with an elevated perception of the waterway.

Controlled Waterway

Kootenay Lake is part of the Columbia River Basin. The control of the regional water level is dictated by an international agreement with the Americans as the waterways traverse the international border. As mentioned previously, the mountain valleys run north to south and thus also do the waterways. There are four dams and reservoirs under this agreement, three of which are in British Columbia and one is located in Montana (CBT 2021). Water flowing

into the North End of Kootenay Lake is controlled by the Duncan Dam and water flowing into the South End of Kootenay Lake is controlled by the Libby Dam, located in Montana (CBT 2021). Kootenay Lake drains into its West Arm which turns into the Kootenay River and meets the Columbia River at Castlegar. The Columbia River travels through British Columbia into Washington State and meets the Pacific Ocean near Portland, Oregon. This agreement, known as the Columbia River Treaty (1964), resulted in the formation of the Columbia Basin Trust, which financially compensates the Kootenays for regional flooding (CBT 2021). The trust supplies grants for community programs and centres. With this thesis' strong connection to the local area and waterway, this trust would be an ideal partner for the project. Before the dams were constructed the seasonal fluctuations ranged year to year, upwards of 30 ft from low water in the winter to high water in the spring (Pearkes 2002, 11). Currently the water fluctuates approximately 12 ft seasonally (FortisBC 2021).

Pencil sketch of the Columbia River Basin.

Image depicting wildfire over Nelson in 2015 with the Big Orange Bridge in the foreground. ("B.C. asks for help" 2015)

Map depicting wildfires around Kootenay Lake over the last 20 years. (data from DataBC 2021)

Wildfires and Climate Change

> ..we expect nature to do our bidding, to fall into step with us. Or we override it with technology, and render its rhythms superfluous. Our need for speed has led us to esteem the streamlined, the dynamic in all things, and that estimation has accelerated us out of sync with the natural world. (Macfarlane 2003, 133)

It is generally understood that a forest requires a certain number of wildfires for the health of its ecosystem. Certain tree species, such as the Whitebark Pine, flourish from landscapes impacted by wildfires (Pearkes 2002, 44). In

an attempt to protect forests for future harvest, the forest industry historically suppressed natural occurring fires thus resulting in the accumulation of aging underbrush (Tsing 2015, 30). These processes combined with climate change and the mountain pine beetle devastation has resulted in an increase in wildfires threatening Interior BC communities (British Columbia. BC Parks 2017, 32). It is predicted that the West Kootenays will experience upwards of a 7 degree rise in temperature and as high as 30% decrease in precipitation by 2080 (British Columbia. BC Parks 2017, 32). Due to the increased threat, larger centres have developed Fire Treatment Plans. These plans typically involve the removal of underbrush and raising the crown of the trees in order to slow the spread (British Columbia. BC Parks 2017, 84). Nelson being the largest city in the region has a Fire Treatment Plan that involves the creation of a boundary around the urban area and the community watershed (British Columbia. BC Parks 2017, 1). Each interference, whether it is current logging practices or remedies to our past processes, into the regional forests directly impact the species living there, especially those that are endangered, including the Mountain Caribou, Grizzly Bear, several fish species, and the Whitebark Pine (British Columbia. BC Parks 2017, 1). This relates how interlinked Interior British Columbian communities are with their surrounding landscape and animal populations.

Hybrid drawing examining the current mill site condition and historical movements. (base map from Google Earth 2020, images from Touchstones Nelson n.d.)

Chapter 5: Design Methods and Case Studies

The design methods used in this thesis were drawn from four case studies. As the project began with a study of site, Arthur Erickson's method of site consideration will be introduced first, followed by the essence of comfort, architectural affordances and framed views.

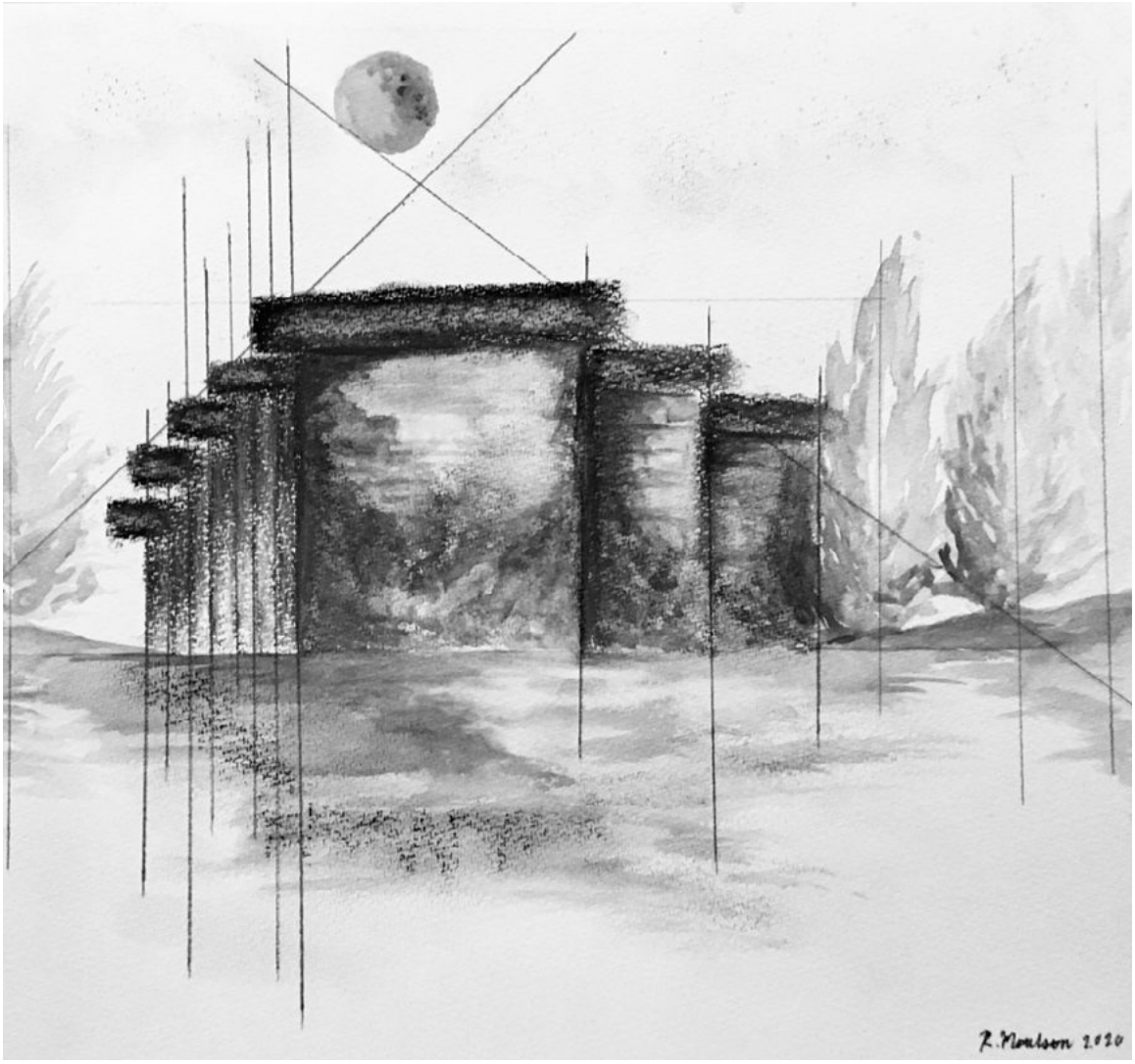
Consideration of Site

This thesis began with an investigation of site, through hybrid drawings and site surveys to reveal the history, memory and existing site opportunities. By developing a project from these aspects it allows for it to have a deeper connection to the place negating it from becoming an object in the landscape. In order to develop this method of site investigation a case study on Arthur Erickson was performed.

Arthur Erickson: Museum of Anthropology

> Most of our buildings are only half buildings-or must seem so in your (Eastern) eyes – because the other half is the site. You think in the more architectonic terms of complete geometry. Your buildings have a flat bases whereas ours seldom have. I think our bottoms are the clue to our basic difference. (Fraser and Sabatino 2013, 8)

Arthur Erickson is one of the most notable architects in Western Canada. His layered approach to the landscape of British Columbia distinguished his work from predecessors. As Fraser and Sabatino relate, "Erickson saw his role as one of recognizing – not artificially imposing -the character of the site so as to find an appropriate design solution" (Fraser and Sabatino 2013, 12). The Museum of Anthropology was selected as a case study due to its incorporation of an existing site artifact. The artifact shares commonalities with



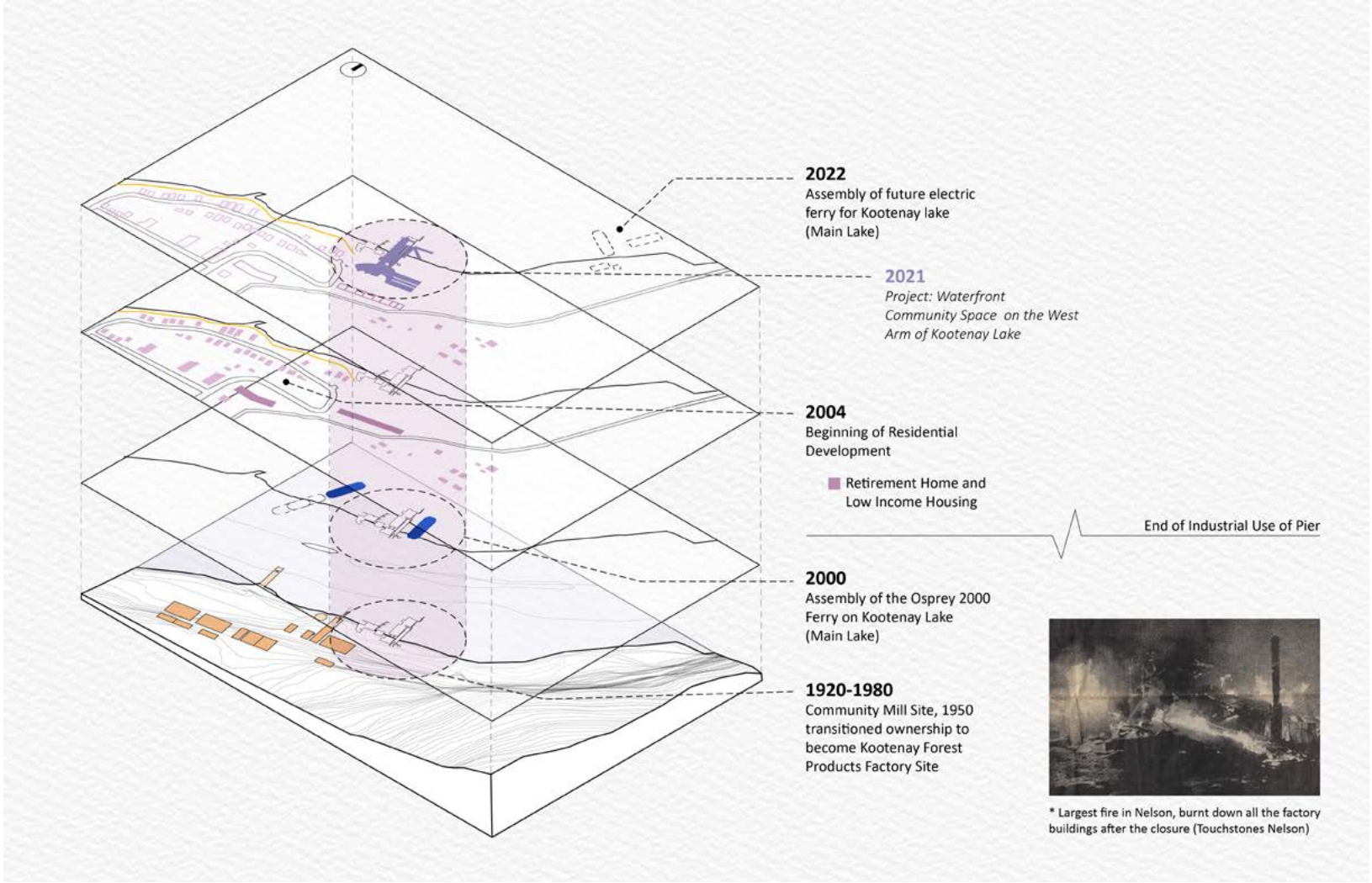
Charcoal and watercolour drawing of the Museum of Anthropology.

the thesis site's artifact as both served a practical function and have a polarized history.

The Museum of Anthropology at the University of British Columbia is one of Erickson's most notable works. The landscape architecture was designed by Cornelia Oberlander. From the street, there is a progression downwards to the main entrance through patches of the temperate rainforest. This progression continues down through the building by the series of ramps, with the landings allowing for entrances into the exhibition spaces. The main hall opens up to the

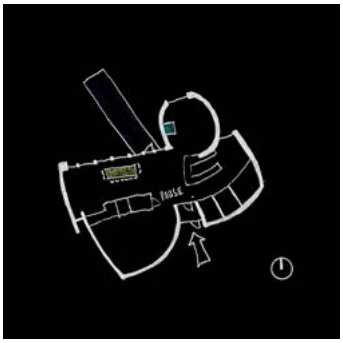
landscape, reflected on the exterior in a small pond. The museum is built over three gun emplacement relics from World War II. The centre emplacement is fully incorporated into the building becoming the base for a circle exhibition platform. The Museum of Anthropology creates exterior gathering spaces through the carving and shaping of the landscape. The small pond is bracketed between the elevation of the main hall and a small earth mound created during the excavation of the site. The pastel sunsets over the Pacific Ocean are reflected in the glazing of the main hall, making the small earth mound an inviting place to sit on a summer evening. The exaggerated concrete structure of the museum blends into the landscape resulting in a softness to the geometric form.

Erickson's method of using the existing qualities of the site as a foundation for a new layer is utilized in this thesis. Through addition and incorporation the sense of place can be maintained and enhanced through its shift in function. The thesis site's artifact, the steel pier, is approached similarly to that of the gun emplacements as both are not precious structures, the pier is adapted, taken apart and added onto to fulfill a new function. This process will be expanded upon in the following chapter.



