The Old Order Changeth:
Rediscovering Place Through a Usable Past

by

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Dalhousie University is located in Mi'kmaq'i,
the ancestral and unceded territory of the Mi'kmaq.
We are all Treaty people.

To my Grandfather

Contents

Abstract

On the west coast of Newfoundland is the city of Corner Brook, site of the province's sole pulp and paper mill. During the 1920s, a planned, industrial company town grew around the mill site, introducing company housing based on principles of the Garden City Movement. Unfortunately, subsequent urbanization disregarded the town's sustainable model.

Presently, Corner Brook and much of the province is viewed as a socio-economic crisis linked to the out-migration of youth and the aging demographic. A lack of community collaboration and an industry in need of innovation has rendered the community vulnerable.

In support of recent initiatives to make the pulp and paper industry cleaner and more sustainable, this thesis imagines a modern addition to the Garden City plan. It aims for a town of ecological and economic value by implementing a central Research and Innovation Eco Park, creating the groundwork for a viable future for Corner Brook.

Acknowledgements

Constant changes have taken place and the journey of change that brought me to this day must come with the acknowledgement of some very special people who helped carry me.

Foremost, I would like to express by sincere gratitude to my advisor, Cristina Verissimo, for the immeasurable support, for her patience, motivation and encouragement. You have been a wonderful, caring mentor throughout these past two years.

My sincere thanks also go to Steve Parcell, for his guidance, encouragement, insightful comments, and challenging questions pertaining to my research and writing.

To the unconditional friendship of classmates, Sarah and Myles, who encouraged and believed in me from the beginning; who picked me up more than once when I was down and saw me through to the very end. I love you guys.

To all my classmates. The many shared tears, the late nights, facing our fears together; the strength you all have is incredible. Thank you for the laughter and dedication you all brought. These memories will be cherished forever. I will never forget you. Hugs!

Finally, thank you to my mom, my rock, my world. I love you. And to my brothers, Alexander, and Maxwell for all your love and support throughout my years of education. I would never be the person I am without three of you to lean on.

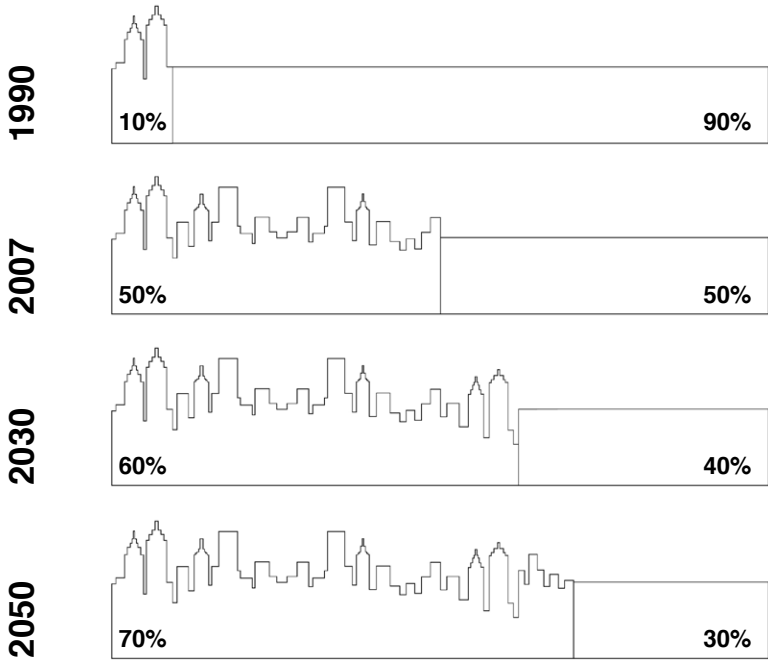
To those who have passed, who saw me through the start of this journey, but not the finish. Dad, Aunt Carolyn, Grandma, Grandpa, Uncle Jamie, I know you are smiling down on me.

With perseverance and love around me, I did it.

Chapter 1: Introduction

Overview

For centuries, many families around the world lived in small communities. In recent decades, this has shifted dramatically. There has been a mass migration of populations from rural to urban areas, a trend that is expected to increase to 70 percent of the world's population by 2050 (Ritchie and Roser 2018). Is it possible to imagine a sustainable future if the present reveals itself partially and the past is soon forgotten? Can design play a role in defining urban connectivity? And how can architecture play a role in redefining place and space, considering the global changes? These questions bring together a diverse approach to reimagining the representation of life through organic influences.



Urban and rural populations of the world, 1900-2050 (adapted from 100 Resilient Cities 2017)

Corner Brook, Newfoundland and Labrador is a city rich in history and culture. A planned town quickly grew around its pulp and paper initiative, introducing the Garden City to unplanned urbanization. Presently, Corner Brook is viewed as a socio-economic crisis linked to the out-migration of youth, the aging demographic, and an industry in need of innovation. By diving into its background and history, this thesis will re-envision a modern concept of the city's original intent, with the goal to achieve a sustainable future while combining its place identity through a usable past.

Throughout modernity, the role of homogeneous planning, development concepts and the commodification of urbanity is thought to have accelerated the weakening of local identity. According to Proshansky, Fabian, and Kaminoff, place identity refers to a collection of memories, concepts, interpretations, ideas, and associated feelings about a specific physical environment and types of settings. It consists of perception, observation, and interpretation held by the people in relation to their environment. Loss of this identity may damage a person's attachment and may weaken the diversity of place experience (Proshansky et al.1983, 60).

Mahyar Arefi links the notion of non-place with the lack of connection between the physical landscape and the meaning of place in the wider physical, cultural and psychological context (Arefi 1999, 183). This term begins to describe the diminishing of place significance, referred to as placelessness, a term denoting the unplanned destruction of distinctive places; the deliberate making of standardized landscapes and the weakening of identity to places where they look alike and offer bland possibilities for experience (Relph 1976, 79). It is clear that within the traditional context

of the city centre, new developments have transformed the built site, local meaning and attachments rooted in the existing social and cultural context. Sustaining the meaning and identity of the urban environments is important in contributing to self-identity, sense of community and sense of place (Hull 1994, 118).

Photographs depicting the essence of non-place (Fajerski 2018)

Place Attachment as Motivation

As a young person having to leave my home, to complete my education in architecture, it is apparent that Corner Brook will not be the place I will return. It saddens me immensely that there is no opportunity to further my career in my hometown. I too have fallen a victim to the vast out-migration my province has reported, as I so want to bring back and contribute my learned education to make a difference. Not today. The time isn't now.

This is a huge void for me. My heart aches for what I will be leaving behind, the place, the people, the love. But wherever I go, or whatever path I follow, I wish to bring a positive change with respect to the land and its people.

Where we live, where we spend our time, plays a role in shaping who we are. Winston Churchill said, "We shape our buildings; thereafter they shape us" (Churchill 1944) and the point it makes of buildings can equally be made of cities,

neighborhoods, and places. This intangible thought and feeling led me to believe that my motivation throughout the document, and ultimately, my career choice, came from my attachment to place.

> Place attachment focuses on the environment in which people are emotionally and culturally connected to the places they interact with. According to Scannell and Gifford, the strength of attachment is said to vary according to spatial level, and the social or physical elements of the place, exhibited through affected cognitive, and behavioral psychological processes. Place attachment serves several functions, it may provide a sense of daily and ongoing security and stimulation, with places and objects offering predictable facilities, opportunities to relax from formal roles, the chance to be creative and to control aspects of one's life. At another level, place attachment may link people to religion, nation, or culture by means of abstract symbols associated with places, values, and beliefs. Perhaps, it is not the attachment to a particular place that is crucial; rather, it may be emotional attachments to ideas, people, past experiences, culture, and mental state that is essential. It is through the means of the environmental settings that these processes are manifest. (Altman and Seltha 1992, 7)

Therefore, place making becomes critical to increasing the well-being and quality of life for communities.

Newfoundland and Labrador realize the importance of immediate need for regional and community development, as there are real differences in the opportunities and the assets in each area of the province (Kennedy 2022). This thesis explores the link between place attachment and the creation of more sustainable communities that are civically engaged and environmentally conscientious. Through a three-step process, we can begin to review the past, realize the present and reimagine the future.

Chapter 2: Remembering our Urban Past

The factories of industrialization transforming the skyline of Manchester, England (Wyld 1852)

Industrialization, Labour and Life

Not only in business and economics, but also in the basic structure of society, the growth of industries brought about radical and lasting changes, forming the Second Industrial Revolution. The advent of development has changed the patterns of human settlement, labor and family life but. “But, for the people living through it—especially impoverished workers—the Industrial Revolution was degrading and dehumanizing” (Sherry, n.d.).

The horror of industrialization is cited by many, including Friedrich Engels in *The Conditions of the Working Class in England*, concluding that English workers were not treated as human beings, “They were merely toiling machines in the

service of the few aristocrats who had guided history down to that time.” Poet William Blake referred to the factories in Britain as “these dark Satanic mills.” Although the Industrial Revolution improved the conditions of the middle class, it mainly enriched the few at the expense of the many that had to endure (Sherry n.d.).

Few factory towns provided workers with necessary supplies and livable housing. When cities are crowded with people leaving their farms in search of higher incomes, living conditions are no better than factory working conditions. In many communities, large slums began to emerge, where entire families were housed in undersized dwellings, leading to unsanitary conditions and the rapid spread of disease. Early industrialization was accompanied by a lack of medical care, so it was common for most families in pursuit of a better life to lose many members (Gaille 2020).

Cramped tenement housing (History.com Editors 2010)

Town Planning Movement

In response to the lack of firm policy directives related to land and community development in England in the early 19th century, the British New Town movement emerged. As the century progressed, the negative effects of land abuse, urban congestion, and suburban sprawl gradually led to a realization that some form of planning was essential. This realization eventually led to the rise of the urban planning movement (Artibise and Stelter 1979, 268).

Amongst the new industrial towns, the towns of Port Sunlight and Bournville are particularly important. Port Sunlight was brought into being by the W.H. Lever Soap Company near Liverpool in 1887, and Bournville by the Cadbury Chocolate Company near Birmingham in 1889 (Fishman 1982, 59-62).

Utopian Communities

George Cadbury and his brother Richard had built their father's cocoa firm into a great chocolate company, and Lever had attained a similar reputation in soaps. Cadbury and Lever built model towns to house their workers, thus becoming self-made industrial magnates. The careful planning of these towns, their open layout, and ample gardens—often maintained by the team company gardeners made them precursors of the Garden City. They were also prime examples of late nineteenth-century industrial paternalism (Fishman 1982, 59-60). Lever indicated that Port Sunlight was a model of profit sharing, but instead of splitting earnings directly, he would put this money into the community so that workers and settlers would have access to all necessary services. A cottage hospital, schools, a concert hall, an outdoor pool, a church, and a temperance hotel were among the village's public structures. Each home

in Port Sunlight was uniquely designed, featuring half-timbered construction, carved woodwork and brickwork, decorative plaster work, and chimneys with molded flues (Hels 2011).

Aerial photograph of Port Sunlight, 1934 (Britain From Above n.d.a.)

Aerial photograph of Bournville, 1928 (Britain From Above n.d.b.)

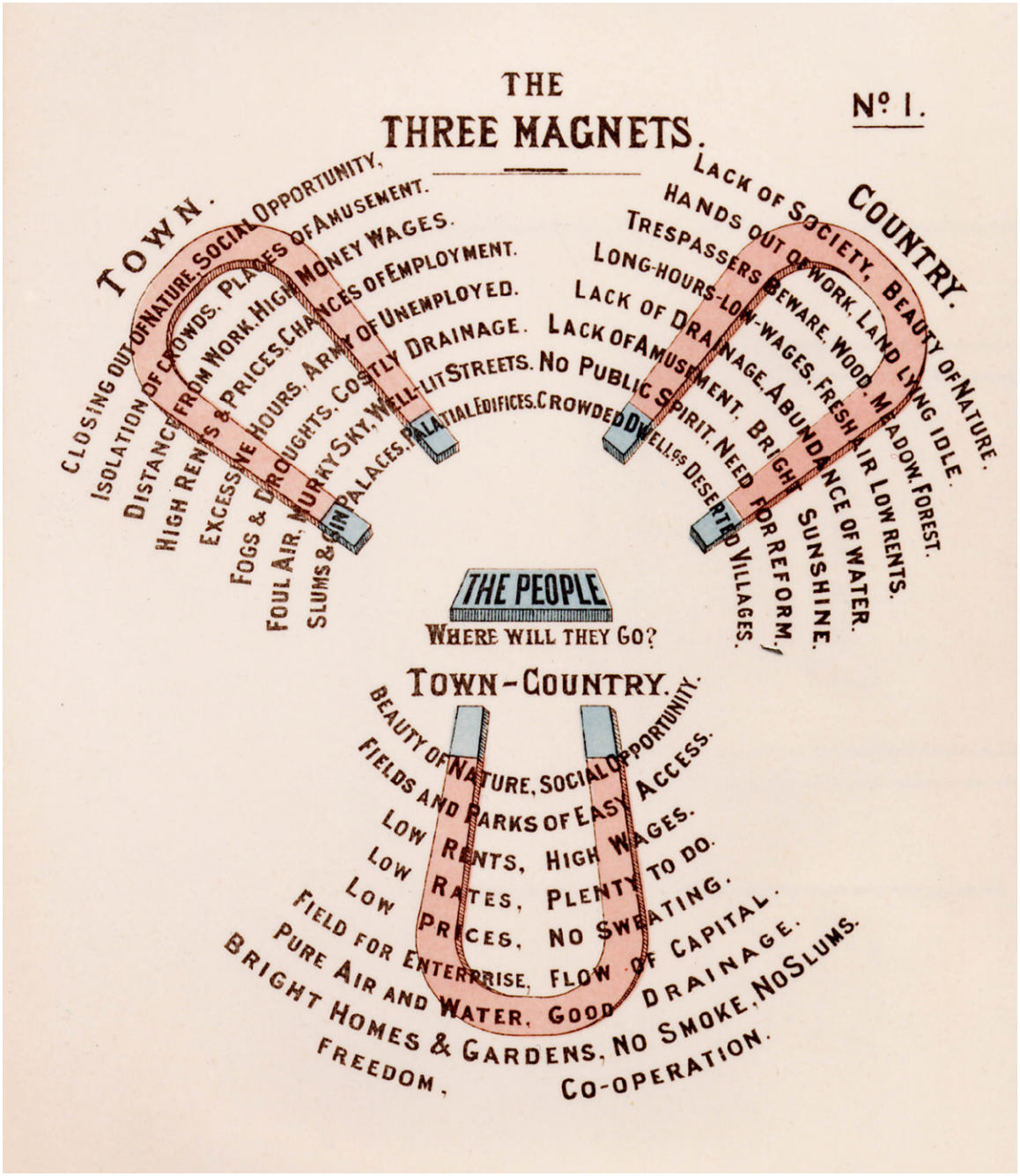
The Garden City Movement

The success of these two utopian experiments stimulated a parliamentary reporter by the name of Ebenezer Howard in 1898 to conceive the idea of the Garden City (Fishman 1982, 24).

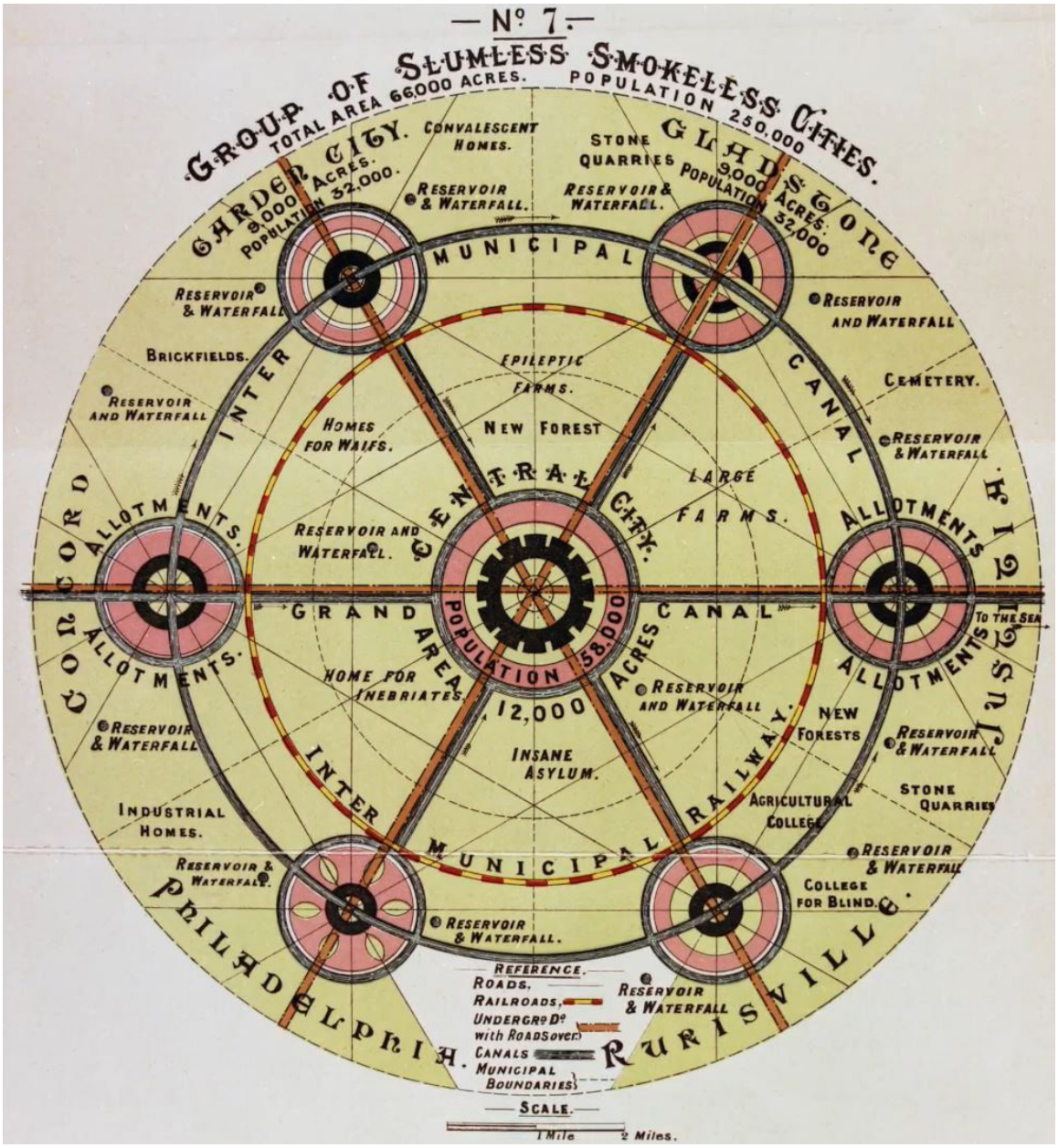
Howard, of course, did not share Cadbury's or Lever's paternalism. He realized, however, that their financial aid could make the Garden City a reality, and he worked with persistence to win them over. He convinced them that the Garden City was the continuation of their own efforts and that his plan would spread their ideas throughout Britain. The Garden City Association moved quickly to announce its newfound support as effectively as possible. Thomas Adams, the energetic new secretary of the association, persuaded Cadbury and Lever to sponsor a conference to promote the Garden City (Fishman 1982, 60-61). The concept and Howard's influence on the Town Planning Movement were enormous.

Through his efforts, the idea of the Garden City became an integral part of the British planning tradition. These planned communities were originally proposed by Howard for reasons of health and social advantage; he reacted against the overcrowded conditions of the industrial towns in Britain and advocated the growth of new self-contained settlements in the countryside, where housing, jobs, and all the other necessities would be provided. These self-contained settlements were based on two special considerations: the connection of land use is to organically interrelate, and the introduction of a green belt surrounding the community to determine the limits of settlement and to promote some form of marriage between "town and country." Other important

planning features included the limitation of town size and population, the control of land in the public interest, and the need for varied social and economic opportunities (Artibise and Stelter 1979, 269).



The 3 magnets and principles (Howard 1898).



Group of slumless, smokeless cities. Six garden cities and the central city, connected by canals and railways (Howard 1898).

