Accenting Edmonton's River Valley Methodologies of Color; Using Framework of Human-Environment Connections

by

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ABSTRACT

West Rossdale and its river banks are the core cultural aspect of Edmonton. Its potential is portrayed through 'River Crossing", the one place where city and river meet. The thesis aims to explore the physical and cultural evolution of the site through a diversity of experiences: on, above and beside the water; and a diversity of spaces connected to each other and to the surrounding urban fabric. The overarching intention is one where the river is celebrated through thoughtful interventions that enrich habitat, create a destination, and establish a memorable and enduring sense of place, an amenity for all.

The thesis presents an applied color vocabulary appropriate to the site. Where color is used as a methodology to understand the experiential psychology of the landscape. In addition, another version of the synthesis focuses more on the dimensional color relationships as governed by the structure of buildings. Where color, structure, and material convey and help define the character of the place.

ACKNOWLEDGEMENTS

CHAPTER 1: INTRODUCTION

The modern urban environment plays a big role in motivating physical activity. My interest arises from the ambition for developing the urban typology of river experiences along the north and south banks of the Saskatchewan River from Government House Park extending downstream to Louise McKinney Riverfront Park. Its goal is to create a place that acts as a vibrant, creative hub of the city. Places for people to celebrate the meeting of city and river; where nature, culture, and history together offer a unique significance to Edmonton. It is important to honour the site's ancient history while actively contributing to the city's present and future. Fostering and highlighting arts and culture in its broadest sense, from visual and performing arts to food, fashion, architecture, design and more. A space that serves as an incubator, bringing people together from all creative industries, and provides capacity for them to collaborate, inspire and share their creations with the public.

The study investigates the relationship between humans and their environment, integrating experiential and spatial dimensions of the outdoors, and exploring the theory and application of environmental design through the use of color. The conceptual color ideas are followed on with an exploration of how they might influence the detailed development and structure of the proposed buildings, where I focused on relating the characteristics of the experiential landscape concept to geometrical considerations. A key consideration relating to the site's scale and impact is access to the site. The program is imagined as an experience

at the waters' edge for watching people, strolling, cycling, floating a boat, or dipping their feet. The site has the potential to be the front porch of a great amenity and cultural resource, the re-purposed EPCOR generating Station and Pump houses. The opportunities for programming of the buildings and open spaces are varied, undetermined and tremendous. As the community and the river come together to create a destination and a connection.

Vision Statement

(Re)inhabiting the North Saskatchewan River valley's edge, by re-linking forgotten connections and developing the urban typology of public spaces through culture, color, and physical activity.

Thesis Question

How does the city connect to the water? How can we make the River a destination/a landmark where the history of Edmonton – past, present, and future – comes alive?
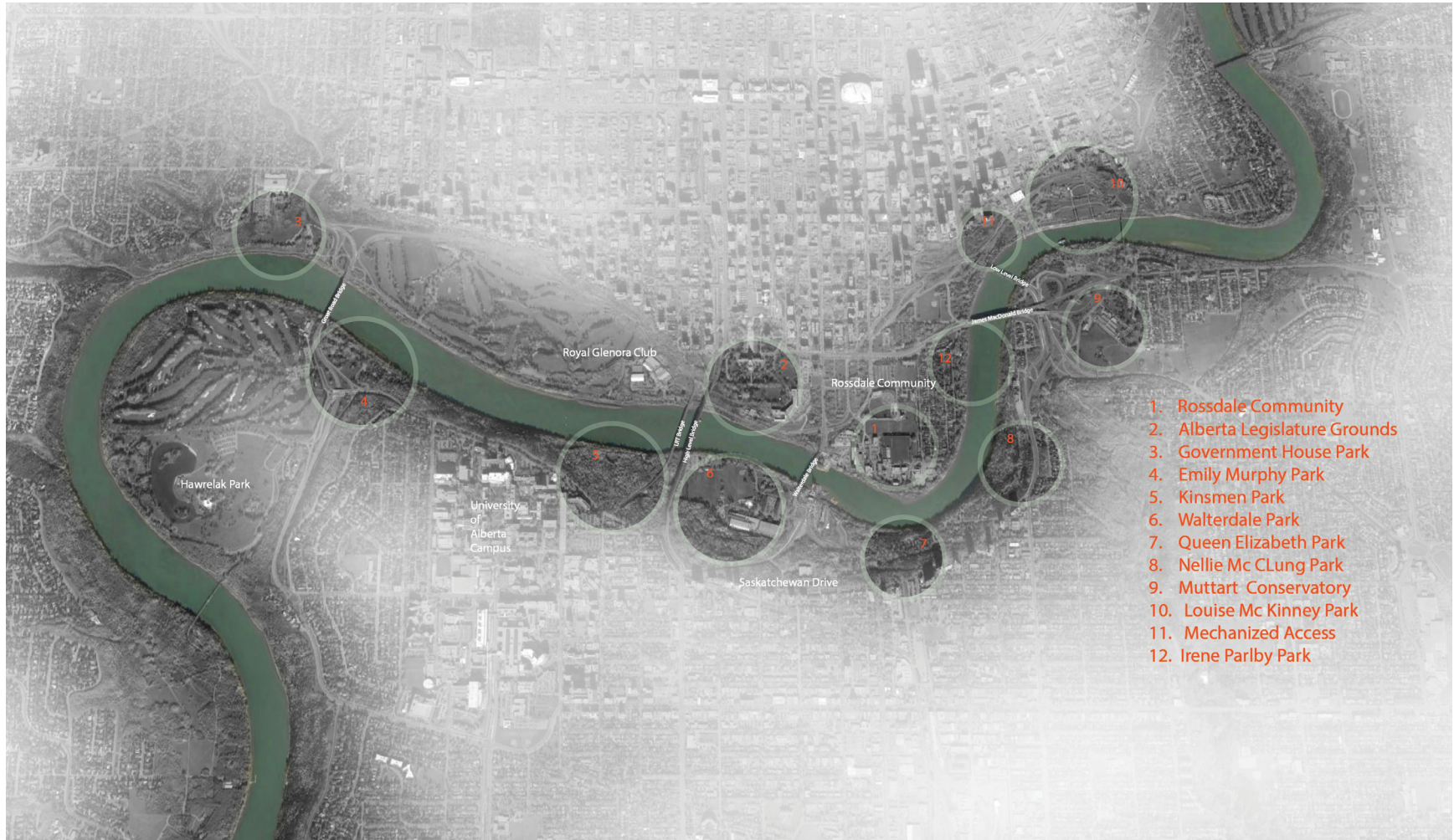
Urban Context - NS River Parks (Google Maps 2016)

1. Rossdale Community
2. Alberta Legislature Grounds
3. Government House Park
4. Emily Murphy Park
5. Kinsmen Park
6. Walterdale Park
7. Queen Elizabeth Park
8. Nellie Mc CLung Park
9. Muttart Conservatory
10. Louise Mc Kinney Park
11. Mechanized Access
12. Irene Parlby Park

CHAPTER 2: PLACE AND CONTEXT

Early Exploration and Cultural History

The Rossdale site owns a rich cultural history, beginning with First Nations people settlements and occupation of the area since the recession of the last ice age, almost 10,000 years ago. Evidence of butchered animal bone fragments and flaked stones were found in undisturbed soil several metres below the surface during archaeo-logical explorations in 2000. Indicating the earliest human use on the site and the likelihood of the area being set as a camping spot for many centuries before the arrival of the fur traders, around the end of 18th century. (Common-wealth Historic Resource Management Limited 2004, 20)

In early historic times the North Saskatchewan River was the main transportation corridor through the region. The early exploration of these natural features, including the river and its valley, back to 1690 made the future site of Edmonton attractive to early Aboriginal peoples and fur-traders alike. Henry Kelsey, a Hudson's Bay Company employee travelling home from York Factory, wintered by the river between the Pas and Cumberland House. The impetus for Kelsey's exploration came from the fur trade. The desire to improve the trade and meet the challenge posed by French competition in western Canada, made the Hudson's Bay Company's Fort Edmonton prominent not as a trading post and later also as a regional centre. The flats by the river were highly valued and were seen as being the centre of that segment of the universe.

Rossdale as a main trading post location for the fur

traders, became a home to four different fur trading posts positioned between 1801 and 1830. The Hudson's Bay Company (HBC) and North West Company (NWC) built their first forts around 1801 on the site (Edmonton House II and Fort Augustus II), with another phase of re-building and construction sometime around 1813-1830 (Edmonton House IV and Fort Augustus IV). The formation of the forts was the first settlement of the area after the First Nations people, and was the impetus for establishing Edmonton as a town and then city. (Commonwealth Historic Resource Management Limited 2004, 36)

In the late nineteenth century with the arrival of the railway new changes became evident. Economic development focussed on the high land at either side of the river – first Strathcona to the south and later downtown Edmonton to the north. Less attention was given to the river and the flats. The river began to be seen as a barrier and no longer as an artery. The flats gradually reduced in importance and became land with relatively little economic value. For several decades after Fort Edmonton closed its doors, the Hudson's Bay Company retained the idea of selling its land in the flats for a tidy profit, but over time found that the market showed little interest in it and it was barely sellable for low-cost housing.

As the ownership of the land was steadily transferred from the HBC to the City over the years, Rossdale became a place for utilities and transportation routes – the power plant, the water treatment plant, a gravel pit, roads, railway lines, bridges, and very nearly also a manure depot, an incinerator, and an expressway. In the 1920s the HBC grazed its horses here and unused land was cultivated

for market gardens. Numerous agricultural enterprises existed within the study area. Up to the late 1950's, market gardening was also practiced on Walterdale Flats, Groat and Victoria Park Flats. (Commonwealth Historic Resource Management Limited 2004, 42)
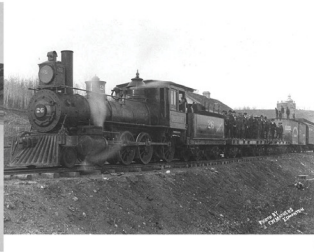

Aerial photo of Rossdale Generating Station, showing context and links (Google Maps 2016)

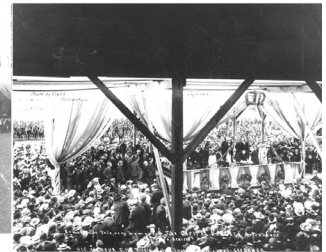This photograph was taken on the banks of the North Saskatchewan River.

A Canadian Northern train on the EYP track in 1902.

Inauguration parade at the Exhibition Grounds, 1905.

View of Fort Edmonton from across the river, c. 1884.

View from the north of coal being delivered to powerhouse along the spur line.

The birth of the Province of Alberta, 1905. The caption reads: This very moment is the capital.

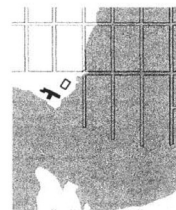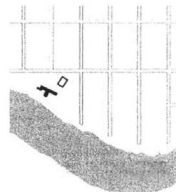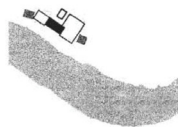**Settlement**　　　　　**Transportation**　　　　**Industrial History**　　　　**Recreation**　　　　**Provincehood**

Images showing the historical time line from settlement to provincehood (data from The City of Edmonton Archives 2016)
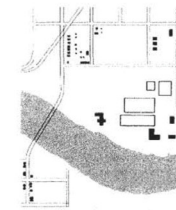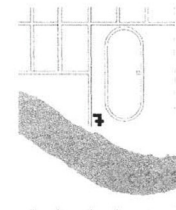
Pehonan

No permanent human settlement, only First Nations camps

Site of traditional ceremonies, celebrations, meetings, Trade, and games.

Dating to at least 8,000 years ago.

Before 1795

Fort Locations

Site home to a series of fur trade forts, beginning in 1799.

1812-13 Edmonton House IV and Fort Augustus IV built on Ross flats.

1830-32 Fort Edmonton V built below current site of Legislature.

Last Fort Edmonton was demolished in 1915.

1795 – 1830

HBC Warehouse and Burial Grounds on site

Used as a burial ground prior to contact with Europeans.

First Nations, French Canadians, Scottish, English, and Métis people were buried here.

The archaeological digs conducted by an archaeologist in 2007 and 2009 in nine sites in West Rossdale found no human remains.

c. 1882

Extent of Great Flood of 1899

Flooding occured in the Edmonton area during the 19th century on 1825 and 1899.

The 1825 Flood led to the movement of Edmonton House IV to a higher terrace grounds.

The 1899 flood forced engineers to raise the piers of the nearl completed Low Level Bridge by eight feet in an effort to cope with future floods.

1899

Location of the Exhibition Grounds & Race-track, & Old Power Plant

The Edmonton Exhibition was held on Rossdale flats from 1899-1909.

The City developed sports fields for foot-ball, soccer, baseball, tennis, hockey, etc.

c. 1908

Development of Water Treatment Plant adjacent to Power Plant, Walterdale Bridge spans river

John Walter operated a ferry across the river from 1882-1905.

The Edmonton Yukon and Pacific Railway (EY&PR) train steamed across the Low Level Bridge, Oct 20th, 1902.

105th St. (Walterdale) Bridge was constructed following the amalgamation of Edmonton and Strathcona in 1912-15.

c.1930

Timeline of Rossdale; First Nations, Fort Edmonton, Burial Site, and Industrial Facility (data from The City of Edmonton Archives 2016)
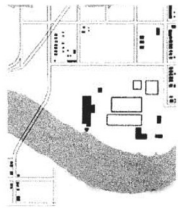
Low Pressure Plant Expansion

In 1937 the boiler and turbine room main building were expanded.

Expansion continued on thye old building PL Plant through 1942, 1947, 1952, and 1954.

The origional design, by Maxwell Dewar, was carried out by other architects and contracting firms that worked on the expansions.

Maxwell Dewar had not done the drawings for the subsequent expansions.

1938 - 1954

Construction of Traffic Circle adjacent to Plant

traffic rotary was constructed at the intersection of 103 and 97 Avenue.

The construction of the rotary in 1958 coincided with that of River Valley Road in 1957-58, and the construction of a new road on the old EYP roadbed connecting Bellamy Hill Rd with 104 St. at 97Ave.

c. 1958

High Pressure Plant Added

The 1960-66 a west wing was built, HP Plant, with a more powerful generating units.

In response to pollution concerns, the stacks on the HP plant were elevated by 30 m to better disperse gas.

Scrubbers were also installed to reduce NOx gases.

c. 1960

Rossdale Road Runs Over Burial Ground

Citizen groups wanted the LP plant to be preserved, and archaeological excavations found remnants of the old fort Edmonton and a First Nations Burial Ground.

In 2001,the province designated the LP plant, the Administration Building, and Pumphouse #1 as historical resources, which ended EPCOR's plans to repower Rossdale.

1980s

Current

The HP plant was kept in operation for emergency use until 2009. It has now been decommissioned.

The site has lived three intertwined lives:

A first life as a wilderness area formed by the river.

A second life as an important central place where people met and exchanged goods and cultures

A third as an engine of industrial development and progress.

c. 2016

Timeline of Rossdale (data from The City of Edmonton Archives 2016)

Site

The North Bank of the Saskatchewan river initiative identifies the opportunity to synchronize and integrate the Generating Station, West Rossdale neighbourhood and the potential new Walterdale Bridge together to create a vibrant landmark destination for Edmonton, its downtown and Rossdale. The Generating Station on the banks of the North Saskatchewan River is essential to the making of "The North Bank".

This is a city-building opportunity that has the potential to both nurture and transform the city's community life. The site available as former EPCOR use is approximately 2.23ha (5.5 acres), with the historic four buildings having a gross area of approximately 8,750 square metres (94,140 sq ft). The 060 Substation, that was once used to power the trolley lines, is also available for alternate uses by the City. (Alberta Register of Historic Places 2016)

Between the four buildings there will be a total usable interior floor space of approximately 94,140 square feet (Google Maps 2016)

Previous site plan (Alberta Register of Historic Places 2016)

Current site plan, the red line represents the fence surrounding Epcor properties and the green shade represents the demolished building areas (Alberta Register of Historic Places 2016)

Program Strategies & Site Connections

I propose a series of goals and objectives:

Connect and integrate Downtown, the river, the Legislature, and adjacent neighbourhoods: I propose 104 Street as the primary pedestrian link connecting downtown to the river and the Generating Station site. In addition, pedestrian links to the Kinsmen Sports Centre and Legislature.

Implement public realm improvements to animate the area through urban design and programming: Promenades, plazas, gardens integrated with the building.

Respect and emphasize the history and archeological significance of the area: Several buildings have historic designations, and the significance of the area is documented through works commissioned by EPCOR.

Interaction with water: The north bank of the Generating Station site and beyond is recommended to be a multi-modal promenade, integrated with pedestrian facilities coordinated with the Walterdale Bridge Replacement. There is the potential for docks and other water amenity, a restored indigenous riverbank, and reuse of the Pump Houses.

Improve mobility and sustainable transportation options: While enabling vehicle access, it is recommended that alternate modes be emphasized through the creation of an inviting pedestrian and cycling realm and transit services to the site from the proposed neighbourhood and its surroundings.

Parking within the site is limited. An overall coordinated parking plan is recommended to address the needs of Rossdale Generating Station, Telus Field, Kinsmen Sports Centre and large events.

Create sustainable and complete neighbourhoods: The Power Station is to be sustainable though a variety of initiatives specifically including reliance on sustainable transportation, and its programme creating 'Hotspots' that enables:

• Retail

• Production on site

• Education

• Events programming

• Urban design and character
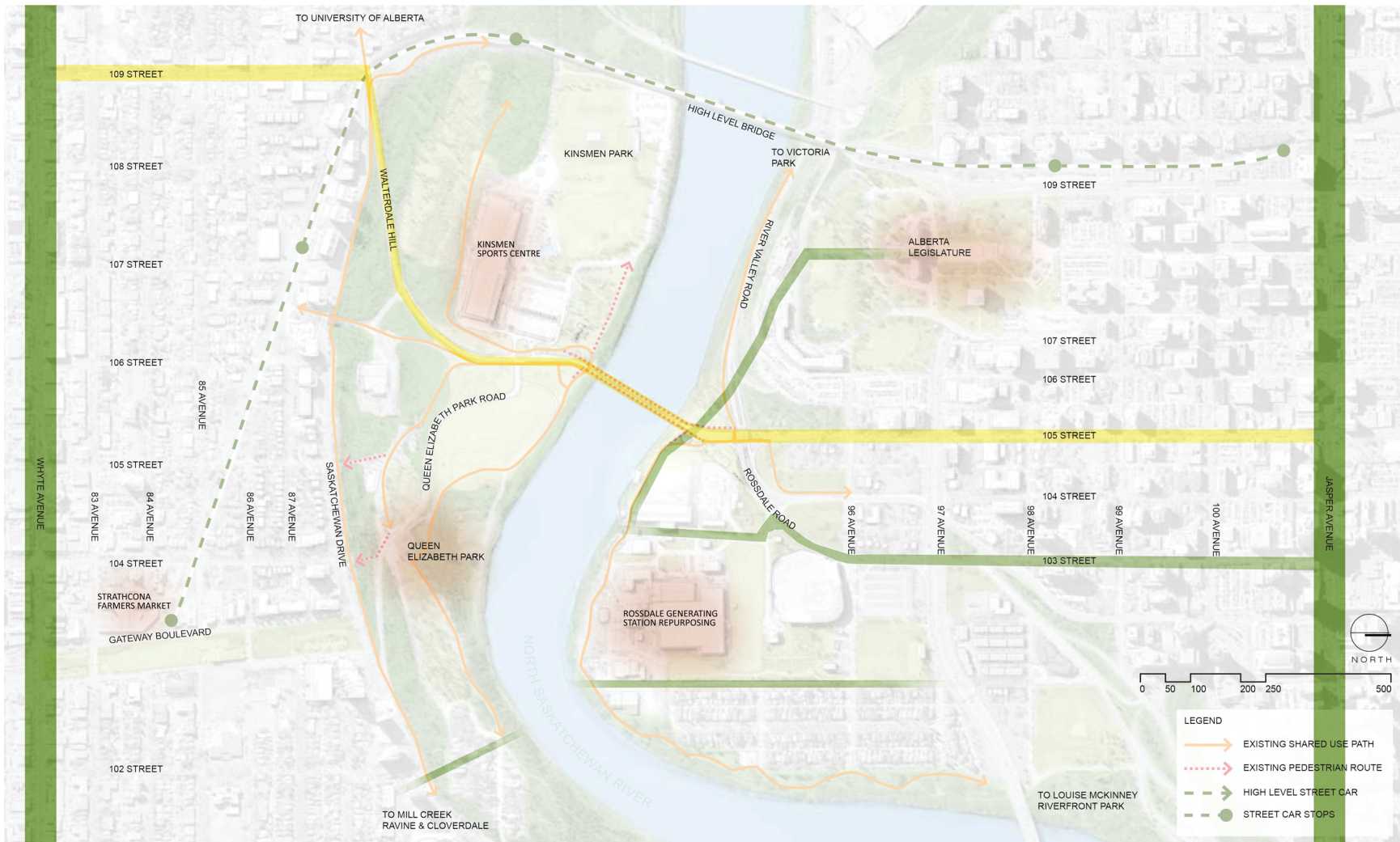
Urban connections (Google Maps 2016)

Geological History

The geological history of the Edmonton area is relatively simple in comparison to that of the Rocky Mountains or regions further west. Basically, the Great Plains region rests on a nearly-level-lying bed of Canadian Shield that was laid down between 2.5 and 3.5 billion years ago. (Millholland 2005, 32)

The geological history of Rossdale and the North Saskatchewan River Valley is redirected to the area's stratigraphy and soils. The site is located on the 10 m terrace of the North Saskatchewan River Valley. Around 10,000 -12,000 years ago, the Valley was shaped from the rapid down cutting of the river after the retreat of the last glacier to cover the area. The Cretaceous bedrock is usually buried beneath about 10 m of river alluvium (silts, sands, and gravels). These surficial deposits are poorly developed because of frequent disturbances mostly from the successive flooding and slumping on the site. Bed-rock is generally exposed along the river cliffs in line to the site, where most of Edmonton's early coal mines were located, counting the original mines that nourished the original Power Plant. Although the area flooded frequently, there were periods of fewer floods, which enabled better soil formation and attracted humans to the site.