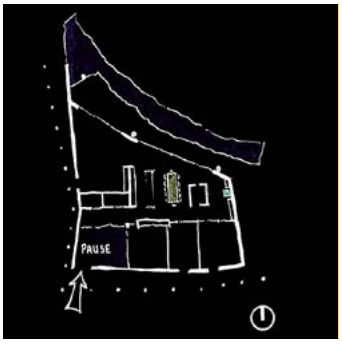
Exploded axonometric drawing showing the layers of the proposed site. (data from RDCK 2021 and image from Touchstones Nelson n.d.)

Maggie's Dundee 2003
Frank Gehry (Medina 2014)



Maggie's Dundee plan

Maggie's Cardiff 2014
Dow Jones Architects
(Griffiths 2019)



Maggie's Cardiff plan

Essence of Comfort

This thesis draws from a memory of loss and production and seeks to create a gathering space for stressful events such as wildfires and other shared community losses. It is also intended to create an atmosphere in which community members will spent time in without a predetermined purpose. Therefore a method of designing for comfort is developed by analyzing Maggie's Cancer Caring Centres.

Maggie's Centres

The common human instinct when confronted with a stressful event is to seek comfort. In the development of Maggie's Centres the architects explored how design can draw out the essence of comfort.

The idea of Maggie's Centres was conceived by Maggie Kenwick and Charles Jencks based on their personal experience of Maggie's cancer treatment (Jencks and Heathcote 2010, 11). They found the sterile environments in which they had to process life changing information to be dehumanizing and lacking comfort (Jencks and Heathcote 2010, 12). From the opening of the first Maggie's in Edinburgh in 1996, the centres have grown to the present with 27 current centres around the UK and three internationally. The centres are designed from an architectural brief that outlines activities and space, however instead of stating square footage, it provides statements like "a space sufficient to take a maximum of 14 people lying down" (Jencks and Heathcote 2010, 220). The resultant designs vary greatly however they share the ability to provide comfort. As described by Charles Jencks, they are "Informal, like a home, a Maggie's Centre is meant to be welcoming domestic, warm, skittish, personal, small-scaled and centred around the kitchen or

place to make coffee and tea" (Jencks and Heathcote 2010, 13). The incorporation of household elements, such as a hearth and library, allow for a familiar focal point in order to navigate difficult conversations. The centres also place high importance on the incorporation of art and connection to a garden (Jencks and Heathcote 2010, 15). The weaving together of spaces and planned events creates a home, a grounding point and a place to be for a community.

The methods of designing informal and like a home are brought into the design as hearths and a community canteen. They are incorporated as focal spaces within the Main Community Space. Nelson and the West Kootenays are mostly informal when considering societal norms. Common comforting practices in the West Kootenays are gathering around a bonfire and journeying into nature therefore these were incorporated into the proposed program.

Architectural Affordances

This thesis hopes that the community will accept the proposed project and make the space their own over time. Architectural affordances, the adaption or ability for a multitude of uses, can be utilized as a design method in order to not dictate the occupation of the space. Affordances can also be used to understand the landscape quality and how it can encourage movement and physical activity. A well-known example of designing for affordances are the playscapes designed by Aldo van Eyck.

Aldo van Eyck: Playscapes

Aldo van Eyck designed over 700 playgrounds or playscapes in the city of Amsterdam after WWII left a series of derelict sites throughout the urban area (Withagen and Caljouw 2017, 1).

The playscapes had “no sharp boundaries that separated the playground from the rest of the city” (Withagen and Caljouw 2017, 3). The playscapes employed affordances in design, allowing for the child’s imagination to determine what an object was or how it should be used (Withagen and Caljouw 2017, 6). By incorporating affordances and movement into the design it can encourage the user through participation to gain a sense of belonging and agency. Aldo van Eyck, as Lefaivre and de Roode communicated, understood the importance of considering the child in the design of urban spaces (Lefaivre and de Roode 2002, 37). Typically, resource towns were built for extraction and processing, essentially neglecting the demographics that existed outside of the workforce. Aldo van Eyck’s utilization of derelict sites employed spaces of the imagination to gather a community after a period of uncertainty. This thesis aims at creating just that space for the community to gather when they are faced with the uncertainties of living in a precarious landscape.

Playscape designed by Aldo van Eyck. (Lefaivre and de Roode 2002, 37)

Slow House Project 1989
(MoMA 2007)

Framed Views and Representation

The proposed site for this thesis is along the lakeshore in a scenic mountain valley. Reminders of the picturesque qualities are inescapable as nowhere is unaffected by the mountain slope. Despite this, the majority of public buildings in Nelson are separate from the landscape and rarely interact with or employ nature. In order to develop a method of framing and obscuring the landscape a case study of Slow House by Diller + Scofidio was carried out.

Diller + Scofidio: Slow House

In Diller and Scofidio's project Slow House the main view is obscured at the entrance and is slowly revealed by the curvature of the walls. The project was conceived through progression and representation. A photo is placed in reference to the entrance from the automobile and one is placed opposing it of the main view, the intermediate space results in the design of the building. Similarly, this project was conceived with consideration of the approach from the city and the way it which a community member would make their way down to the launching armature. The main community space was placed along an existing indent in the landscape in order to create a ramp along its exterior facade.

Framed views and obscuring are used to highlight the qualities of the landscape. As Seamon and Mugerauer relate the absence or obscuring of a component brings more awareness to the whole (Seamon and Mugerauer 1989, 24). This thesis employs an interplay of obscuring and framing to develop and regenerate a shared awareness of the proposed site's position and memory in the community.

Artist's sketch of the burnt structures. (Touchstones Nelson n.d.)

Chapter 6: Site

The proposed thesis site, the abandoned Kootenay Forest Products Factory site, has several influencers and characters, these will be discussed in the following section.

Site Characters

The site is interconnected with several on-going processes within the region, including the predominant connections to Kootenay Lake and the slope of the Selkirk mountains.

Factory Site

Industrial structures were built initially for the purpose of extracting wealth from the landscape. They serve as mediators between urban and nature through their developed processes of extraction. The practicality of these structures leads to their irregularities in form and placement. These structures are built with materials that are prone to weathering processes, including seasoned wood, steel, canvas and concrete. As Mostafavi and Leatherbarrow relate, 'this process always marks, and these marks may be intended, even desired' (Mostafavi and Leatherbarrow 1993, 2).

The site for this project, as mentioned, is the abandoned Kootenay Forest Products (KFP) Factory site, a historic site of production holding a collective memory. KFP began production in the 1920s and as the decades passed ownership was changed often (Touchstones Nelson n.d.). A planar mill, beehive burner, dry kilns and plywood manufacturing were added over the years until its closure in the early 1980s (Touchstones Nelson n.d.). The structures were left only to be burnt down in a series of unexplained fires throughout the following decade (Touchstones Nelson n.d.).

Rusty steel piece in bush.

Concrete surface with steel tracks.

Steel equipment.

Bricks in grass.

The only remaining artifact is the pier, a large steel structure employing one-foot diameter columns and cross bracing to support a hardscape of concrete. The pier was built for the practical purpose of supporting a peco lift that elevated log booms from the water and remains an intriguing structure. With staircases and platforms connecting the main parts together, it creates an ideal environment for exploration.

Shipyard and Bridge

The shipyard, located on the western half of the site, was deserted with the construction of the Big Orange Bridge (BOB) in 1957. Historically, sternwheelers operated up and down the lake connecting the community and providing the infrastructure for the mining and logging industry. During its operation the shipyard was building the largest wooden hulls in British Columbia. In more recent times, the site was used for the assembly of the Osprey 2000, the longest free ferry in the world that connects the East Shore of Kootenay Lake (the Big Lake) and the communities along the North Shore of the West Arm of Kootenay Lake (Keating 2019). In the coming year another ferry will be assembled on the eastern most part of the site. A new ferry is assembled approximately every 20 years. Currently the eastern part of the site is largely overgrown and abandoned with a scattering of objects, bricks and metal pieces, to be found along its informal paths. It is a compelling place to wander due to its unexpectedness. It is in this unqualified nature that it becomes occupied. Those who desire a sense of adventure tend to find themselves in these places.

Residential

In the early 2000s the western half of the site was developed with a residential neighbourhood comprised of single-family

Images of the existing pier's structure.

homes covering over any remaining traces of the historic shipyard. The proximity of the residential development to the pier has compromised the industrial intentions of the site, opening an opportunity to re-imagine the place.

Visitors

In 2015 the Martin Mars Water Bomber anchored offshore of the site, attracting large numbers of locals in their aluminum boats. The arrival, however, was not one of celebration.

Since the beginning of the millennium, the valley fills with smoke from wildfires every summer.

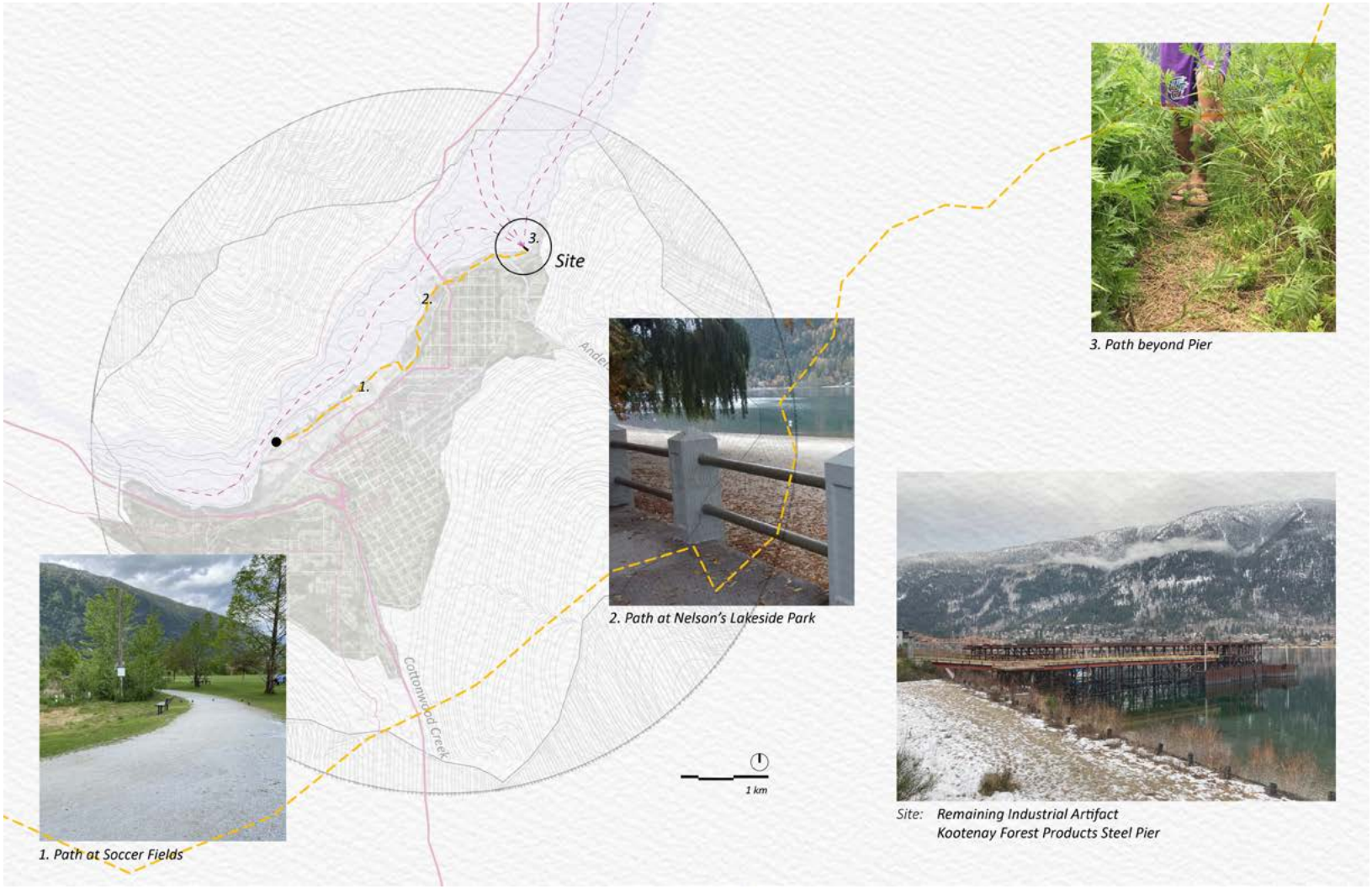
Opposing the site boundary of the waterfront is the city's train track, dividing the mountain slope from the infilled land of the lakeshore. The train track is a disconnected short track, with a single engine, nicknamed the Hot Shot, operating the route. The train passes the mill site approximately twice a day, once in the morning and once in the late afternoon.

Site Connections

In close proximity to the site is a local retirement home, low-income housing, and the local high school. Along the shoreline are other recreational opportunities such as the city's main beach park, sports fields, rowing club, shopping mall, marine and dog park, all located along the waterfront path that ends in its formality at the pier.