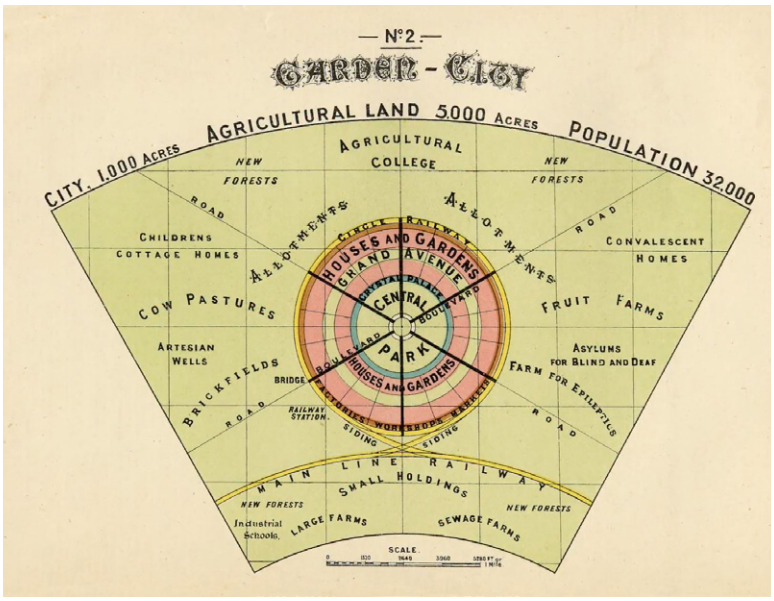
Howard's book, *Garden Cities of To-morrow*, led to the foundation of two garden cities. The first was established in Letchworth in 1903, and the second in Welwyn in 1920. The town layout of Letchworth and Welwyn is informal compared to the rigid geometric forms of earlier town plans. Main aspects of planning centered on the introduction of

tree-lined radial or curvilinear roads with no sharp corners, open-spaced superblocks having a wide diversity of forms including cul-de-sacs, an emphasis on landscaping, and high architectural and housing standards (Artibise and Stelter 1979, 269).

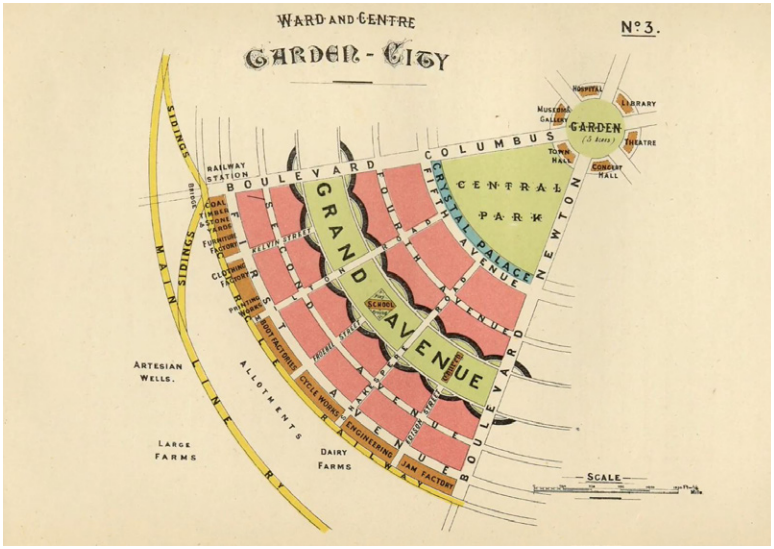
Original plan of first Garden City, Letchworth (Nolen 1904).

The ideal garden city requires that each area be designed with a specific use, whether residential, commercial, or industrial. This segregation of areas, often separated by green spaces, promoted the development of healthy and productive communities. The purpose of this zoning was to avoid the health and social problems common to 19th-century European cities, where it was normal for polluted industries to be near workers' cramped housing.

Instead of cities expanding rapidly, Howard planned cities in organized settlements. They would be large enough to support industry, small enough so that access to work, school,



Garden city and surroundings (Howard 1898)



Slice of the model town (Howard 1898).

play, and nature would be easy, and all interconnected by networks of roads and railways. As we recognize from the sliced diagram, jam factories, housing, a crystal palace for shopping and leisure and grand institutes surround a centralized garden (Fishman 1982, 43-44).

With the help of two Arts and Crafts architects from Bruxton and Derbyshire, Howard’s Garden city came to fruition. The

master plan for the new garden city features several key ideas that Howard had expressed in his book. The garden city expressed zoning of areas for different uses, ensured good transportation infrastructure, a train station in the city's heart and housing situated away from the smoke and steam of the factories but close enough to walk or cycle to work. Most importantly, the garden city incorporated green space with recreation and an agricultural area surrounding the town (Fishman 1982, 68-75).

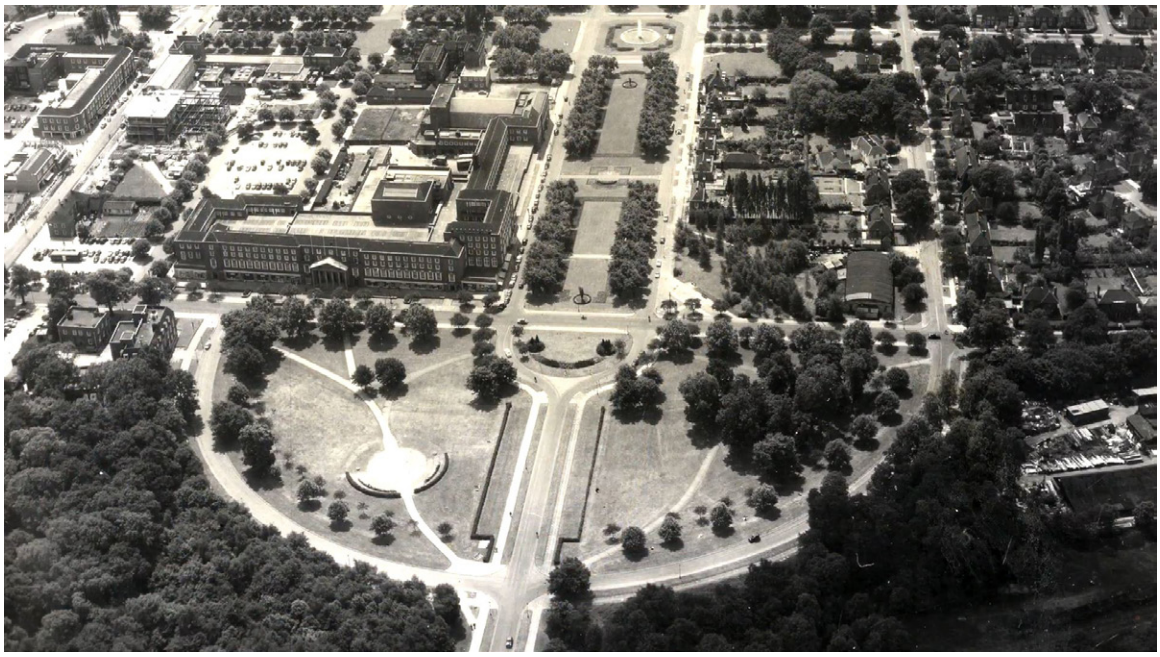
The success of Letchworth saw the idea spread with garden suburbs in almost every city in the country, most notably at

Letchworth Railway Station (Clements 2010)


First main road constructed in Letchworth lined with chestnut trees (Bonham-Carter 1951)

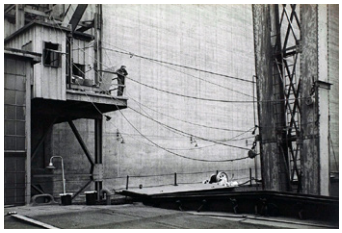
Howard Park, the paddling pool (Bonham-Carter 1951)

Hampstead in London. There followed the second garden city at Welwyn and ultimately the post-war new towns. The influence of garden cities spread around the entire world, with garden suburbs or industrial planned towns in continental Europe, North America, Australia, Japan and more (Artibise and Stelter 1979, 269).



The Welwyn Town Centre and Packway, 1964 (Boston 2015)

100-ton mountain engine on the Canadian Pacific Railway, BC, 1889; photographed by William Notman (Willis 2018)



Grain elevator, 1940; photographed by E. Haanel Cassidy (Bunyan 2012)

Vancouver, BC 1958; photographed by George Hunter (The George Hunter Collection, n.d.)

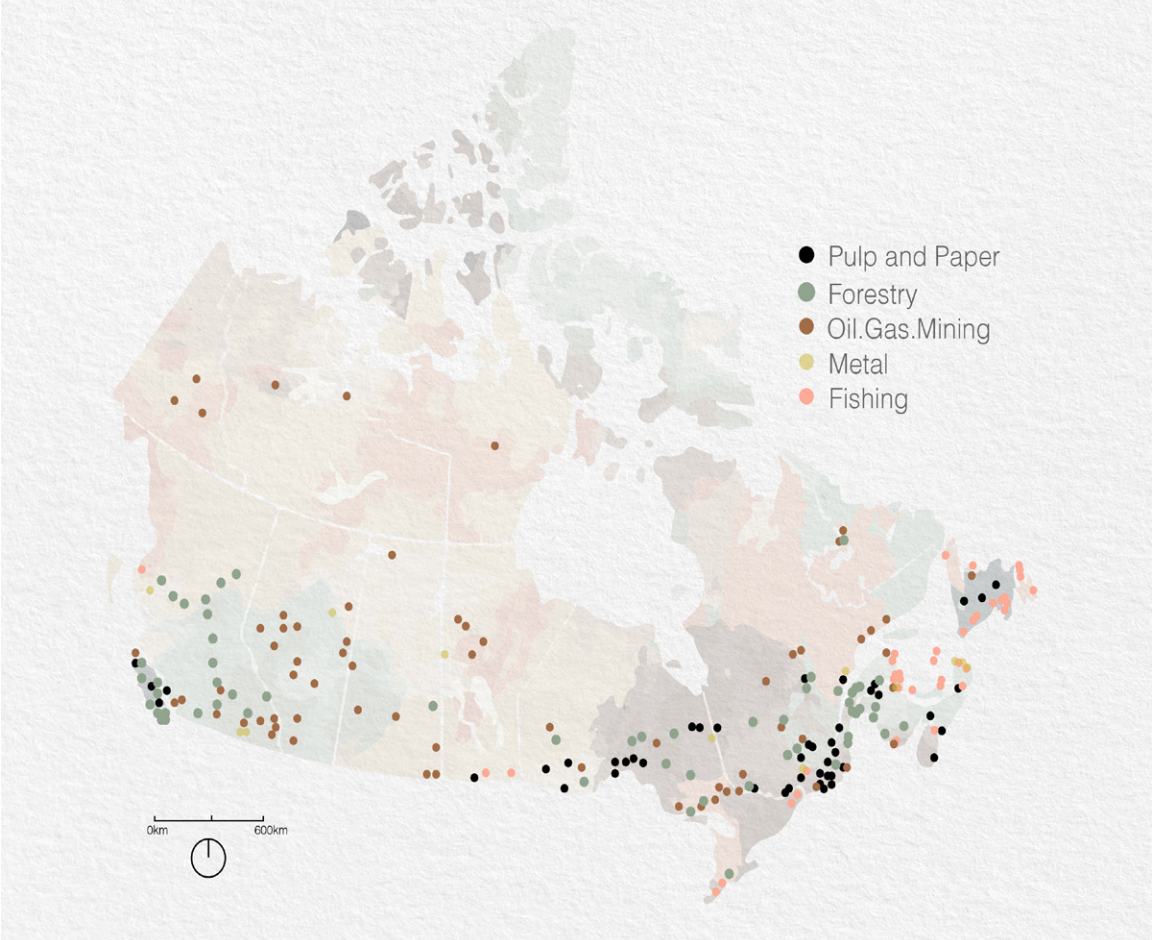
Logging on the Saint-Anne River, Quebec, 1963; photographed by George Hunter (The George Hunter Collection, n.d.)

Canadian Industrialization

The UK's experience in new town planning also helped to attract many planners to Canada (Artibise and Stelter 1977, 269), with a strong town planning orientation, thanks to the achievements of the industrial towns of Port Sunlight and Bournville and the garden cities of Letchworth and Welwyn.

On the eve of the 19th century, Canada began to see an increase in industrialization as railroads were laid and bridges were built to provide access to remote forests and mineral-rich regions. Timber and mining interests promoted the development of Canada's hinterland, where hundreds of small towns began engaging in harvesting and processing resources used to produce goods, either sold in Canada's heartland or in export markets. Because of their substantial contribution to Canadian GDP, and their importance as a source of exports, resource towns remain an important and current theme in the nation's economic geography (Norcliffe 2005, 9).

Dofasco and Stelco steel mills, Hamilton, Ontario, 1954; photographed by George Hunter (Bunyan 2012)



Canadian resource dependent communities (data from Randall and Ironside 1996)

Resource Towns

Over a century of Canadian resource development has produced nearly two hundred small communities which rely on a single resource industry for employment (Lucas 1971, 16). Although some single-industry communities developed from existing towns or villages, most were purpose-built to house the workforce required by a company or resource sector (Halseth and Sullivan 2002, 133). As the product of dynamic twentieth-century values and technology, there have been a variety of attitudes toward their form and permanence, but also common structural challenges. Having been conceived with a single major employer, resource towns are hindered by their overwhelming economic dependence, which is the

root cause for many of their socio-economic characteristics. These include economic instability, high population turnover, social and geographical isolation, a lack of local control, and the exploitation of nature as a resource (Krannich and Luloff 1991, 7-9). Settlements vary widely, most notably in terms of population size and function. To house the labour force needed to harvest a resource in a remote place, resource towns are constructed. As a result, unless these centres take on other responsibilities, this industry is essential to their very survival.

Despite the fact that many scholars have studied resource towns (Robinson 1962; Seimen 1976; Randall and Ironside 1996), Lucas focused on a life-cycle model. According to Lucas (1971, 19-111), resource towns go through four stages: construction of the new town, company control of the town administration, transfer of town administration to an elected town council, and mass migration of the children (now young adults) of employees from the town because they are unable to find employment there.

> Changes in population size of resource centers provide an alternate measure for resource production and other related economic activities plus a variety of public activities, such as education and health care services. Two factors stand out for utilizing a single measure, population size. One reason is that population size provides an overall measure of economic and employment changes occurring in a resource town due to a very close relationship between resource operations and the number of workers. The second reason is that this variable is available for ail resources towns at different time periods, thereby facilitating a longitudinal approach. (Bone 1998, 251)

Who is Thomas Adams?

Thomas Adams (1871-1940) was both a product of his times and of his personal circumstances. Having grown up on a family farm outside Edinburgh, Scotland, Adams introduced a new concept of balance between urban and rural life to

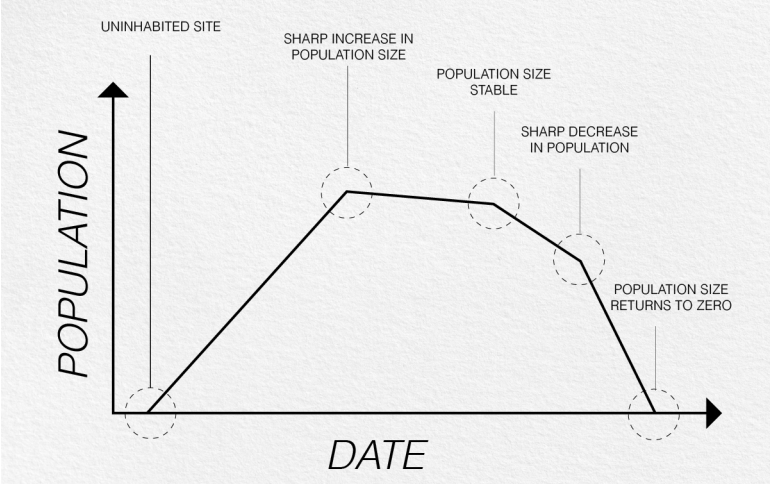


Diagram illustrating the five hypothetical phases associated with a population version of the life cycle model for resource towns (adapted from Bone 1998, 252)

Canadian planning. Although his work was regarded highly throughout the world, he suffered the consequences of his time--a climate of war and uncertainty. As a convinced utilitarian and pragmatist, he insisted on attaining natural harmony in society and the co-operation of individuals (Caldwell 2011, xiv).

In his early life, Adams had two major influences. Family, farming, and his involvement in public life allowed him to further his understanding of the social issues of the time. Distrust in the power of the state caused him to favour individual liberties and associated individualism. His involvement in local politics became more serious when he became a local councillor at the end of the nineteenth century. This led to a career in journalism in London and involvement in the newly emerging Garden City movement (Caldwell 2011, xii).

Adams qualified as a surveyor and became one of the first people in England to make his living entirely from planning and designing garden suburbs. In 1910, because of his

growing reputation in his new profession, he became the first president of the British Town Planning Institute (Caldwell 2011, xv).

Meanwhile, Canada was experiencing a fifteen-year period of economic prosperity and an incredible expansion of its population. In 1914, Thomas Adams was appointed to the federal government as an urban planning consultant in response to growing concerns about the rapid destruction of natural resources in rural and urban Canada (Caldwell 2011, xiv).

Thomas Adams influenced the passage and alteration of provincial planning legislation modeled after the British model in Ontario, Saskatchewan, Alberta, Manitoba, Nova Scotia, New Brunswick, and Prince Edward Island. He was also a sought-after designer who advised on urban landscape design in Canada and Newfoundland, and supervised the construction of corporate towns and innovative public housing projects such as Lindenlea in Ottawa and the Hydrostone neighborhood of Halifax, which he built as a part of a larger attempt to reconstruct the working-class neighborhood of Richmond after the Halifax Explosion of 1917. These plans, along with his guidance to other planners, led to a planning strategy that combined the principles of the Garden City with concepts of urban efficiency (Parks Canada 2020; Caldwell 2011, xiv).

Methodology

Thomas Adams said, “Before we can make a plan of a city we must know all the aspects of its physical structure. This involves study of its related economic, social, and physical conditions; the trends toward change in these conditions; the mistakes and success in past developments; and the

possibilities of securing improvement…But above all, we must have an understanding of those social and economic needs that give endurance to society and aim to secure their fulfilment" (Adams 1935, 23).