Repeated flooding and deposition of sediments had a key role on the formation of soil along the river flats of the North Saskatchewan River. Rossdale valley kept on widening some 8-10,000 years ago, due to the numerous flood events. Edmonton Area experienced a number of flood occasions in the nineteenth century, most evident in

1825 and 1899. The 1825 flood caused the fort plain 'a Complete Sheet of water.' Which led to the movement of Edmonton House IV fort from in its original location on Rossdale Flats to the higher terrace, provincial legislature building (Fort Edmonton V) current location. The 1899 flood caused major damage to the flats along the North Saskatchewan, including Rossdale. Engineers had to raise piers of the Low Level Bridge, which was nearly-completed at that time, by eight feet to cope with future floods. (Millholland 2005, 35)
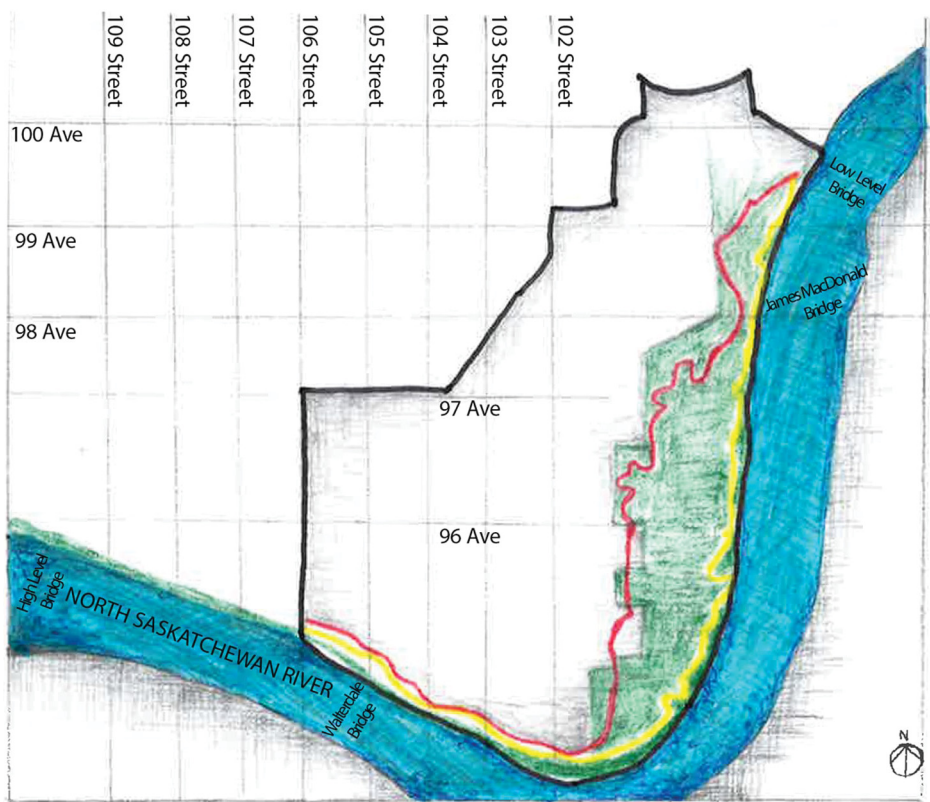

Flood protection area map (data from Millholland 2005)

Introduction to Rossdale

Rossdale was first known as Ross Flats. It was named after the local hotelier Donald Ross. Ross opened the Edmonton Hotel in 1876. The hotel was the first to be established west of Portage La Prairie. The Edmonton Hotel remained as a land mark until 1925, where fire destroyed it. The power plant in Rossdale continues to bear Donald Ross's name. (Commonwealth Historic Resource Management Limited 2004, 170)

The Rossdale Power Plant gives an indication to the architectural design, style, and construction methods that were used in the late 1920s and 1930s. The building includes a metal decking, open steel joists, steel-framed windows, and pre-cast concrete. The design met the modern electrical power plants requirements of the time using the reinforced concrete foundations structural steel framing system, and non-loading bearing masonry walls. This type of construction method allowed for expansion over the history of the building with no major modification to the construction detail or system.

The plant reflects traditional elements of classical architecture design. Base, column and pediment are interpreted in the Rossdale design in a manner unique to the early 1900s. While walking by the Plant, a significant mass sitting on the alluvial plane at the bottom of the River Valley alongside the North Saskatchewan River. A central location to the urban landscape, adjacent to the Valley, a well-used and distinguished recreational vein in the cityscape. Located south of the downtown area leading to the main business district. (Commonwealth 2004)
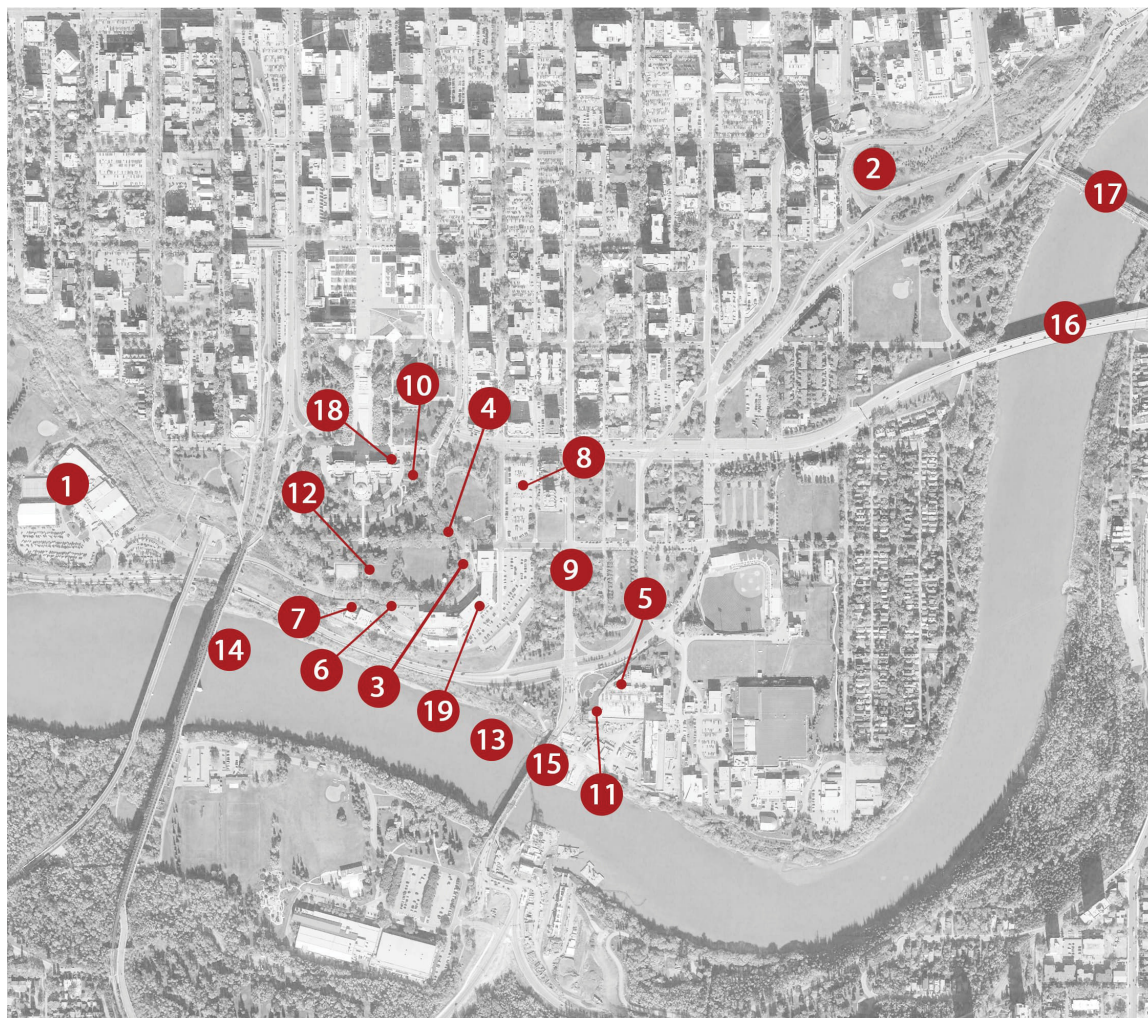
1	Victoria Park		**11**	Fort Edmonton IV
2	Donald Ross Hotel		**12**	Fort Edmonton V
3	Probable location of cross erected by Fathers Blanchet and Demers		**13**	Approximate route of Walter's Ferry
4	Probable location of Indian Graveyard described by Violet Wilson		**14**	High Level Bridge
5	Fort Edmonton Burial Ground		**15**	105 Street Bridge
6	Government Power House		**16**	James MacDonald Bridge
7	EY & P Gravel Pit		**17**	Low Level Bridge
8	City Gravel Pit		**18**	Legislature
9	EY & P Railway		**19**	Terrace Building
10	Hardisty House - Big House			

Selected sites of historical significance (data from Alberta Register of Historic Places 2016)

Fort Edmonton V

GARDEN

FORT

2

FORT

FORT

GARDENS

3

FORT

1

Aborigional Camps
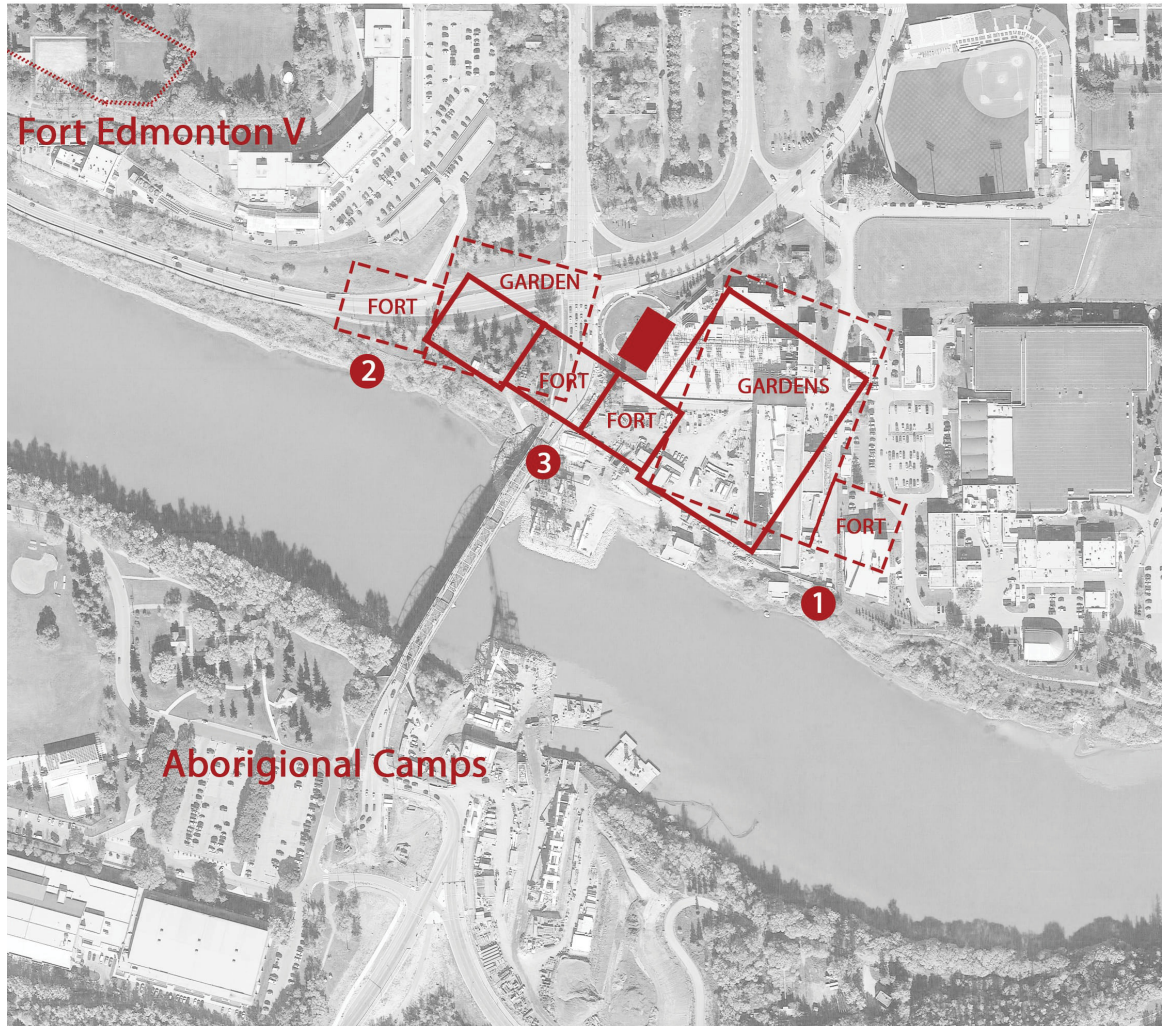
● Landings

◆ Fort Edmonton - Burial Ground

1 Edmonton House II

2 Fort Augustus II - 1801-10

3 Edmonton House - Fort Augustus IV - 1813-30

Probable sites of the various forts (data from Alberta Register of Historic Places 2016)

CHAPTER 3: COLOR MAPPING

Color Psychology

> There is no truer colour responsive instrument to be found than man in all his variety, and that the best way to study colour is to use it. (Hugh Casson 1976, 8-9)

What Casson is trying to illustrate is that we should continue using color, at the same time observe, measure and study its effects on people. As color and color composition can be atmospheric, emotive, and evocative. Primary colors and the high contrasts of the complementaries are able to influence the moods, evoke fantasies, and enrich the experience in significant ways.

While age, culture and other factors influence color preference, there are certain stable relationships regarding the popularity of some color over time. Color preference studies, both experimental as well as contextual, and theories ranging from biological and wavelength profiles, to "prototypicality" or "arousal" will explain the color preference and aesthetic judgement on the increasing exposure to color and light. However, there is not yet a simple theory that will account for all the previous empirical studies (Porter and Mikellides 2009, 120-126). My understanding of these studies concludes that in traditional environments with small-scale dwellings, any deviation from the original color scheme might remain unpopular for a long time. On the other hand, in modern large-scale settings new and surprising colorations might be quickly accepted. Thus, colors are not only a matter of personal taste and, even if a color is inherently beautiful, in the context of the built environment other factors might be much more important.
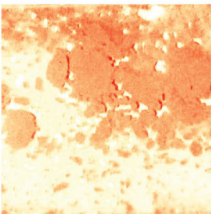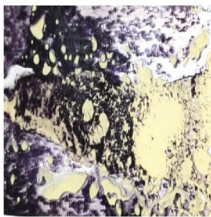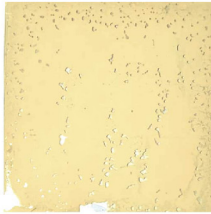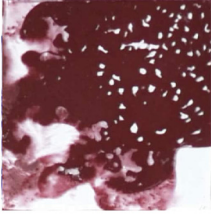
Color Investigation

Color and Geometry

Color is an essential design element. It pervades all aspects of design. Although we build a design through geometry, which controls layout/form and creates a structure for the space, color is always in the material choices me make. When color is used in design, the recessive qualities of cool spectrum can create a sense of space and distance. Here color can make space seem larger and more expansive. This consideration can be crucial when designing, especially where space may be tight and dimensions restricted. Circles can be used to define relaxing retreats, combined with blues or greens, where the sense of escape can be effectively created. Social spaces can be designed with squares and rectangles. The corners and length sides creating a sense of movement, combined with warm hues of ochre, orange, rust, and reds to enhance the social interaction of the space. Angles and triangles are considered to create dynamic visual tension, pointing out directional views and providing restless spaces. Lively colors of yellow, orange, or brighter pinks can contribute and reaffirm the sense of energy. (Porter and Mikellides 2009, 82-84)

The growth of Conceptualism in landscape design has seen an increased intensity of color used in architectural materials and construction. An example, designers Laurence Di Meo, Benoit Allemand, and Emmanuelle Floch explored light and color at the Chaumont Garden Festival 2007, France. Large sheets of painted acrylic allow the passage of light to create glowing color and fascinating shadows. Symbolic color is closely linked to cultural phenomena, often religious or ceremonial in context. As

art moved into the realms of the abstract, color has been released from beliefs and dogmas. Color theorist Johannes Itten wrote extensively about the emotional as well as the symbolic attributes of color. He produced a series of seasonal color associations in which he aimed to show how color moods changed through the year. Modern abstract artist Vassily Kandinsky developed theoretical connections between shapes and the colors. He linked rounded forms painted blue with a quite mood, and angular forms painted yellow with energy. This combined language of geometry and color can be used in landscape design. Martha Schwartz, regarded as a conceptual landscape designer, used series of concepts for Grand Canal Square in Dublin, Ireland. The red poles provide vertical emphasis and dynamic movement across a red carpet of paving leading to the Daniel Libeskind theater. By night, the pole offer atmospheric lighting, enlivening the public space.