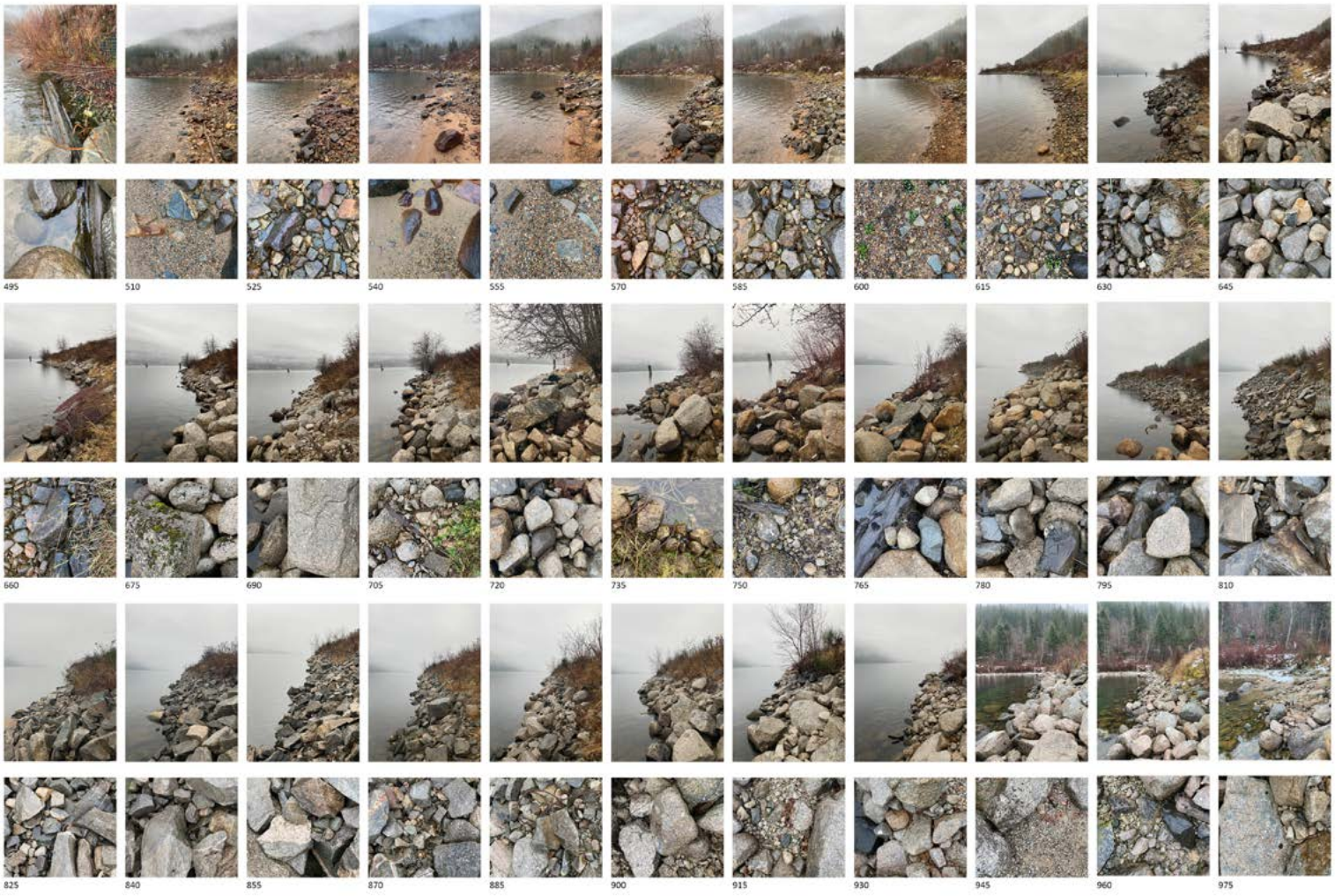
Site Survey

A site survey was conducted with the help of a friend, TJ Wright. A photo was taken every 15 paces along the shoreline, one at the level of the human eye looking forward and one at their feet. The following is the organization of these photos. The site, like all of the city's shoreline, is infill in order to provide flat land for amenities, recreation and past industry. The steep incline from the shore is met with a gradual one.

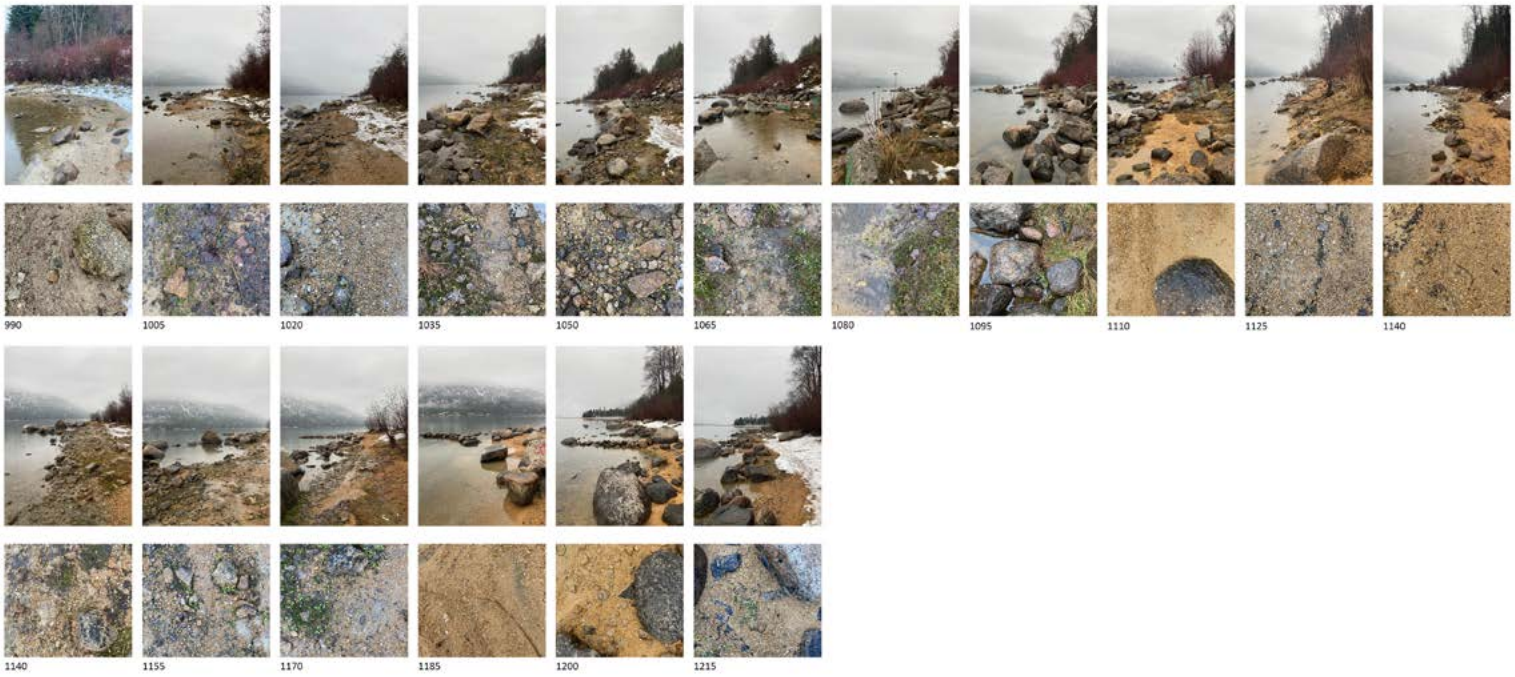


Map depicting the site's connection to the existing Waterfront path. (Image 1 from Schafer 2021)

Site survey of shoreline. Photos taken by TJ Wright.



Site survey of shoreline. Photos taken by TJ Wright.



Site survey of shoreline. Photos taken by TJ Wright.

Plan and elevations of existing pier.

Chapter 7: Program

The programmatic pieces of the project were resolved by considering the past events along the site's shoreline, the existing community stressors and lacking resources, and the site's opportunities. The program metric on the following page showcases the elements considered. This process was performed to develop interconnected programs that are both functional and experiential to maintain the occupation of the space throughout a single day and through the year.

Work

The past event of harvesting timber informed the decision to bring a component of work back to the site, as the community has developed a tech sector without physical workspaces. Tables, bracketed by the structure, line the façade looking outwards at the mountain. It is imagined that these workspaces would also be used by the local high school students to gather during study blocks etc.

Recreation

The past event of boat racing combined with the lack of accessibility of the shoreline, resulted in the proposal for a kayak and canoe launch point and storage. Landings are placed, marked by the historic network of pilings, creating opportunities to commute across the lake. This develops the supporting infrastructure to propose a kayak share program on the West Arm, allowing everyone to utilize the waterway.

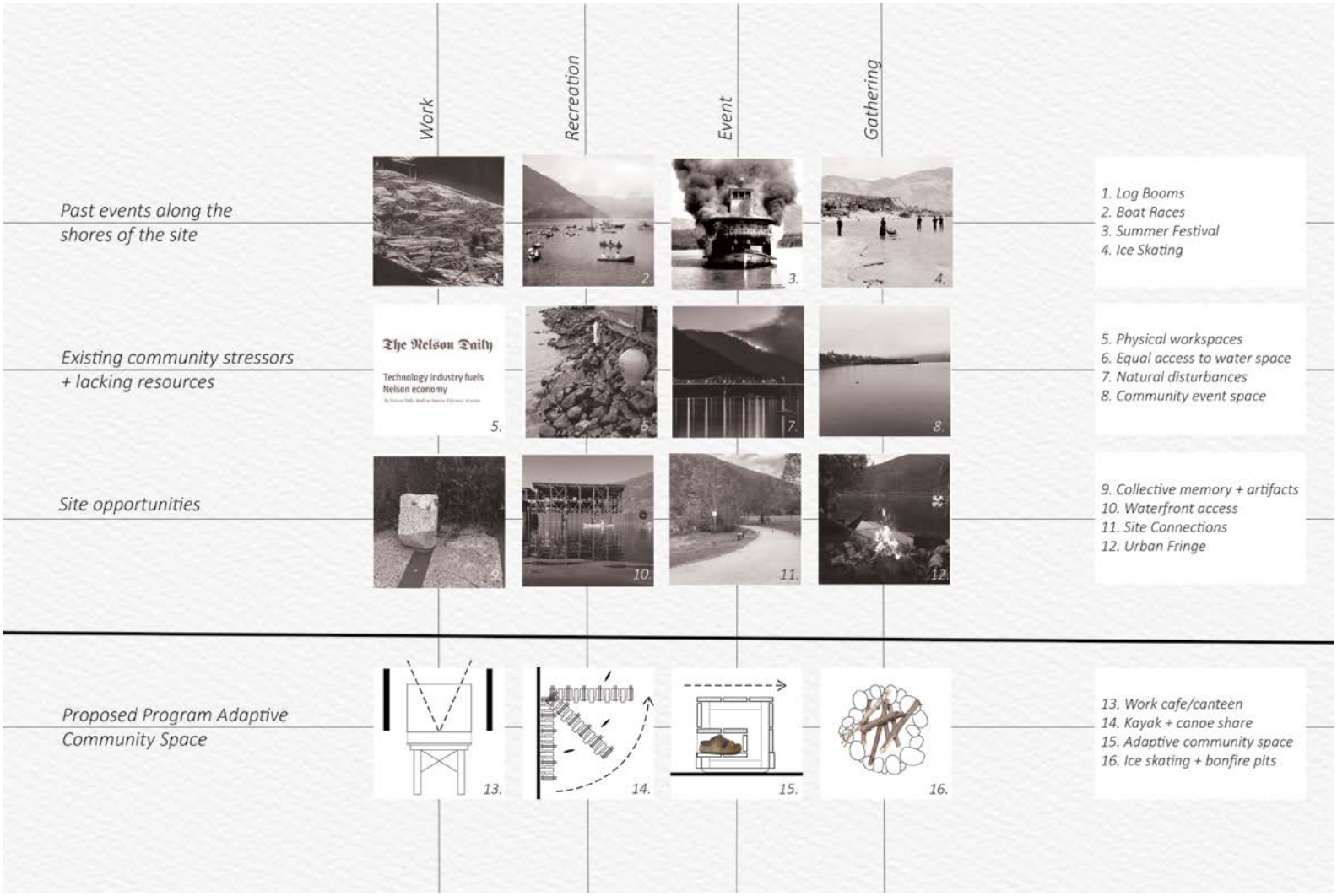
Event

The past event of the community's summer festival combined with the stress of natural disturbances, resulted in an adaptive component of the event spaces. The

adaption of space is also intended to address the different frequencies and size of event. The current event spaces in the city can be categorized as either a recreational space, gymnasium/ice rink, or a conference room in the basement of a hotel. The community's summer dance currently takes place on top of a parkade as it has scenic views. Providing a comfortable community event space connected to the landscape will enhance the community's gatherings and desire to have them.

Gathering

The past event of activities on the shores like ice skating, combined with the lack of a physical community space on the lake resulted in the overarching program of a community gathering space. Commonly the community gathers informally during outdoor recreation. The local ski hill's lodge and the warming huts along cross country trails have become community hubs in the winter time. However these spaces have both physical and financial barriers for community members. The proposed project intends to recreate these informal atmospheres of gathering within the city and without the financial barriers of lift tickets.