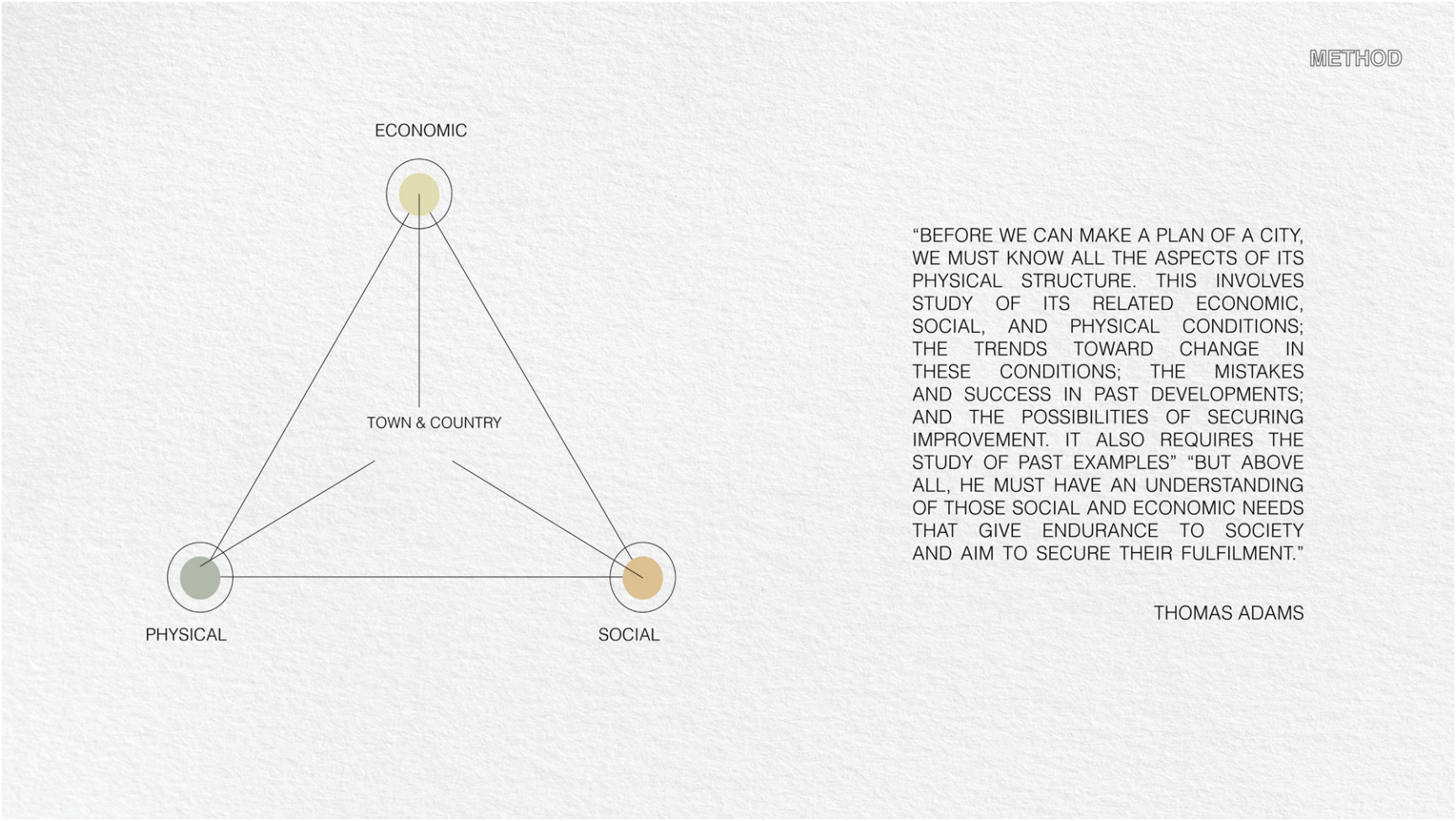
Adams' first Canadian planning manual addresses not only land questions but also the social, educational, and economic attributes and consequences of planning in fostering the well-being of populations and the health of communities (Adams 1935, 23). During the latter half of the 20th century, critics blamed early planners for focusing on the physical and neglecting the social and economic aspects of human environment. Adams was clearly different: his approach was as holistic as that of the most dedicated planner today (Caldwell 2011, 19).

A sustainable ecology of cities is possible when we successfully combine environmental and socioeconomic dimensions equally in our plans and actions (Mensha 2019, 13). In fact, it is the extent of their integration and inclusion that should form a criterion by which we evaluate our success.

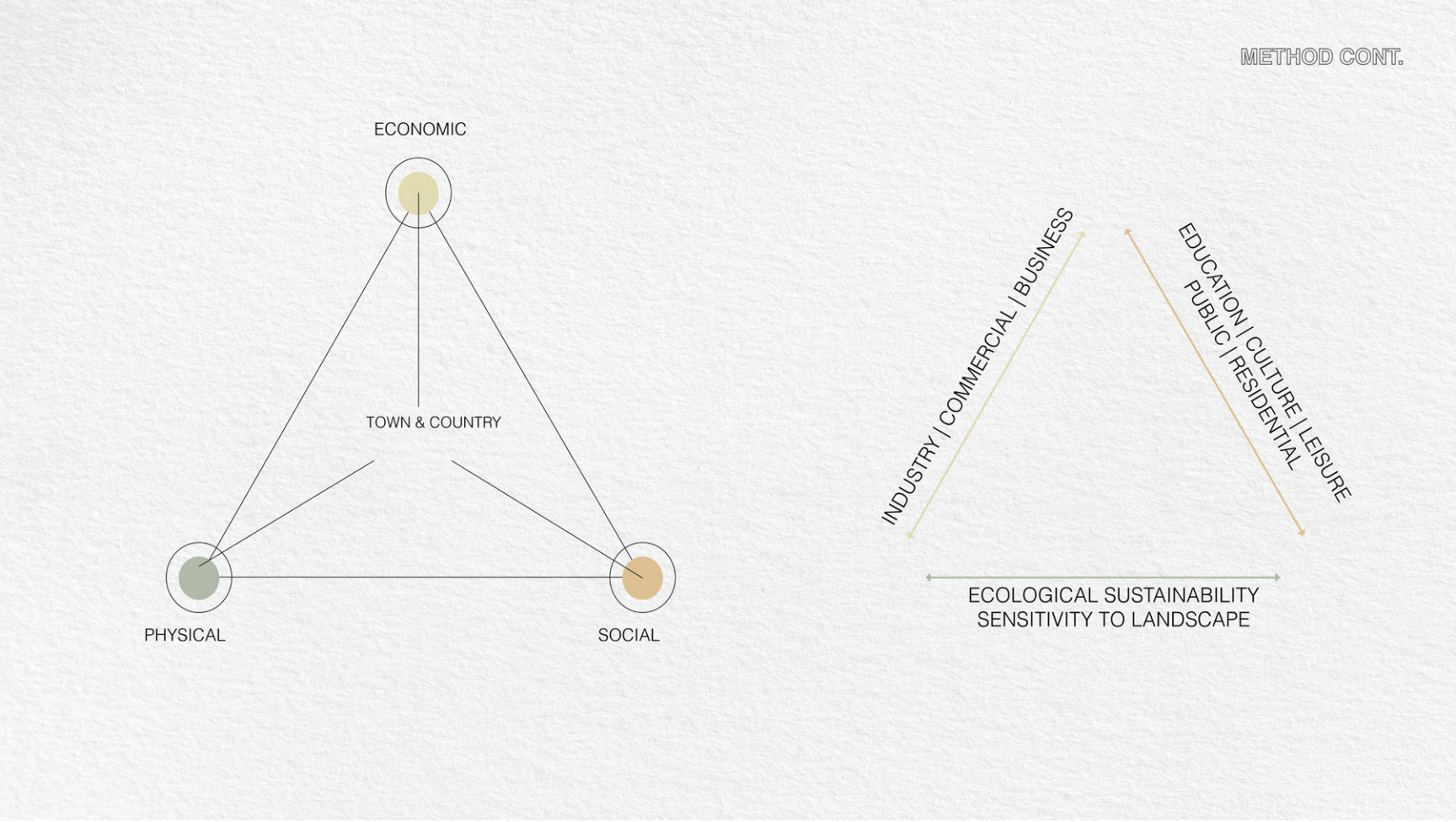
> Sustainability in architecture addresses the negative environmental and social impacts of buildings by utilizing design methods, materials, energy and development spaces that are not harmful to the surrounding ecosystems or communities. The philosophy is to ensure that the actions taken today do not have negative consequences for future generations and comply with the principles of social, economic, and ecological sustainability. ("Sustainability in Architecture" 2017)

The three lenses of the method consider a bottom-up approach to design. To fully realize the initial urban strategy we must analyze the current town model and evaluate what went wrong and what opportunities and solutions can be brought to the table as I welcome and introduce you to my

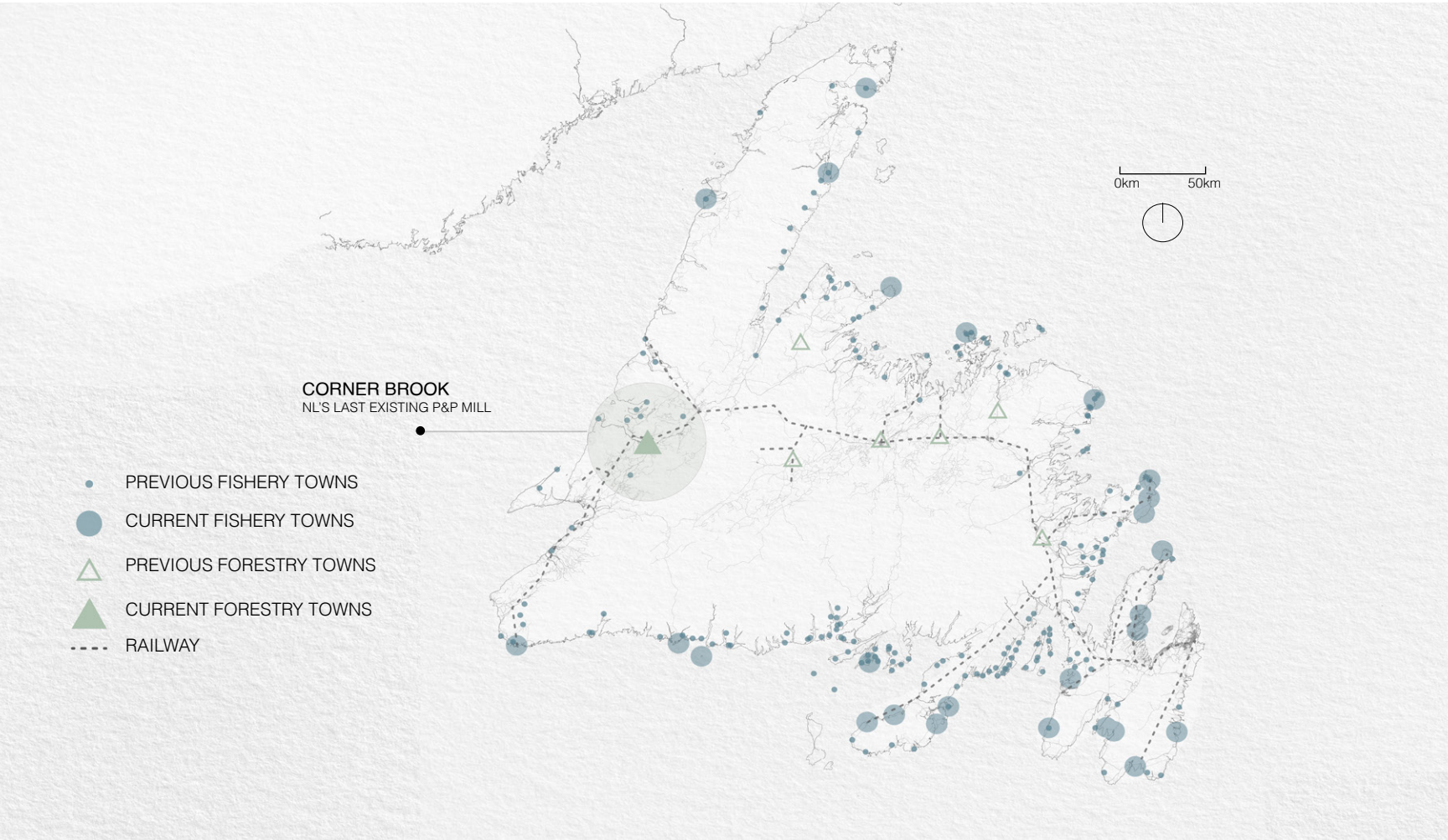
hometown, Corner Brook, and the beautiful province of Newfoundland and Labrador in the following chapters.



Holistic method adapted from Thomas Adams (Adams 1935, 23)



Further synthesizing Thomas Adams' method (Adams 1935, 23), explaining the function of each lens.



Map of Newfoundland illustrating resource towns, including Corner Brook as the final existing pulp and paper mill (base map data from Wadel 1969, 4 and personal research)

Chapter 3: Revisit

Newfoundland and Labrador

Traditionally recognized for its fishing industry, the island of Newfoundland opened up its previously underdeveloped interior at the start of the 1900s, resulting in the construction of new towns and becoming the motivation for building a railway link between east and west coasts.

While foreign investors owned many of these new ventures, Newfoundland and Labrador had developed a more diversified economy, which depended on three resources instead of just one. A few sawmills served local markets, but the export of forest products was sporadic and insignificant.

> In the early years of the 20th century, however, the Newfoundland Forest industry was transformed by the establishment of a pulp and paper industry. While 19th century government policy was designed to attract agricultural settlers to the forest frontier, expectations began to change in the early years of the 20th century, and the Newfoundland Forest played host instead to the foreign capitalist, the company town, and the pulp and paper mill. (Hiller 1982, 42)

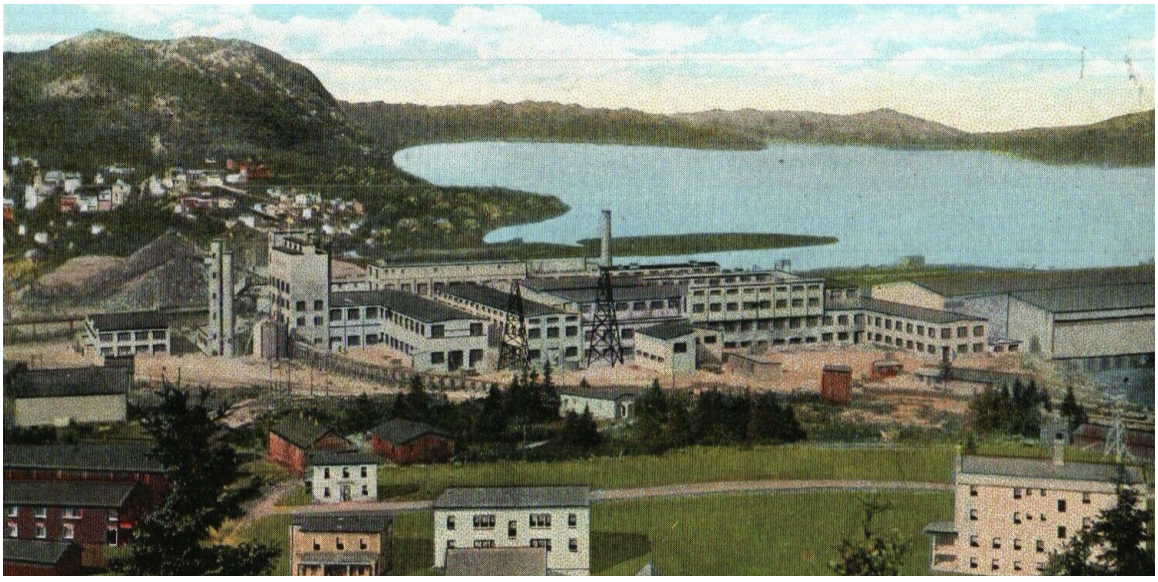
Corner Brook contains the final remaining pulp and paper mill in Newfoundland.

Corner Brook in the Making

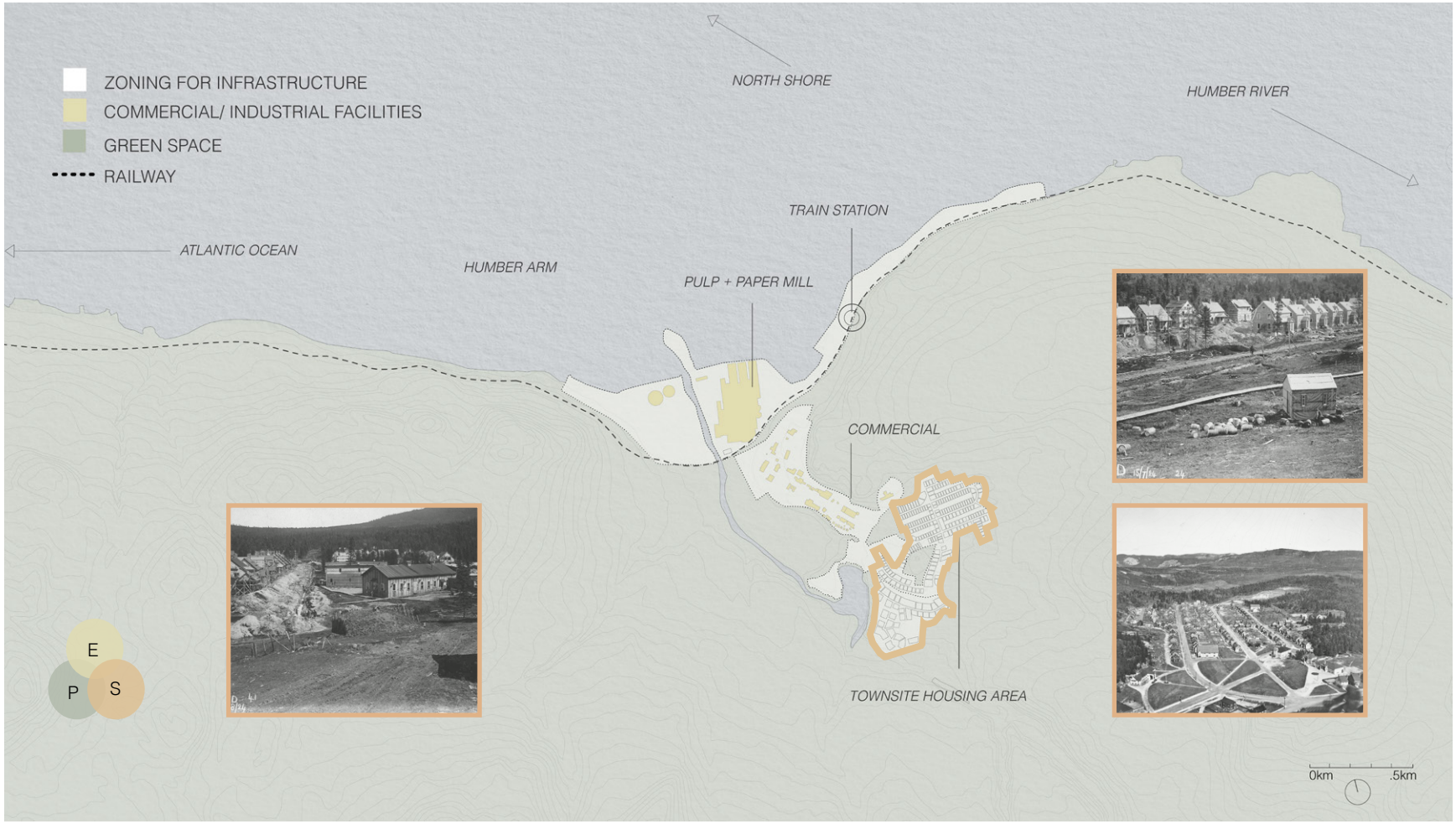
In 1923 Thomas Adams was commissioned to design a new resource town community for the Newfoundland Power and Paper Company (NP&P). Situated on the west coast, in a shallow, sunny valley, at the head of a fjord, rocky and bosky, it was attractive but a difficult design problem. The townsite was intended to house between five and six thousand people at the Garden City standards. Adams, who seems to have been principally responsible for the plan, used the uneven terrain and valleys with his accustomed skill, adapting the

street pattern to the contours. A full range of community services was provided on adequate sites and good use was made of streams as locations for parks. “Unfortunately, the necessarily high cost of development in such a remote and inhospitable spot and the industry’s depressed condition in later years prevented the full realization of the plan, one of Adams most ingenious designs” (Simpson 1985, 115).