The Geography of Color, Color as a Material

The subject of architectural color in the modern landscape is essentially concerned with the visual quality of architecture, whether the environment is natural, urban, or industrial. Due to diverse factors such as geography, geology, and light, to which we may add the socio-cultural behaviours of inhabitants, Jean-Philippe Lenclos uses the concept "Geography of Color" to determine and contribute to the affirmation of a national, regional, or local identity. The analysis is an interpretation of Jean-Philippe study of the geography of color. This study aims to identify the predominating characteristics and chromatic detail of the

existing architecture in Edmonton downtown and the river surrounding areas, both in general and in detailed form. In order to select subjects for analysis, individual or groups of buildings are chosen as being representative; embodying typical architectural and color qualities in keeping with their setting. The analysis takes into account all the elements that contribute to the chromatic character of architectural landscape. It is first of all a question of revealing chromatic specificities and dominant traits of the buildings in their context as seen from a distance. Here the notion of global perception come in. Next, when we get closer to the buildings, we switch to the notion of elemental perception. (Lenclos 2004, 64)

First Phase: The Methodological Examination of Edmonton

The initial stage of the study is to rely on the objective evidence provided by the architecture and its environment in the form of samples taken from the architecture and the site. In my investigation, I have taken the digital pictures of the iconic buildings in Edmonton. (Lenclos 2004, 66)

Second Phase: The Synthesis of Collected Data

The chromatic information obtained from the buildings is assembled and translated into color palettes which faithfully reproduce the original colors. Then these are classified and re-grouped into a series of panels which produce a color synthesis of both a region and of its architectural elements. (Lenclos 2004, 68)

Third Phase: Systems of Chromatic Conceptualization

The chromatic palettes comprising the ensemble of an analyzed building, by element: roofs, facades, framework, plinths, doors, windows, shutters. The palettes made from these groupings illustrate the dominant colors of each of these elements and allows for the establishment of visual static of the mot utilized colors in the site. (Lenclos 2004, 69)

The result of the color study is the presentation of an applied color vocabulary appropriate to a particular site and in this case Edmonton. General and selective color palettes can be developed which are co-ordinated so that they can combine to offer harmony and variety in their application to existing or proposed future building projects. Another version of synthesis can focus more on the dimensional color relationships as governed by the structure of buildings. Here, color in material, structure, rhythm, contrast, can be a new language whose riches are offered to the city of tomorrow. (Porter and Mikellides 2009, 39)

The first chart present the palette of façade colors in table format

The second chart regroups the various elements from the selective palette: doors, windows, shutters, frames, structure, and foundations
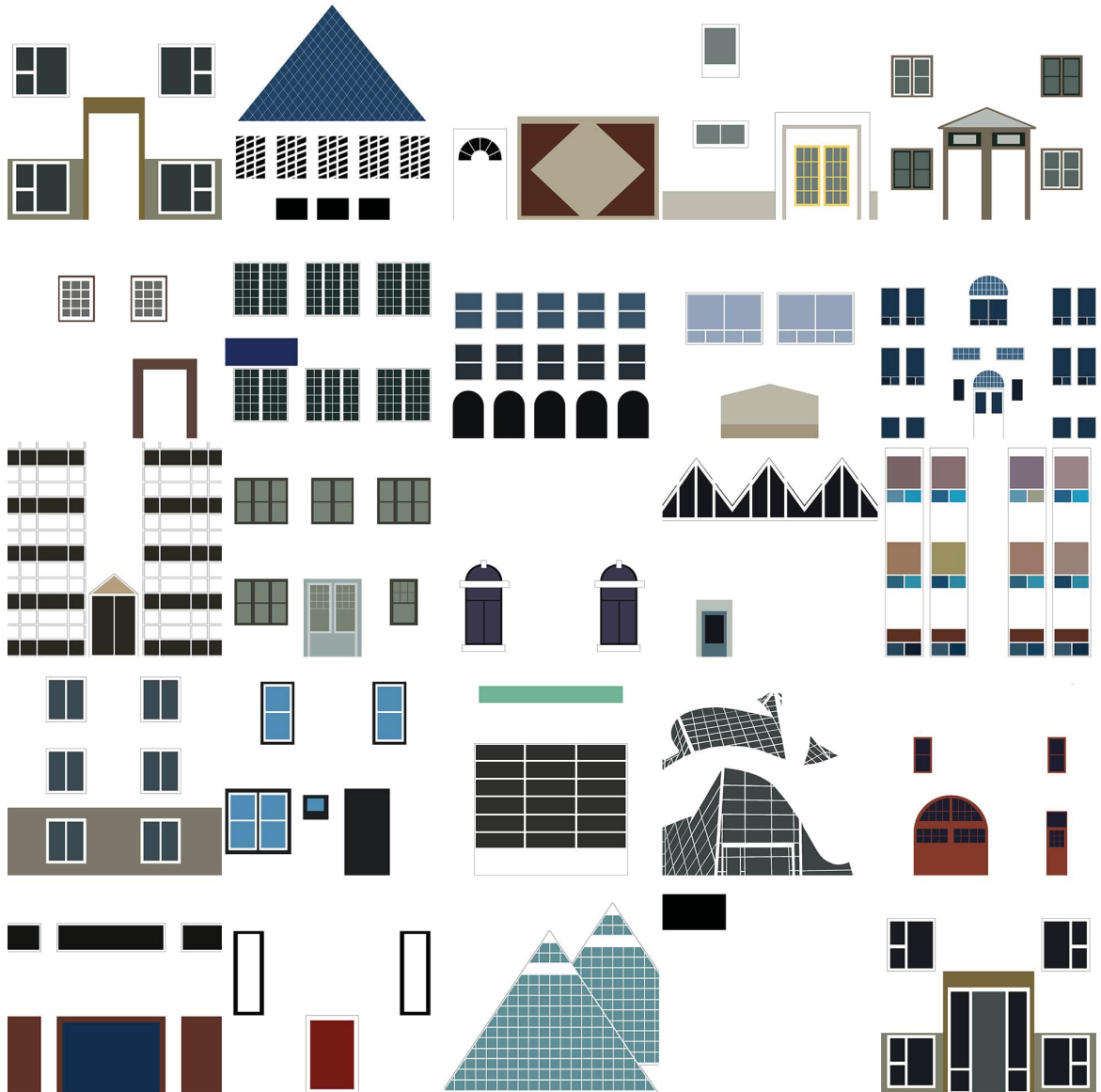
The third chart imposes the elements from the selective palette onto the general palette. This synthesizing chart is a historical and geographical notation of an architectural site's chromatic state at a given time

CHAPTER 4: ENVIRONMENTAL PSYCH-OLOGY: EXPERIENTIAL LANDSCAPE

Phenomenology of Recreation Place

> To be human is to live in a world t hat is filled with significant places: to be human is to have and know your place. (Relph 1976, 1)

Relph emphasises that a place is a meaningful phenomenon not just the placement of something. It follows that landscapes embody meanings. Such meanings differ according to the type of landscape and the individual. These dynamics highlight the complex nature of environmental perceptions. Pristine nature as retreat or escape from human habitation and contact is not an idyll universally preferred. According to Relph researchers have focused in one direction of human-environment interaction, that of individual to place. The relationship of places to individuals has been neglected. Consequently, we lack understanding of the constitution of places and the ways we experience them. Which arises a question regarding the influence of personality on landscape preferences. (Relph 1976, 50)

Research examining people's responds to various types of outdoor environments constructs numerical and statistical models for predicting landscape quality (Husserl 1911, 65). The studies highlight the visual and functional components and provide descriptions purely in relations of their setting and appearance. However, these quantitative approaches have become progressively worthless and detached from everyday life (Pickles 1985, 32). Thus, the experiential studies of landscape preference are lacking individual's feelings. Phenomenological
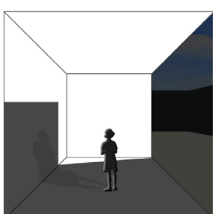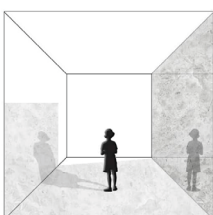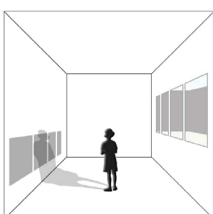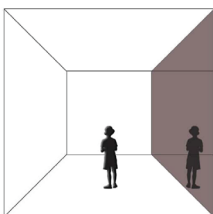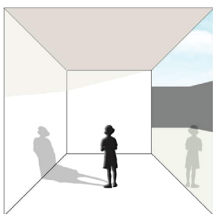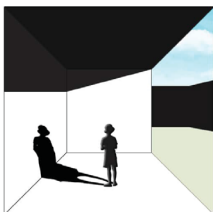
Light Study Renders

analyses of human environmental interactions begun to recompense the previous neglect of qualitative approaches to studying environmental experiences and answers the requests regarding meaning of places and landscapes to individuals.

The literature reviewed focuses on understanding how individuals experienced landscapes and the importance of places in people's lives. Therefore, I used phenom-enological approaches to focus on subjective meanings and intuitive descriptions of environmental experiences. The phenomenology method overcomes the distance, as the sciences had lost their relationship to everyday life, by bringing back subject-matter to original experi-ence (Husserl 1911, 72). People are occupied everyday in what the phenomenologist call the "natural attitude", which could be defined as the blind and unquestionable acceptance of the events and experiences of everyday life. The natural attitude of the world is labelled as "life-world", the "taken-for-granted" pattern and context of daily living. The phenomenologist pursues to highlight this life-world and re-examine the nature of this world anew. Things in nature, persons and personal communities, social forms and formations, poetic and plastic formations, every kind of cultural work all become key captions for phenomenological investigation. (Husserl 1911, 78)

Studies range from documenting the meaning and importance of architecture (Norberg-Schulz 1985, 44), place, landscape, and space (Relph 1981, 21), to discussing the geography of the life-world (Seamon 1982, 122). One of the basic principles of these works is the concept of people being absorbed in their world through

a multi-faceted net of intentions. The studies focus on a "feeling subject" and outline emotional linkages between person and place. Seamon (1979) describes individuals as having a sense of attachment to certain places. Nevertheless, Ralph (1976) argues that place is the essence of human intention and a mixture of meaning, act, and context. He stresses that the individuals' identity have with a place is essential and if they have experienced it as insiders or outsiders. Relph (1976) interprets this perception of place concentrating on this authentic-inauthentic contrast. An authentic experience could be explained as a direct genuine experience of a place which comes from a profound identity with it. Yet, an inauthentic experience is labelled as a stereotyped artificial experience, which is usually planned by others and referred through the "dictatorship of they".

Similarly, Seamon (1979, 1982) described the person-place relationship by analyzing daily experiences of spaces and places in the environment. He frames the essential core of place experience by an insideness versus outsideness dichotomy. The concept "at-homeness" he mentions illustrates the atmosphere of warmth and friendliness created by a successful home that captures the sense of possession and control, and the at-easeness and the freedom to be. Likewise, Norberg-Schulz (1979) demonstrates the concept of dwelling in capturing a sense of belonging and feelings of orientation and identification. Where the "atmosphere" is the essence of place that structures over the terms of landscape, settlement, place, character. Norberg-Schulz (1979) frames and outlines the formal properties of a relationships' system that motivates a spirit of a place, or what he calls "genius loci", by

Atmosphere

anchoring dimensions of the person-place relationship in concepts of meaning and structure. My understanding of these phenomenological approaches is that the "feeling subject" gives a sense of attachment to a place. A place that is important and has meaning to individuals. Seamon's concept "at-homeness" and Norberg-Schulz's "genius loci" represent dimensions of the person-place interaction. The aim of my study analyses is to determine whether meanings and significance exist and thereby suggest the notion of a natural reaction place.

Although the literature dealing directly with preferences for urban nature is not extensive, it does emphasize the importance of nature in urban settings. There are two affordances I have investigated, refuge and spaciousness. Refuge can be defined as how much the context or setting (landscape) provides the possibility for being hidden. Spaciousness on the other hand can be seen as the sense of depth conveyed by a setting, the feeling you get when you need to go a long way to reach its farthest point (Herzog, Kaplan, and Kaplan 1982, 48). However, spaciousness depends on how properly organized a setting is. This organization helps in the overall understanding of the environment. Thus, refuge and spaciousness both are positively related to preference.

Rending demonstrating the notions of refuge and spaciousness in relation to color

Human-Environment Relations

> There is a quality even meaner than outright ugliness or disorder, and this meaner quality is the dishonest mask of pretend order, achieved by ignoring or suppressing the real order that is struggling to exist and to be served. (Jacobs 1961, 15)

Experiential landscape is a conceptualisation of people and outdoor settings that attempts to begin to overcome this suppression. What Jacobs means is for the environmental design professions to be aware of the experiential consequences of what they make and how it involves the recognition that the order revealed by the spatial realm is partial. Human experience must be given higher importance in how we examine outdoor places and how we make new ones. Mayer Spivak asserts that there is a limited number of environmental experiences that add the repertoire for fulfilled human life which he labelled "archetypal places". As Spivak significantly distinguish between space and place, in which place is defined as an explicitly human experiential dimension "it is what people do in space that makes that space into place" (Spivak 1973, 44). He identifies archetypal places as a mixture of human behavioural/psychological functioning and the special circumstances in which it happened.

We could define experiential landscape as a label to conceptualise a holistic relationship of open space and a range of human experience (Thwaites and Simkins 2007, 35). It can be seen as a spatial and experiential whole constituted from outdoor places that people use during ordinary daily life. Gordon Cullen (1971) expresses the importance of experiential landscape as a totality of different spatial volumes experienced consecutively, not as a

spatial and experiential whole constituted from outdoor places that people use during ordinary daily life. Gordon Cullen (1971) expresses the importance of experiential landscape as a totality of different spatial volumes experienced consecutively, not as a group of defined locations allied together. He describes his walk through a town as a journey filled with subjected meanings and associations as a consequence of what people feel and do as the move about.

> A journey through pressures and vacuums, a sequence of exposures and enclosures, of constraints and relief. (Cullen 1971, 10)

This holistic conception of human-environment relations could be seen as a view that intensifies the ethical obligation for how architects design and make changes in our world.

> What we do in environment we do to our selves. (Berleant 1997, 121)

The abstract representations of different facets of my experience of place in the site could be conceptualised in spatial terms collectively as centre, direction, transition, and area. Centre connects to the experience of location, direction to the mindfulness of continuity and extent, transition relates to the sense of change, and area to the wider sense of environmental coordination that gives a sense of belonging. These spatial terms provide us with conceptual means to read the changing rhythm of place experience during our journeying about, as they represent the distinguishable sensations within an indivisible whole. (Thwaites and Simkins 2007, 38)

Continuous Paths to the Opposite Edge

Higher Balcony / Terrace

Small Ecological Ponds

Informal Educational Groups

Collage, creating learning engaging landscapes - wish images

Lookout

Higher Balcony / Terrace

Continuous Paths to the Opposite Edge

Urban Stair

Cafe / Retail

Collage, creating recreational spaces - wish images

Investigation of different physical activities in relation to color. Each Program is assigned by a background color representing its psychological feeling. It is important to take notice of the seasonal change while shifting from one frame to the next

Comfort Temperatures

Weather stations globally record hourly meant weather data that offer relevant dynamic and contextual environmental information to designers regarding their site. Assumptions and expectations can be tested against real climate records in order to better justify and further develop contextual design interventions. Ladybug reads the .epw and brings the data into Grasshopper where it can be visualized and analyzed First example is by using Ladybug outdoor comfort component, which calculates Universal Thermal Climate Index (UTCI).
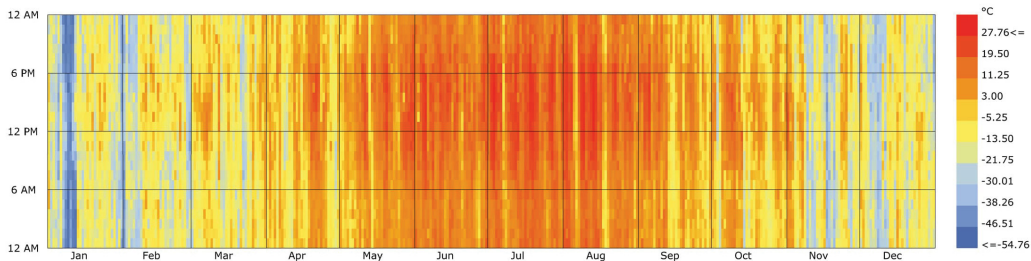
Universal Thermal Climate Index (°C) - Hourly
Edmonton Stony Plain_AB_CAN
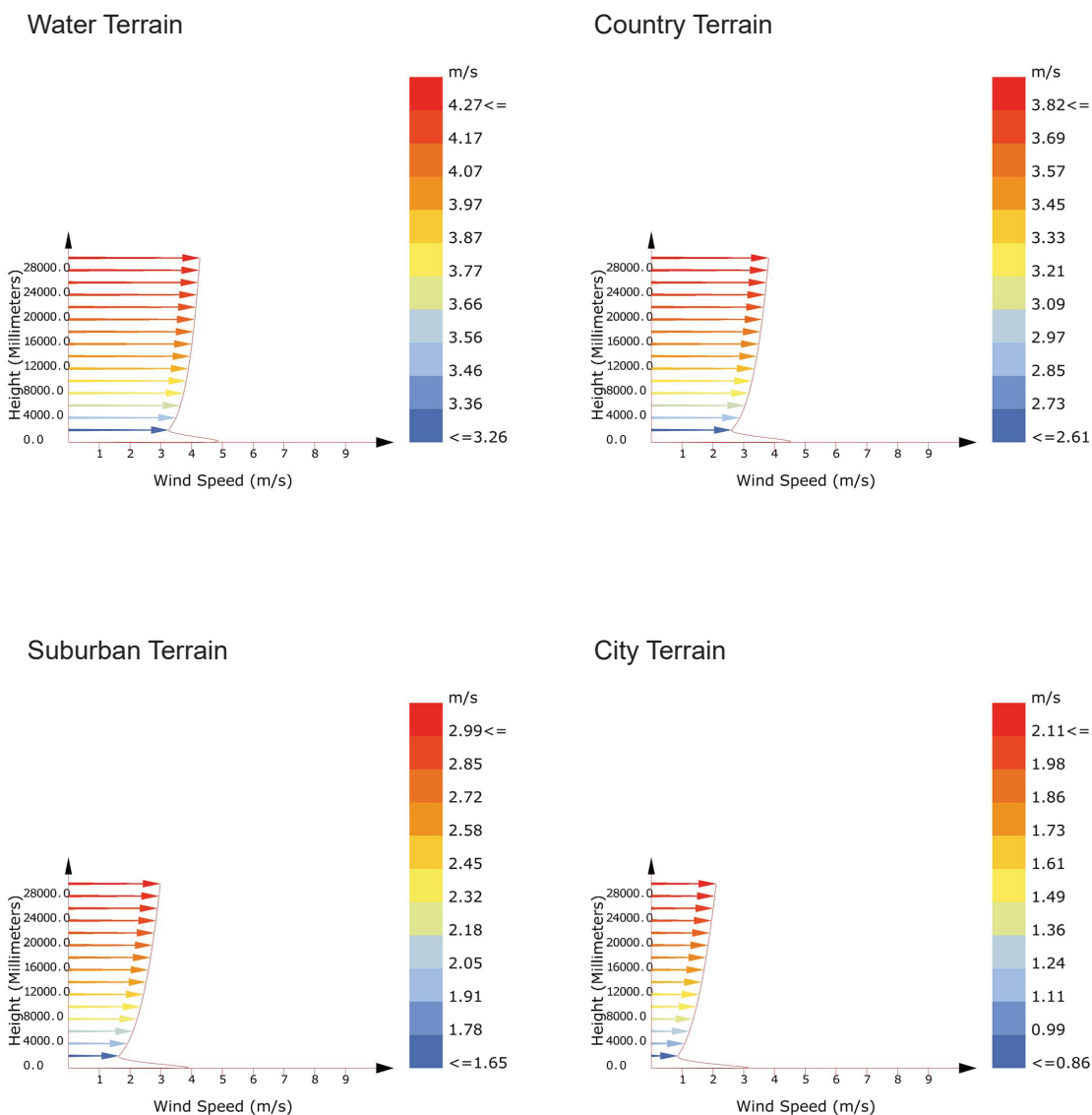1 JAN 1:00 - 31 DEC 24:00
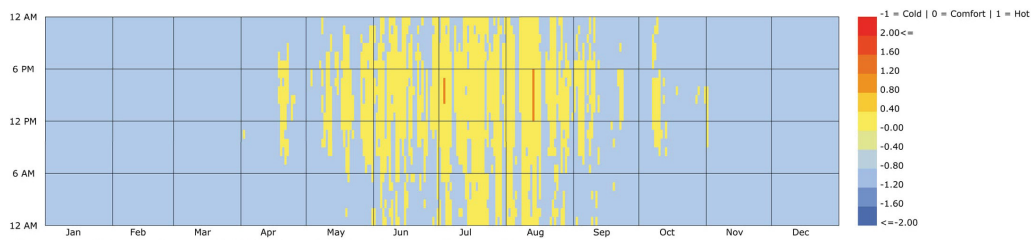
Thermal Stress (-1 = Cold | 0 = Comfort | 1 = Hot) - Hourly
Edmonton Stony Plain_AB_CAN
1 JAN 1:00 - 31 DEC 24:00
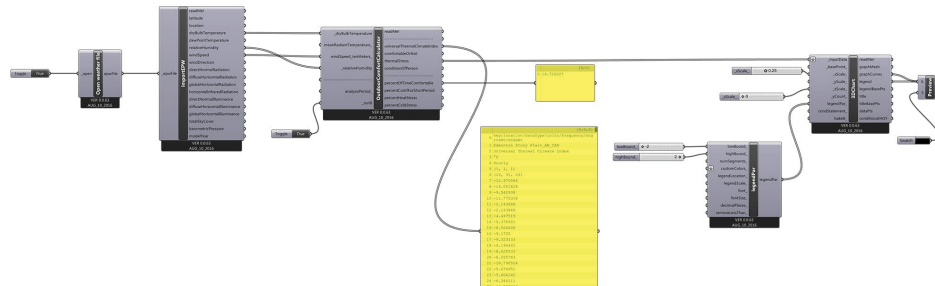
Ladybug outdoor comfort component, for this exercise the wind speed is constant. The percentage of comfortable time (yellow area) in hours of the whole year is: %19.7 (data from OpenStreetMap 2016)

Second example is by using Ladybug Outdoor Standard Effective Temperature (SET) components.