Program metric. (Images from Touchstones Nelson n.d. “B.C. asks for help” 2015, Schafer 2021)

Chapter 8: Design

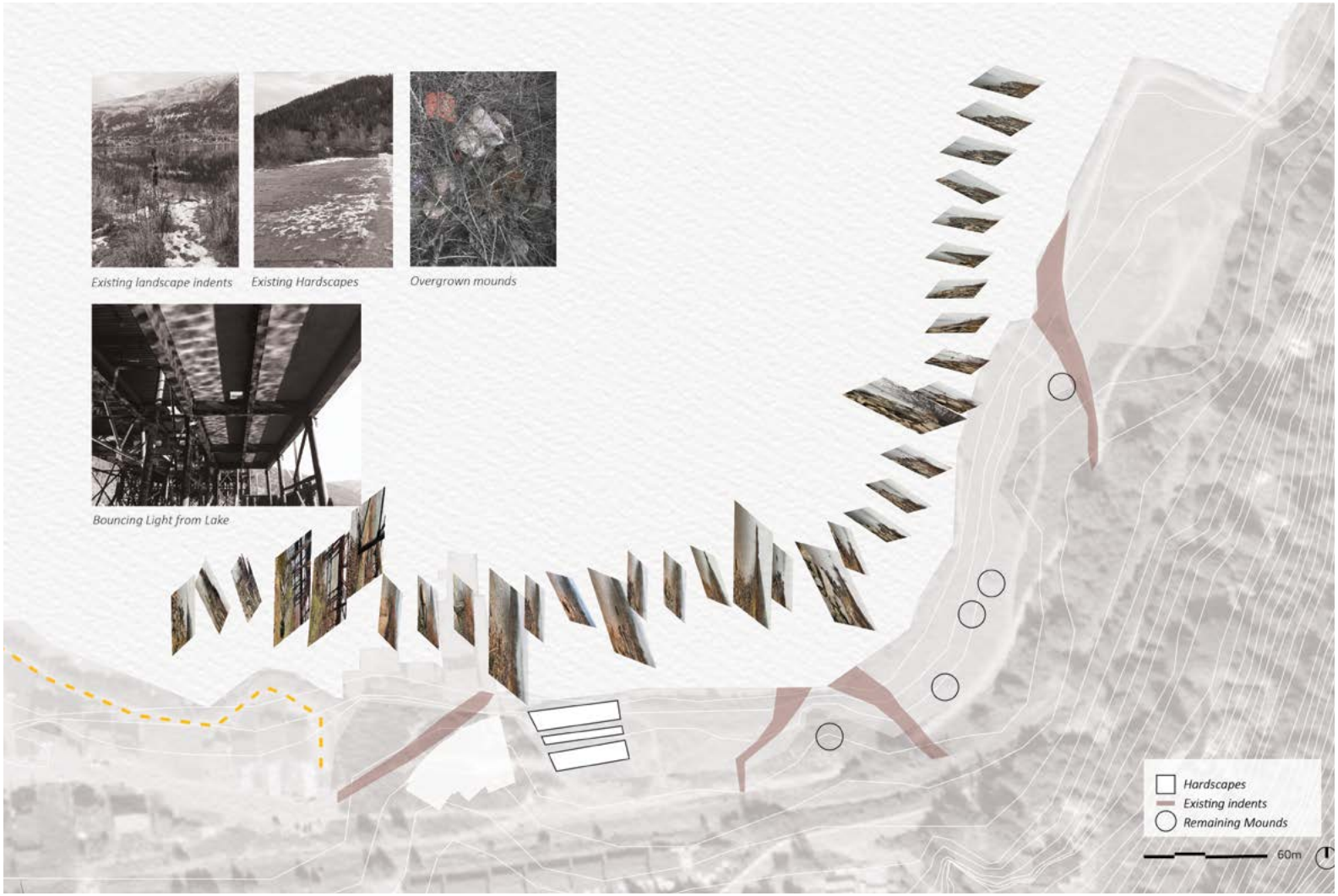
Site Strategy

The existing qualities of the site are maintained as its position on the urban fringe and informalities allows for an escape from the regularities of the adjacent neighbourhoods. The site is composed of infill, the existing carved indents in the landscape are utilized for descending to the water, the earth and brick mounds left are used for a denotation of space for bonfire pits, and the remaining terraced hardscapes are resurfaced for ice and roller skating rinks. The main community space is placed in order to directly interact with the pier, grounding it for the community.

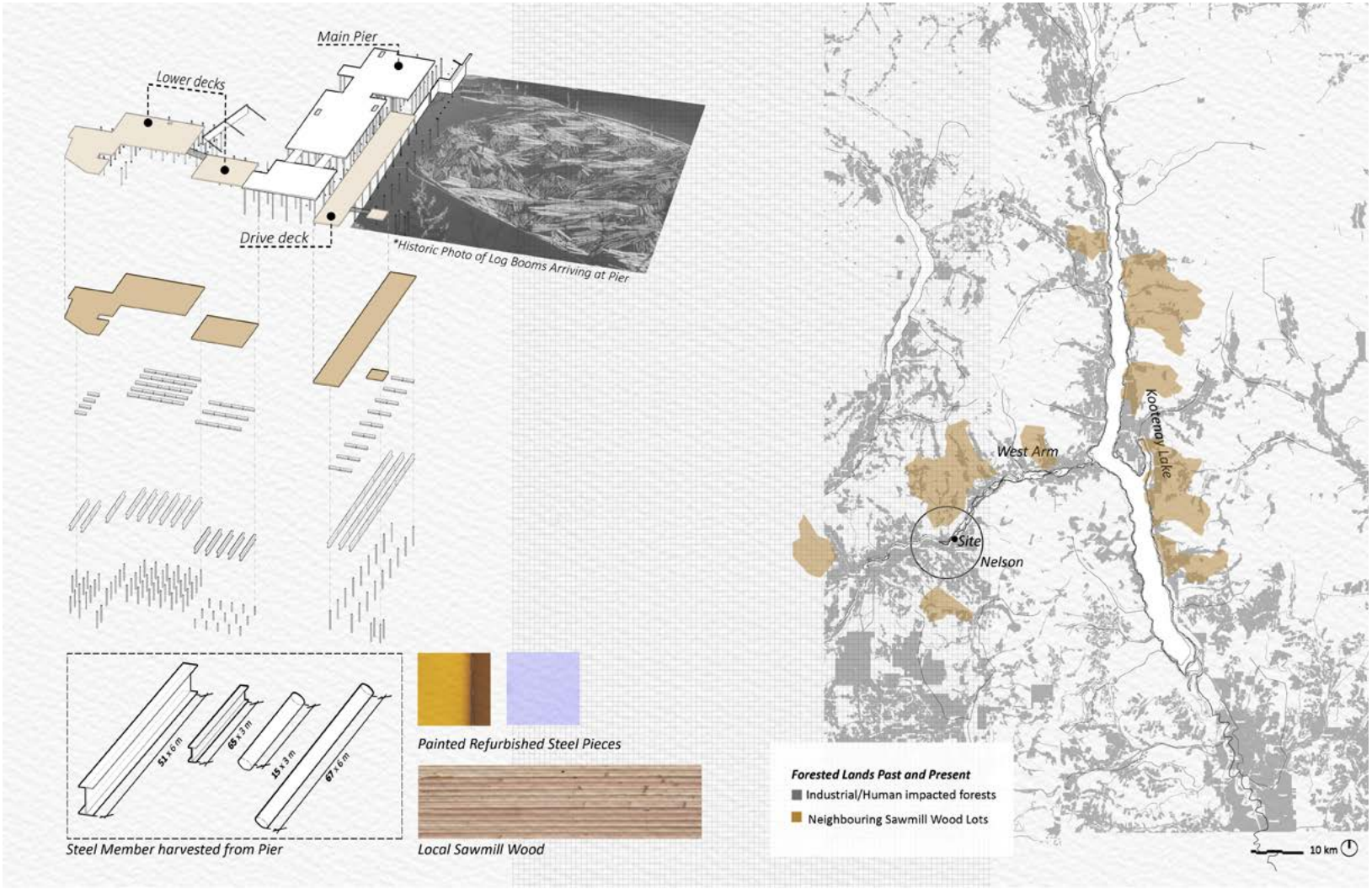
Material Palette

The proposal includes the refurnishing of the main pier, the adaption of the drive deck, lowering it from the industrial to the recreational user and the salvaging of pieces from the two lower decks as they create obstacles along the shore. The salvaged pieces are used throughout the design sharing the memory and inherent qualities with the community space. The exterior pieces are painted in yellow, allowing them to become characters in the landscape and the interior pieces are painted lavender to create a sense of calm. Wood products from a neighbouring family run sawmill are used, bringing back local timber to the site.

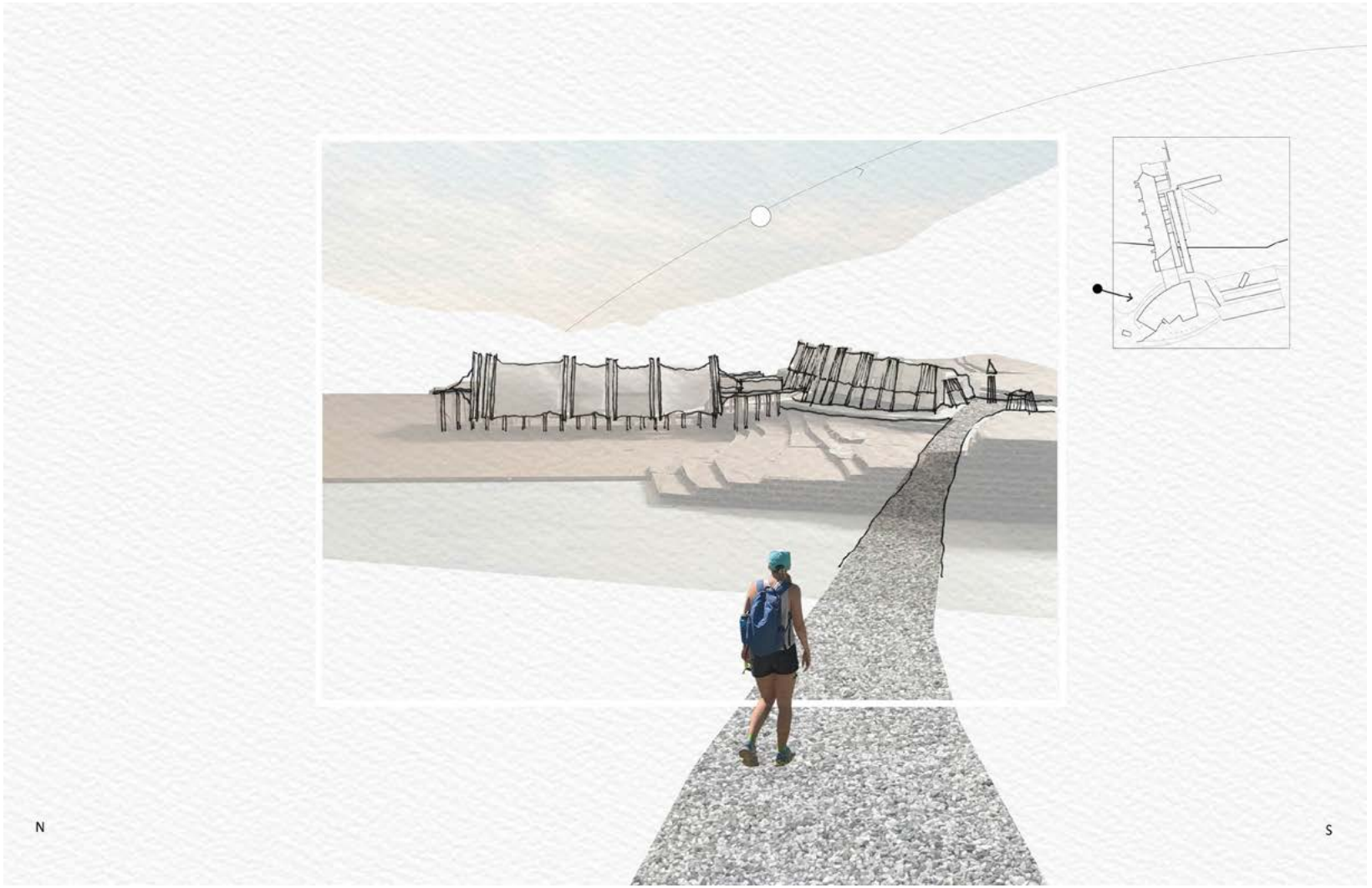
Site plan depicting the roof plan of the proposed Community Space. (base map from the RDCK 2021)



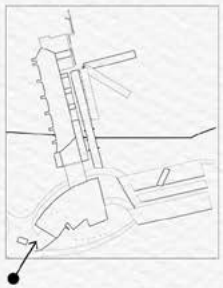
Landscape palette of the project made by studying the existing site opportunities. (Photos taken by TJ Wright and base map from Google Earth 2020)



Material palette of project showing the adaption to the pier. (Historic image from Touchstones Nelson n.d. and base map from RDCK 2021 and data from DataBC 2020)



Perspective sketch of waterfront path approach with model underlay.



Perspective sketch of approach from the adjacent neighbourhood with model underlay.

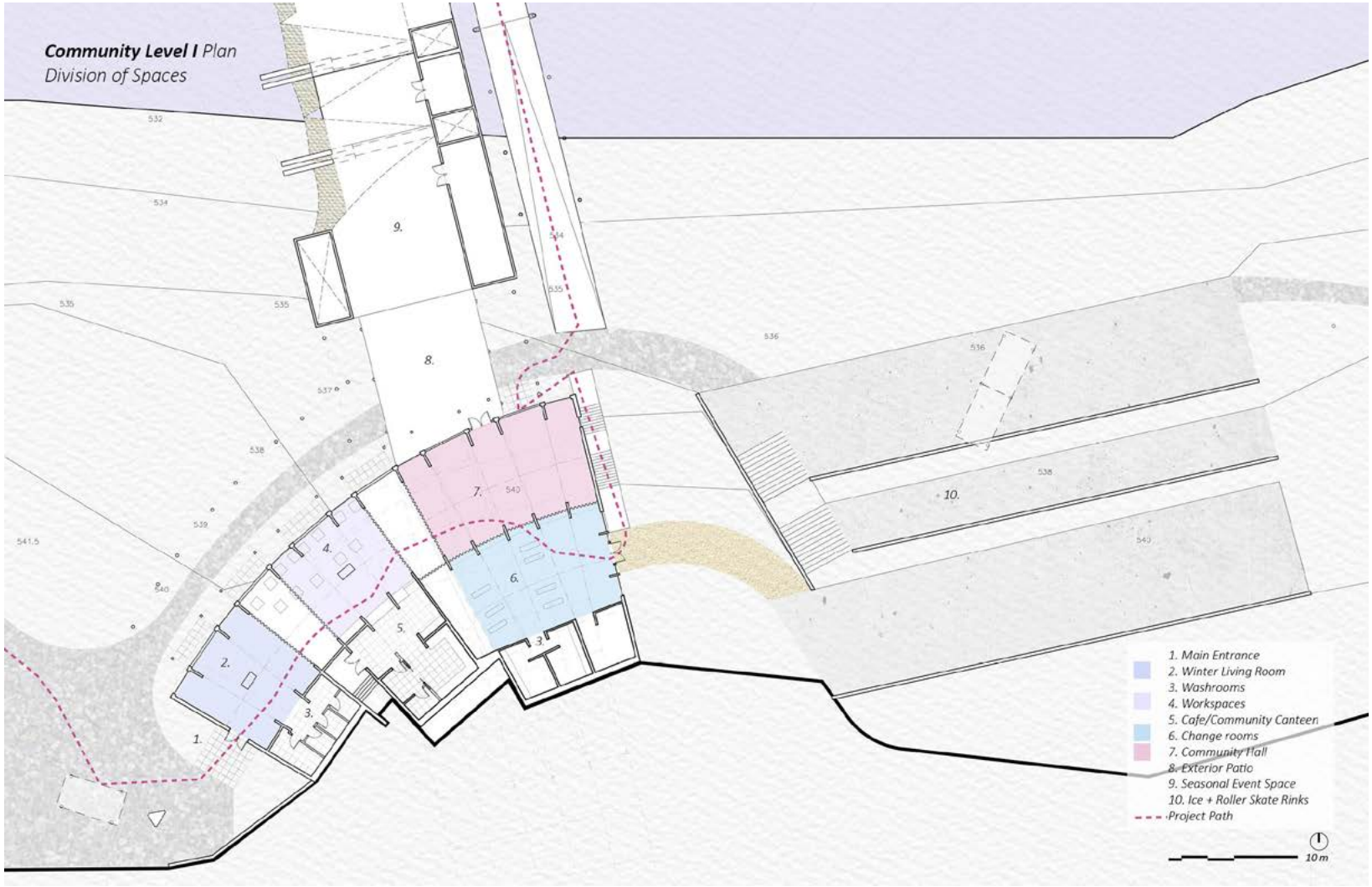
Main Community Space

The main community space is divided into three programmatic sections that can be separated by heavy curtains tucked into the exaggerated structure. The form was drawn from the regional patterns of grid lines pulled back from the shore, intersecting with the pier and projected outwards towards the main channel. The space has two hearths, placed in reference to the cities historic industries and utilizes them as focal points for gathering. The roof structure employs the harvested pieces from the pier and is designed to be a playscape made accessible with the incorporation of a gradual ascending ramp. The stacked forms allow for affordances as a range of activities could occur; climbing, sitting, jumping and lying down.