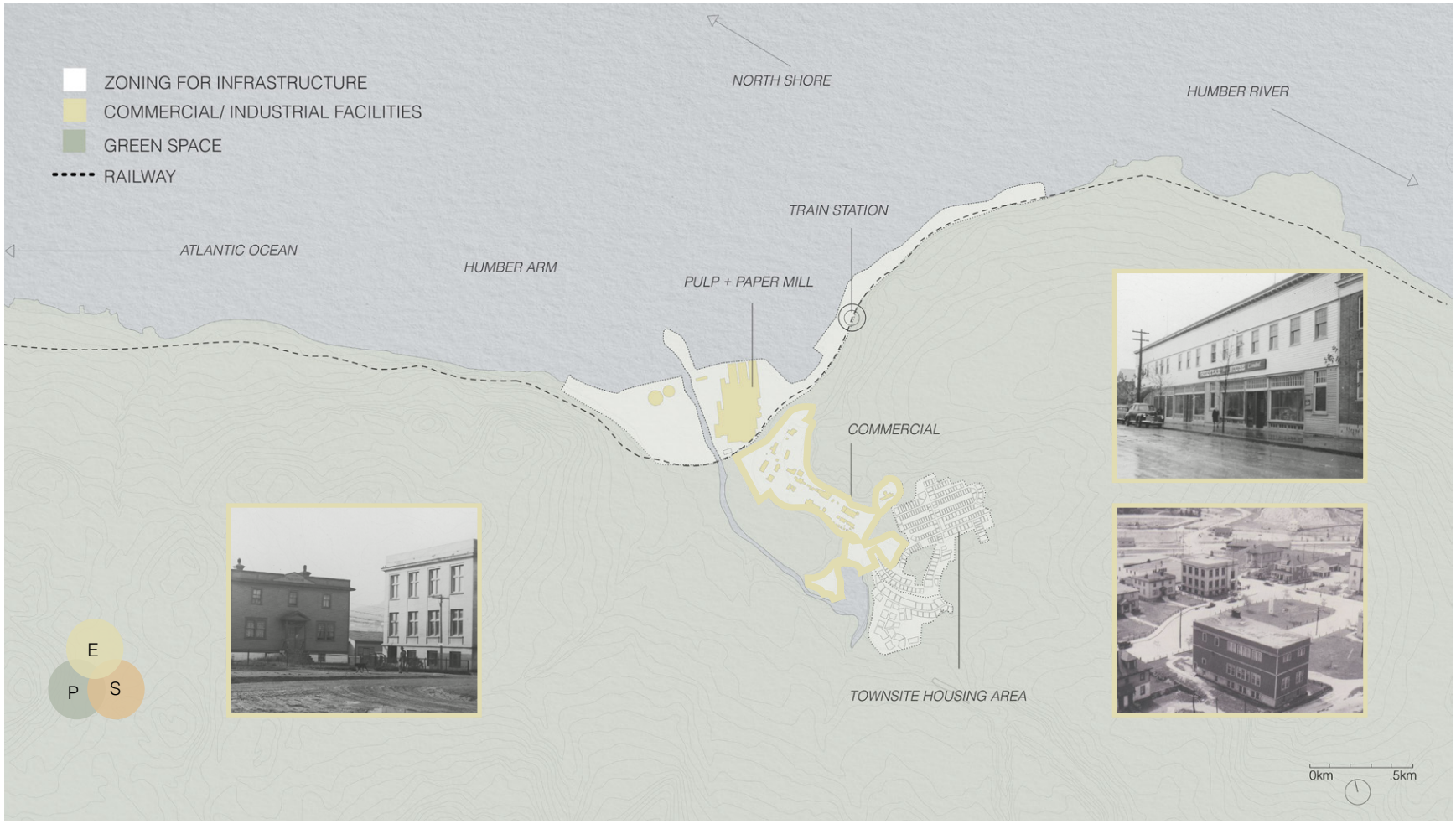
Adams separated the bulk of the residential stock from a view of the mill to preserve a sense of rural living in the valley bordered on three sides by hills. He planned a commercial district on a single street that led to the civic centre overlooking the mill site. The town square (nonexistent today) provided a scenic view of the rugged Humber Arm but also directed viewers to the paper mill. Adams did include some residences in the commercial and civic sectors to downplay the appearance of strict exclusionary zoning in a rigid plan. Like other Garden City themes that Adams included in the plan, he used mixed zones to create a sense



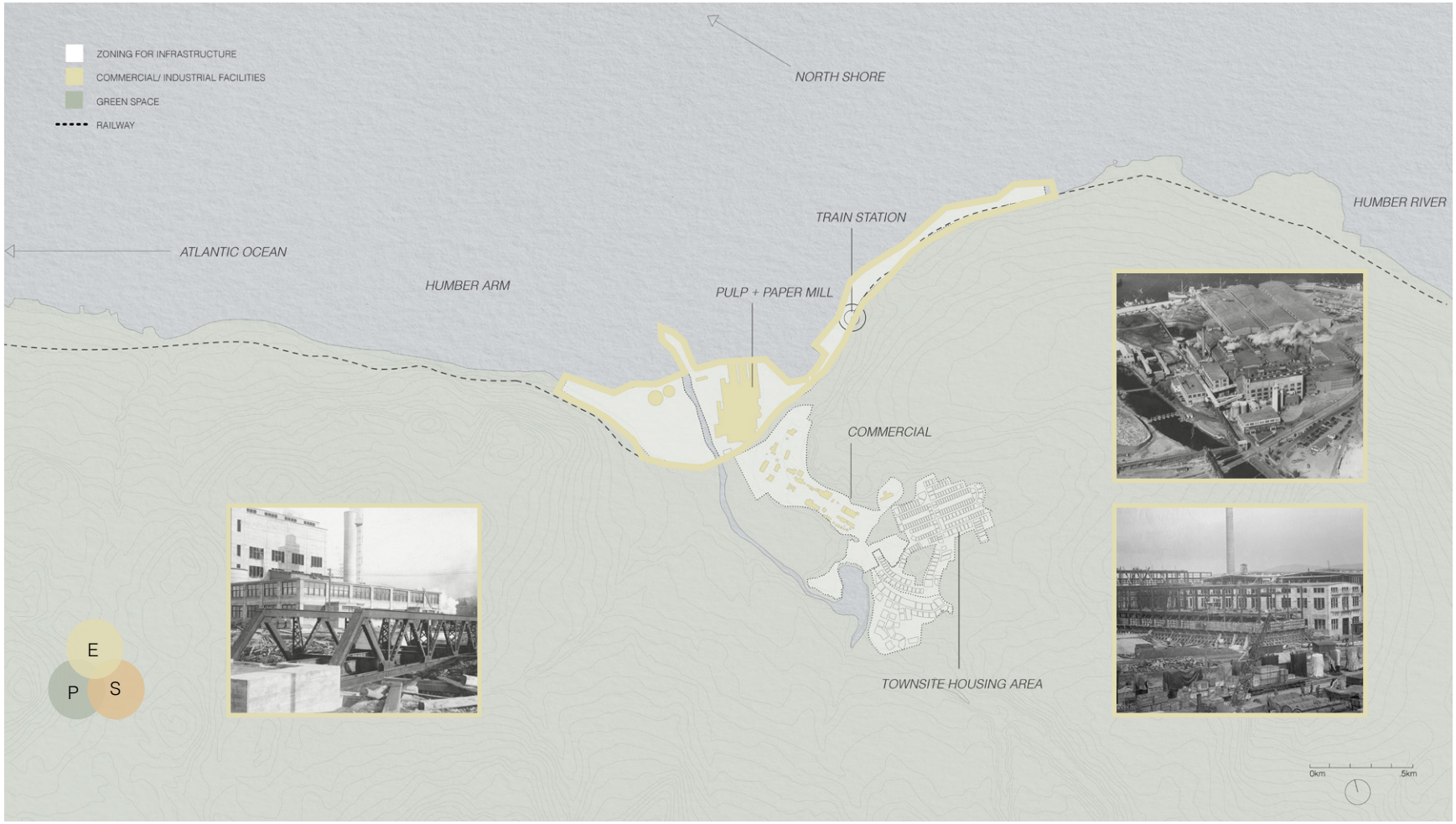
Corner Brook, on the Humber Arm (“Historic Corner Brook” 2008)



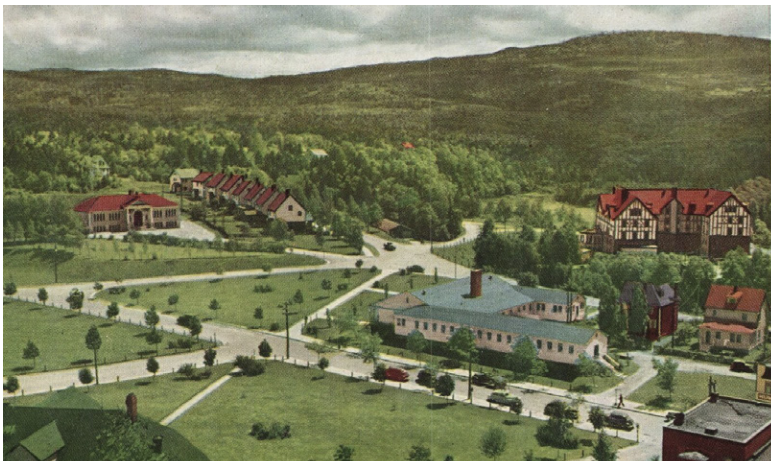
Townsite as designed and realized from Thomas Adams' original plans. Orange highlights social zoning, which in this case is residential.
Three photos show the making of Townsite's residential community ("Historic Corner Brook" 2008).
Adams separated the bulk of the residential stock from a view of the mill to preserve a sense of rural living in the valley, as garden cities intended to dissolve the divide between town and county.



Adams planned a commercial district on a single street. Yellow highlights economic zoning, which in this case is commercial.
Three photos show the architecture of Townsite's commercial strip ("Historic Corner Brook" 2008)



The commercial street led workers straight to the mill's site. Yellow highlights economic zoning, which in this case is industry.
Three photos show the construction of the Pulp and Paper Mill ("Historic Corner Brook" 2008)



Townsite commercial street and housing (“Historic Corner Brook” 2008)

Site of Corner Brook’s Pulp and Paper Mill (“Historic Corner Brook” 2008)

of natural organic growth, but with a clear subtext of order within irregularity (White 2004, 48-49).

Andrew Cobb and the Craftsman Style

The houses and principal buildings for the mill town were designed by Andrew Cobb, a graduate of the School of Architecture at Massachusetts Institute of Technology and a former student at the Ecole des beaux-arts in Paris. The houses were set roughly in block formation, a respectable distance away from one another and back from the streets to provide a sense of privacy and personal space. Each property had a sizable backyard, with ample space

for a private garden if one were so inclined. The houses conformed to four basic designs, but with a surprising degree of variety from one structure to the next, and always with careful craftsmanship. Craft and individualism were important to Cobb's architecture. According to Elizabeth Cumming in her treatise *The Arts and Crafts Movement,* their aim was to re-establish a harmony between architect, designer and craftsman and to bring handcraftsmanship to the production of well designed, affordable, everyday objects (Symonds 2001, 8-10). This seemed ironic, as this movement flourished in an age of industrial advancement, commissioned by wealthy clients, most notably industrialists.

The style affirmed beauty through elimination, shedding ostentatious design in favour of simple but attractive structures, and compact cottage-style houses made from local materials. Officials accepted a simple design because it promised low-cost, durable structures. Most of the building materials were local. NP&P consulted no Newfoundlanders on questions of planning or style (White 2004, 51).

Construction of this planned community began in 1923, at the same time as work began on the mill itself. Before the end of 1924, ninety-seven houses had been built, and construction continued well into 1925. After two years, it comprised about two hundred houses, and about twenty-five houses a year were added thereafter. It had all necessary services, including streets that were paved, drained and lighted, and was an admirably well-run place with houses that one visiting expert described as falling into three classes: good, better, and best. The best houses were built along exclusive Cobb Lane, dubbed Snob Lane by envious outsiders (Horwood 1986, 37-38).

Architectural Hierarchy: The Fours

The ‘fours’ refer to the complex number/letter system Cobb used to categorize his plans. There are four basic types, which were numbered, each with several variations assigned a letter. The plans have labels such as: type-4j, type-3a, type-2mr, and so on. An ‘r’ as a second letter meant the plan was reversed (Symonds 2001, 9).

The ‘type-4’ was the most common house, with the greatest number of variations including reversed floor plans; roof design; attic development; window placement; exterior finishes; porch locations; orientation on the site; and interior staircase placement. The type-4 houses were intended for skilled tradesmen, foremen, or clerical staff, and were clustered together, with only a few type-2 houses interspersed (Symonds 2001, 9).

The remaining type-2 houses were situated on Park Street. There were several variations of the type-2 house, though all are two-and-a-half story dwellings with central chimneys. These houses were believed to be intended for lower-management or personnel of a similar rank, as they are somewhat larger than the type-4’s (Symonds 2001, 9).

The type-3 house, intended for company management or professionals, is basically a taller version of the type-2 floor plan with an even steeper pitched roof; large, developed attic; and two chimneys. There is little variation amongst these houses and only six seem to have been built, all on West Valley Road. The type-3 has the highest level of interior trim of all the house types, even compared to the type-1 house, which was the largest design (Symonds 2001, 9).

Type-1 houses were reserved for high-level management or company executives. There are a few variations of the type-1 which, according to Thomas Adams' plan, were built on large lots in a forested area away from the rest of Townsite (Symonds 2001, 9).

Townsite was to house only the privileged, which included: management, skilled mill workers, foremen, doctors, clergymen, and businesspeople.

Type-4 home (Horwood 1986)

Type-2 home (Horwood 1986)

Type-3 home (Horwood 1986)

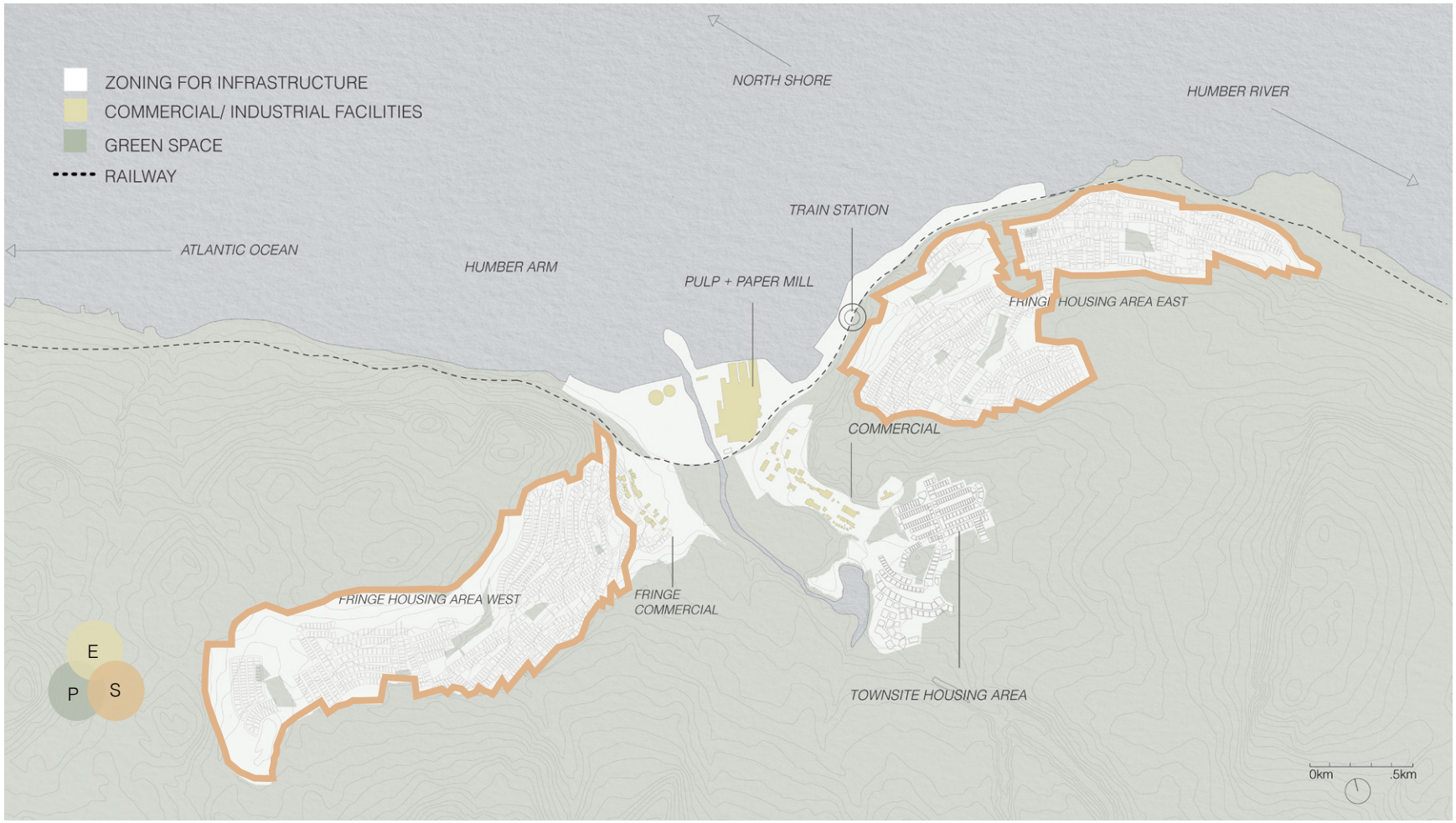
Type-1 Home (Horwood 1986)

Those considered unskilled were to find what housing they could which resulted in fringe settlements east and west of townsite. These resulted in commercial street development outside the peripheries of Townsite, ultimately creating segregation amongst settlers (White 2004, 51).

Architectural Segregation: Outside the Peripheries

One of the major flaws in the design of Townsite was not a fault of Adams, but rather a function of the socially stratified, industrial society which made the development possible, in reference to the company. The town was intended from the outset to house only middle- and upper-class employees, with the majority left to house themselves. No roads were built, nor were municipal services, such as water, electricity, and sewer, offered to these squatters; and they were not permitted to build too close to the Townsite. Everyone else, whether working in the woods, the mill or in the service industries surrounding it, had to find what housing they could. Those not content to live in bunkhouses began building places of their own and bringing in their families.

Workers and members of the fringe communities (“Historic Corner Brook” 2008)



East and west fringe housing began outside the planned Townsite.

No one, at the time, thought of the need to lay out a larger town that could grow eventually into a city that could be regulated and controlled to provide for orderly growth and proper services (Horwood 1986, 38).

Amalgamation

Amalgamation with neighboring settlements was the change, but not the plan. Adams' vision faded, rendering Townsite no longer independent. It wasn't until 35 years later, in 1956, that the City of Corner Brook was announced, amalgamating the fringe settlements with Townsite. This rapid and unplanned urbanization led to segregated land, resulting in a congested and car-dominated urban environment. Strict zoning contributed to a failed collaborative community culture, resulting in conflict and discord among its people. The aging population and out-migration of youth, lack of diversity and collaboration within the economy were seen as threats in the city's development path (or future path), all while the mill faced an uncertain future.

Current conditions of Corner Brook, 2022

Chapter 4: Re-envision

The Planning of Yesterday, Today

In connection to Thomas Adams' intent of Townsite, this chapter will focus on re-envisioning his methods in designing a 21st century garden city.

A small town is a fragile thing created from an assemblage of characteristics, some physical, others social and economic, and still others derived from the heritage, conditions, customs and even conventions of the town (Adams 1935, 134). It is the combination of these lenses Thomas Adams contributes to the *genius loci* of the town. Despite commonality of characteristics, no two towns are exactly alike in either existing circumstances or opportunities. The art in the planning exercise becomes the systematic probing for the *genius loci* and then the articulation of those factors which are necessary to service the future welfare of the small town, both in its own interest for the well-being of the region of which it is a fundamental part.

Zoning

The purpose of zoning is to outline land use in order to prevent urban development from suffering negative outcomes. Every city can create its own zoning districts, but they all generally have the same basic types of districts. The typical districts are residential, commercial, industrial, institutional and open space (Simpson 1985, 141).

Zoning is implemented so that new development is built in a way that is predictable, reasonable and minimizes its impact to adjacent property owners. It is why city leaders installed zoning codes in many cities over a hundred years

ago. Zoning ensures that an oil refinery, for example, cannot be built alongside a neighborhood of single family homes.

Increasingly, however, planners, civic leaders and community members have begun to question the practice of zoning. For all its positive aspects, there are many negative qualities, too. First, communities can use zoning codes as a tool of exclusion: historically this has happened far too much. Cities made zoning codes which would exclude people from districts based on skin color or ethnicity. These are clearly unconstitutional and eventually were removed but these explicit codes gave way to implicit regulations that many communities still use today. The most common way to exclude people using the zoning code is by imposing large minimum lot size requirements and other regulations that increase the cost of building a home. If new homes must be built on one acre lots, these lots are larger and only expensive homes will be built. This allows cities to become enclaves for the rich at the expense of low-and moderate-income families (Whittemore 2021, 169).

The second major criticism comes from the segregation of uses that it described as positive before. Segregated uses can also lead to sterile environments and force citizens to travel a large distance between zones for trips to work, school, shopping and home. Many communities have introduced mixed use zones that allow for a mixture of residential, and commercial uses to mitigate this problem, though mixed zones are not widespread across zoning maps (Whittemore 2021, 175).