This includes components to approximate ground wind speed. For this exercise the wind speed is taken at a height of 1m above the ground.

Water Terrain

Country Terrain

Suburban Terrain

City Terrain

Wind Profile - Prevailing Wind Average Velocity
Edmonton Stony Plain_AB_CAN
1 JAN 1:00 - 31 DEC 24:00

Wind speed Ladybug diagram for Edmonton (data from OpenStreetMap 2016)

The following diagrams show the Outdoor Standard Effective Temperature (SET) for different kind of activities, during a constant period of time with constant wind speed at suburban terrain.

Sitting

Strolling

Standing

Walking 2mph

Walking 4mph

Dancing

Running 5mph

Driving
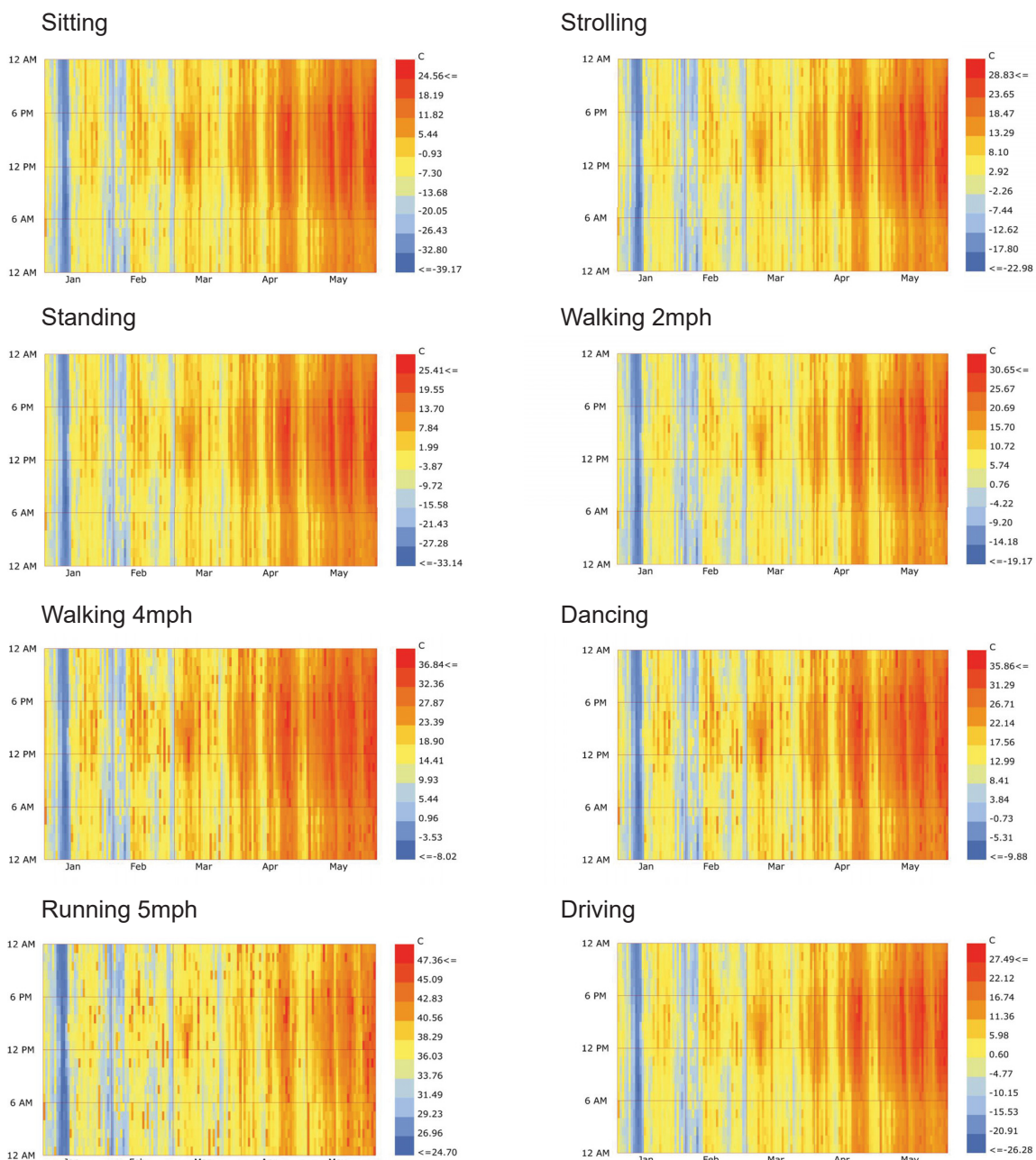
Standard Effective Temperature (C) - Hourly
Edmonton Stony Plain_AB_CAN
1 JAN 1:00 - 31 MAY 24:00

Outdoor Standard Effective Temperature Ladybug diagram (data from OpenStreetMap 2016)

Landscape as Place

Up till now I have demonstrated a philosophical framework based on a holistic conception of human-environment relations. By identifying its features and structural implications, mainly in relation to how order is understood, it helped me indicate suitable foundations for an approach to making outdoor places in ways further linked to human experience instead of the dominant conception grounded in enlightenment dualism. Now I need to focus on some of the theoretical implications of this philosophical position close to the central purpose of landscape architecture, 'how to make better outdoor places'. The answer lies with the concept of place. There are three main views that characterize human-environment relations in psychological research; interaction, interdependence, and integration.

> Transactional models in the human-environment relationship adopt a distinctly humanistic orientation in which the definition and meaning of the environment is seen to be inextricably linked with activities of people who use it. (Thwaites and Simkins 2007, 39)

They in turn are defined by their landscape in an unceasing process of mutual realisation.

> The natural world forms us and is also formed by us. (Rohde and Kendle 1994, 21)
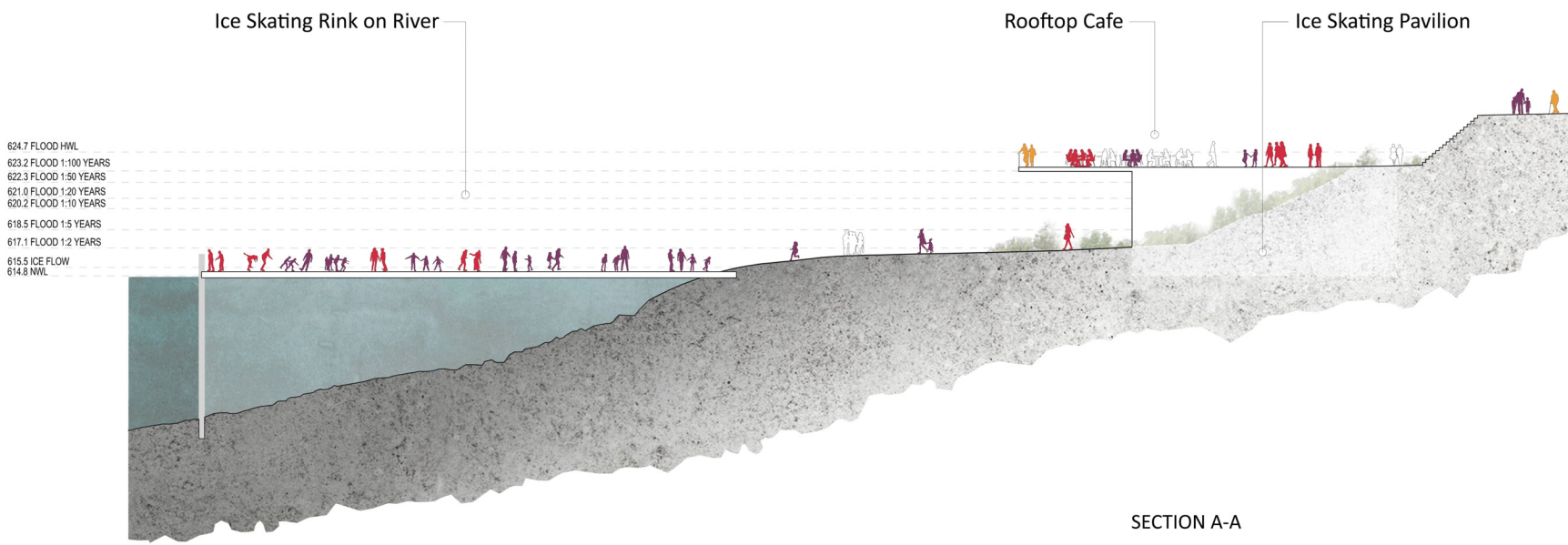
Emphasising on human activity as the organizing factor in the system, where it is seen specifically in terms of an integration of thinking and doing. In addition, the social context highly influences the way in which activity is oriented. This indicates that human activity is not aimless or driven purely by individual need but as a response to a constant exchange between individual motives and the possibilities given by the environment. An environment consisting of

physical and social aspects, that is synonymous with the term setting. A setting is defined as a holistic entity of material and social aspects, in addition to meanings arising from their interactions.

> The environment consists in a setting: that is an organized whole in space and time of physical aspects, social activities, and symbolic aspects and meanings. (Bonnes and Sacchiaroli 1995, 159-160)
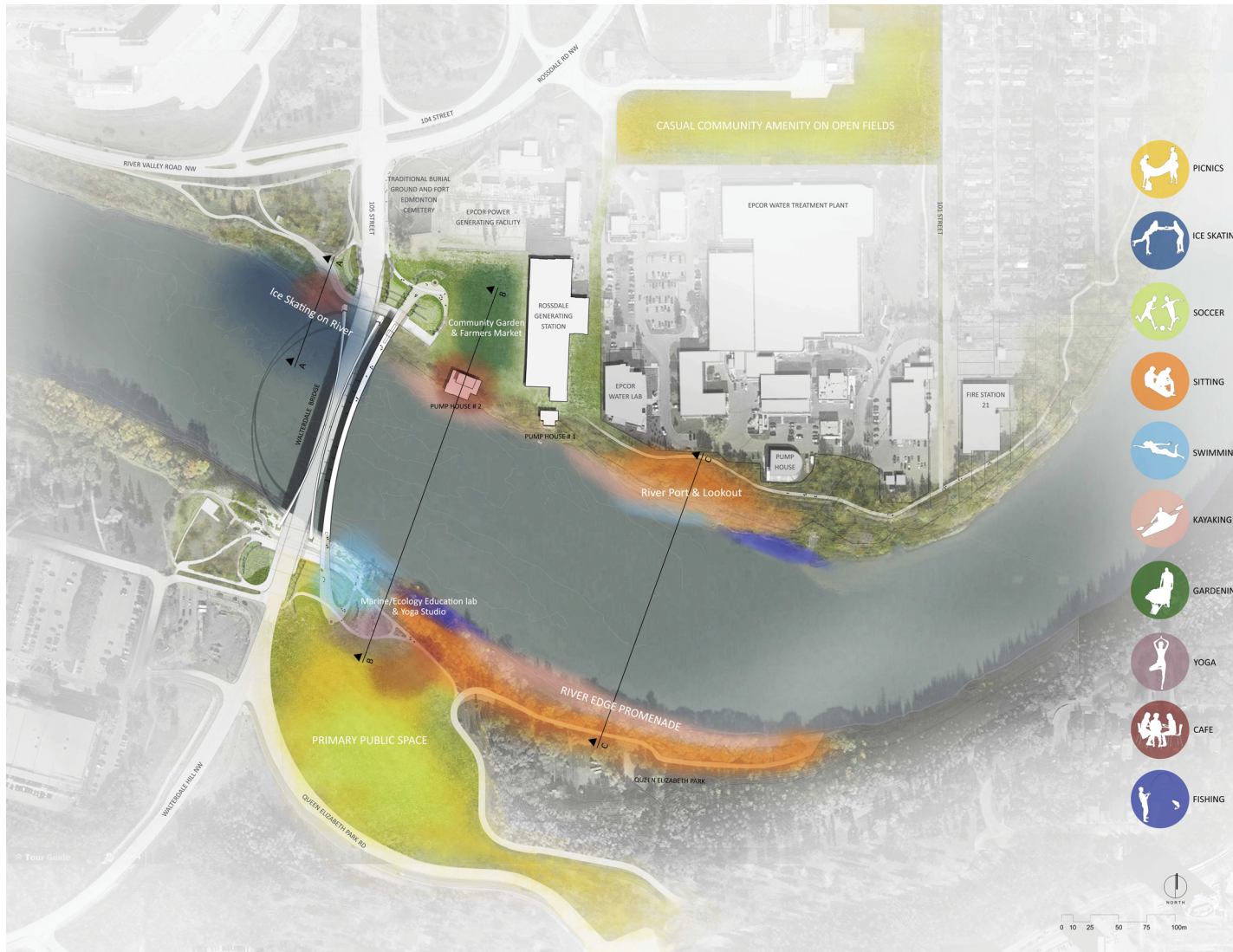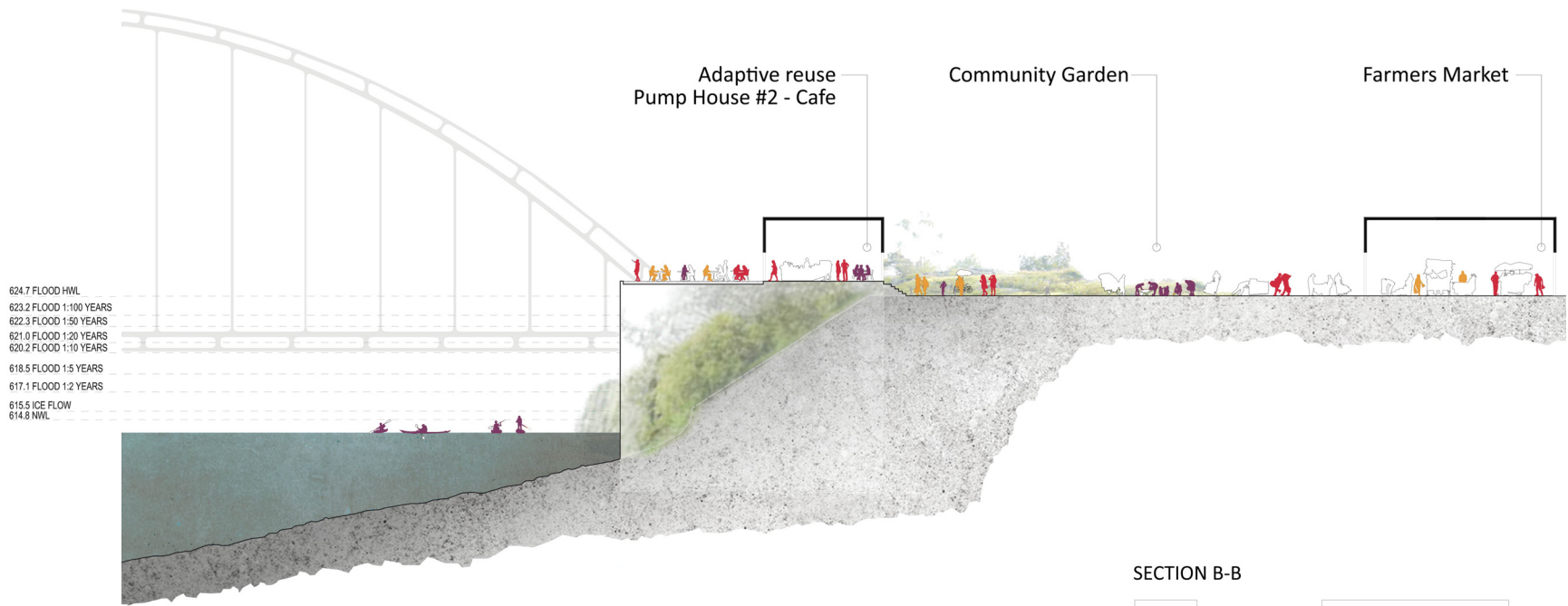
Program site map, showing the zoning of different programs based on the Rhino Ladybug study (Google Maps 2016)
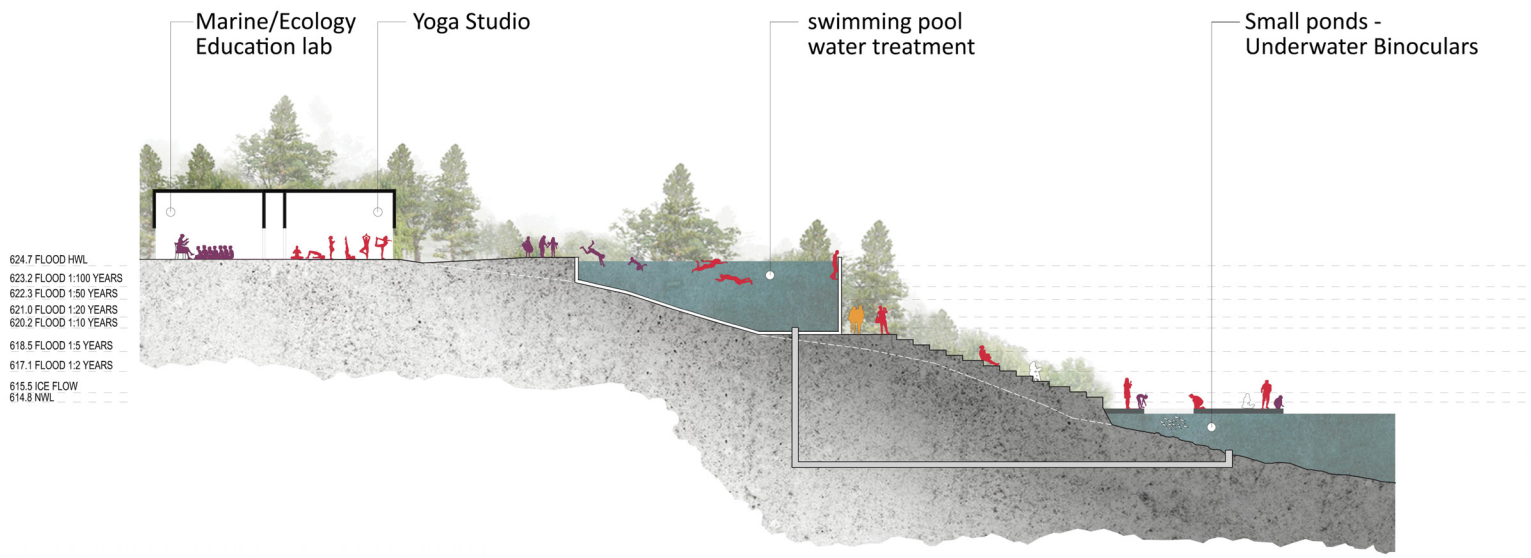
Ice Skating Rink on River