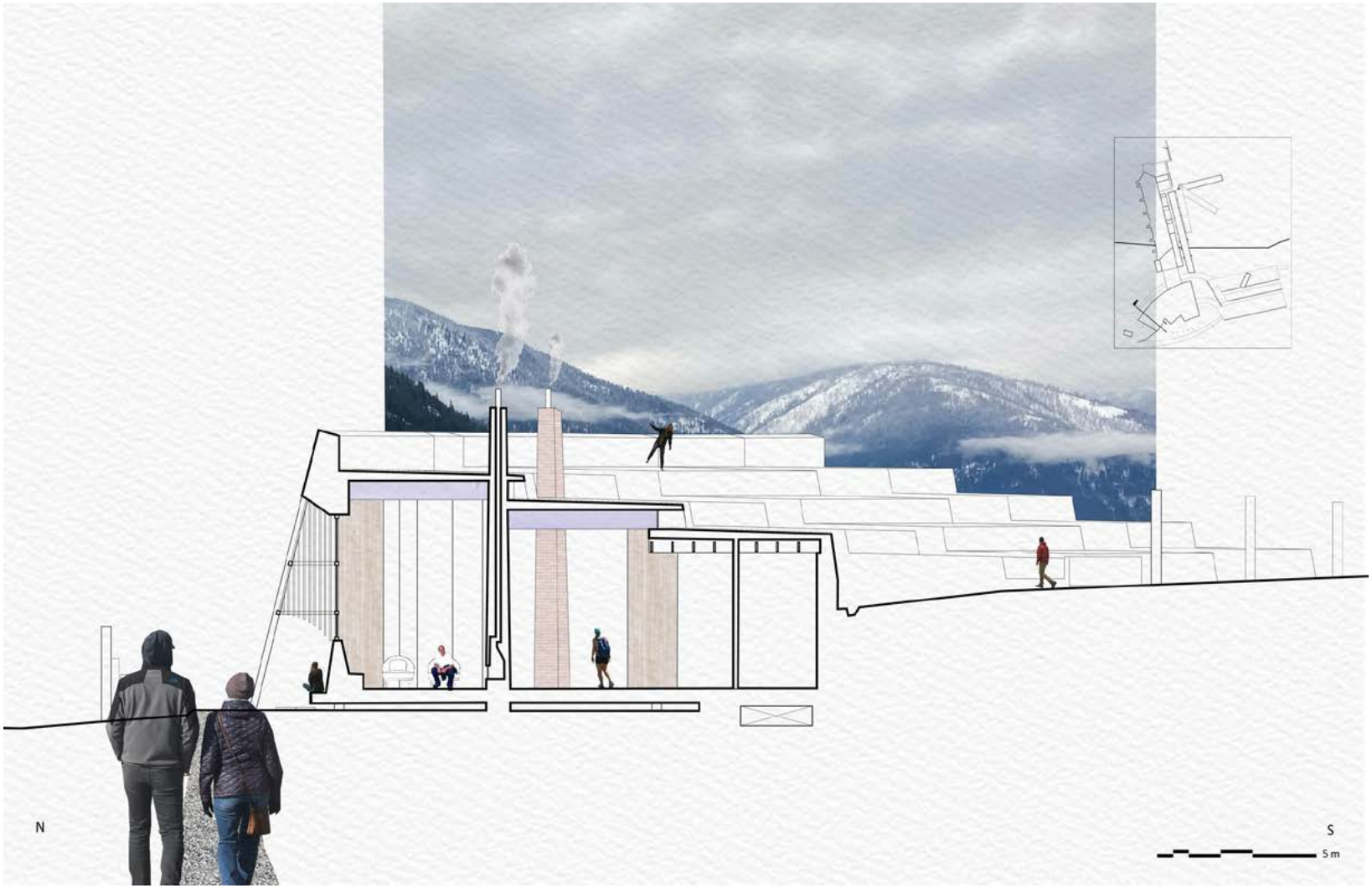
Winter Living Room

The main entrance from the adjacent neighbourhoods leads into the first section of the building. This section provides a winter living room nestled by a hearth creating a warm environment to sit and experience the shifting seasons of the lake. This space was largely conceived thinking about the residents of the nearby retirement home, as they walk the site often but have no place to linger. The façade obscures the mountains by the addition of a wooden screen, giving a pause from perceiving the ever present landforms and framing the waterway.

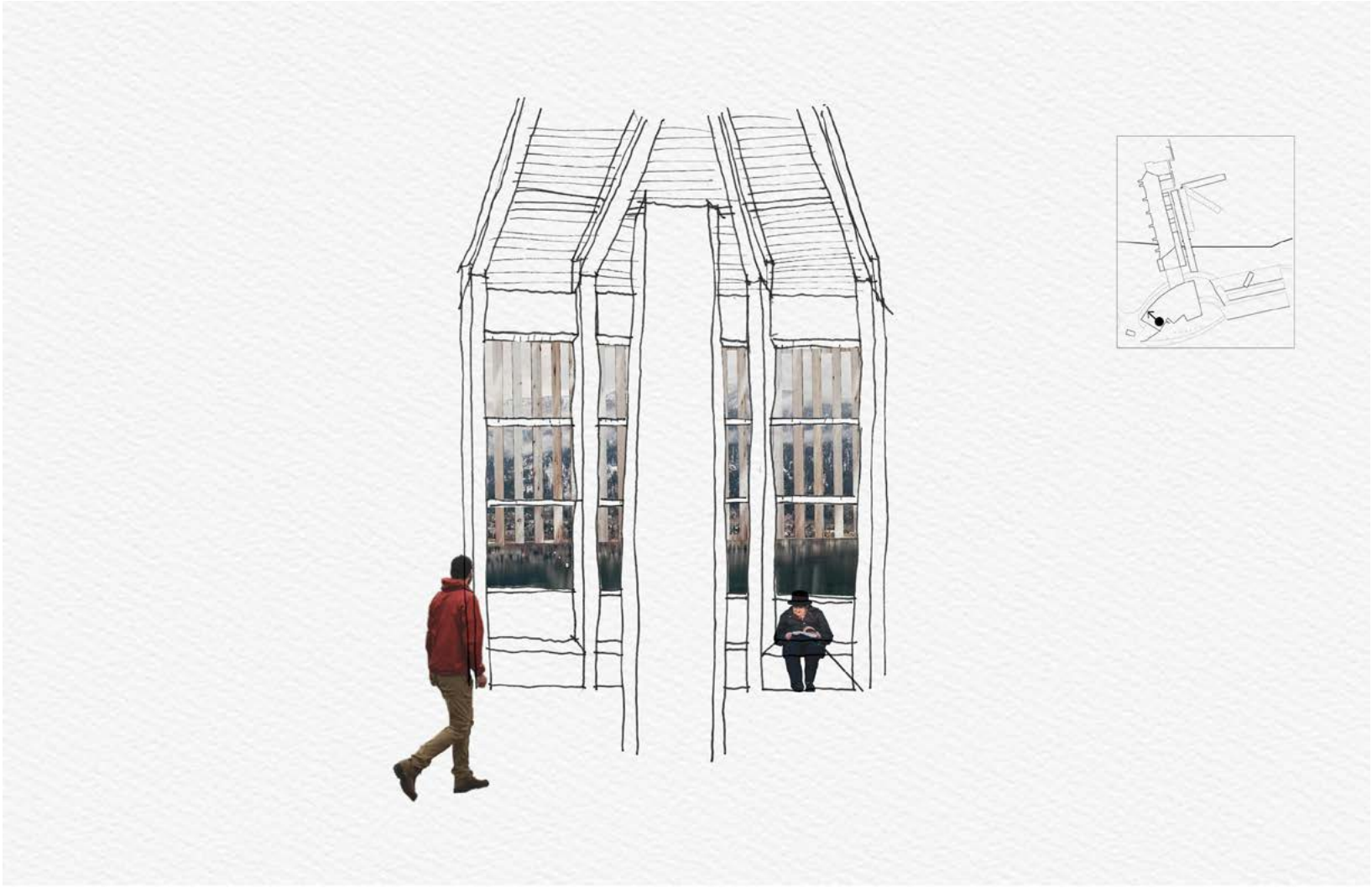
Community Level. Main floorplan of the adaptive community space.



Community Level. Main floorplan showing the possible division of space by heavy curtains.



Section through the winter living room.



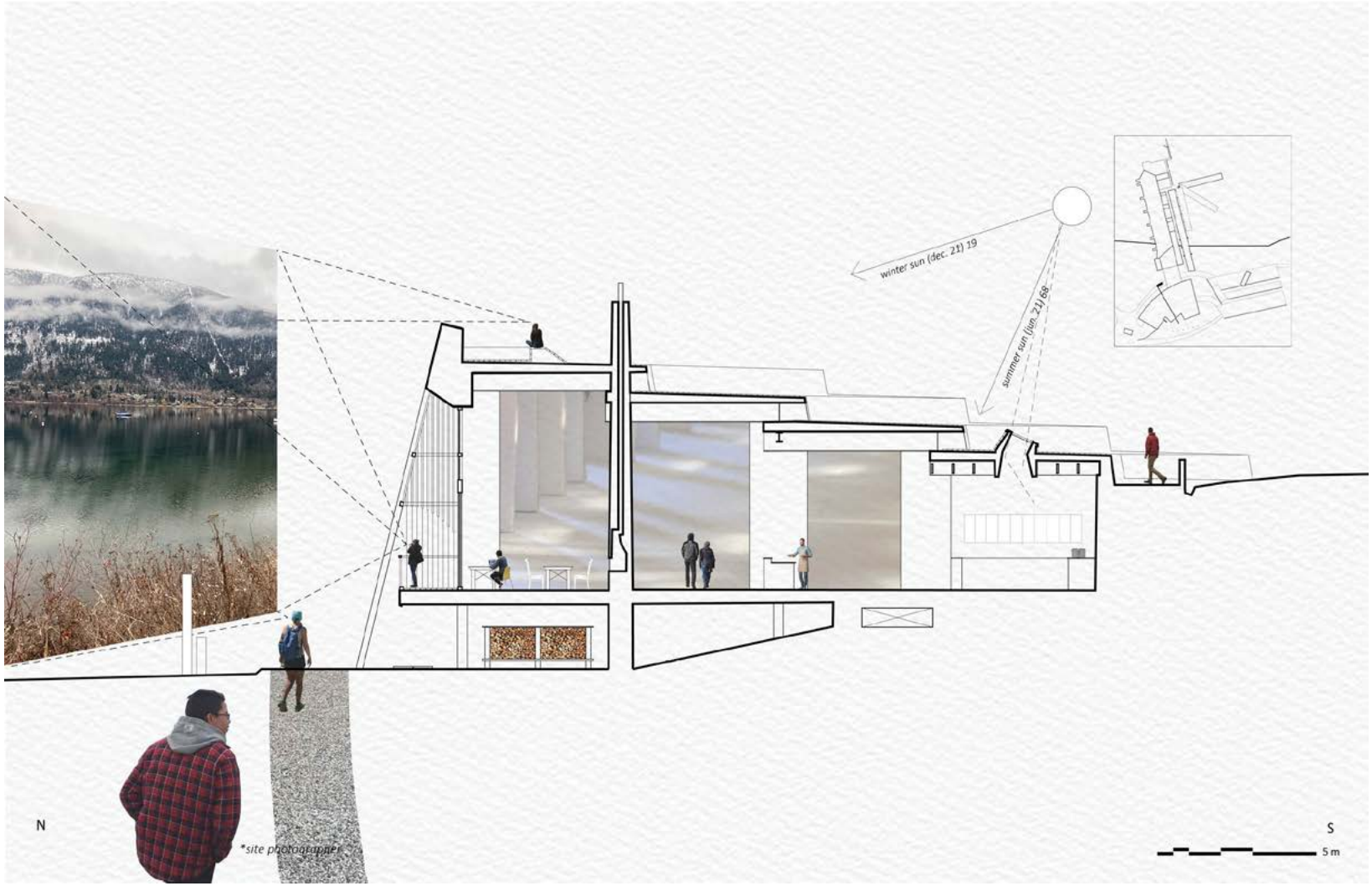
Interior perspective of looking out through the front facade.

Community Canteen and Workspaces

Progressing into the building, the second section is composed of large work tables balanced by a community canteen, providing the facilities for community groups to host events and fundraisers. The space is lit by a series of south facing clerestories inserted between the lavender beams. The light is refracted from the lake water, resulting in a soft trickle pattern projected onto the ceiling, mimicking the quality of light from the underside of the pier.