Corner Brook in 2022 marks 100 years since the original garden city plan set out by Thomas Adams that was zoned into three sections. Today, Corner Brook is a city divided

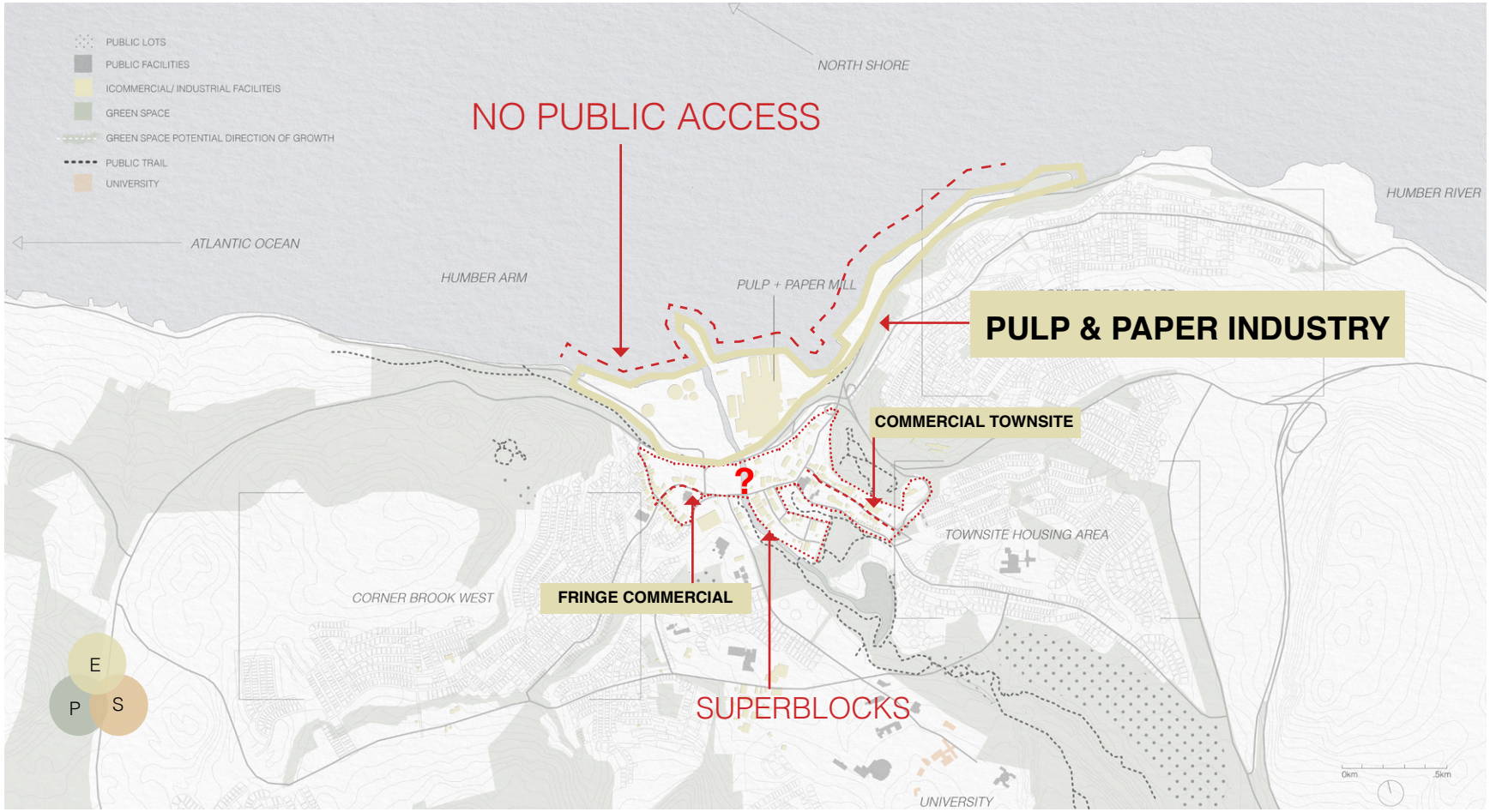
into 32 zones, structured by clear land-use separation (“Development Regulations” 2022); this approach to zoning development has encouraged car-oriented development and reduced the liveliness and energy of the public realm. New organization should seek to break down this segregation amongst zones, to combine various uses and aid in reconnecting the city’s disconnect.

Economic Lens

Although not in operation at its same capacity, the Pulp and Paper Mill in Corner Brook still exists. This existence has certainly changed throughout the years, much of which is for the benefit of the town, as the industry has surely become less polluting. The industry and city are beginning to recognizing its potential to innovate. It remains the single province without biomass energy implemented alongside a Pulp and Paper Mill in Canada. Newfoundland is beginning to research into these fields of this renewable resource but has limited if any space to do so (Urquhart 2019).

The mill boundary is a strict edge and industrial zone. There is no public access into or around its property including its waterfront. The mill can benefit with more connection outside its industry, to become more of a community presence and knowledge sharing business. Without the Pulp and Paper Mill in Corner Brook, the city would lose a large piece of collective identity.

Within this downtown core the Townsite and a fringe area still have their commercial streets where local businesses form, but a connection between the two is lacking, creating a clear disconnect. This unplanned urbanization led to segregated land, resulting in a congested and car-dominated urban environment.



Economic tensions in Corner Brook are found primarily in the city's downtown core. The pulp and paper industry still bounds the waterfront allowing no public waterfront access. The large downtown superblocks create a car dominated urban environment where the two original commercial streets bookend the downtown's west and east sides with no clear connection linking them together.

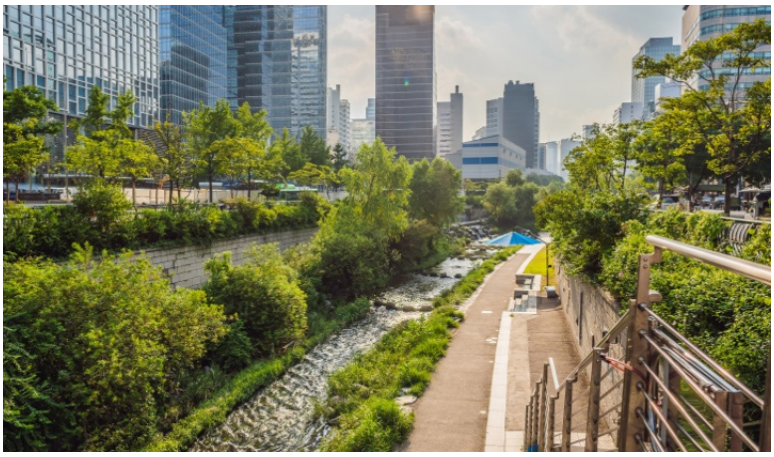
Stitched aerial photographs of Corner Brook's downtown industrial waterfront, 2020. Original photographs by Paul Flynn.

These superblocks create a disconnect of green corridors in the city's downtown core, becoming the disconnect for all recreational pathways.

Physical Lens

Green corridors (or networks) that link parks, green space and mixed land in cities can benefit through increased levels of walking, cycling and public transport use that promote physical activity. They may enhance social interaction in urban populations, increase positive levels of interaction and increase biodiversity.

Thomas Adams proposed the study of physical qualities of a city to encompass its green infrastructure. Green Infrastructure is made up of interconnected green and/ or blue areas that are developed through a strategic planning approach to create solutions to problems of



Chenggyecheon, Seoul

Manhattan Waterfront Greenway, NY

Madrid Rio (Madrid)

Urban green corridors (Iberdralo 2022)

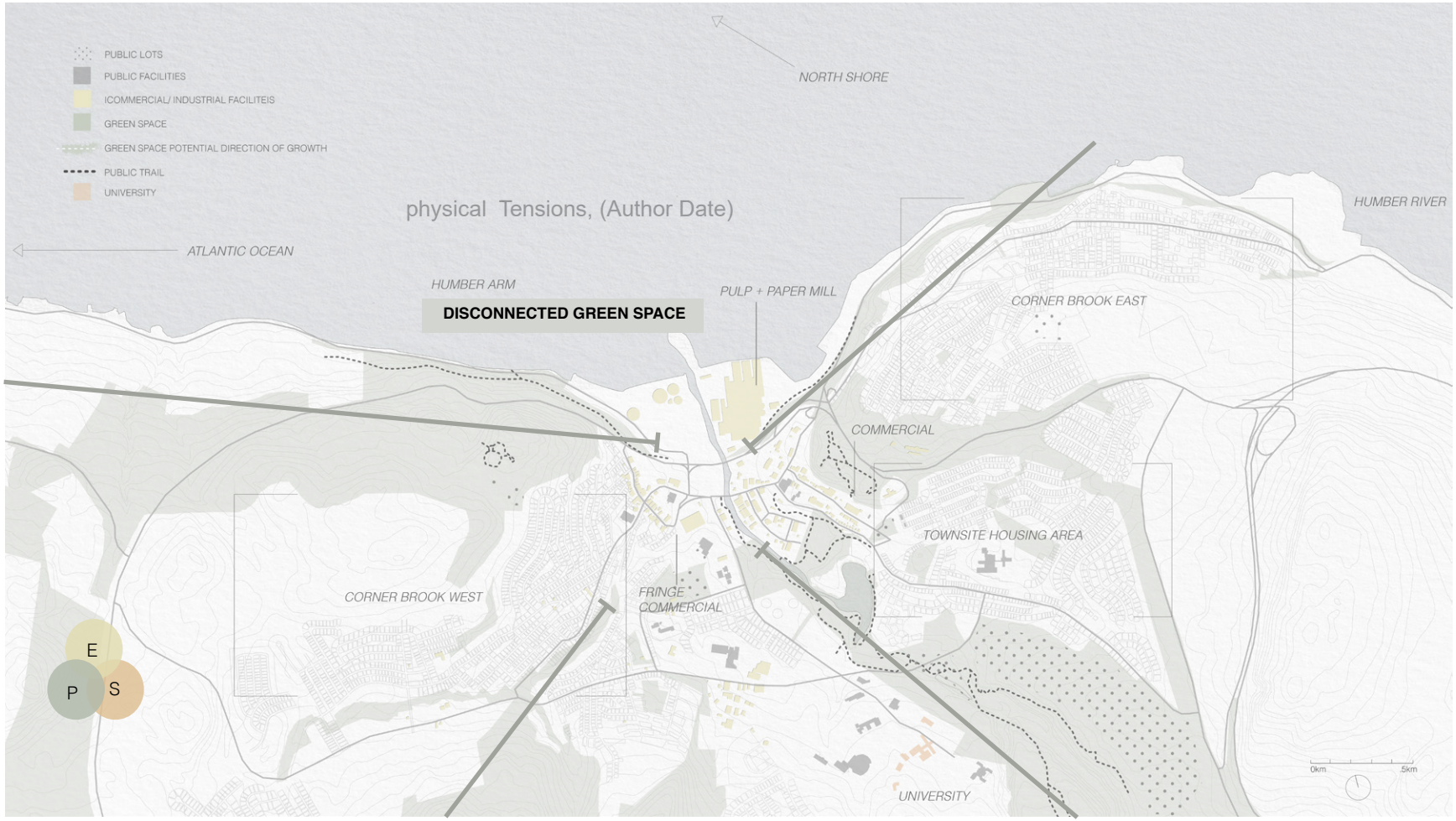
land conservation, ecological and social effects of urban sprawl, and the rapid fragmentation of landscapes. Green infrastructure strategies can take different forms and become a tool for organizing urban areas to protect and support the integrity of ecological and cultural functions to ensure the sustainability of urban centers (Caldwell 2011, xx-xxi; Iberdralo 2022).

Green infrastructure can be used as a way to create parks and public spaces, turning remaining roads and other spaces into beautiful mixed-use community spaces. It can be used to create interesting, whimsical urban spaces, as well as provide opportunities to learn about our ecosystems (Garrett 2019).

Corner Brook is surrounded by rich physical subdivisions: rural areas and land reserves. As we zoom in on the city, we start to see a car-dominated downtown with separate parking lots and large superblocks, with concentrated traffic but less walkability. Open spaces and sidewalks thus become incoherent. This disconnect in the urban fabric creates confusion for those unfamiliar with the area, i.e. tourists, students, immigrants, etc.

Social Lens

In addition to the ecological decline of the inner city, Corner Brook and much of the province is being seen as a socioeconomic crisis related to youth out-migration and an aging population. The city recognizes the threat and acknowledges the need for solutions, not just adjustments. The city council members are addressing the need to recruit young, working families to the aging city in partnerships to support business owners to set up shop (Connors 2017; Gardner 2019).



Physical tensions in Corner Book's downtown core. Large superblocks create a clear disconnect between linear green corridors.

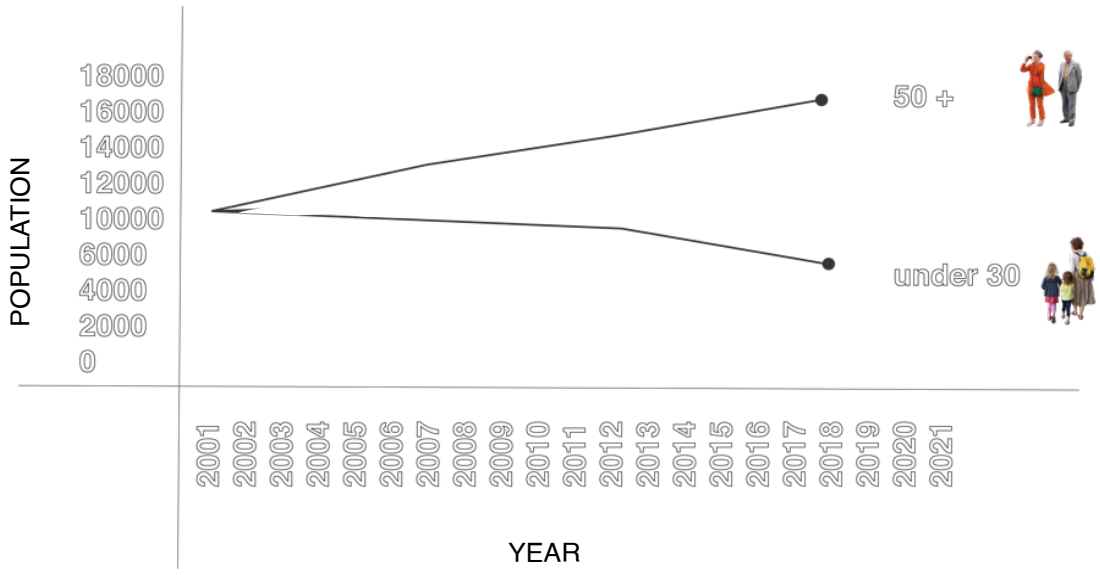
The infrastructure of sociocultural well-being is more important today than ever. Such infrastructure is not limited to urban squares and other public spaces, but also includes built-up types of libraries, museums, community centers, etc. Since the Industrial Revolution, innovations in building technology and the emergence of new schools of thought in architectural typologies have led to increased public attention to social infrastructure (Gupta 2021). It provides a place for people within the city to gather and collectively acquire knowledge, participate in festivals, and cultural events, thereby improving the quality of life of citizens.

With the development of the Internet, the digital age of endless information has arrived. Soon after the smartphone was invented, entertainment, education, and other social activities became more individualized. Urban stress levels have soared in the 21st century with rising urban pollution, hectic work schedules in major cities, remote homes far from workplaces, and poorly managed public spaces. The globalized society's above-mentioned phenomena all point to a concern for social infrastructure that our governing bodies seem to have overlooked (Gupta 2021).

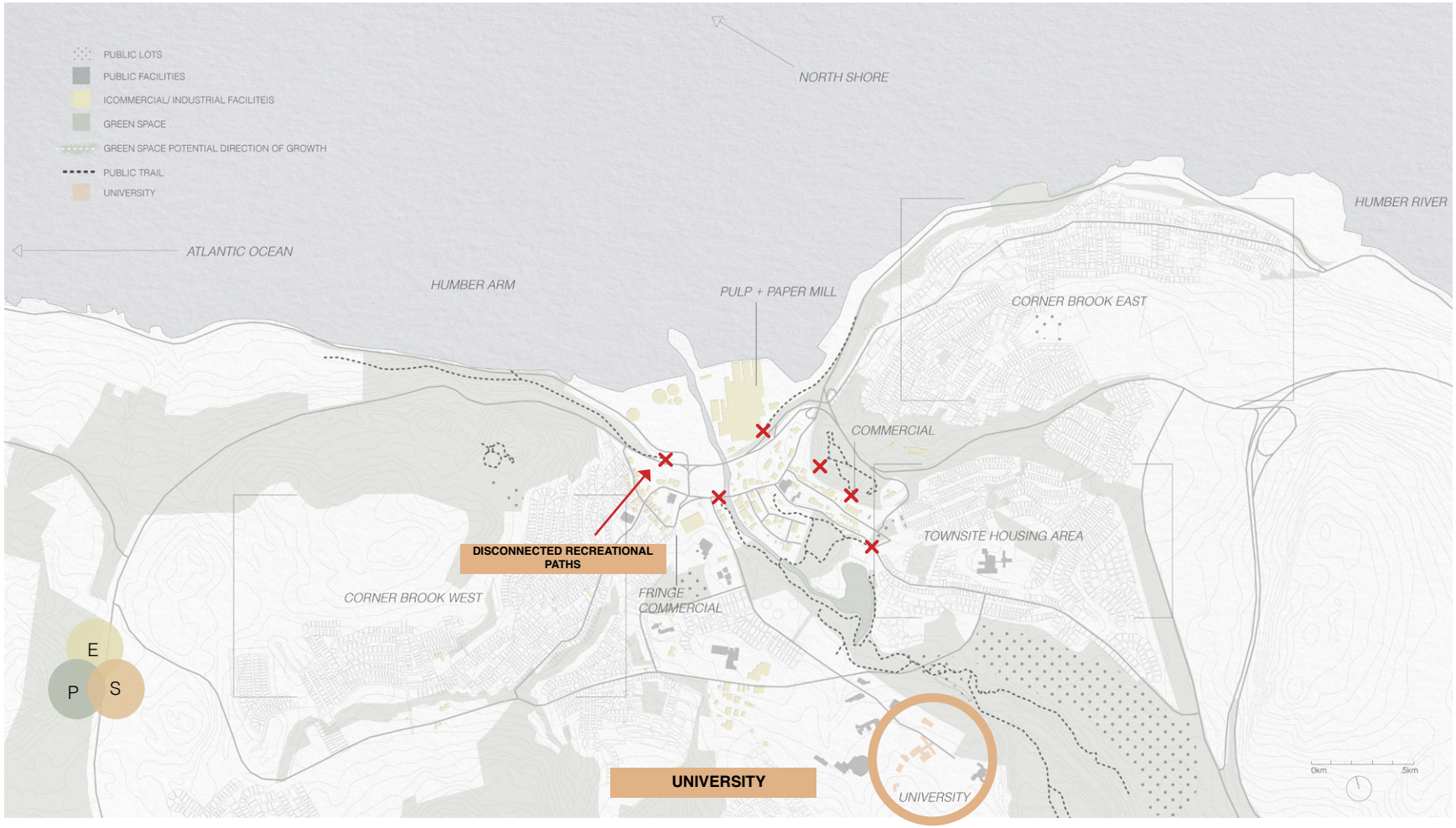
Through zoning analysis regarding the social lens, Corner Brook social infrastructure includes educational facilities, arts and cultural, community services, and public recreation space. Most education facilities land along the same boulevard, directly south of the industry. Public service centers have become scattered behind closed doors. Located on the outskirts of the city, Corner Brook is fortunate to be recipient and home to Memorial University's Grenfell Campus and has welcomed a large community for international and national students, but like most within the city, it lacks connection and opportunity to the community,

as jobs are not offered and the city transit does not cater to students.

Through a zonal analysis of the social lens, Corner Brook social infrastructure includes educational facilities, arts and culture, community services, and public recreational spaces. Most educational facilities are located on the same boulevard, just south of the industry. Located on the south border of the city, Corner Brook is home to Memorial University's Grenfell Campus. The university has welcomed a large community for international and national students. However, like most amenities in the city, it lacks connections and opportunities as well as ability since the transit is non-existent during the hours students would avail themselves of the service.



Social tensions in Corner Brook largely appear from the out-migration of youth and the aging population (Statistics Canada, 2018)



Social tensions in Corner Brook include the disconnect of recreational paths in the downtown core and the lack of partnership between the city and university.

The Global Shift to Sustainability

As the world becomes more aware of the implications of climate change, growing urbanization, and contemporary urban lifestyles, the idea of sustainability has been thrust to the forefront of policy-making processes (Wheeler 2004, Hamin and Gurran 2009). The greatest threats to our planet are now climate change and fossil fuel-based energy policies, which pose a long-term hazard to both built and natural systems (Hennicke 2005).