Rooftop Cafe

Ice Skating Pavilion

624.7 FLOOD HWL
623.2 FLOOD 1:100 YEARS
622.3 FLOOD 1:50 YEARS
621.0 FLOOD 1:20 YEARS
620.2 FLOOD 1:10 YEARS
618.5 FLOOD 1:5 YEARS
617.1 FLOOD 1:2 YEARS
615.5 ICE FLOW
614.8 NWL

SECTION A-A

0   5   15   30 m

Initial site section A-A, north bank

Adaptive reuse
Pump House #2 - Cafe

Community Garden

Farmers Market

624.7 FLOOD HWL
623.2 FLOOD 1:100 YEARS
622.3 FLOOD 1:50 YEARS
621.0 FLOOD 1:20 YEARS
620.2 FLOOD 1:10 YEARS

618.5 FLOOD 1:5 YEARS
617.1 FLOOD 1:2 YEARS

615.5 ICE FLOW
614.8 NWL

SECTION B-B

0   5   15   30 m

Initial site section B-B, north bank

43

Marine/Ecology
Education lab

Yoga Studio

swimming pool
water treatment

Small ponds -
Underwater Binoculars

624.7 FLOOD HWL
623.2 FLOOD 1:100 YEARS
622.3 FLOOD 1:50 YEARS
621.0 FLOOD 1:20 YEARS
620.2 FLOOD 1:10 YEARS
618.5 FLOOD 1:5 YEARS
617.1 FLOOD 1:2 YEARS
615.5 ICE FLOW
614.8 NWL

SECTION B-B

0   5   15   30 m

Initial site section B-B, south bank

River Port

Lookout

624.7 FLOOD HWL

623.2 FLOOD 1:100 YEARS
622.3 FLOOD 1:50 YEARS
621.0 FLOOD 1:20 YEARS
620.2 FLOOD 1:10 YEARS

618.5 FLOOD 1:5 YEARS
617.1 FLOOD 1:2 YEARS

615.5 ICE FLOW
614.8 NWL

SECTION C-C

0   5   15   30 m

Initial site section C-C, north bank

Washrooms   River Edge Boardwalk   Lookout

WC

624.7 FLOOD HWL
623.2 FLOOD 1:100 YEARS
622.3 FLOOD 1:50 YEARS
621.0 FLOOD 1:20 YEARS
620.2 FLOOD 1:10 YEARS
618.5 FLOOD 1:5 YEARS
617.1 FLOOD 1:2 YEARS
615.5 ICE FLOW
614.8 NWL

SECTION C-C

0   5   15   30 m

Initial site section C-C, south bank

Landscape Perception: From Rejection to Attraction

In making decisions concerning which sites to investigate I started zoning different types of environments primarily in terms of activities that are lacking in different spots. As individuals what attracts us to specific places is the appeal of water. In many instances individuals initially attribute the importance of water to the presence of associated activities such as fishing, swimming, and kayaking. The choice is justified in terms of the greater variety of activities and scenery available at water sites. We search for something different about the environment, a change from life-as-usual. Clearly the current sites are rejected, not offering anything new and often described as 'back yard' type of environment.

Initially I assessed outdoor recreation places in terms of activities. The more in depth analysis revealed that reaction places are sensed as a combination of setting, landscape, ritual, routine, people, personal experiences and in the context of other places (Lynch 1960, 67). A crucial dimension is the history and past experience in certain types of environment which may lead to a feeling and a sense of belonging to that particular area. Individuals who express Seamon's concept "at-homeness" in the natural environment tend to escape elements of the city and search for areas lacking developments. Yet, other individuals tend to feel lost and alienated in outdoor sites and natural environments. They feel more safe and comfortable in being surrounded by human-built structures. The complex nature of the person-place relationship becomes evident as the same environment stimuluses various


The black area represents the lack of connections on the site (Strava Global Heatmap 2016)
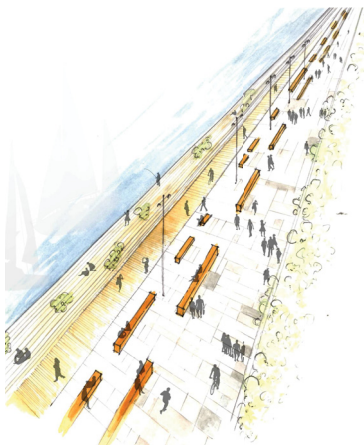
reactions from different individuals.

Qualities of landscape that infuse an outdoor recreation setting with a sense of place differ from an individual to another. Therefore, the concept of recreation place may be misleading. The sense of place was not always in terms of recreation but differ from a place of solitude and retreat to a place to picnic and walk. Thus, the sense of place influenced the expectations of the habitants and individuals regarding the sites. Where a few may look for natural aspects while others search for more developed ones. This implicates us architects who are constantly trying to find answers and respond to the needs and wishes of users of natural areas. In larger parks it is possible to satisfy both categories, but it may be impossible to provide both areas in a small acreage and may then decide to compromise between both extremes. A study by Thomas Herzog 'A Cognitive Analysis of Preference for Waterscapes' presented several useful insights about preferences for waterscapes and some intriguing suggestions for future research. The study results pointed to the utility of methodology of empirically forming preference categories, examining differences across categories, and looking for relationships within them. It is a successful method that helps us architects to understand the perceptions and preferences of the inhabitants and individuals.

It is important to highlight the water as a scenic component for the individual's preferences, and the difference between children's and adults' preferences regarding the naturalistic character and physical complexity of the scene. Bernáldez et al. (1987, 23-24) defines changes in landscape preference next to participation in

Sketches exploring different program possibilities.

environmental education activities and highlights a prefer-ence to water. Children in general prefer less complex, less naturalistic landscapes than adults (Abello et al. 1987, 22). However, Bernáldez et al. (1987, 26) still identi-fied differences in aesthetic evaluation of themes of dif-ferent complexity and congruence in relation to age and cultural level of children and young adults. The risk and uncertainty connotations of few natural settings are sig-nificant components of natural landscape preferences. In addition, the 'alarming, deterring' or 'stimulating, exciting' character of particular landscape features rely on personal capacity for accepting risk or challenge. They are related to age, sex, personality, and familiarity with the subject (Bernáldez et al. 1987, 29). Zube el al. (1983, 119) found that higher relative relief strongly enhances scenic quality for young adults, has a moderate effect for the elderly, but is irrelevant as a beautifying factor for young children.
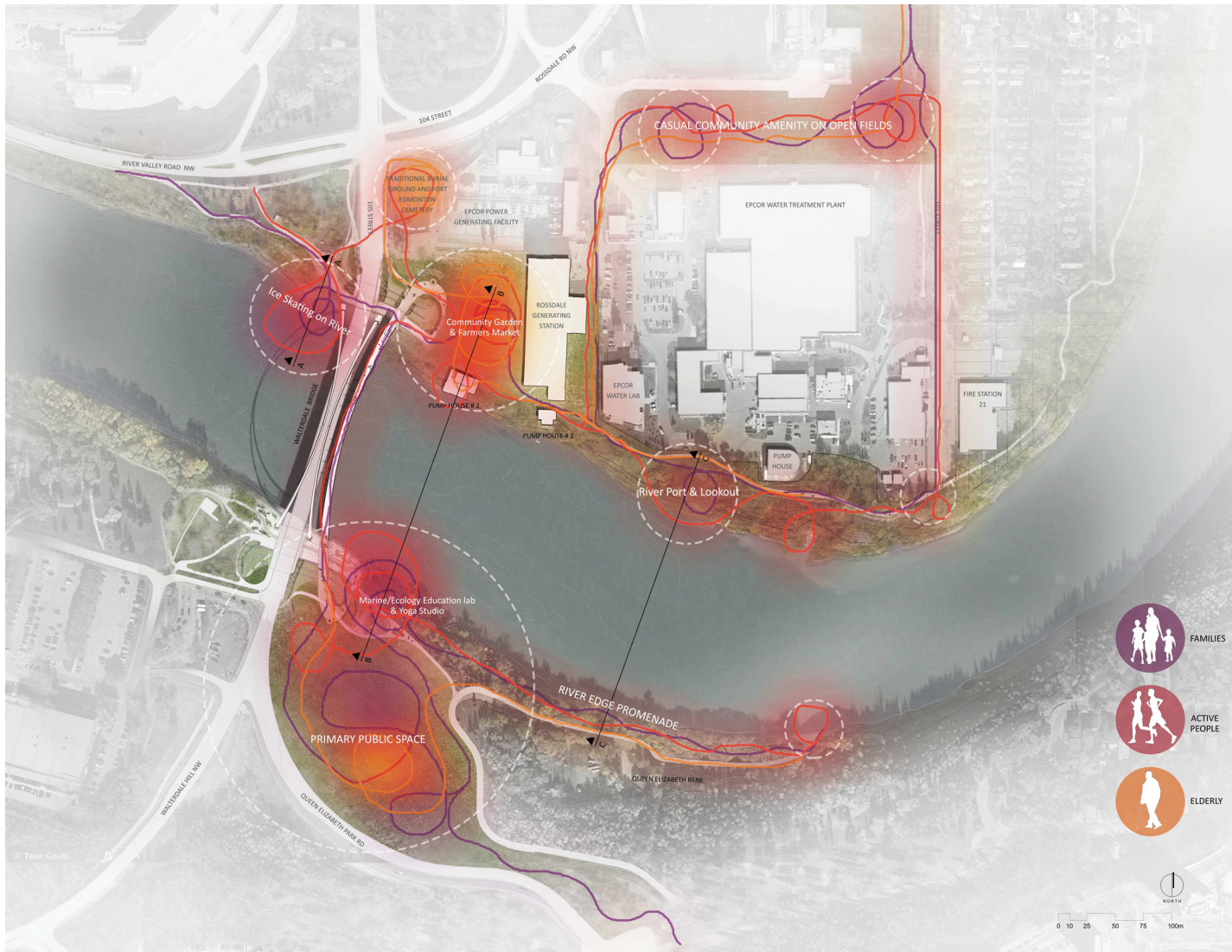
Circulation site map, showing the paths for different users of varies ages - identifying major and minor "hotspots" (Google Maps 2016)

Experiential Landscape Analysis

I am interested in investigating how to apply the philosophical and theoretical principles that underpin experiential landscape in practice. According to Thwaites and Simkins (2007), through the interpretation of spatial organisation we can understand the experiential character of outdoor settings and work out what components and procedures may assist to build experientially better places and settings. For as the same place may equally mean different things to different individuals that could change at different times of day, week, or year. This space then could be then referred to as many different places by different individuals at the same time, or at different time according to variations in patterns of use. Within this complexity, Thwaites and Simkins (2007) identified three themes that categorise how certain outdoor spaces may become prominent in people's lives. The categories: the social imageability of places (Bonnes and Sacchiaroli 1995); the capacity of places to offer restorative opportunities (Kaplan, Kaplan, and Ryan 1998); and social interactions and territoriality (Altman 1975). These categories are referred to as 'centers' further on in the diagrams.

Social Imageability

Bonnes and Sacchiaroli (1995) identify these places as memorable for their social association and their physical form. For example: burials, marriages, or recreational pursuits. These characteristics establish a totality of social imageability suggesting that places become significant

when they have specific physical or social value, therefore satisfy particular needs and are constantly visited.

Restorative Places

These places are visited when people need to be able to relax and recuperate by retreating from stimulation, often include nature or water (Kaplan, Kaplan, and Ryan 1998). The restorative places offer experiential opportunities such as: the sensation of being away, either physically or psychologically; extending the scope of what is normally expected; allowing a sense of psychological engagement; and combability with the individual's expectations and inclinations. (Kaplan, Kaplan, and Ryan 1998, 69)

Social Interaction and Territoriality

Altman (1975) describes these places as secondary territories between the primary and the public, where individuals can experience exclusivity of occupation as part of a group. A successful setting would be to create a balance between "revealing-ness", to encourage social contact among individuals, and "hidden-ness", to provide for privacy and withdrawal. (Altman 1975)

The starting point for Norberg-Schulz's (1985) existential space schemata lies with his statement that individuals have tendencies to externalize centres as points of reference in the environment. A reference point to become aware of where one is in relation to the rest of the surroundings. Norberg-Schulz then provides his understanding of

direction as a spatial element that is not only direction-al but also sequential and multi-faceted. It includes both kinetic and visual sensations linked by periodic points of change or transitions. Then he describes the property of transition as a property along with direction binds together other elements to form a cohesive sense of place. The fourth spatial element Norberg-Schulz defines is the area or domain. He describes it as the relatively unstructured ground against which centres and directions appear as more pronounced figures.
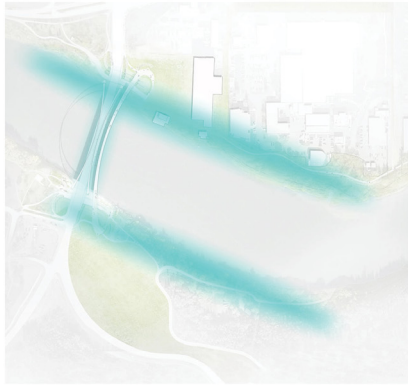
Direction

Subjectively significant continuity engendering a sence of there-ness and future possibility.

Movement: choice, imagination, and attention.

View: Landmarks, views and vistas, sequence.
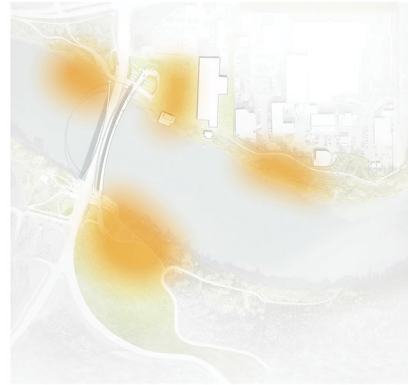
Centre

Subjectively significant location engendering a sense of here-ness and proximity.

Social imageability: fuctional use, goals and motivations, physical features, social meanings.

Restorative benefit: being away, extent, facination, and compatibility.

Social interaction and territoriality: communication, primary, secondary and public territory.
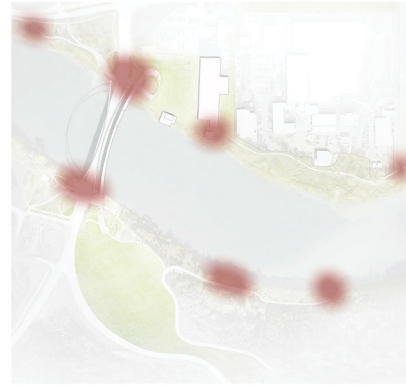
Transition

Subjectively significant point, or area, of change engendering a sence of transformation in mood, atmosphere, or function.

Change: direction and level; entrances, exits and gateways; atmosphere and function.