Change Rooms and Community Hall

Moving on, the third section is composed of the community hall and change rooms. The spaces can be joined or divided by heavy curtains allowing for the scalability of events. It is characterized by sliding benches allowing for an easy adjustment of space, with a kick plate and cushion base to avoid scuffing referencing the past movement of lumber around the site. The space opens up with a single vertical window framing the main channel up the West Arm and the future assembly site for a ferry for the Main Lake.



Section through the community canteen and workspaces.

Perspective sketch showing the interior of the main space and ability to slide around the benches.

Section through the community hall and changerooms.

Exterior Spaces

Ice and Roller Skating Rinks

Through the change rooms siding glass doors are met by a rubber path leading to the terraced ice rinks. Benches line the retaining walls creating a grand stand for boat races in the summer and rest during the winter activity. The addition of a warming hut creates an informal gathering point.

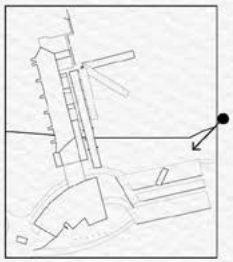
Seasonal Event Space

The community hall is connected to the main pier by the addition of an exterior patio. The main pier is covered by a canvas structure in an act of obstruction reintroducing the artifact to the community. The addition of the canvas creates a seasonal event space, it's structure references the past action of lifting log booms up from the lake. In the warm summer months a sprinkler system allows for the wetting of the canvas, filtering wildfire smoke out of the air. This creates a comfortable exterior gathering space for the community in the hazy weeks.

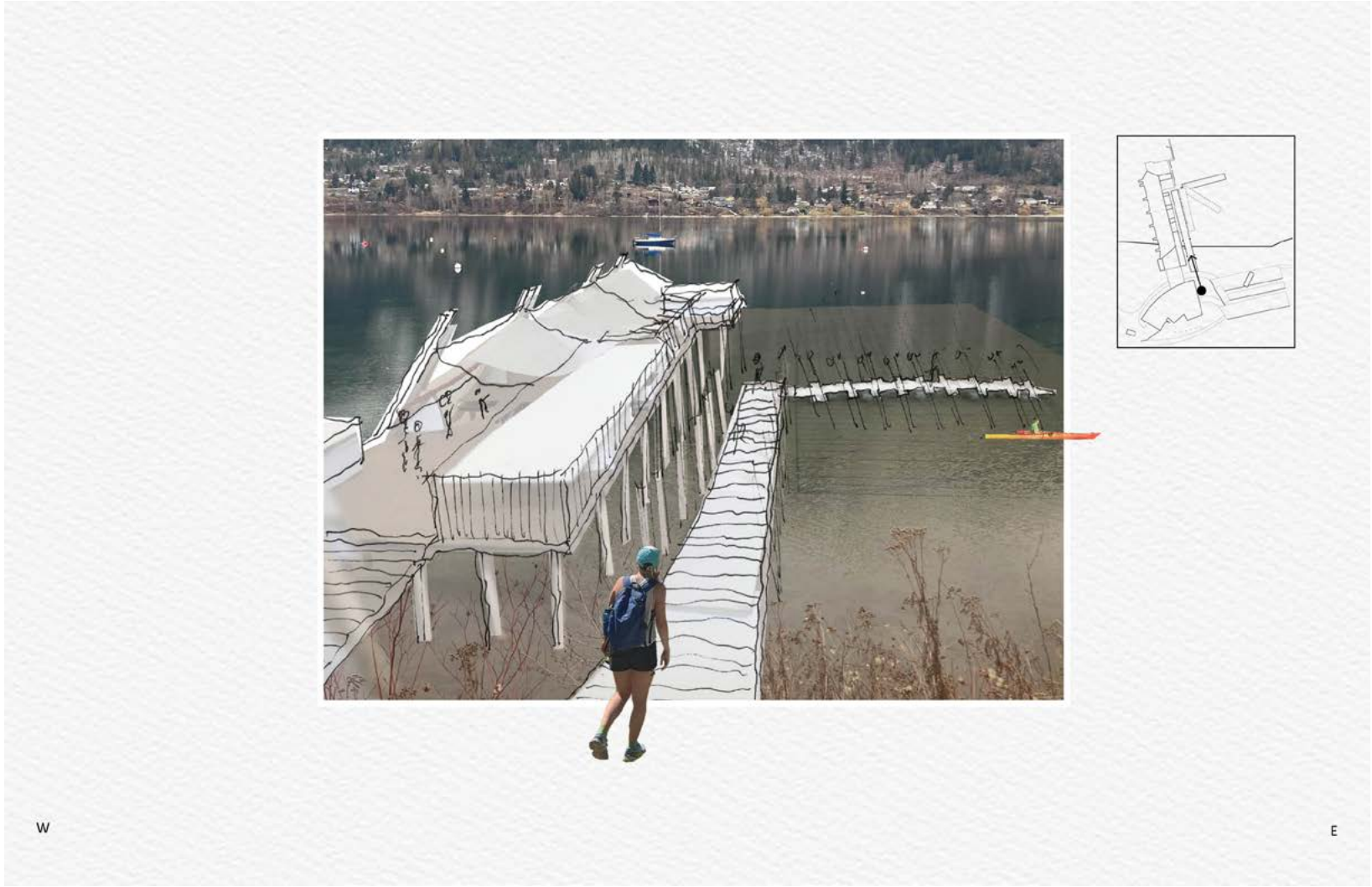
Photo and model collage showing launching armature.

Launching Armature

The drive deck, as mentioned, attached to the main pier is lowered to create a launch armature for paddlers. The armature swings outwards with the seasonal fluctuations allowing for continuous access to the waterway and reintroduces a rhythm to the site once provided by the timber harvesting practices. The different positions of the armature set race tracks across the lake for all levels of paddlers reconnecting the shorelines by water. The narrow shape of the West Arm allows for a protected place for paddlers with the distance directly across the lake of approximately 1km.

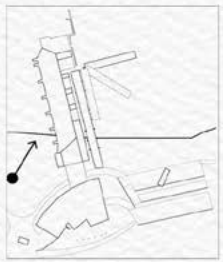


Perspective sketch of the terraced ice rinks showing the warming hut.

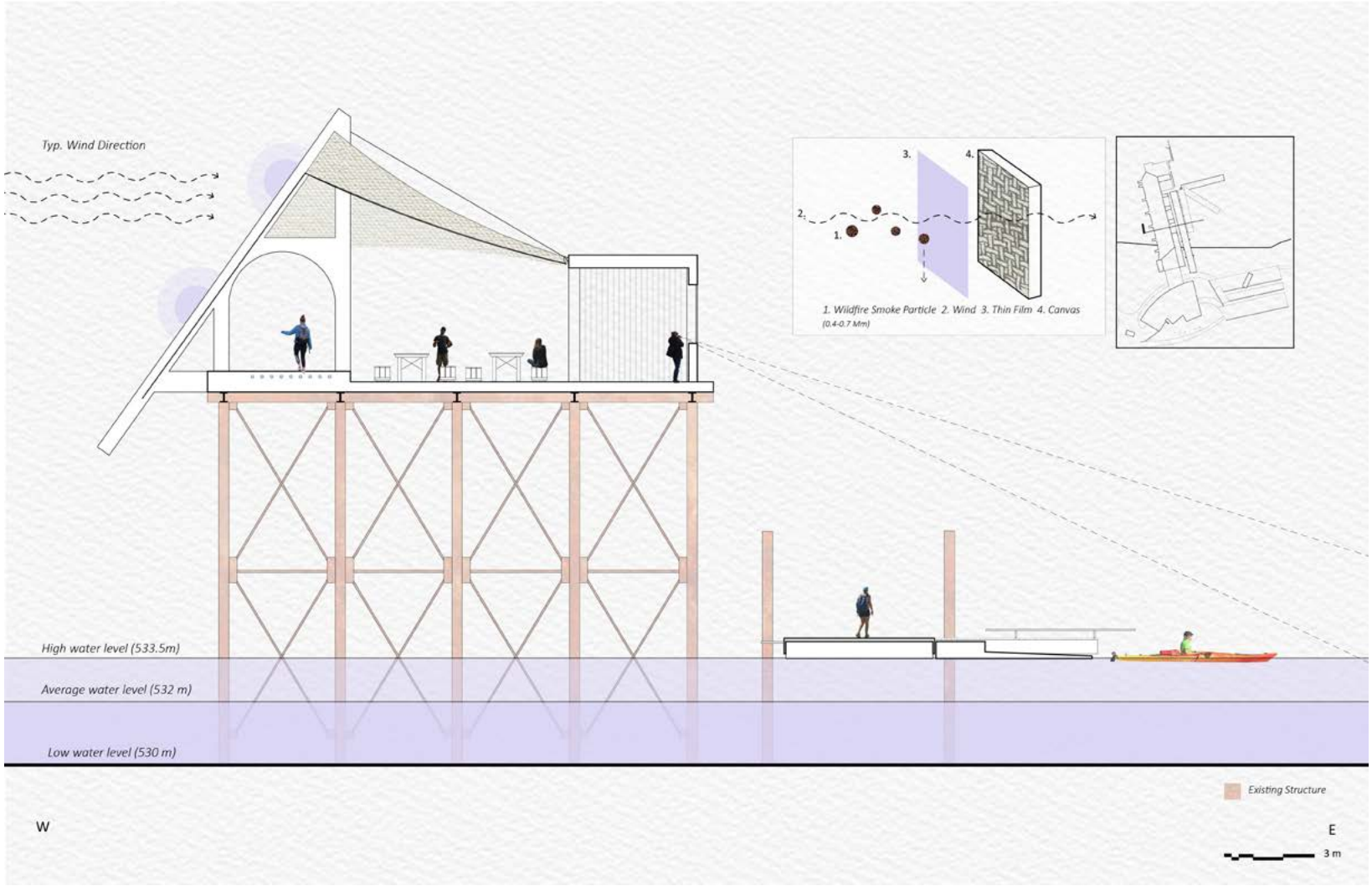


Perspective sketch of the seasonal event space and pier looking down at the launch armature.

Water level. Plan of the kayak storage and launch armature showcasing the armature's ability to rotate with the seasonal fluctuations.



Perspective render of the seasonal event space.



Section through the seasonal event space and launch armature.