But socioeconomic crises, governmental shortcomings, and the effects of rapid urbanization are just a few of the problems (Wheeler 2004, 729; Jabareen 2006). Along with these difficulties, successfully navigating the profound changes our cities, cultures, and environment have undergone over the past few decades and the resulting effects we are currently dealing with requires a more effective and resilient planning and development approach (Pickett et al. 2004, 381).

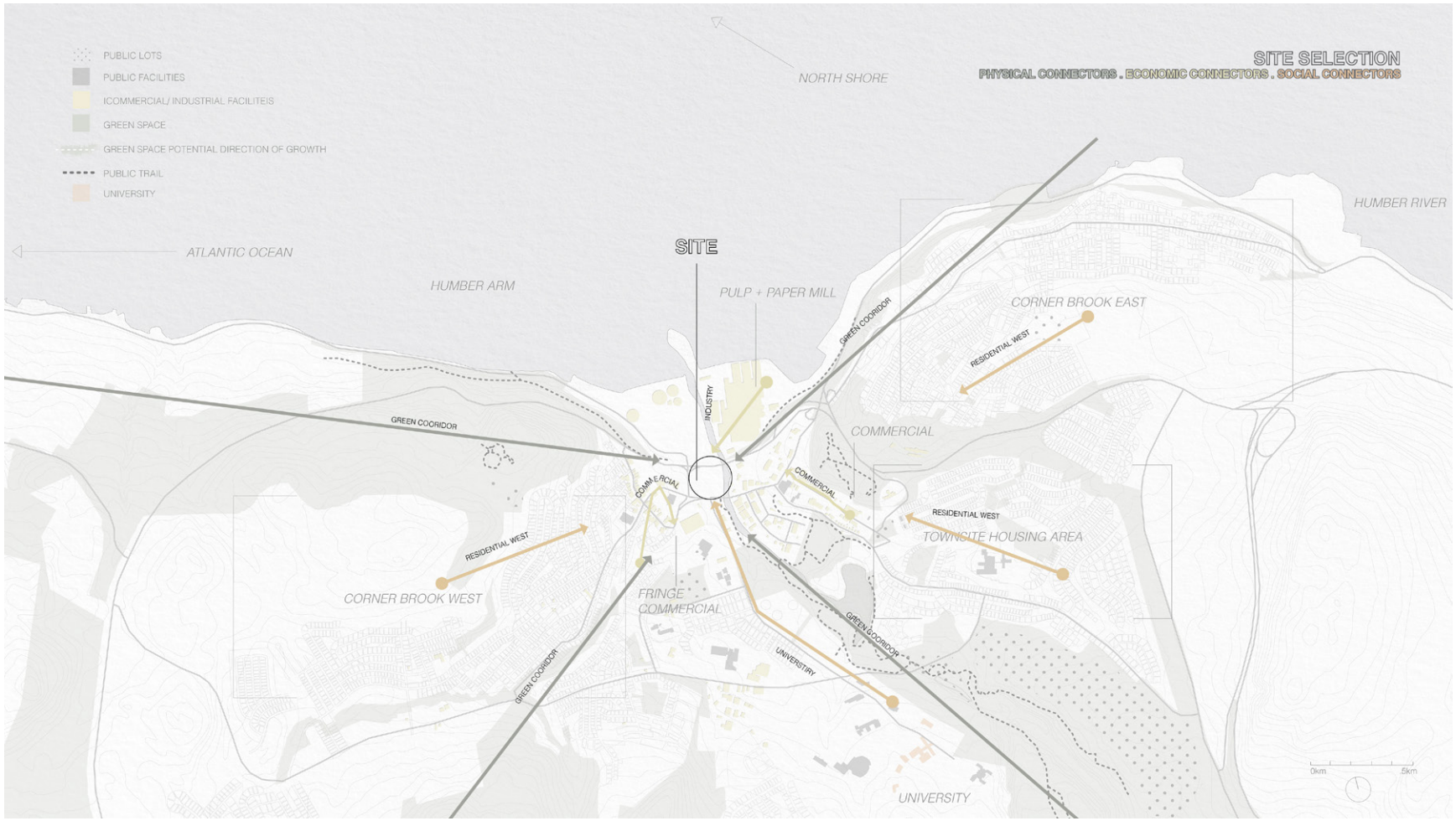
Researchers from all over the world view sustainable urban development (SUD) as a modern paradigm to solve these issues and offer a chance to create new methods for creating a desirable urban future (Runhaar et al., 2009; Yigitcanlar et al., 2008). SUD is thought to enhance a city's social, physical, and economic aspects of quality of life without burdening the next generation (Jenks and Dempsey 2005; Yigitcanlar 2010; Flint and Raco 2012).

A Case for Collective Renewal and Opportunity

Corner Brook finds itself somewhere between crisis and planning, with the council members wanting solutions and not just adjustments (Connors 2017). The community finds

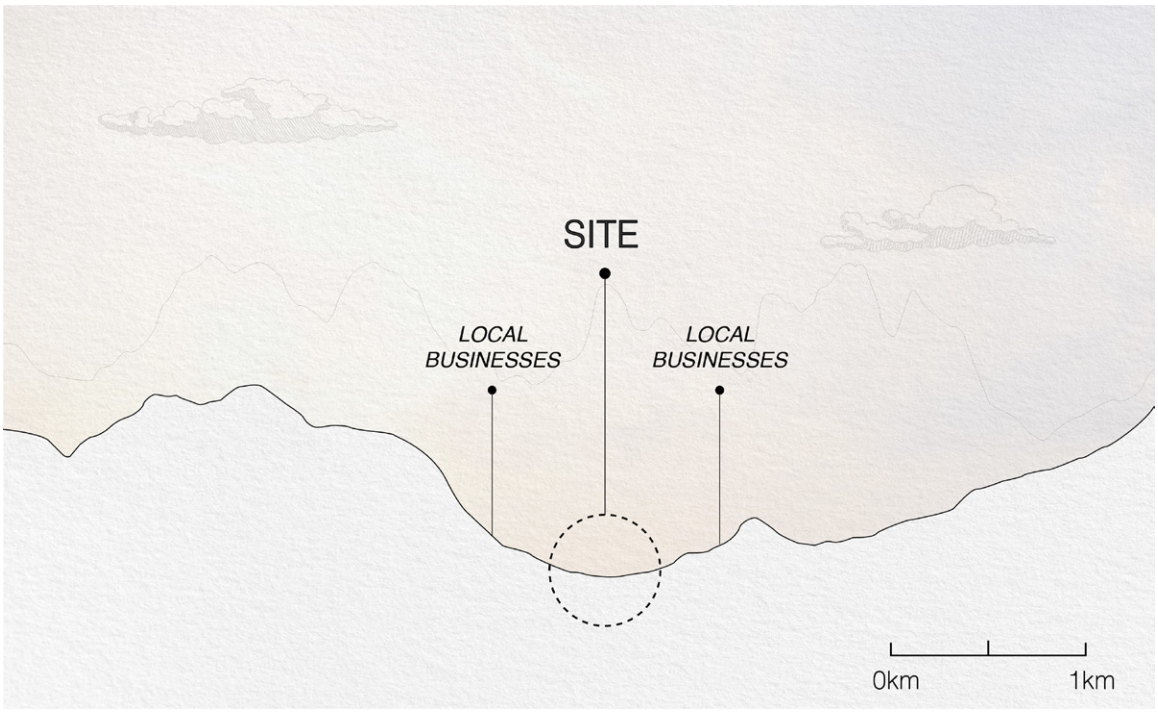
itself in need of attracting workers and keeping young families in the city.

All physical, economic and social tensions surround a central node. The space in where each tension can reconnect and unite is the site for architectural intervention. An opportunity to merge the university and pulp industries becomes present. A space to unite the separated local commercial streets occurs at the chosen site. It becomes a connection for the whole population, a heart of the city.

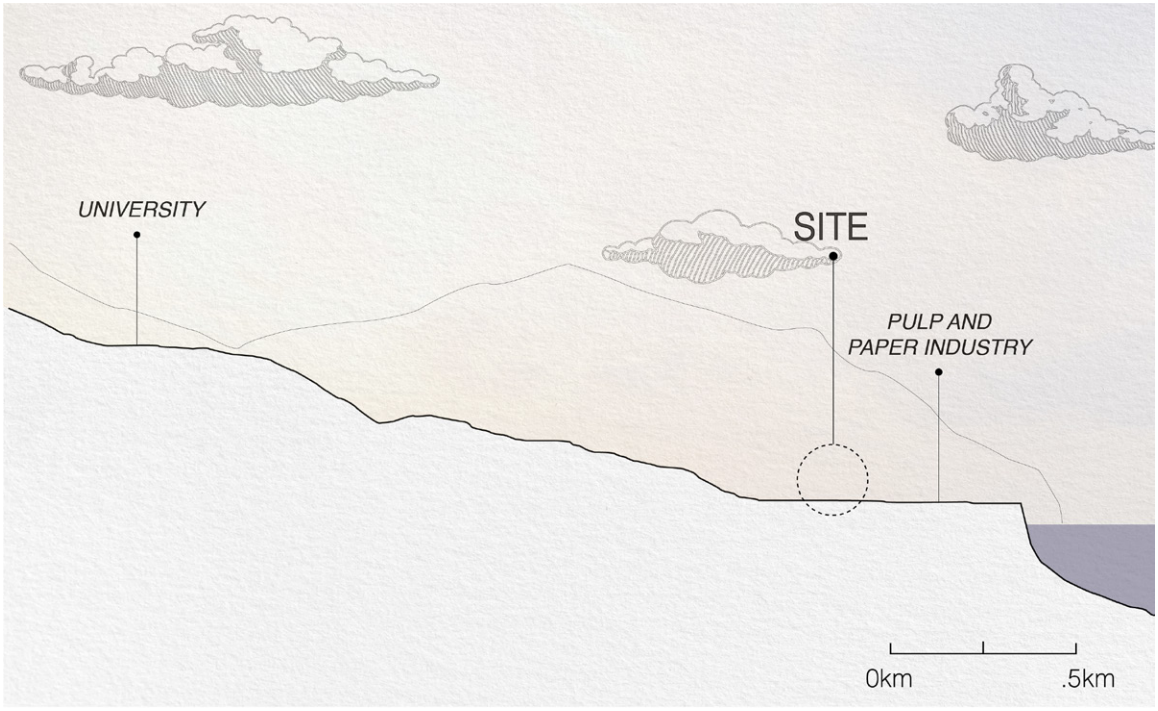


Site selection to reconnect the divide between social, physical and economic tension

Site selection through social, physical and economic connections



Section A: Site selection and city section (base section profile from Google Earth Pro 2022)



Section B: Site selection and city section (base section profile from Google Earth Pro 2022)

Chapter 5: The Reset

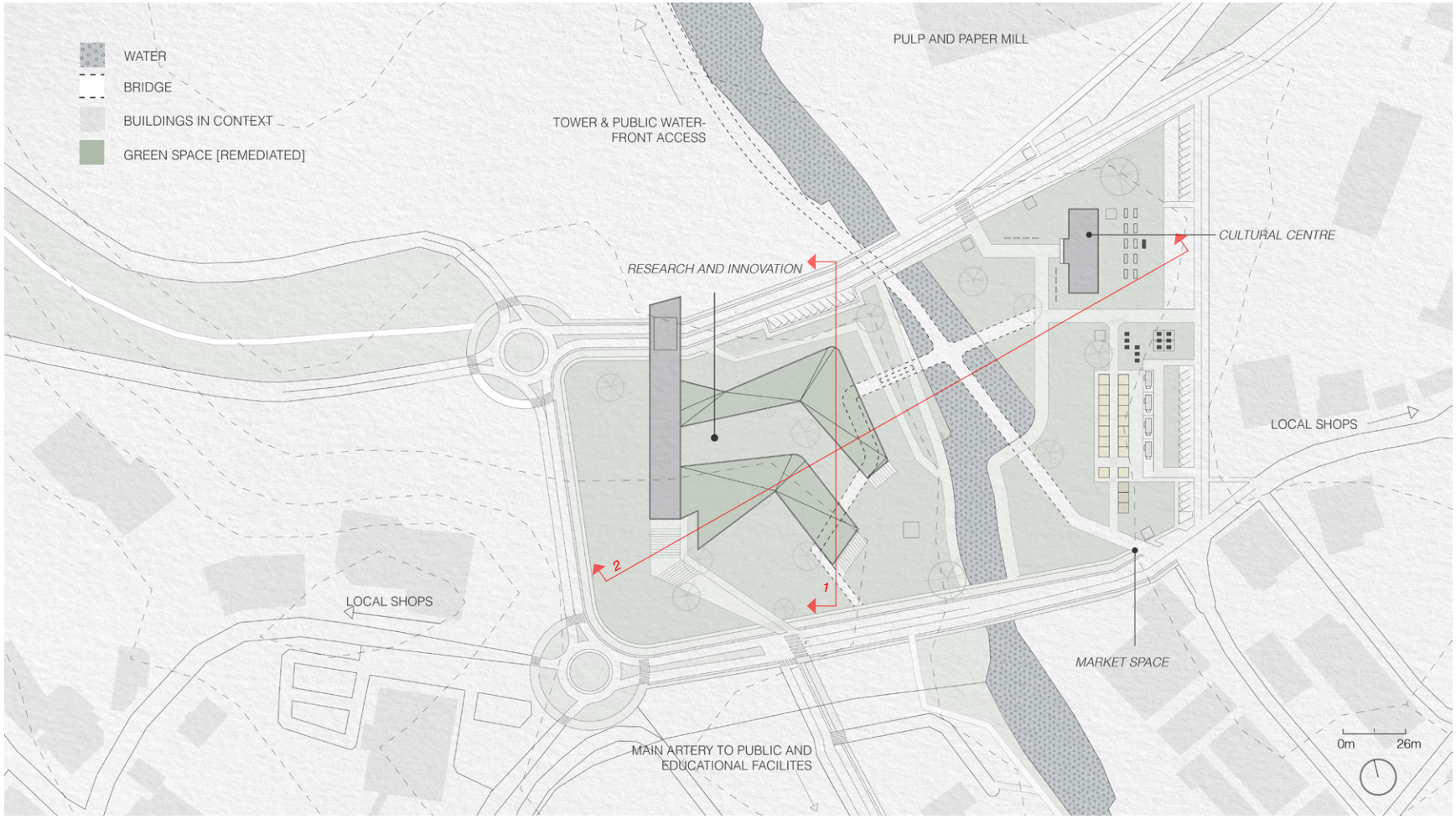
Corner Brook's Innovative Eco Park

The proposed Innovative Eco Park is an opportunity to merge the university and pulp industries and have them unite to build business potential. This park is the center of Corner Brook's downtown core, a space where amongst decades of fractures a city can begin to reconnect, a place to create belonging, and share as collectives without loss of identity. This Eco Park will serve as the city's heart. Green corridors will reconnect, recreation can continue, at an axis of industry, education and local business.

The site boundary surrounds the waterway supporting the park in the city's downtown core. A combined research and innovation Eco Park promotes a place of business, a place for education and of ecological mindfulness. By dissolving the divide between zones and disconnections I am allowing a place for younger populations to make a change for a better future where innovative solutions can be found.

Market and Modules

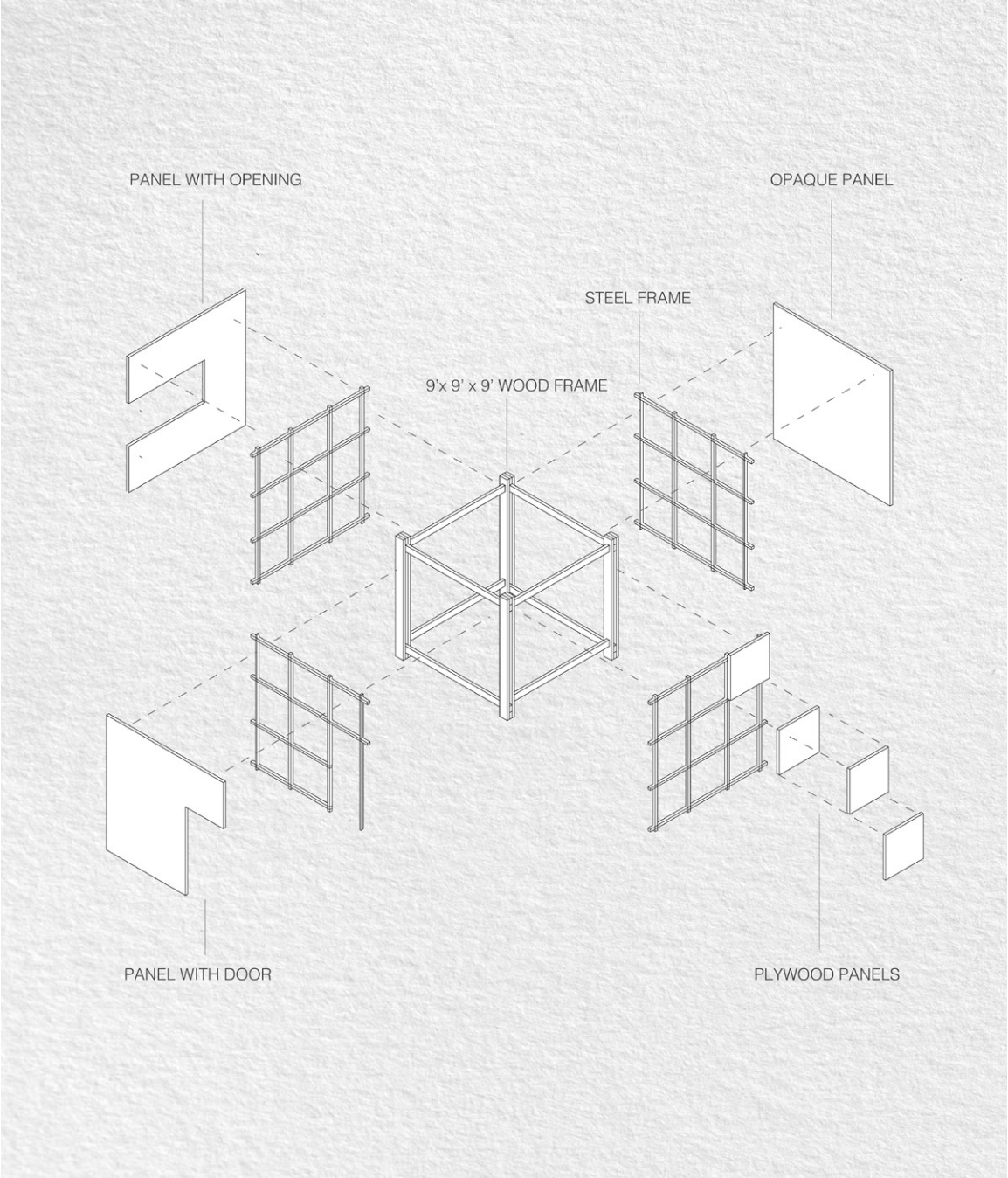
In the southeast corner of the site, I propose a market space, a space to market local talent and promote business, attracting entrepreneurial opportunities. These marketplaces can be rented, flexibly used, or become a permanent place for anyone in the city. These spaces are startup spaces for locals to start the first phase and introduce the concepts behind the brand, creating trusted customers. Modules can be retrofitted and self-built, adding personal connections to commercial creations.



Site Plan: Programmatic elements of the Innovative Eco Park

This space at the proposed Eco Park will create interaction amongst business owners with opportunity to team up with others, building a personal presence within the city center.

Approach into the market, looking north.