Integration

the coordination of processes in the nervous system, including diverse sensory information and motor impulses.
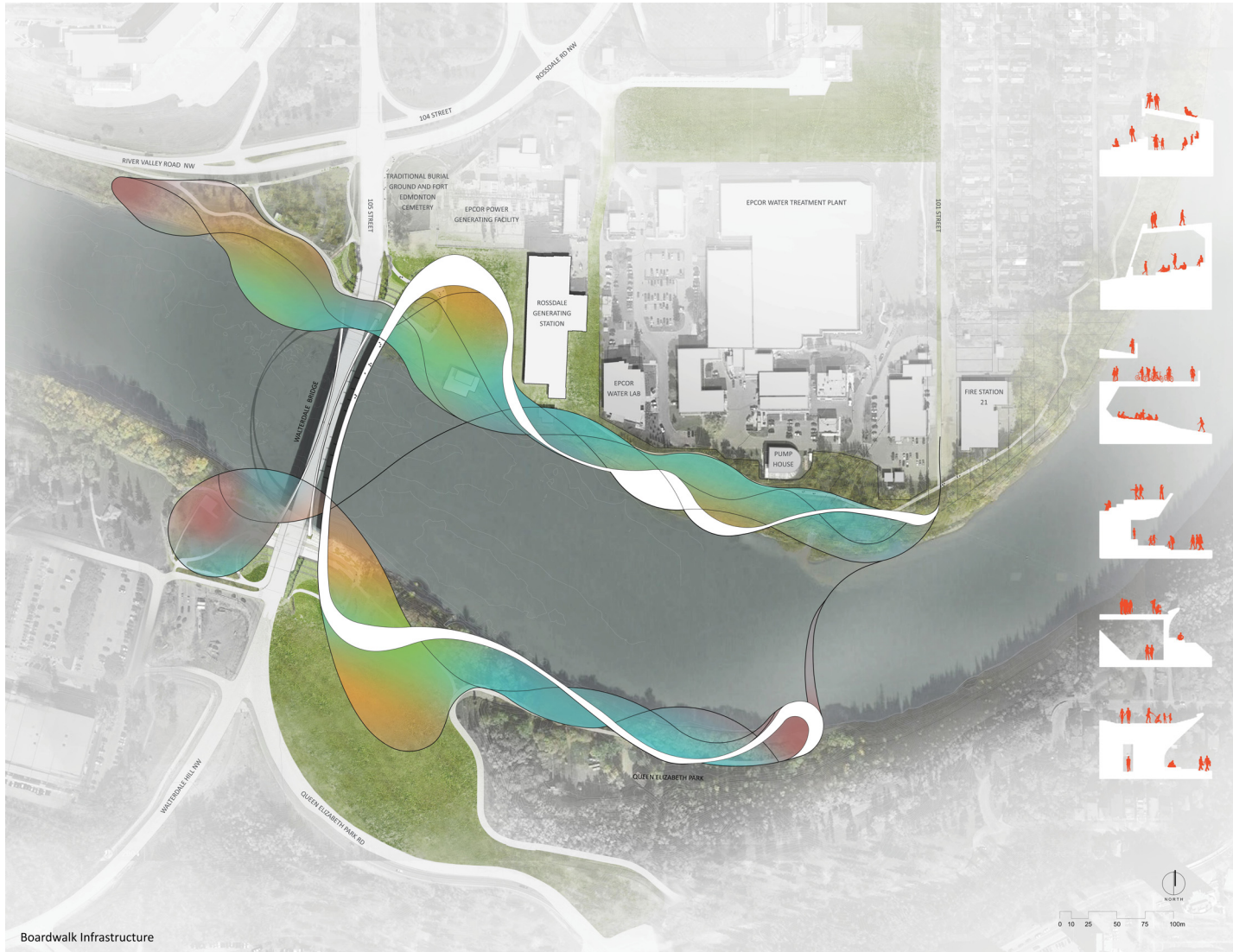
Experiential landscape analysis (data fromThwaites and Simkins 2007)
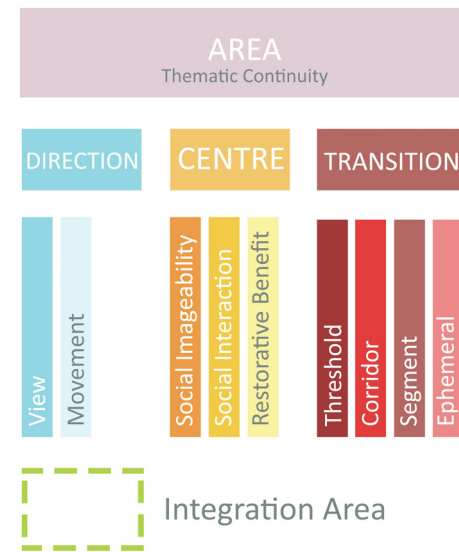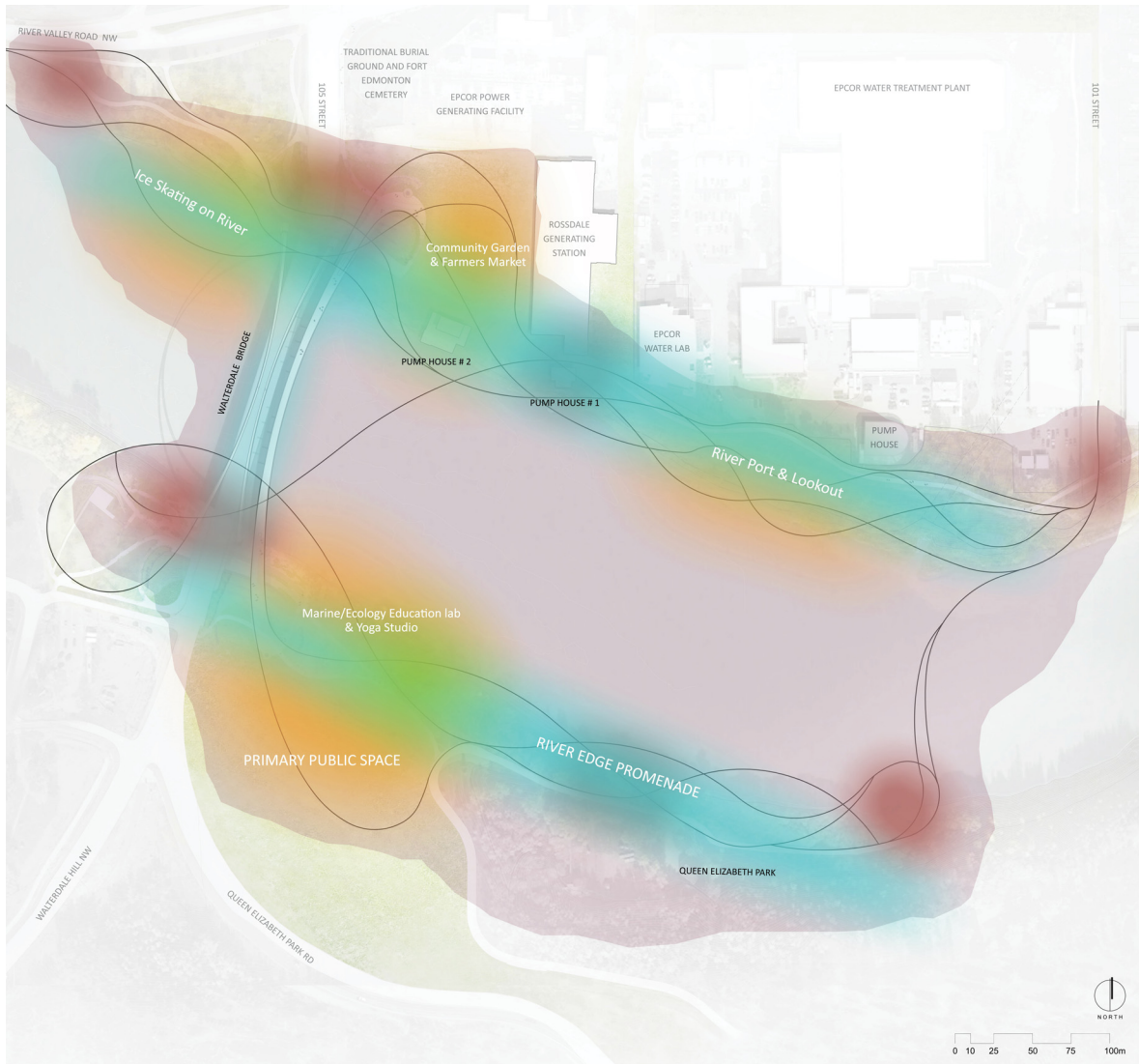
Experiential landscape map, color as a sysmtem in the event landscape that provides orientation and emotional depth (Google Maps 2016)
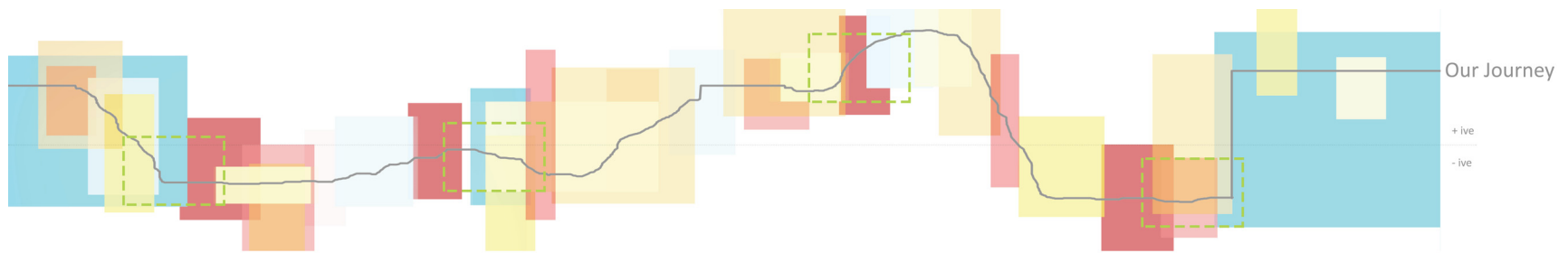
Journey section, the collage links the colored areas with their relative human activity programs (data fromThwaites and Simkins 2007)

Our Journey

+ ive

- ive

Boardwalk initiative, creating a dynamic fluid structure "Ribbon" that inhabits different levels of terraces, paths, and corridors (Google Maps 2016)
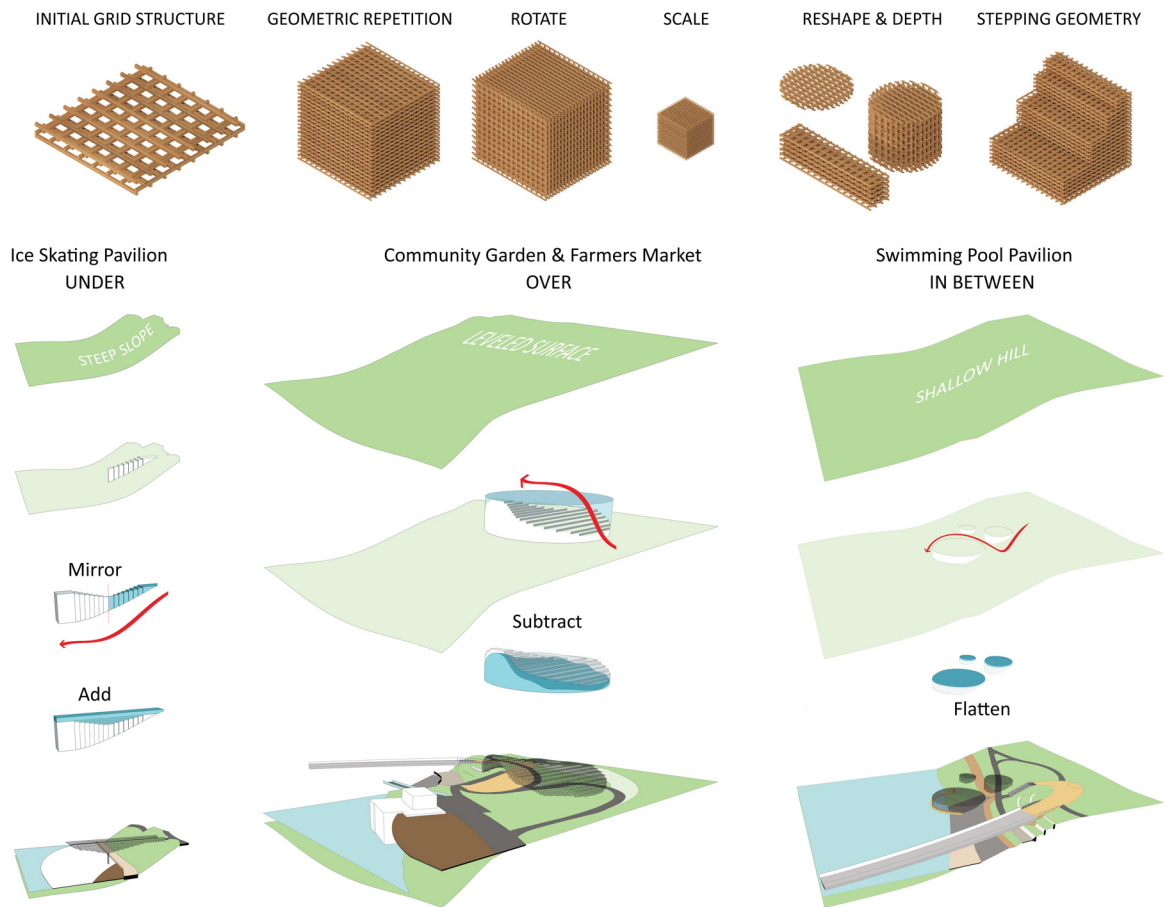
CHAPTER 5: DESIGN

Structural Family System & Devices

Small parks are considered ubiquitous in the urban land-scape. Yet, they are often the most contested spaces in neighborhoods because of limited space for social activities and natural areas. If designed carefully to support multiple users and uses, these parks can also provide important amenities for increasingly diverse populations. There are two key areas of research that need to be acknowledged while designing parks: human factors and ecological research. The research on human or social factors primarily focuses on human preferences and activities. On the other hand, ecological research focuses on the larger pristine habitats. Where nature is defined as a habitat or ecosystem, and urban means an area of human settlement. (Forsyth 2005)

The program consists of four devices. Three devices represent the major proposed pavilions on the site; the community garden and farmers market, the ice skating pavilion, and the swimming pool pavilion. The fourth device is the boardwalk which consists of the different paths, terraces, plazas, areas in between that connects the existing structures and the proposed pavilions together linking it back to the city and river's edge. I have chosen three different landscape topographies to further investigate the structure articulation and relation to the environment. The structure consists of two parts, the foundation by using an earthy material the rammed earth wall that has been continually used in many public buildings in Edmonton such as Edmonton Valley Zoo. The wooden grid as a secondary structure
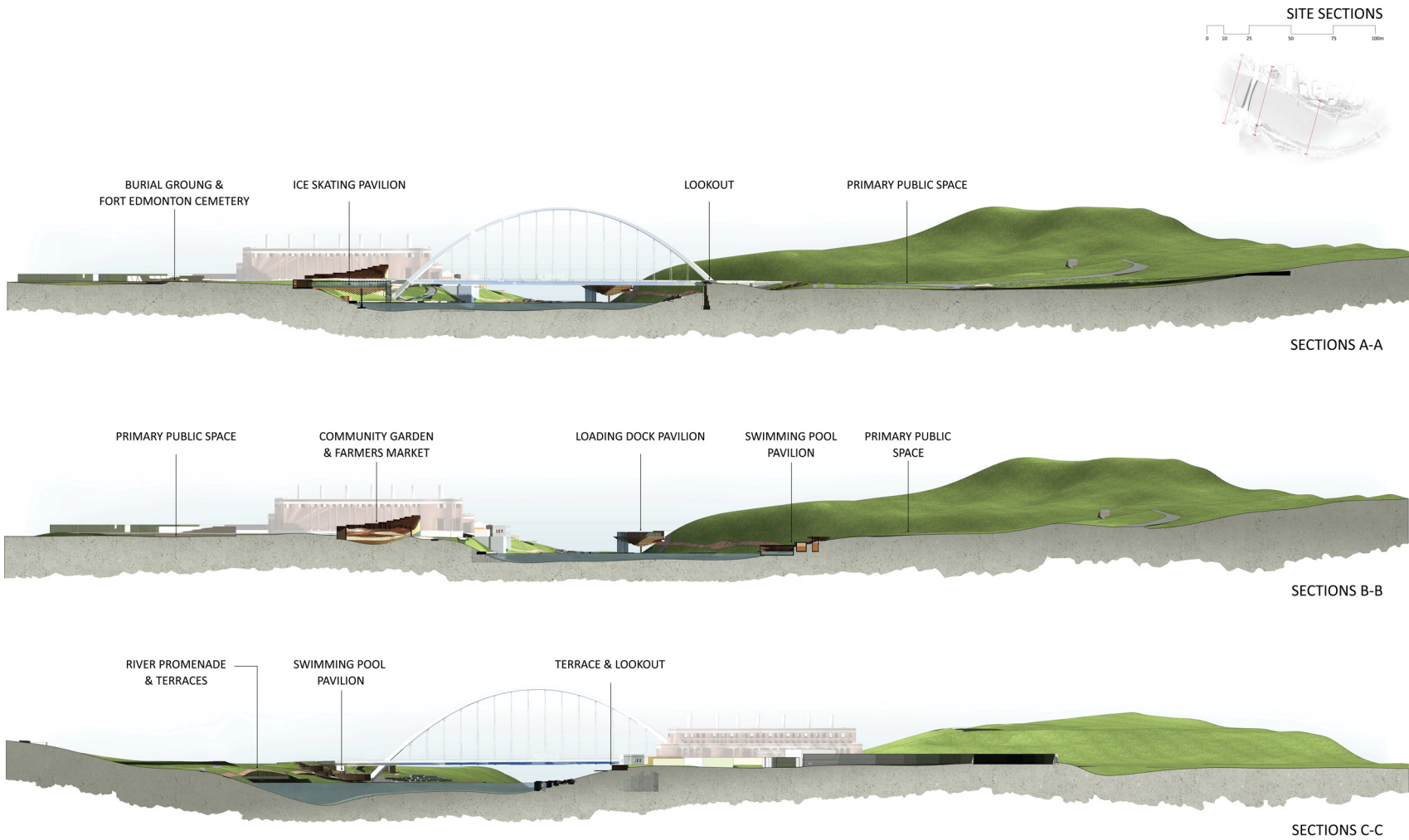
contrasts the earth and frames the views. The wood structure allows us the flexibility to vary in shape, direction of rotation, scale, and the depth of the frames to complement the topography. The structure diagram shows that for each type of landscape I have introduced a set of rules. For a steep slope, I focused on the horizontal direction of wood assembly that cantilevers over forming a bridge where users experience the structure from below. For a leveled surface, I enhanced the views by focusing on the vertical assembly of the wood which allows the user to step on the roof and highlights the view from top. For a shallow hill, multiple buildings are used to step down the landscape allowing the user to enjoy the spaces in between. The structure here is flattened to maximize the views.

INITIAL GRID STRUCTURE GEOMETRIC REPETITION ROTATE SCALE RESHAPE & DEPTH STEPPING GEOMETRY

Ice Skating Pavilion
UNDER

STEEP SLOPE

Mirror

Add

Community Garden & Farmers Market
OVER

LEVELED SURFACE

Subtract

Swimming Pool Pavilion
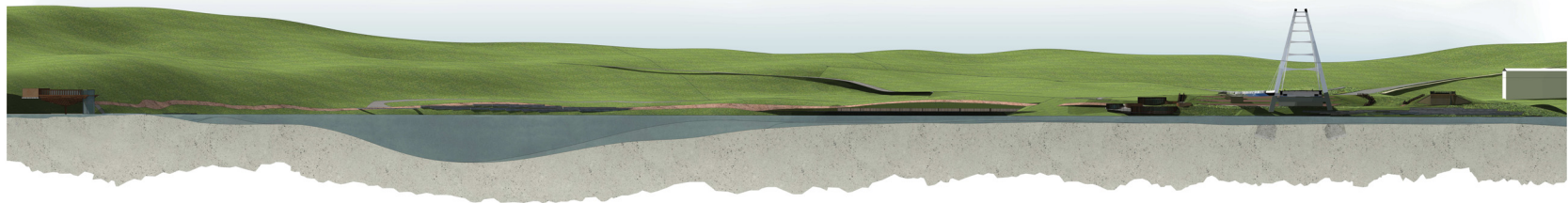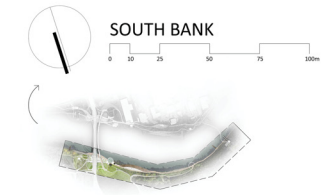IN BETWEEN

SHALLOW HILL

Flatten

Structural family diagram

Proposed site plan, Introduces the four devices and shows how they are positioned in relation to the new bridge (Google Maps 2016)

SITE SECTIONS

BURIAL GROUNG & FORT EDMONTON CEMETERY   ICE SKATING PAVILION   LOOKOUT   PRIMARY PUBLIC SPACE

SECTIONS A-A

PRIMARY PUBLIC SPACE   COMMUNITY GARDEN & FARMERS MARKET   LOADING DOCK PAVILION   SWIMMING POOL PAVILION   PRIMARY PUBLIC SPACE

SECTIONS B-B

RIVER PROMENADE & TERRACES   SWIMMING POOL PAVILION   TERRACE & LOOKOUT

SECTIONS C-C

Proposed site sections, highlights the mirroring of the program between the north and south banks of the river and connects the proposed buildings to the existing landscape.

61

SOUTH BANK

0 10 25   50   75   100m

WALTERDALE HILL NW

PRIMARY PUBLIC SPACE

LOOKOUT

EXISTING PATHS

PROPOSED RIVER LANDING

RIVER STEPS

TERRACES

PLAZA

PIER

PROPOSED RIVER PATH

SWIMMING POOL PAVILION

RIVER EDGE PROMENADE

RIVER STEPS

PIER

LOADING DOCK PAVILION

RIVER ISLAN

PEDESTRIAN BRIDGE

WALTERDALE BRIDGE

EXPERIENTIAL JOURNEY

South bank proposal, the color band indicates the experiential journey that highlights the centres and transitional points (Google Maps 2016)

South bank perspective renders, ❶
showing different positions in
relation to the new Walterdale
Bridge and illustrating the pro-
posed materials

NORTH BANK

EXISTING PATHS
ICE SKATING PAVILION
105 STREET
FARMERS MARKET
COMMUNITY GARDEN
PRIMARY PUBLIC SPACE
101 STREET
SHADE PAVILION
PLAZA
ICE SKATING SLIDE
RIVER ICE RINK
PLAZA
WC
TERRACE & LOOKOUT
RETAIL PAVILIONS
EXISTING FENCE
PIER
RIVER ISLAND
SKATING ISLAND
PUMP HOUSE 2 CAFE
PUMP HOUSE 1 CAFE
PROPOSED RIVER PATH
RIVER EDGE PROMENADE
PROPOSED RAMP
TERRACE
PIER
RIVER STEPS
PIER
PROPOSED RIVER PATH
WALTERDALE BRIDGE
PEDESTRIAN BRIDGE

EXPERIENTIAL JOURNEY

North bank proposal, the color band indicates the experiential journey that highlights the centres and transitional points (Google Maps 2016)