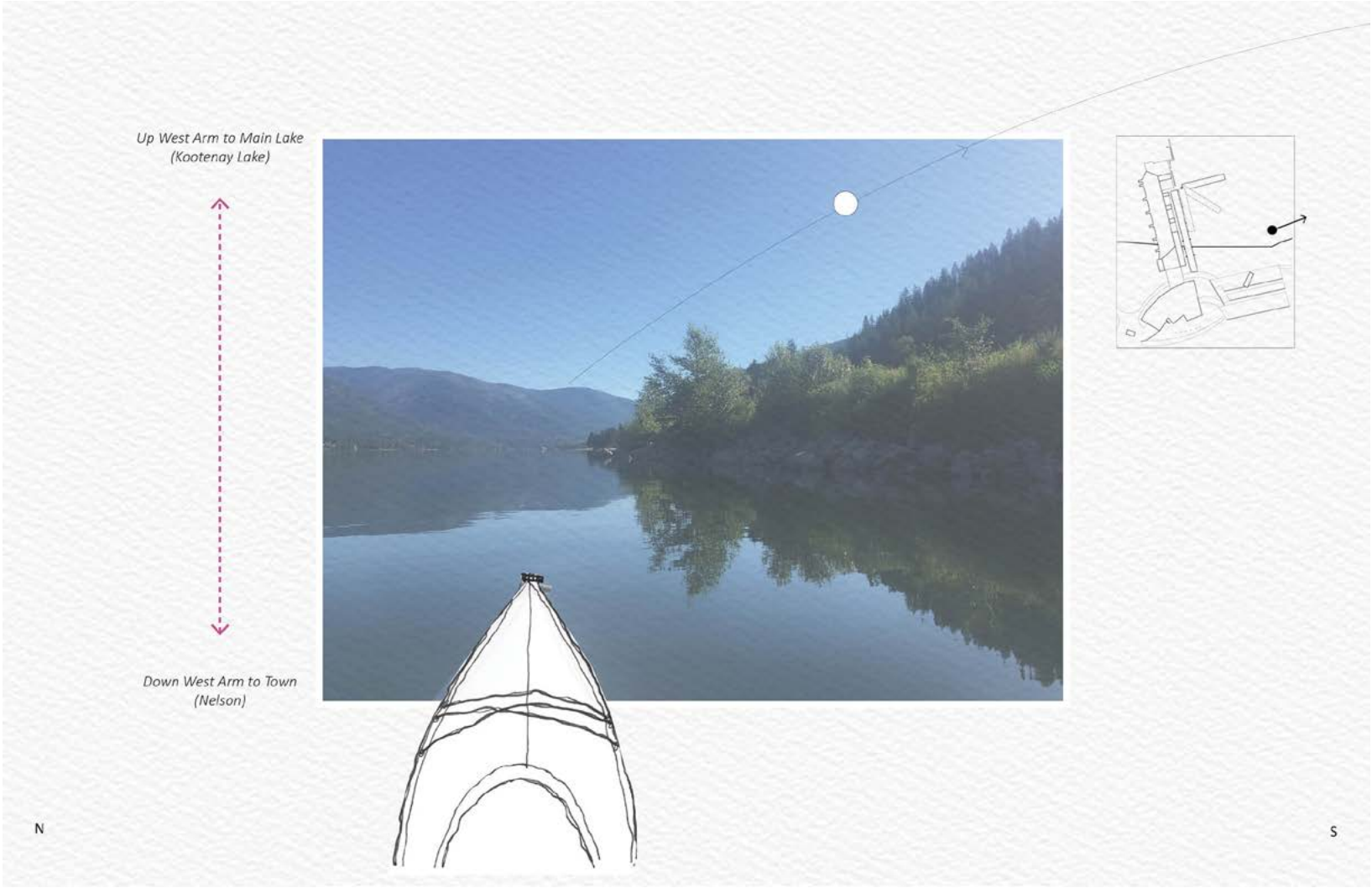


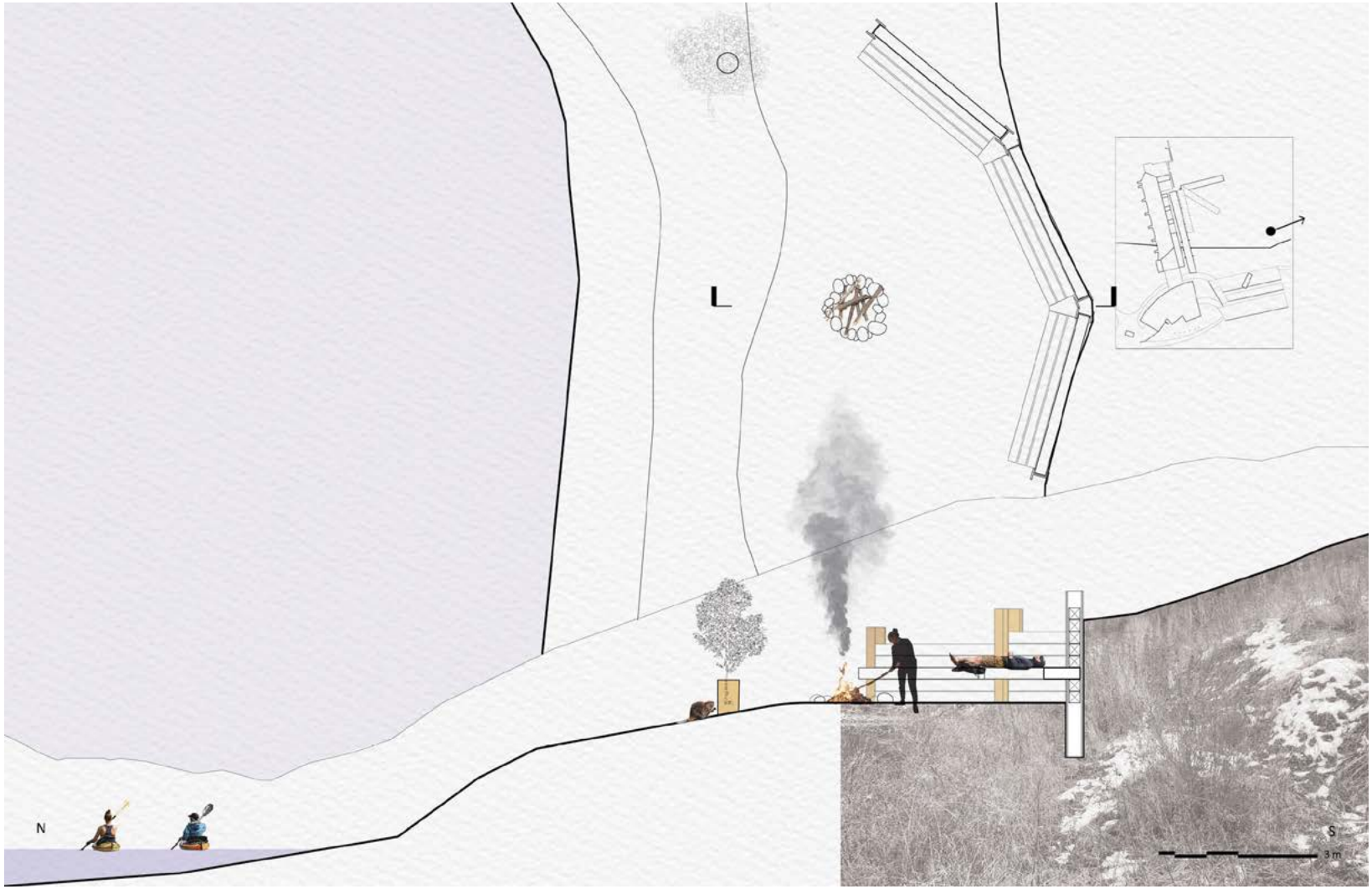
Image depicting kayaking up the shoreline of the site.

Bonfire Pits and Tree Saplings

Past the main community space, the site is largely maintained in its informality. The existing mounds on the site denote the space for bonfire pits, providing informal gathering opportunities. The community commonly exits the city on summer evenings, heading out to regional parks and beaches. This addition of bonfire pits allows for more community members to have these facilities within reach. Also scattered around the site, the column offcuts are used as protective cuffs for tree saplings. The protective cuffs are necessary due to the local beaver living on the shoreline, some saplings will be left uncuffed for them. It is envisioned that the site can reverse its impact by regrowing trees to be planted around the community.

Landings

The historic pilings are utilized as the foundation for the development of a network of landings up and down the West Arm. The landings comprise of a dock and boat house allowing for the storage and launch of kayaks, canoes and paddle boards throughout the year. This network is aimed at reconnecting the region through its waterway. As many of the communities are closer in proximity across the lake then by the existing roadways, it allows for an easy commute into town or to casually visit a neighbour.



Section through one of the bonfire pits showing its relationship to the shoreline and position in the remaining earth mounds.

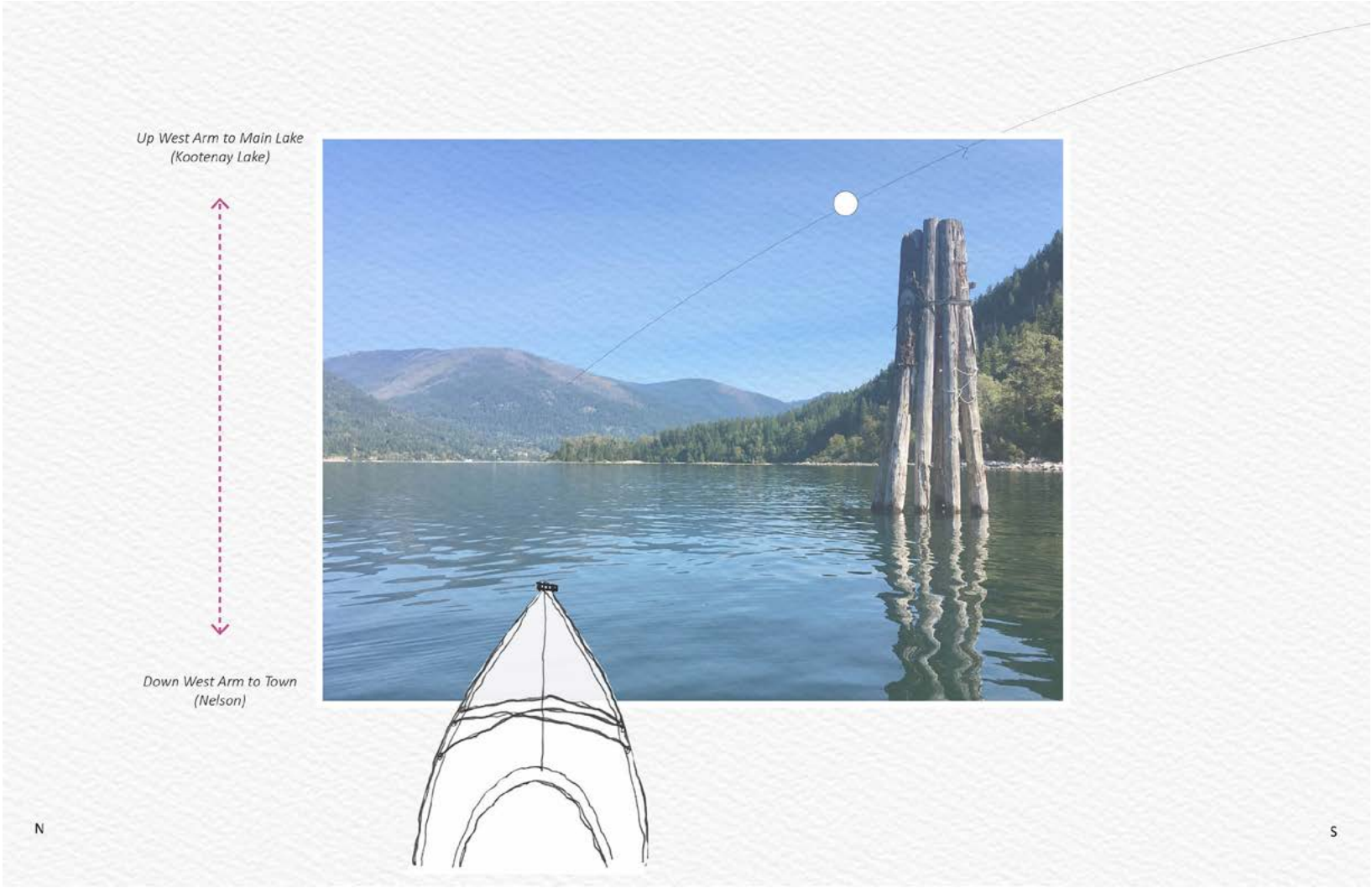
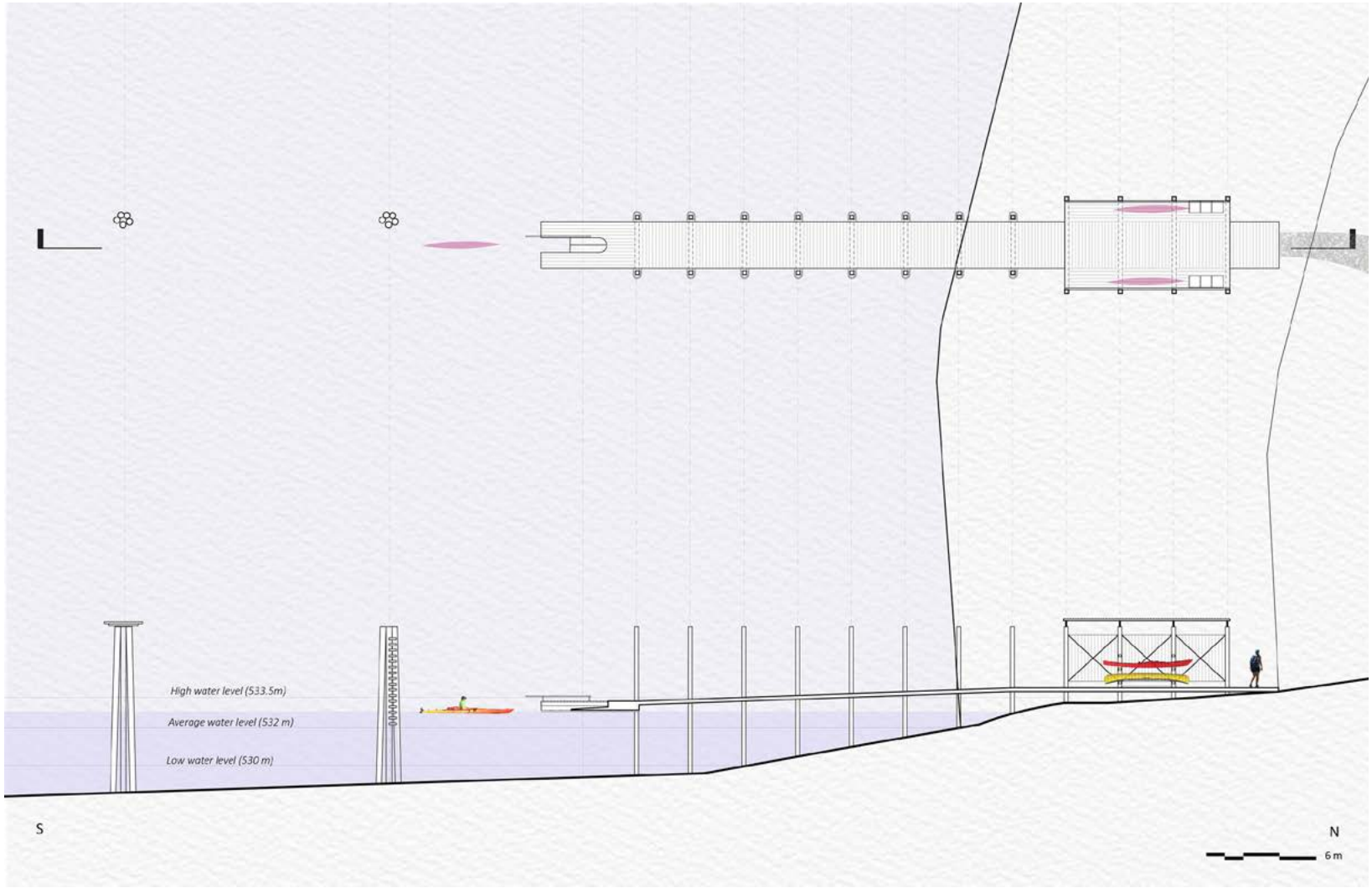
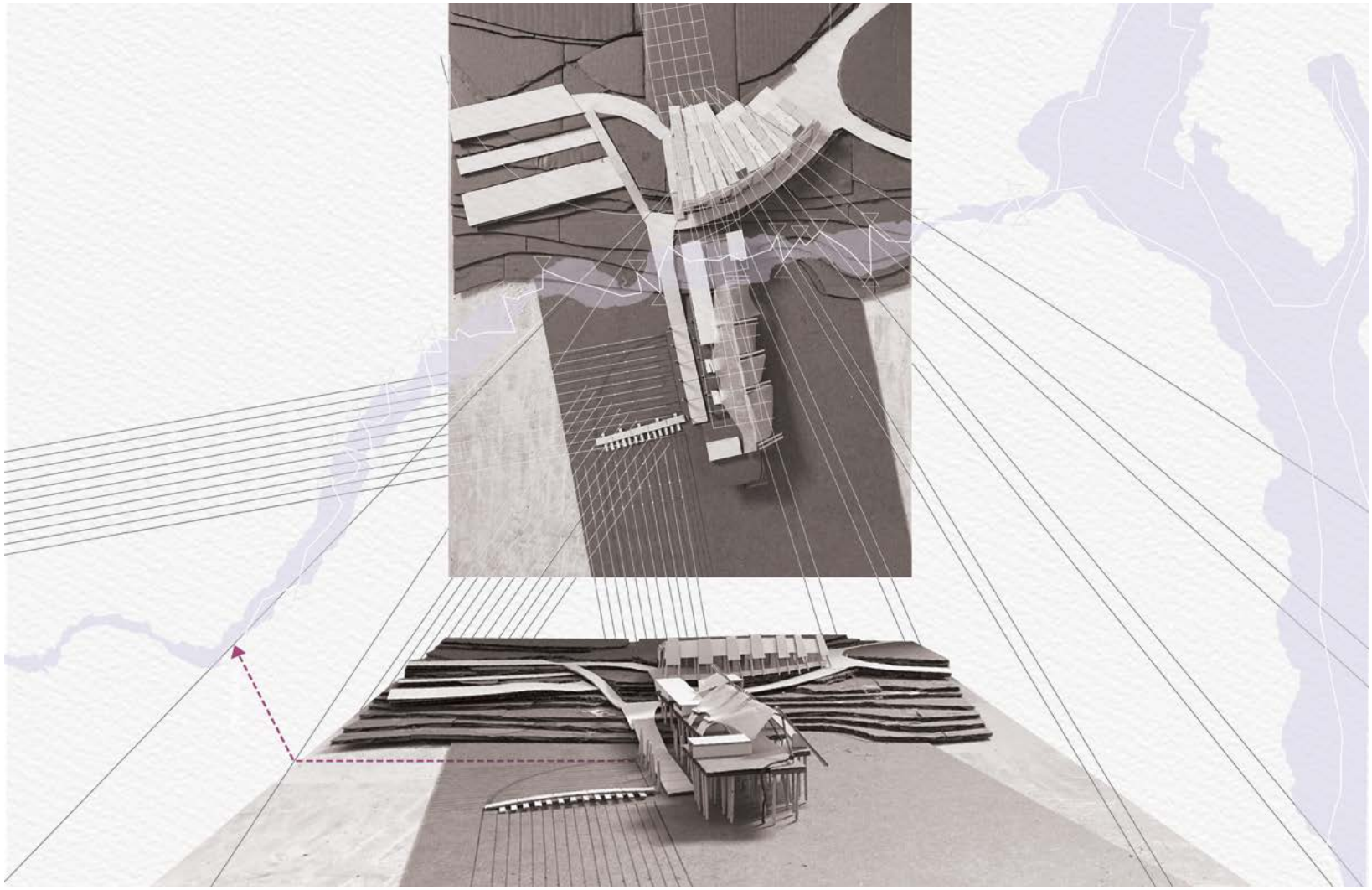