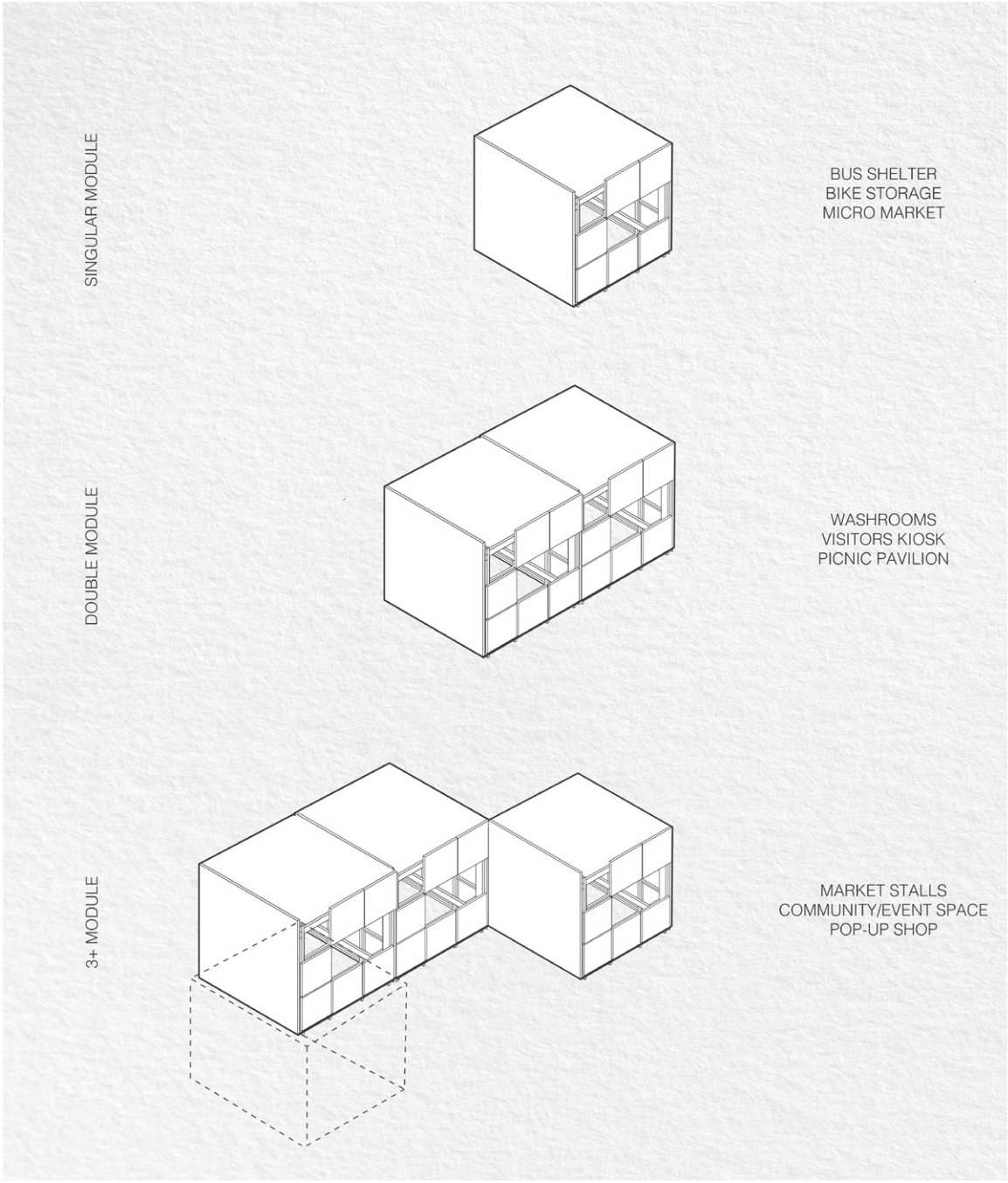
Modular system axonometric showing materials and order of construction.

A modular system is created with a standard structure and substructure using local and abundant material. These plywood panels can be arranged with the user's discretion insisting on interaction and personalization. They allow for flexibility, all the while building lightly upon the landscape.

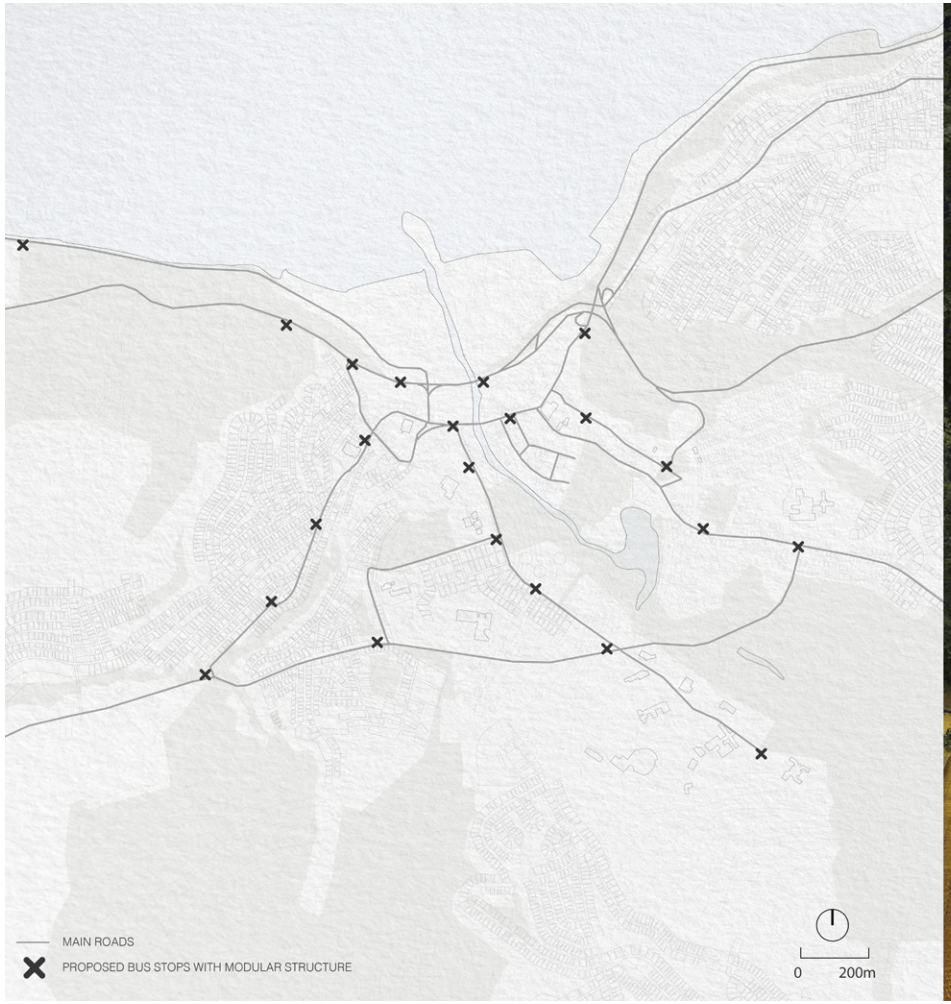
The modular unit being constructed by two people

These units can aggregate and create multiple functionalities. Singular modules may function as bus shelters, bike storage or micro markets. Doubles can provide washrooms, a visitor kiosk or picnic pavilions. Three or more may contribute to market stalls, community and event space or pop-up shops.

As a collective infrastructure this system can act as anchor points becoming an upgraded transit system. Scattered as moments along the green corridors, bus shelters and e-bike hubs disperse the streets in an approach to go green and provide preferred transportation options.



Aggregation diagram of modular showing programmatic opportunity

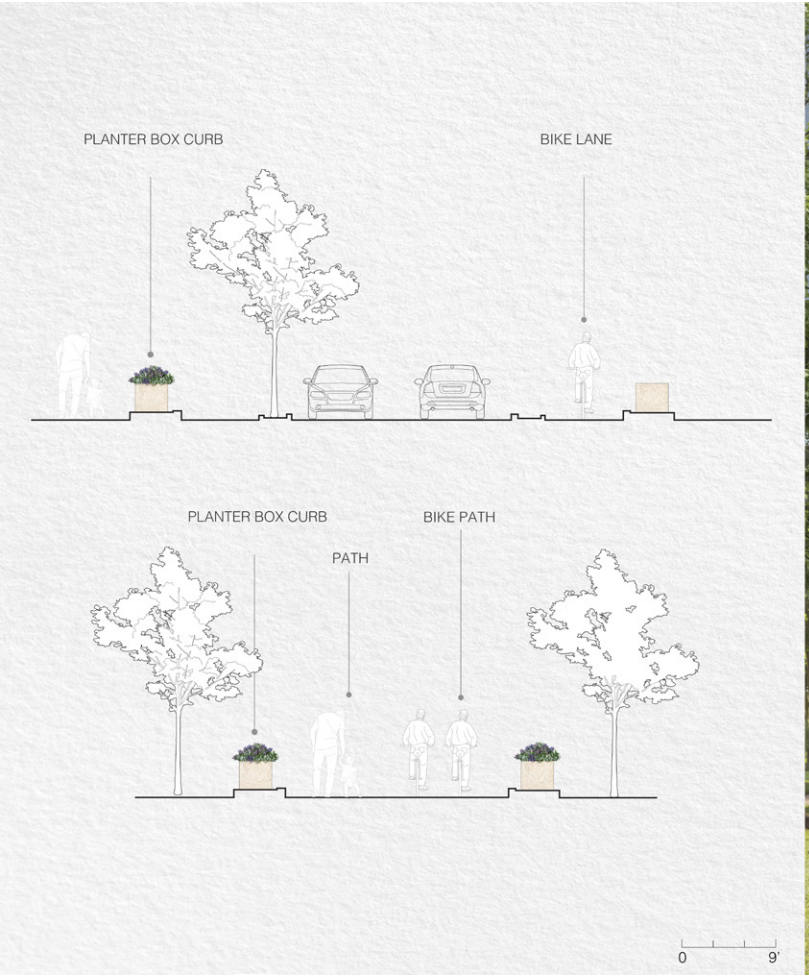


Scattered as moments along the green corridors, bus shelters and e-bike hubs disperse the streets in an approach to go green and provide preferred transportation options.
Left: Proposed bus stop locations becoming an upgraded transit system.
Right: pedestrian waiting for the bus at the modular structure.

Using the same design language, a new scale is introduced in the form of planter boxes so that the community can become involved in the city's growth. Families or individuals can gather their supplies, five plywood panels and tools located at the market stalls. They will find different sites along the walking and biking lanes within the town to construct the planters or in clusters creating community garden spaces within larger green spaces.

These finished planter boxes are placed along bike paths where they can be positioned between motorists and pedestrians, as well as separating pedestrians from bike paths. Over time, the aggregation of planter boxes will create a distinctive advantage for the path systems and ultimately introduce a unique commuting experience.

Diagram showing construction sequence of planter boxes. Step 1: Gather supplies. Supplies can be found at a market module at the central Eco Park location or a module within the city. Step 2: Prepare on-site, sites can be found throughout the town in a module supplying soil. Step 3: Construct the box using a hammer and nails. Soil, seeds, and/or plants can be found at venues in the market.



Left: Proposed street sections that incorporate bike lanes and walking paths while planter boxes create medians and a unique commuting experience
Right: Planter boxes line the pedestrian path creating a distinct edge and participatory engagement on the re-connected green corridors.

Cultural Center

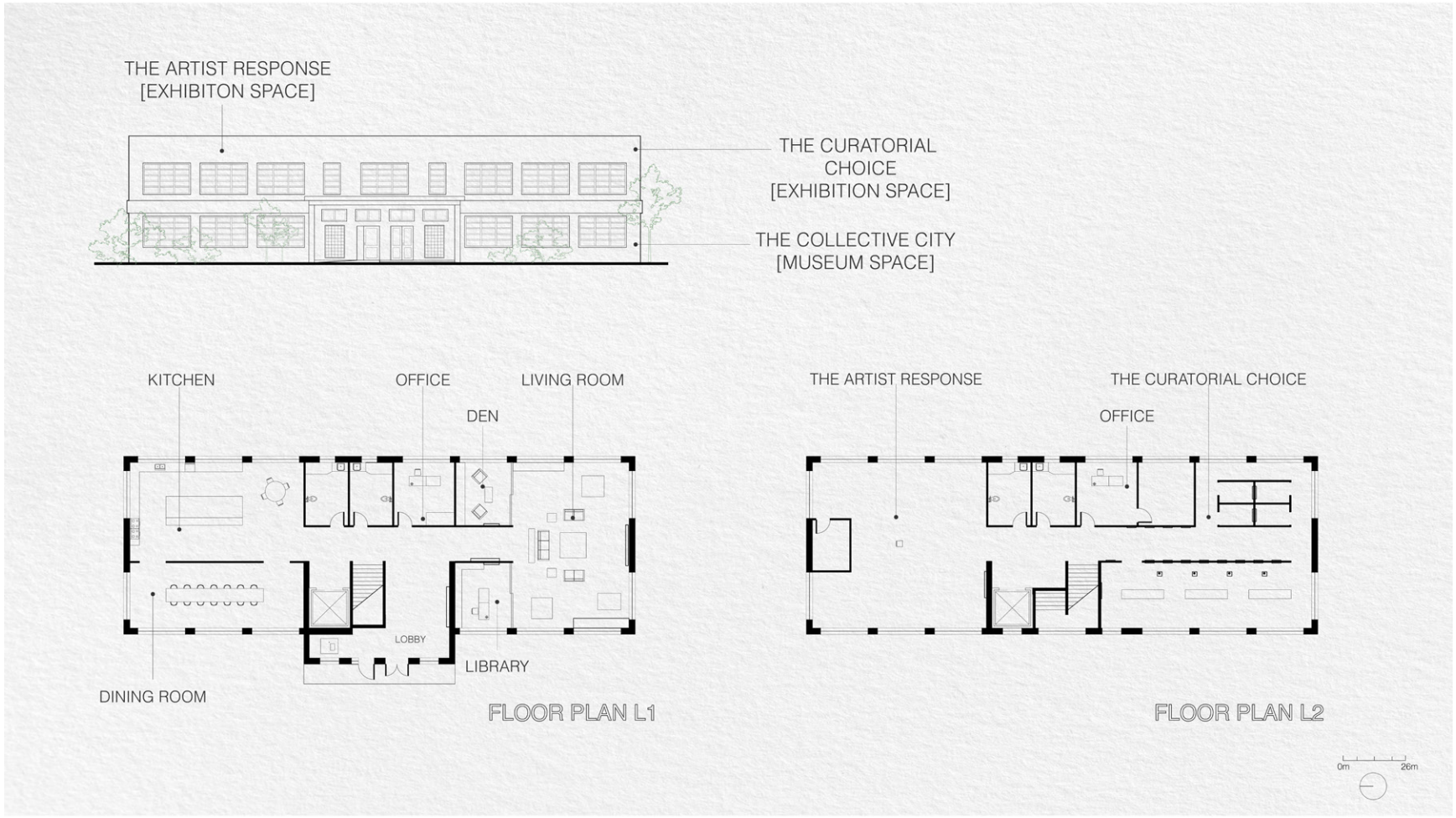
Parallel to the market stalls sits a vacant building, undisturbed and unused for 16 years. This building, built in 1954 by my great grandfather architect, Michael J. Downey, was the mill's new Woods Department Building, and deemed one of the most beautiful buildings in Corner Brook at this time, as it lays great stress on natural lighting, as the large windows attest ("Historic Corner Brook" 2008).

Construction complete, 1954 ("Historic Corner Brook" 2008)

Building's current condition, 2021

The term "adaptive reuse" is frequently used to describe the process of completely changing a structure (Brooker and Stone 2004, 125). Brooker and Stone state that the function is the most obvious change, but other alterations may be made to the building itself, such as the circulation route, the orientation, and the relationships between spaces; additions may be built, and other areas may be demolished. Furthermore, this process of architecture is considered an important strategy towards conservation of cultural heritage (Machado 1976, 46-49).

Within my thesis, this building will become an adaptive reuse as the city's cultural center. The center is organized in layers, with the ground floor acting as the cabinet of curiosities holding artifacts from the collective city. The second floor will provide exhibition and gallery space for local artists.



Cultural Centre elevation and floor plans (original building plans supplied by Glenn Fisher)

The modular design language is mimicked within the space to display photographs and infographics about local histories. Plywood sheets are mounted to a steel structure with connection areas for dowels to hold the exhibition piece and a plexi overtop.

The modular design language is mimicked within the space to display photographs and infographics about local histories. Plywood sheets are mounted to a steel structure with connection areas for dowels to hold the exhibition piece and a plexi overtop. For this thesis I have imagined an exhibition displaying images of the 1923 construction of the town, industry, and workers at that time.

Research and Innovation

Located across the waterway on the western side of the site, accessible by proposed paths is the new research and innovation building.

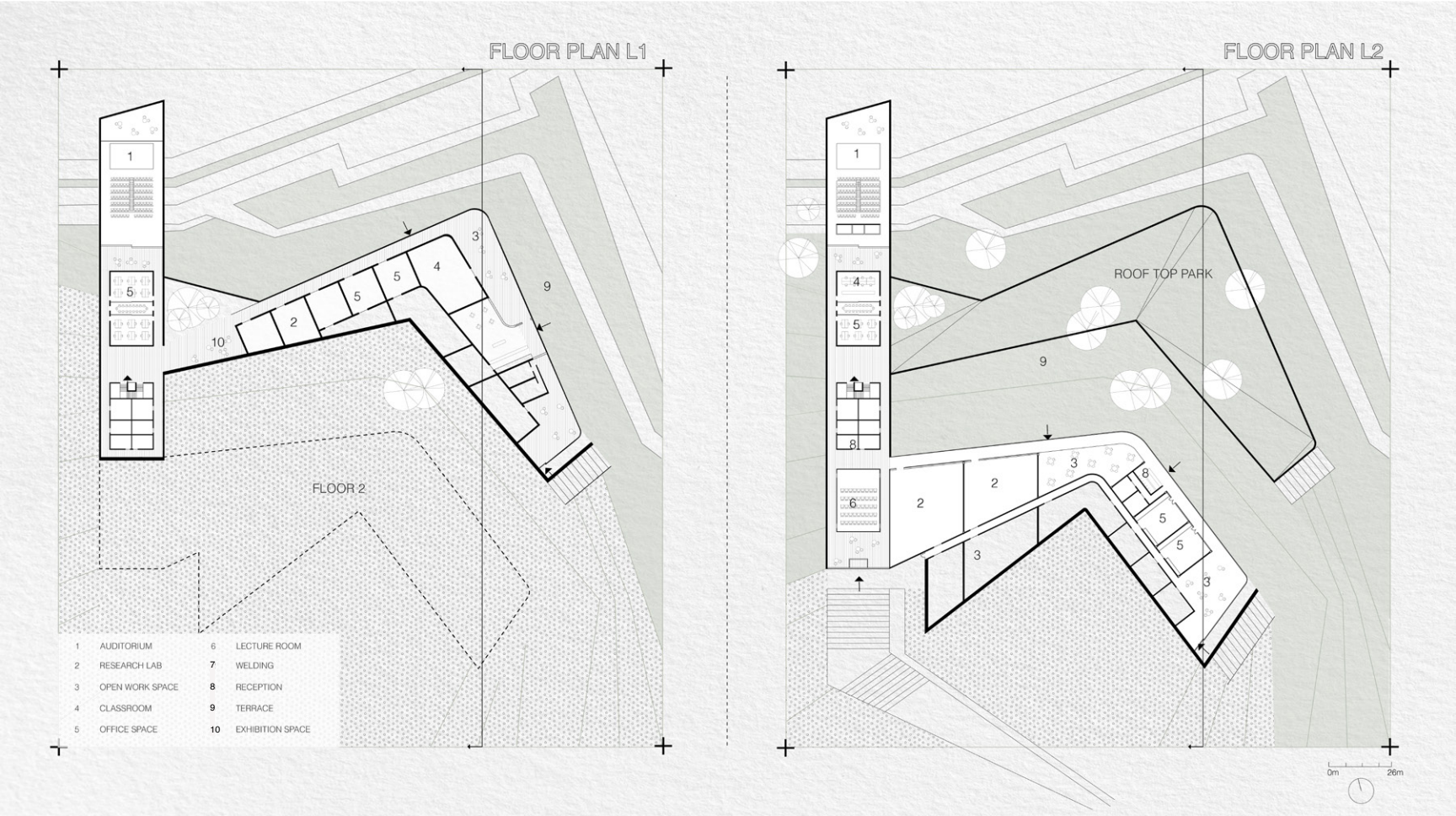
The site of the Research and Innovation building currently functions as a parking lot in the city's downtown core. Building upon the asphalt and retaining wall, the site will allow for underground parking. The form of the terraced buildings is influenced by the site's original contours, thus allowing the architecture to become part of the landscape and provide minimum interference to nature. The building is designed with a curtain wall that is broken up with strategically placed engineered wood panels that frame moments of the view to the rest of the site and mimics the design language of the modular markets.