North bank perspective renders, showing the different pedestrian paths and their relation with the proposed pavilions and the new Walterdale Bridge
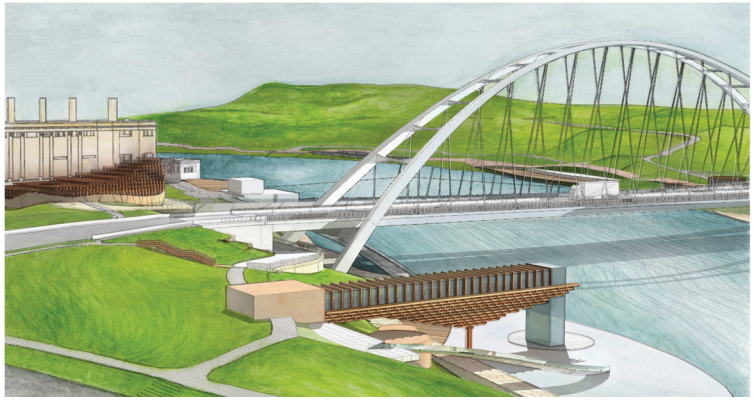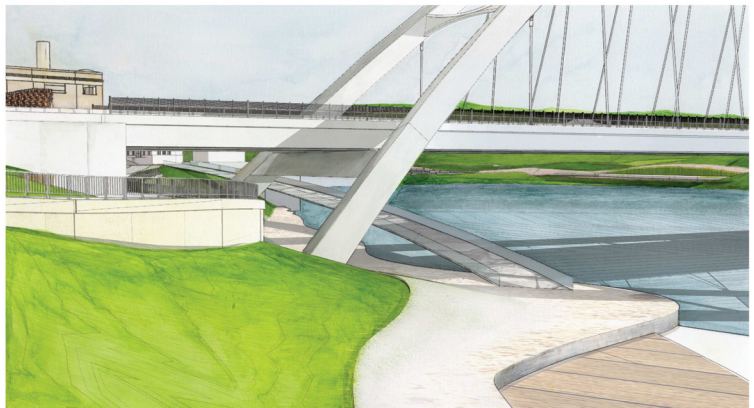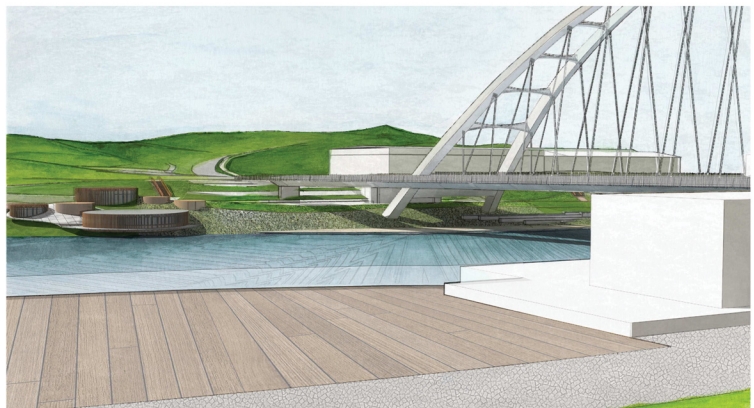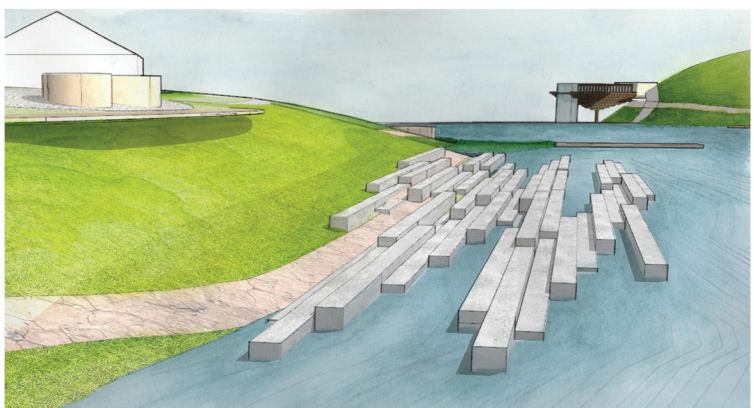
Device 1. Community Garden & Farmers Market

The first program proposition is the community garden and farmers market. The market hall will create a vibrant central destination to the river valley. The program mirrors the existing Strathcona Farmers Market on the other side of the bridge, south bank. The garden will occupy the empty space that was left from the demolished parts of the power plant, linking the Burial Grounds and Cemetery to the proposed market then to the pedestrian bridge leading to the south bank. The program here respects and emphasizes the history and archeological significance of the area. The topography is leveled and allows for easy access and circulation to the Pump Houses and the rest of the pavilions. I propose to repurpose the Pump Houses 1 and 2 as cafes to enrich the area. To reduce the sound of the heavy traffic from the main street I propose a set of row trees on both sides of 105 street framing the area.
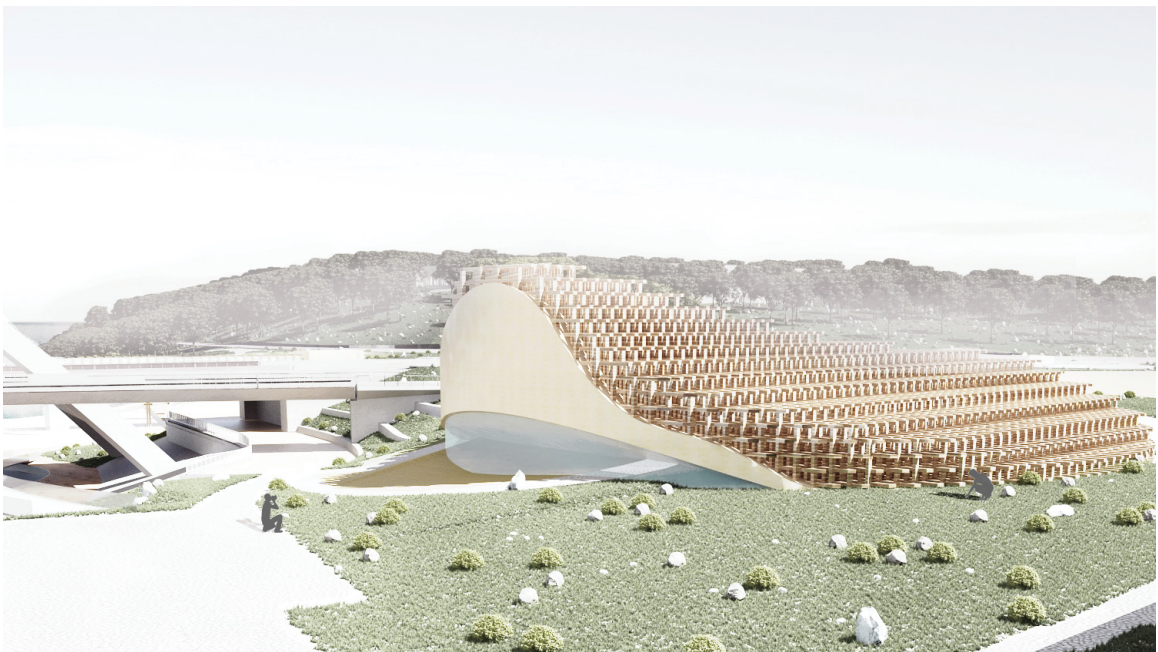
Community garden & farmers market - summer render
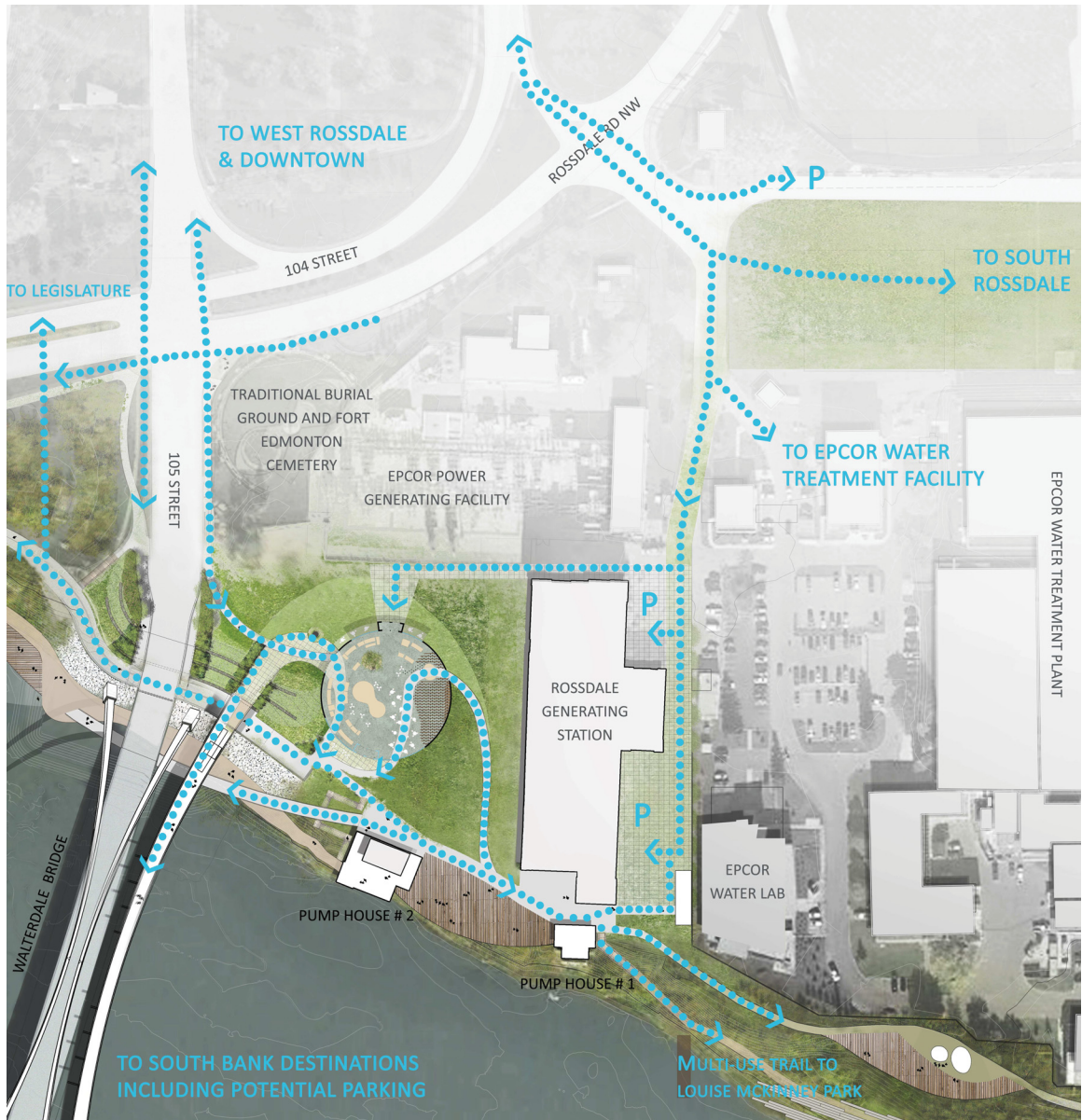
Site access & circulation diagram (Google Maps 2016)

The site access & circulation diagram identifies vehicle and pedestrian access and circulation within and beyond the site:
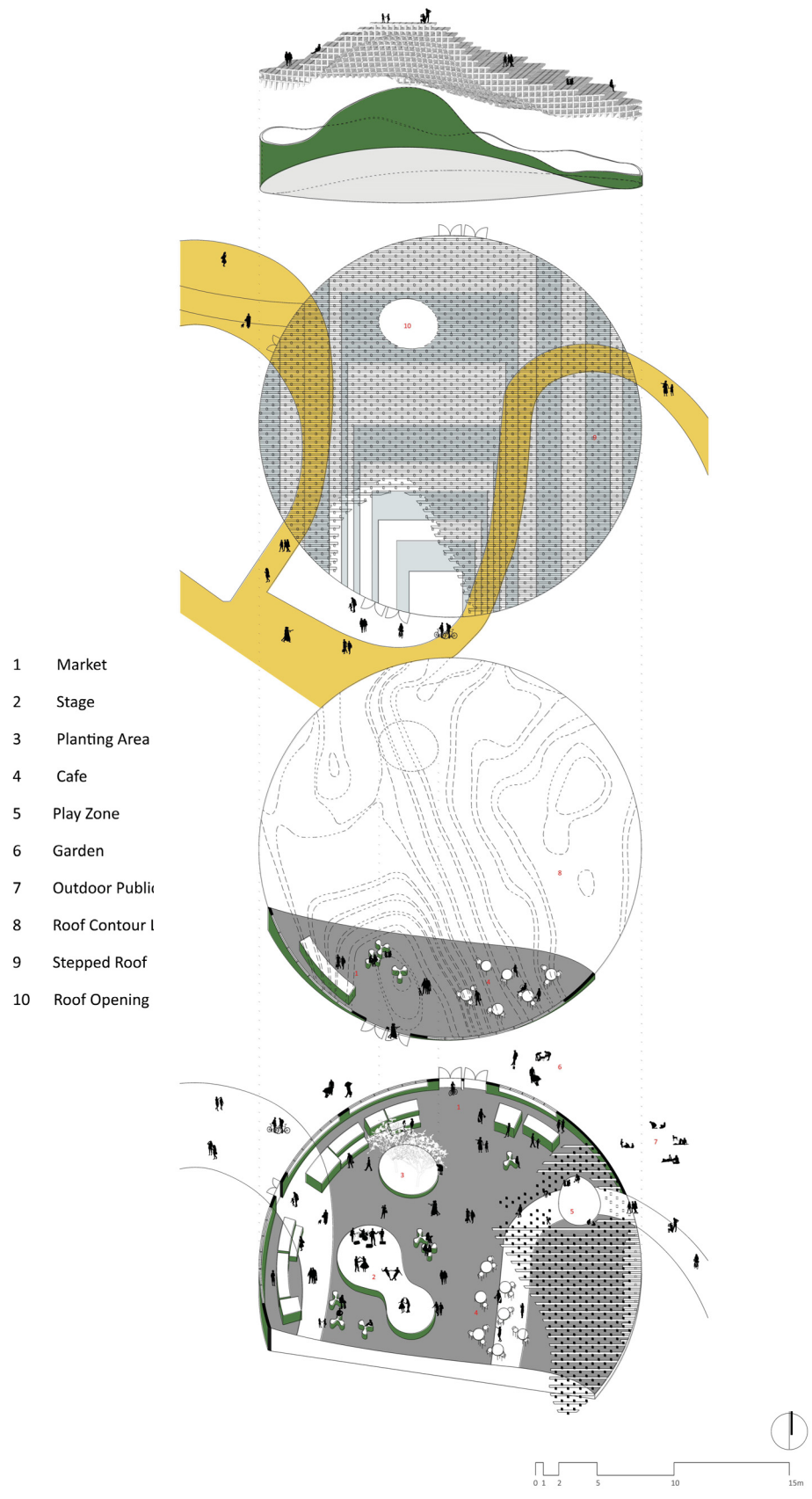
Vehicle access is from Rossdale Road and shared with access to the EPCOR Water Treatment Plant. Routes extend east along the backside of TELUS Field, south to the river and west around the buildings and site. Service vehicle access to the Low Pressure Plant is from a modified north entrance.

Limited on-site parking is available both along the east side of the Turbine Hall and south of the TELUS Field Stadium.
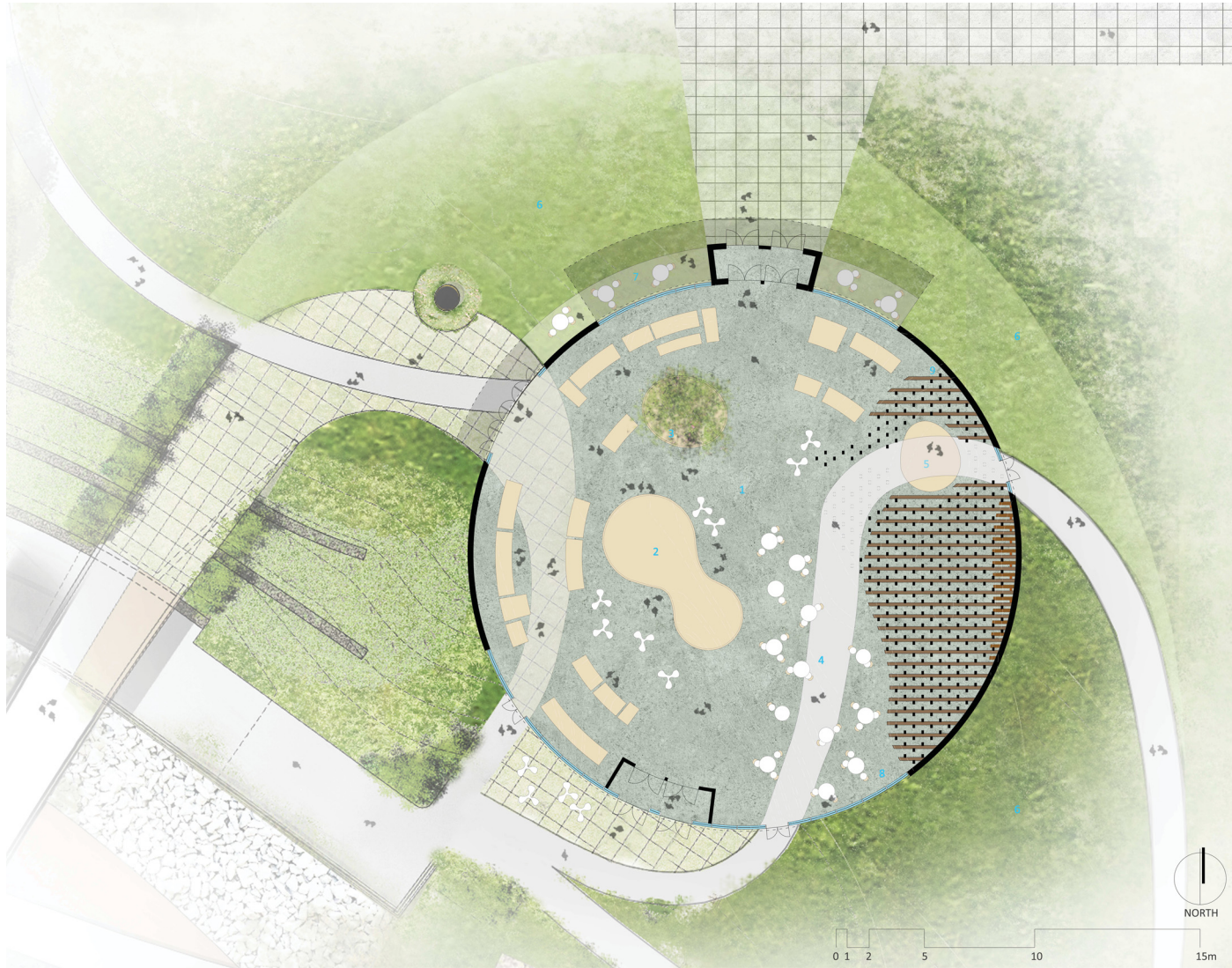
Pedestrian access to the Boiler and Turbine Halls is from the north and south and west.

Access to the Pump Houses is from the river edge promenade.