Image depicting kayaking up the lake and reaching a historic piling.



Section and plan of landings marked by the historic pilings up and down the shores of the West Arm of Kootenay Lake.



Hybrid model drawing showing the design and reconnection to the waterway.

Chapter 9: Conclusion

The interior city of Nelson is reconnected to its waterway through utilizing the collective memory and remaining artifact of the community's mill site. The project was ingrained into the existing by analysing the past processes of the site and the community members' association with place. The artifact, the steel pier, allowed for a constant to be maintained as the site changed in function.

Although this project is reflective of a particular region and site in British Columbia, it is intended to present a way in which the province's industrial artifacts can be adapted for their communities. In doing so it is hoped that greater stability can be developed in the interior of the province as communities shift away from the resource extraction economies. The absence of an industry often removes the central component to an interior BC town, this thesis uses past and present layers to recreate a centre for the community focused on well-being and connection to nature. This process can be utilized with other unproductive industrial networks in order to provide a way forward. The use of a historic network that was unused for industrial purposes since the closure in the 1980s, allowed for the project to be developed without consideration of site contamination and other such factors. In this way it recognizes that the timeline and process would vary dependent on the particular industry that would be involved.

Interior British Columbians have a strong connection and unique sense of place. Therefore the importance of maintaining a community's placement within their mountain valley is critical to the well-being of the province as a whole.

References

Alexander, Bruce. 2008. *The Globalization of Addiction: A Study in Poverty of the Spirit*. New York/Oxford: Oxford University Press.

Barman, Jean. 2007. *The West beyond the West: A History of British Columbia.* Toronto: University of Toronto Press.

"B.C. asks for help as wildfires rage across province." 2015. Warrior Publications. https://warriorpublications.wordpress.com/2015/07/06/b-c-asks-for-help-as-wildfires-rage-across-province/

British Columbia. BC Parks. 2017. *2017 West Arm Provincial Park Fire Management Plan.* Cranbrook, BC: BC Parks. https://bcparks.ca/planning/mgmtplns/westarm/west-arm-fire-management-plan-2017.pdf

British Columbia. FLNR (Ministry of Forests, Lands and Natural Resources Operations and Rural Development). 2003. *A Thumbnail History of the Nelson Forest Region*. Victoria, BC: Ministry of Forests, Lands and Natural Resources Operations and Rural Development. https://www.for.gov.bc.ca/rsi/proudtraditionpart2.pdf.

British Columbia. FLNR (Ministry of Forests, Lands, Natural Resource Operations and Rural Development). 2019. *2019 Economic State of British Columbia's Forest Sector.* Victoria, BC: Ministry of Forests, Lands, Natural Resource Operations and Rural Development. https://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/forest-industry-economics

Christina Lake Tourism. 2021. Photo Gallery. https://christinalake.ca/photo-gallery/

CBT (Columbia Basin Trust). 2021. The Basin: A Resource of Columbia Basin Trust. https://thebasin.ourtrust.org/power-and-dams/dams-and-reservoirs/

D'Amours, Andrew. 2018. "3 Beautiful Photos of Each Province That Will Make You Want to Explore Canada." *Flytripper*, July 2. https://flytrippers.com/3-beautiful-photos-of-each-province-that-will-make-you-want-to-explore-canada/

DataBC. 2021. *Fire Perimeters-Historical*. Map from GIS data, using iMapBC. https://catalogue.data.gov.bc.ca/dataset/fire-perimeters-historical

Edenhoffer, Klaus, and Roger Hayter. 2013. "Restructuring on a Vertiginous Plateau: The Evolutionary Trajectories of British Columbia's Forest Industries 1980-2010." *Geoforum*, no. 44 (January): 139–51.

FortisBC. 2021. Kootenay Lake Level Monitoring. https://www.fortisbc.com/in-your-community/kootenay-lake-level-monitoring.

Fraser, Linda, and Michelangelo Sabatino. 2013. *Arthur Erickson: Layered Landscapes: Drawings from the Canadian Architectural Archives*. Halifax: Dalhousie Architectural Press.

"Ghost Towns." n.d. Ghost Towns of British Columbia. Accessed October 10, 2020. https://www.ghosttowns.com/canada/bc/bc.html

Google Earth. 2020. Maps of West Kootenays. https://earth.google.com/web/

Government of Canada. 2015. *Introduction-British Columbia*. Ottawa, ON: Government of Canada. https://www.nrcan.gc.ca/changements-climatiques/impacts-adaptation/introduction-british-columbia/10395

Griffiths, Alyn. 2019. "Ridged roofline at Maggie's Cardiff recalls outline of Welsh mountains." *Dezeen*, May 12. https://www.dezeen.com/2019/05/12/maggies-cardiff-dow-jones-architects-maggies-centre/

Jencks, Charles, and Edwin Heathcote. 2010. *The Architecture of Hope: Maggie's Cancer Caring Centres.* London: Frances Lincoln Limited Publishers.

Joseph, Chris, and Ajit Krishnaswamy. 2010. "Factors of Resiliency for Forest Communities in Transition in British Columbia." *BC Journal of Ecosystems and Management,* no. 3 (January): 128-43.

Kearney, Richard. 1998. *Poetics of Imagining: Modern to Post Modern*. Edinburgh: Edinburgh University Press.

Keating, Bob. 2012. "B.C. pulp mill fined $150k in 'acutely lethal'spill." *CBC News*, July 27. https://www.cbc.ca/news/canada/british-columbia/b-c-pulp-mill-fined-150k-in-acutely-lethal-spill-1.1174194

Keating, Bob. 2019. "New Ferry Announced For Free Kootenay Lake Route." *CBC News,* April 29. https://www.cbc.ca/news/canada/british-columbia/longest-free-ferry-crossing-to-get-major-upgrade-1.5115756.

Kline, Betsy. 2021. "Airport not included in Air Canada deal announcement." *Castlegar News*, April 21. https://www.castlegarnews.com/news/service-to-west-kootenay-regional-airport-not-included-in-air-canada-deal/

Kluckner, Michael. 2005. *Vanishing British Columbia*. Vancouver/Seattle: UBC Press/University of Washington Press.

Lamb, Shawn. n.d. "A Brief History of Nelson." City of Nelson. Accessed April 4, 2021. http://www.nelson.ca/491/A-Brief-History-of-Nelson

Lefaivre, Liana, and Ingeborg de Roode. 2002. *Aldo van Eyck: The Playgrounds and the City.* Rotterdam: NAi Publishers.

Lefebvre, Henri. 1992. *Rhythmanalysis: Space, Time and Everyday Life*. London/New York: Continuum.

Lirette, Dominika. 2019. "'We've Been Here before': The Fight to Survive B.C.'s Rising Mill Closures." *CBC News*, July 8. https://www.cbc.ca/news/canada/british-columbia/we-ve-been-here-before-the-fight-to-survive-b-c-s-rising-mill-closures-1.5195016.

"List of ghost towns in British Columbia." 2021. Wikipedia. Last modified June 7. https://en.wikipedia.org/wiki/List_of_ghost_towns_in_British_Columbia

Lynch, Kevin. 1959. *The Image of the City*. Cambridge: The MIT Press.

Macfarlane, Robert. 2003. *Mountains of the Mind: Adventures in Reaching the Summit.* New York: Random House Inc.

"Man assaulted at Cottonwood Falls Park while attempting to break up dogfight." 2015. *Nelson Daily News,* May 11. https://thenelsondaily.com/news/man-assaulted-cottonwood-falls-park-while-attempting-break-dogfight-37894

McElroy, Justin. 2016. "The story of Canada's most famous ghost town is becoming a musical." *CBC News*, October 29. https://www.cbc.ca/news/canada/british-columbia/the-story-of-canada-s-most-famous-ghost-town-is-becoming-a-musical-1.3825387

Medina, Samuel. 2014. "The Story of Maggie's Centres: How 17 Architects Came to Tackle Cancer Care." *Archdaily*, April 27. https://www.archdaily.com/498519/the-story-of-maggie-s-centres-how-17-architects-came-to-tackle-cancer-care?ad_medium=gallery

Mostafavi, Mohsen, and David Leatherbarrow. 1993. *On Weathering: The Life of Buildings in Time*. Cambridge: The MIT Press.

MoMA (The Museum of Modern Art). 2007. MoMA Highlights since 1980. https://www.moma.org/collection/works/201

Nepal, Sanjay K., and Tazim B. Jamal. 2011. "Resort-Induced Changes in Small Mountain Communities in British Columbia, Canada." *Mountain Research and Development 31*, no. 2 (May): 89–101.

Pallasmaa, Juhani. 2005. *The Eyes of the Skin: Architecture and the Senses*. Hoboken: Wiley Researcher Academy.

Paris, Max. 2018. "'This Is What Buoys This Town': B.C.'s Small Pot Farmers Fight for Space in Legal Market." *CBC News*, June 6. https://www.cbc.ca/news/politics/kootenays-craft-cannabis-growers-worry-about-legalization-1.4692980

Peakviewer. 2021. Elevation data of West Kootenays. https://www.peakviewer.com/

Pearkes, Eileen. 2002. *The Geography of Memory: Recovering Stories of a Landscape's First People.* South Slocan: Kutenai House Press.

Powderhounds. 2020. Photograph of Whitewater Ski Resort. https://www.powderhounds.com/Canada/Whitewater.aspx

RDCK (Regional District of Central Kootenay). 2021. Map of West Kootenays. Map from GIS data, using Public Web Map. Nelson, BC: Regional District of Central Kootenay.

Rockwool. 2017. Photograph of Rockwool Grand Forks, British Columbia. https://www.rockwool.com/north-america/grandforks/?gclid=Cj0KCQjwIMaGBhD3ARIsAPvWd6jIPOzOX4xjwH-yN4WDbgR2ln7HFBUeQ5KLos_AvzZ1Im0k9L_3b9YaApYvEALw_wcB&gclsrc=aw.ds

Rodgers, Kathleen. 2014. *Welcome to Resisterville: American Dissidents in British Columbia*. Vancouver: UBC Press.

Rossi, Aldo. 1982. *The Architecture of the City*. Cambridge: The MIT Press.

Schafer, Timothy. 2021. “Waterfront pathway to graduate from gravel to pavement in city bid to expand.” *Nelson Daily News*, May 27. http://thenelsondaily.com/news/waterfront-pathway-graduate-gravel-pavement-city-bid-expand-recreational-opportunies

Seamon, David, and Robert Mugerauer. 1989. *Dwelling, Place & Environment*. New York/Oxford: Columbia University Press.

Shambhala Music Festival. 2021. Shambhala Music Festival Gallery. https://shambhalamusicfestival.com/gallery/

Taylor, Mark. 2016. “Time Matters: Transition and Transformation in Architecture.” *Architectural Design,* no. 86 (January): 42–49.

Touchstones Nelson: Museum of Art and History. n.d. Shawn Lamb Archives. Nelson, BC.

Tsing, Anna Lowenhaupt. 2015. *The Mushroom at the End of the World: On The Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press.

Turner, R.J.W., and R.G. Anderson. 2009. “GeoTour Guide for the West Kootenay, British Columbia: Geology, Landscapes, Mines, Ghosts, Caves, and Hotsprings.” Ottawa: Geological Survey of Canada.

Wijesooriya, Niranjika. 2018. “Architecture, Space and Place: Finding Phenomenological Meaning.” Research Paper, University of Cambridge. https://www.researchgate.net/publication/329359027_Architecture_space_and_Place_finding_phenomenological_meaning

Withagen, Rob, and Simone R. Caljouw. 2017. “Aldo van Eyck’s Playgrounds: Aesthetics, Affordances, and Creativity.” *Frontiers in Psychology,* no. 8 (July): 1-9.