Situated on the west of the site spans a city landmark, designed in close contact with the terrace structures in different levels. The terrace buildings offer a working environment intertwined with nature while the large spaces in front of them provide suitable place for a wide range of activities like workshops or sustainability experiments.

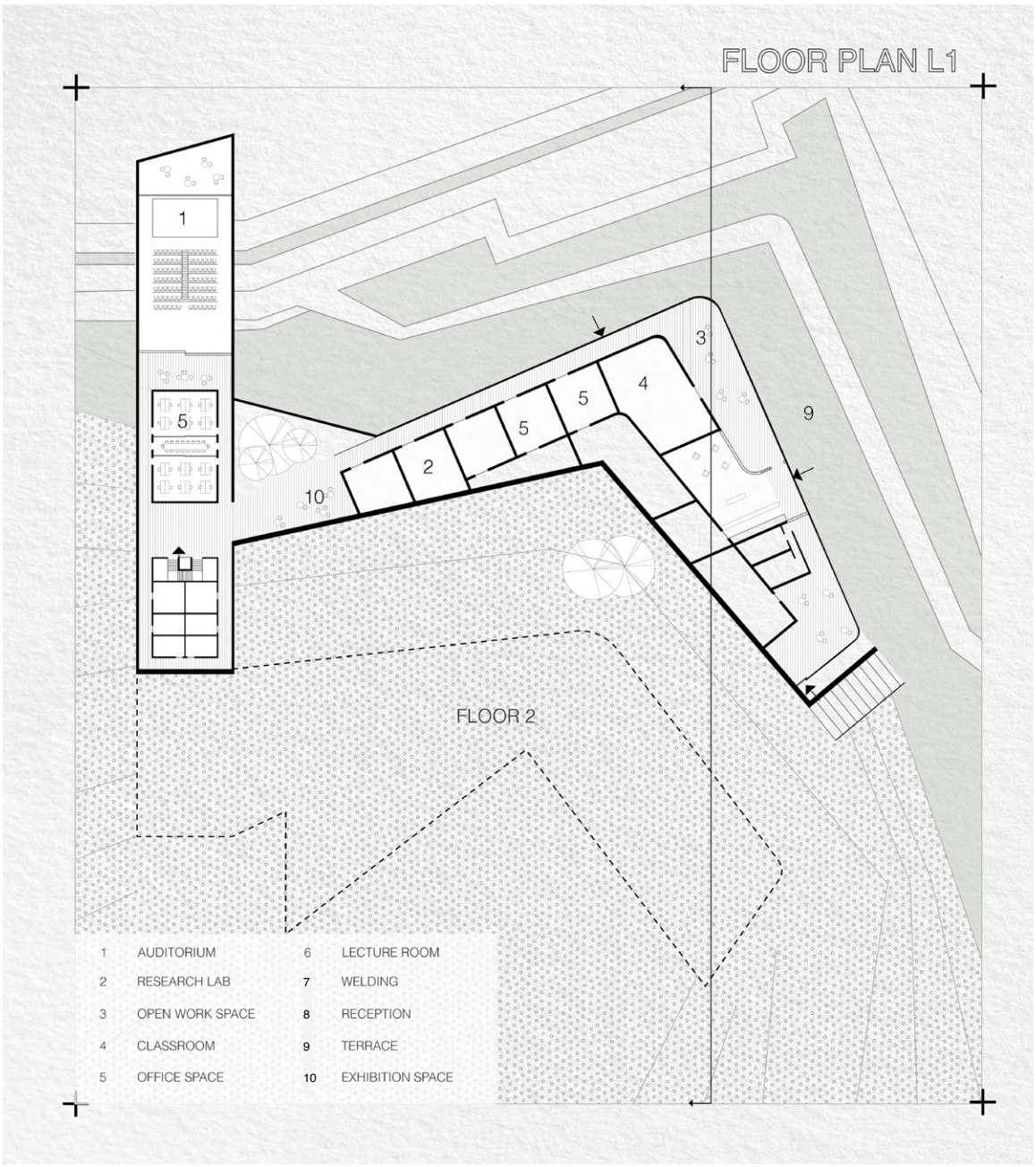
The project is designed to remediate nature to its original landscape and leave most of the site to the green. The

terrace buildings follow the site's original contours within the hill, creating flexible space for offices, conferences, workshops, classrooms and more. This building has the potential to evolve into a milestone of Corner Brook where everyone who is interested in sustainability and particularly involving the university youth (graduates) and industrial innovators would benefit from informal encounters, stimulating communication and exchange of ideas.

Exterior of Research and Innovation building, looking northwest from market space across the water.



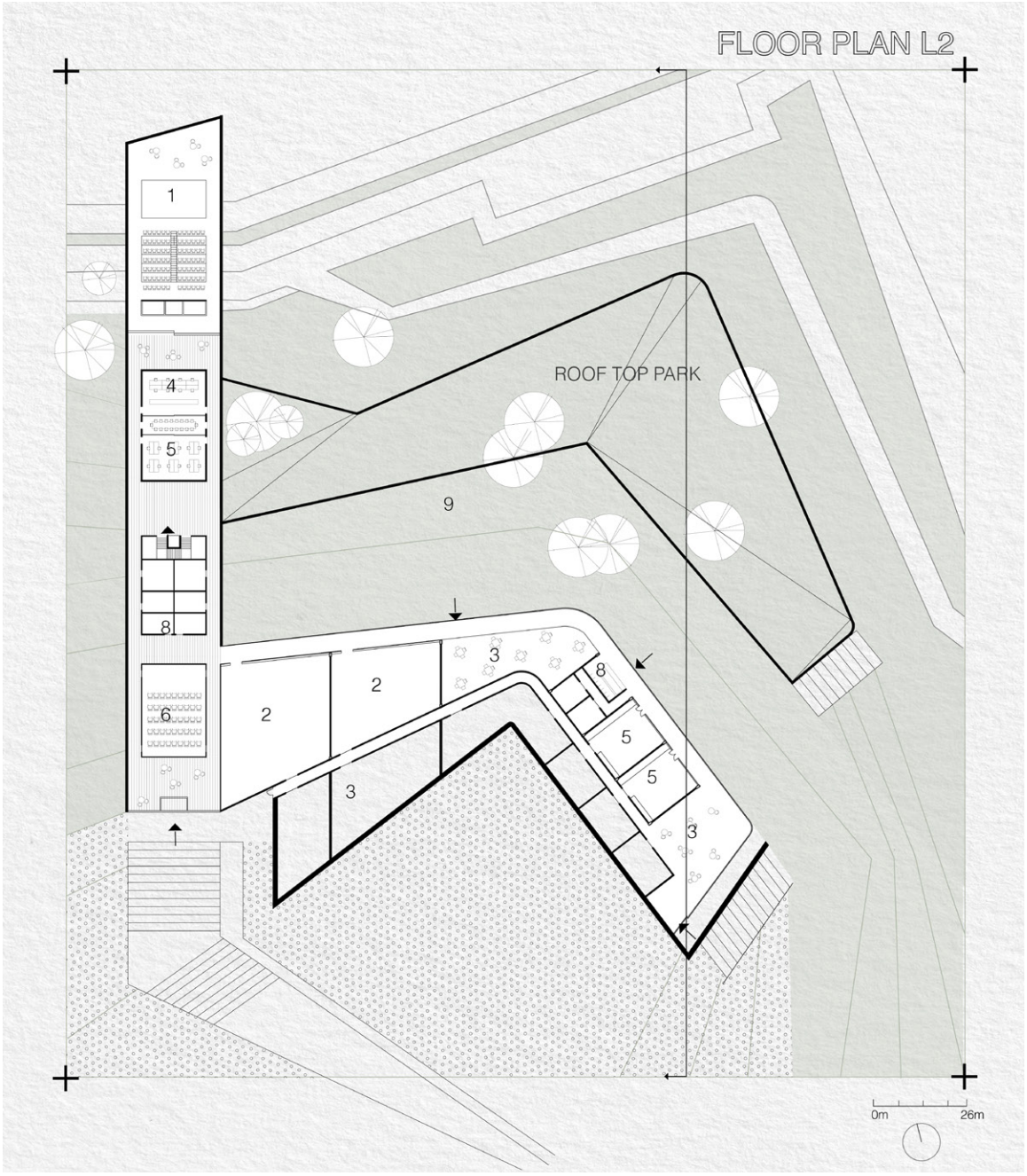
Floor plans of Research and Innovation Center



Plan of Floor one, Research and Innovation Centre

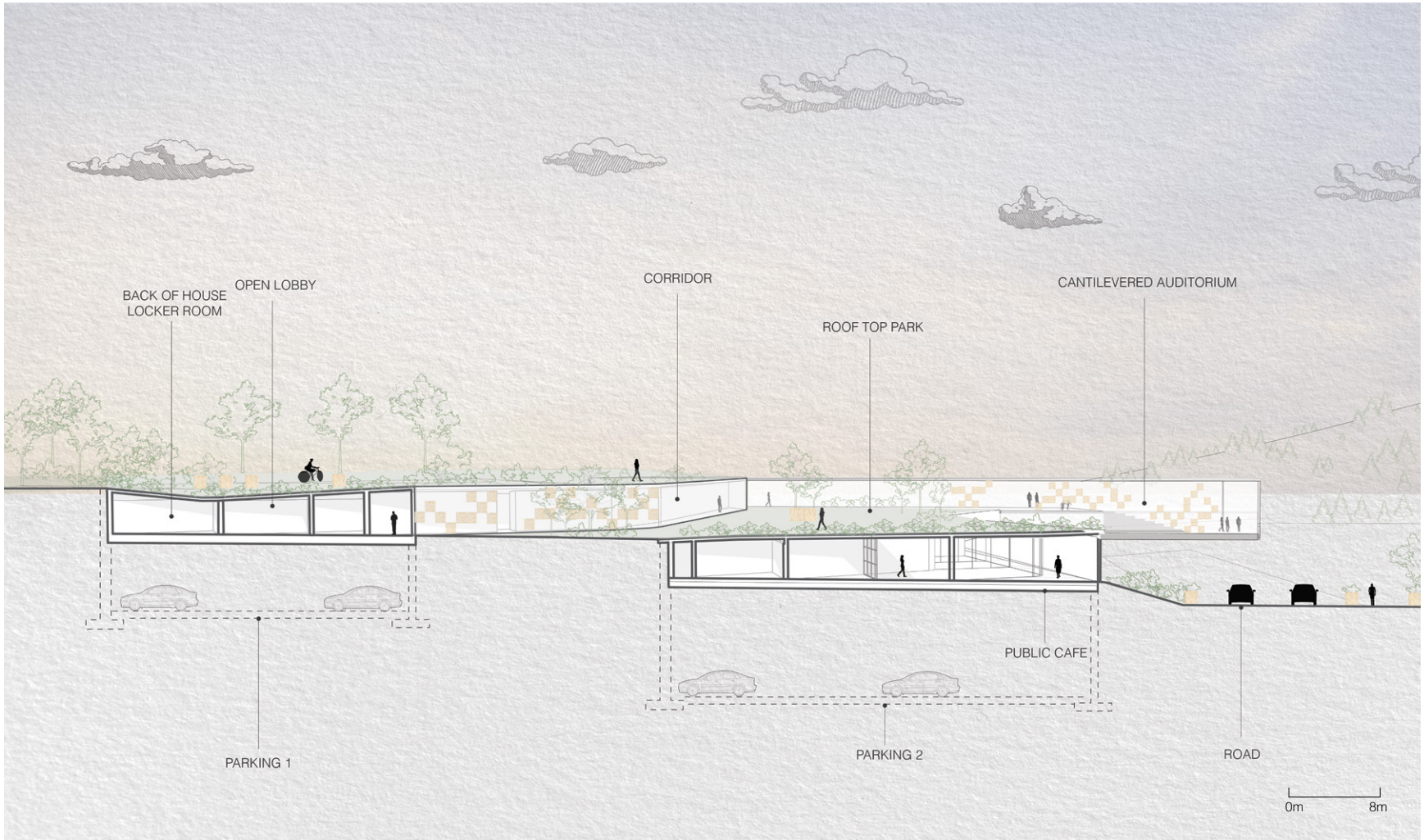
Planters can be spread atop roofs where people can garden, creating moments of interaction along paths for people to meet, or commute through on the proposed path systems.

The final proposal to this thesis is connected from the main site through a bridge to a site closer to the pulp and

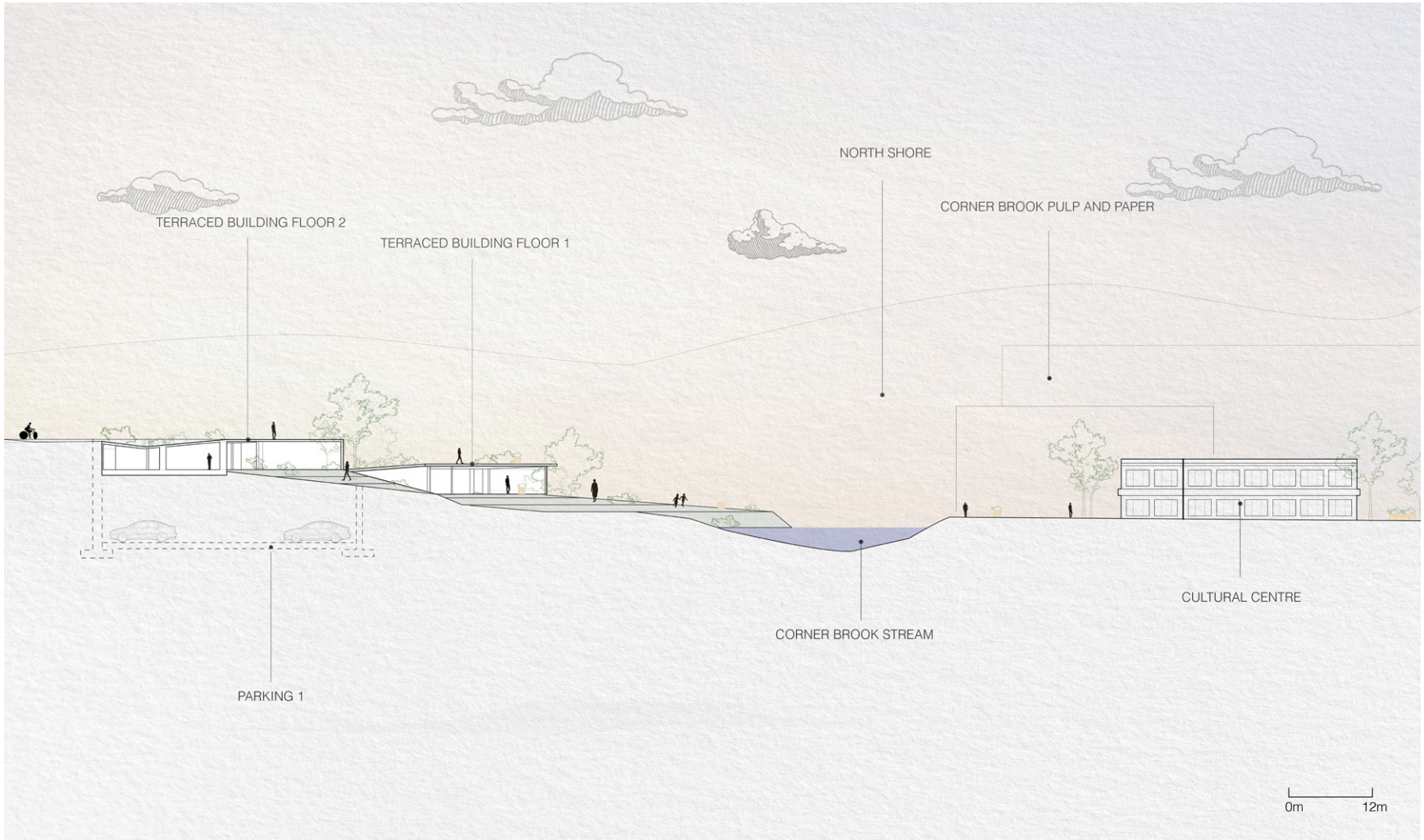


Plan of Floor two, Research and Innovation Centre

paper mill at the water's edge. As patrons have walked and cycled through the new town hub, they reach an elevated bridge that brings them to a viewing tower. The tower has brought opportunity to connect to the water as the future pulp industry will allow space to free up, giving back to the city a place to enjoy. The viewing tower is designed as an



Section 1: Perspective through the terraced remediation of the Research and Innovation Building within the landscape, looking west.



Section 2: Section through the Research and Innovation Building, Corner Brook Stream and east side of site, with the Cultural Centre, looking north.

extension of the market stalls, modular boxes and research center and formally creates a gesture of growth and hope for the town of Corner Brook. The tower provides vantage points celebrating the water's horizon but most importantly back towards the proposed site and the expansive view of the newly developed garden city.

Bringing together the physical, economic and social aspects of a place can bring life back into the city: it can begin to blur the edges of zones and boundaries. Through partnering and forming collaborative, shared goals, we too, can aid in the goal of a sustainable and foreseeable future. Thomas Adams said it best, "Before we can make a plan of a city, we must know all the aspects of its physical structure. This involves study of its related economic, social, and physical conditions; the trends toward change in these conditions; the mistakes and success in past developments; and the possibilities of securing improvement. It also requires the study of past examples. But above all, he must have an understanding of those social and economic needs that give endurance to society and aim to secure their fulfilment" (Adams 1935, 23).

Bridge to tower connection allowing public waterfront access, looking west into the Humber Arm.

Chapter 6: Conclusion

For more than a century, experiments in resource town planning have shown ambition and testing, but many lack sufficient sensitivity to local contexts and communities. Many areas built in response to industrialization fail to address the root causes of instability in resource-dependent communities and rely on corporate paternalism, leading to isolation and fear. Other resource towns have successfully diversified their economies and declared independence, driven by a strong sense of community and collective identity.

This thesis asks how architecture and urbanism can help regenerate a detached industry town and facilitate a sustainable future. By not shying away from their identity as youthful settlements with a close relationship to industry, and allowing their unique challenges and aspirations to guide the process, exciting and innovative solutions can be found. There is no one method to guarantee a permanence to a place of socio-economic crisis, however, a study of its urban past is a recommended place to start. A study of a community's core social, economic, and physical strategies and tensions provides a place-based approach. This approach is used to analyze conditions over a timeline and among varied scales and becomes a method to begin understanding the spirit of place and identifying strengths of the past as opportunities of the future, with the goal of bringing life back into the community.

The architectural strategy attempts to demonstrate that a variety of approaches are needed to address the unique pressures brought about from unplanned development. The site selection became an evident space where all disconnects

could reconnect in a centralized location. Program became apparent through analyzing current problems in relation to its past strengths, most importantly preserving place identity.

The proposed Research and Innovation Eco Park as a city center suggests a collective urban experience with all buildings centrally located and in dialogue with one another through their situating, form, material and flexibility. The park showcases three types of architecture, adaptive reuse, remediation, and modular design, to prove there are multitudes of opportunities and options if you analyze and dissect the true issues.

The proposed center is designed in a way where the community can become involved at all scales at any age. Each move is strategically understood to be educational, flexible and teach reasonable steps in facilitating sustainability to regain future opportunities. This project helps people participate in the urban planning process. It assists in improving a sense of belonging and fosters human talent and socio-cultural values favorable to creativity and innovation. By empowering people to bring about change within their local community, the project re-invigorates a more contemporary interpretation of community values in a knowledge society. Corner Brook's capacity to interpret and engage with its urban environment is also enhanced by raising our awareness of the socio-cultural background, heritage and future aspirations of local community members.

Through this urban strategy, the Corner Brook Innovation Eco Park consists of academia, culture, ecology, business, and innovation. This proposed urban strategy will be interwoven and embedded into the fabric of the city's urban systems and landscapes, providing harmonious benefits

for both residents and nature alike. It will foster strong local stewardship, support, and create business opportunity and growth, and encourage active and connected neighborhoods, generating a strong sense of community on all three scales. It can become a true place of belonging for all to enjoy.

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