Multiple routes of access beyond the site for pedestrians and cyclists are proposed to West Rossdale, Waterdale Pedestrian Bridge, over the reservoirs to south Rossdale and connecting with the multi-use trail network.
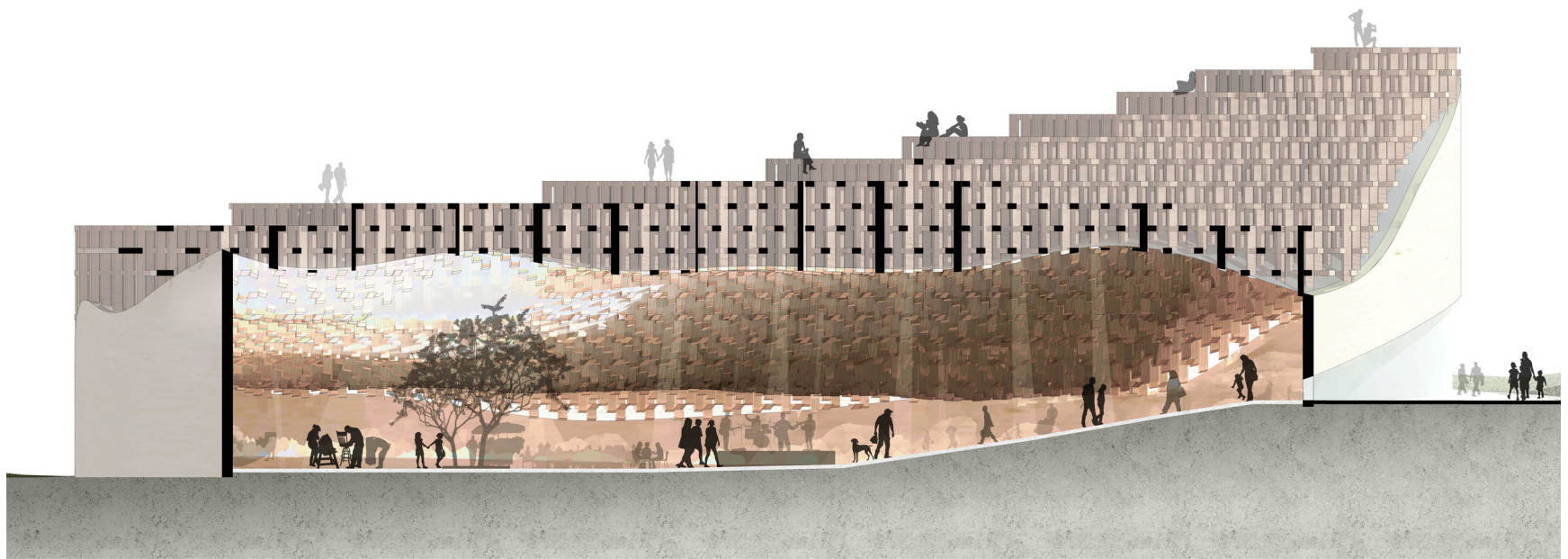
1   Market

2   Stage

3   Planting Area

4   Cafe

5   Play Zone

6   Garden

7   Outdoor Public

8   Roof Contour

9   Stepped Roof

10 Roof Opening

Community garden & farmers market diagram

1   Market
2   Stage
3   Planting Area
4   Cafe
5   Play Zone
6   Garden
7   Outdoor Public space
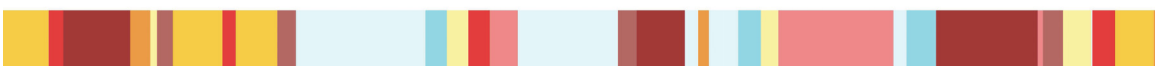8   Roof Contour Lines
9   Stepped Structure
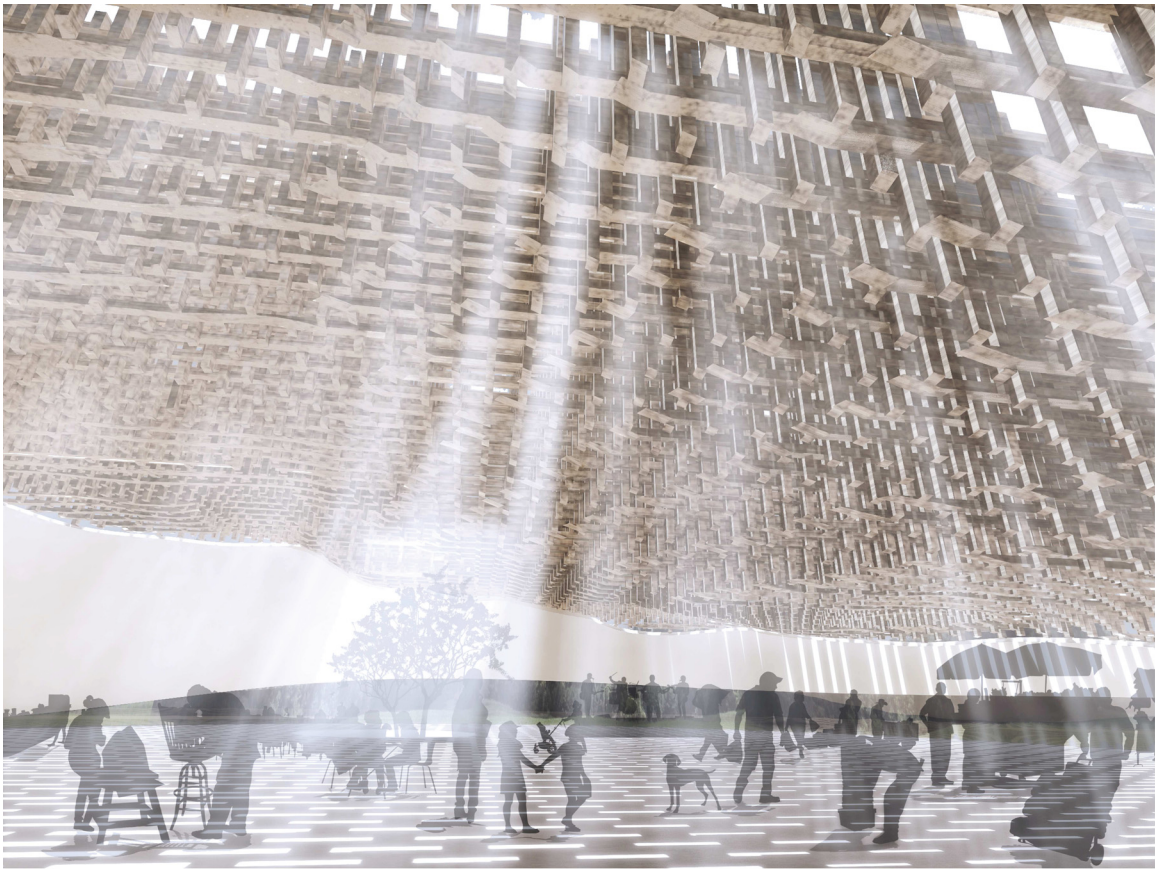
NORTH

0 1 2   5   10   15m

Community garden & farmers market ground plan (Google Maps 2016)
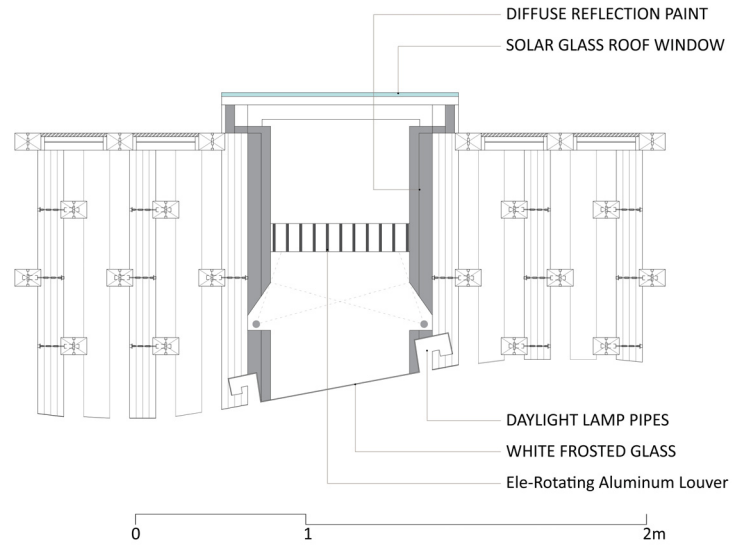
Community garden & farmers market section

The renderings covey how the material, color, and structure help define the character of the building.

The roof framing filtrates light through the building creating a unique atmosphere. Permitting the structure to integrate with the surrounding gardens and paths. The structure envelope adapts to various occupations from seating to skylights and planters. The color ribbon investigation continues inside the building to demonstrate different zones and activities that could be experienced. These activities also vary and adapt to the seasonal change as the function of the building may vary during winter seasons.
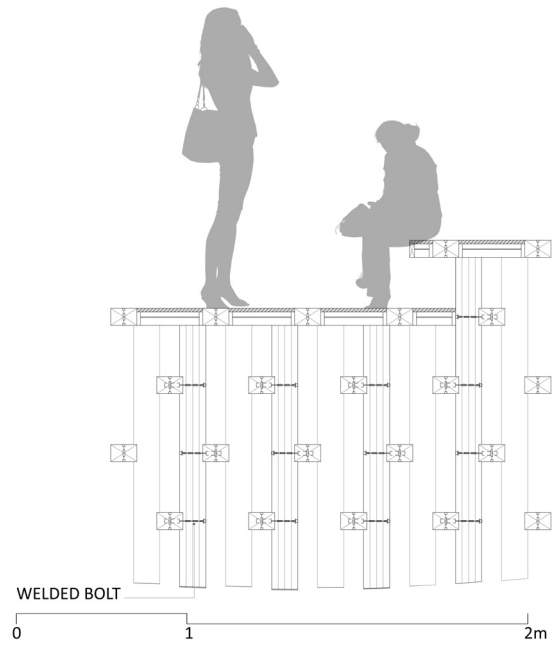

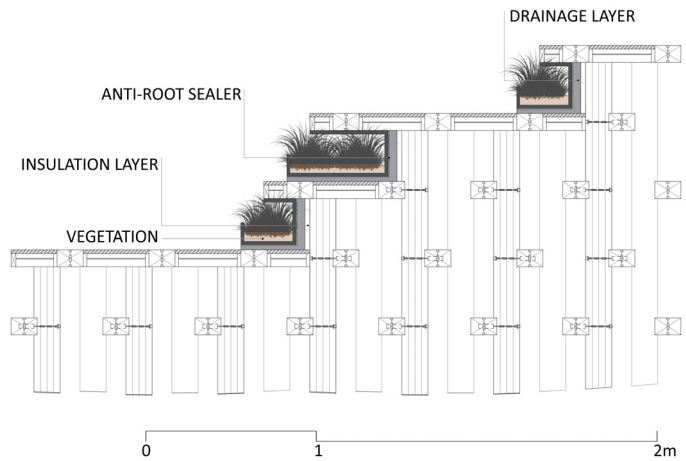Community garden & farmers market Interior render - atmosphere

Skylight detail

DIFFUSE REFLECTION PAINT

SOLAR GLASS ROOF WINDOW

DAYLIGHT LAMP PIPES

WHITE FROSTED GLASS

Ele-Rotating Aluminum Louver

0   1   2m

Seating detail

WELDED BOLT

0   1   2m

Planter detail

DRAINAGE LAYER

ANTI-ROOT SEALER

INSULATION LAYER

VEGETATION

0   1   2m
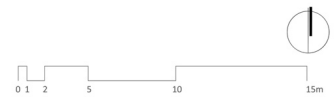
Device 2. Swimming Pool Pavilion

On the south bank, I propose an indoor swimming pool pavilion that functions through all seasons. The program compliments the existing Kingsmen Sports Centre next to it and strengthens the connection to Queen Elizabeth Park. The topography in this area is shallow and permits easy access to the river's edge. By having multiple independent smaller buildings, the pavilion will help service Queen Elizabeth Park with different amenities such as washrooms and changing rooms in addition to the swimming pool. The structure here is flattened to maximise the views between the buildings. The swimming pool is cantilevered over the water and open to the sounding environment to give the feeling of the water's edge. The pavilion is positioned directly after the landing of the pedestrian bridge and branches into three different paths to maximize the river valley access and experiences.

Swimming pool pavilion - summer render
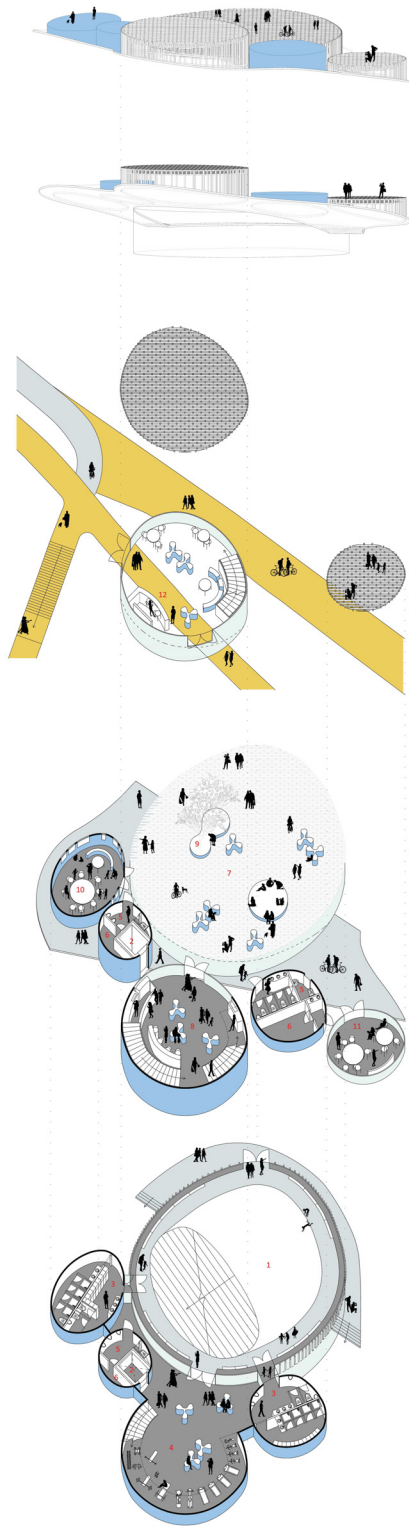
1   Indoor Swimming Pool

2   Elevator

3   Changing Rooms

4   Gym

5   WC

6   Storage

7   Outdoor Public space

8   Cafe

9   Planting Area

10   Daycare

11   Multipurpose Room

12   Reception

Swimming pool pavilion diagram

Device 3. Ice Skating Pavilion

The ice skating pavilion is proposed to celebrate winter activities in Edmonton. The pavilion is located on an existing trial to strengthen the connection to the River Valley Road and the Legislature building. Since the topography is really steep in this area I propose a bridge that cantilevers over the landscape allowing circulation through and beneath it. The bridge includes an elevator at one of its ends that lands on top of an island on the river's ice rink. The pavilion is connected to the bridge and the rest of the structures through two different paths. The first path is the river promenade path, water level, that ramps up under the bridge connecting to Pump House 1. The second path is the existing trail, building level, that links to a terrace underneath the bridge which connects to the market hall. The structure frames the views and allows light penetration through it.

Ice skating pavilion - winter render

1   Ice Skating Rink

2   Elevator

3   Island

4   Locker Room

5   WC

6   Storage

7   Proposed River Path

8   Cafe

9   Slide

10   Existing Path

11   Lounge Area

12   Reception
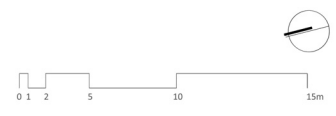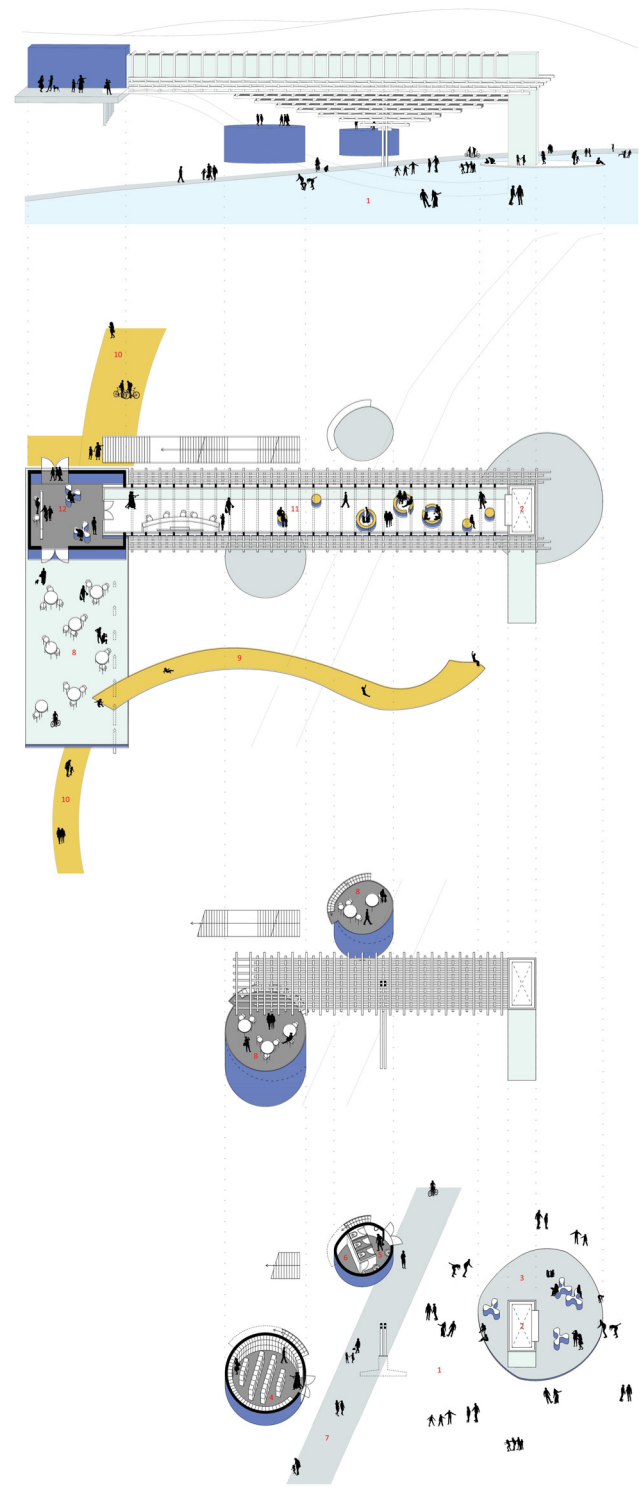
Ice skating pavilion diagram

Allegorical Materials & Color

Color in material design is inspired by bold hues juxtaposed with muted environments, deep shadows, and bright highlights. As materials change through seasons so do colors. This allows us to create different color palettes that correspond to the weather changes.

The material color diagram shows the distribution of the represented materials on both banks of the river. Highlighting the mirroring concept.
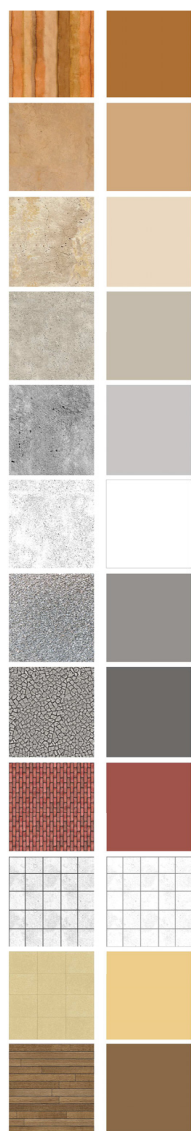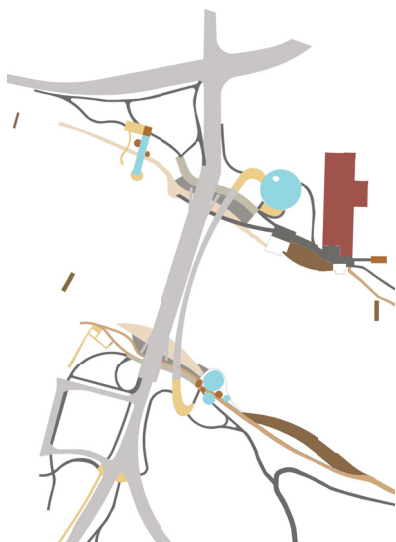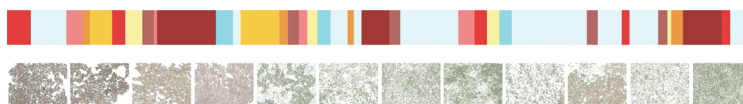
WINTER VIEW

SUMMER VIEW

Perceptual character perspectives, Structure adapts to the seasonal changes and creates different color palettes that helps define the character of the place.

Material palette

CHAPTER 5: CONCLUSION

Experiential landscape is an attempt to investigate one way of operationalising these theoretical principles. It does this by integrating aspects of human experience with their spatial implications. In addition to developing a process for reading experiential character in existing and proposed open settings. I achieved that by a layered map that represents graphically the distribution of different types of spatial experience. This helped in the design-making and geometrical implications when I further developed the design. I propose that this mythology could be used through out the banks of the Edmonton's North Saskatchewan River Valley. The spatial types; centre, direction, transition, and area are scale independent that can be detected at different settings and levels of scale. The net result of this is that the design tends towards a "bottom up" approach to open space analysis and design in that it often focuses on the fine grain detail of settings and then looks at how these work together to influence the experiential character of the wider setting.

Color, on the other hand, can be a linking factor that unites the various outdoor spaces. The plants, materials, and elements used to develop the design, its features and spaces, should be chosen to echo and support the concept; in color, texture, form, size, and other qualities. The design has viable opportunities for further development. As it can be done in different phases by gradually linking the city to the edge of the water, where the river is considered a landmark and a destination as the history of Edmonton - past, present, and future - comes alive.

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