

Revealing the Mamquam Blind: A Squamish Sense of Place

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Revealing the Mamquam Blind: A Squamish Sense of Place

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Abstract

The unique qualities of a fjord landscape contribute to the vibrant community and strong history of Squamish. However, in discovering Squamish, the first impression of the breathtaking natural surroundings is experienced as a backdrop of box-retail development positioned along a highway that has bisected the town. This project aims to elevate a sense of place in Squamish by concretizing the character of Squamish as designed landscapes.

Mamquam Centre emerges from the unique character of the fjord landscape: steep granite walls meeting the estuary. It offers a node that strengthens the identity of the Outdoor Recreation Capital of Canada. The Centre celebrates the ecology of the Mamquam Blind Channel by bringing the magnificence of its landscape to be experienced up front. It operates as a backbone for wayfinding and social friction connecting dispersed districts, while being a base point for the tourist to venture out into the wider landscape. The open space design offers a place for the people of Squamish to experience daily, identify with, and call home.

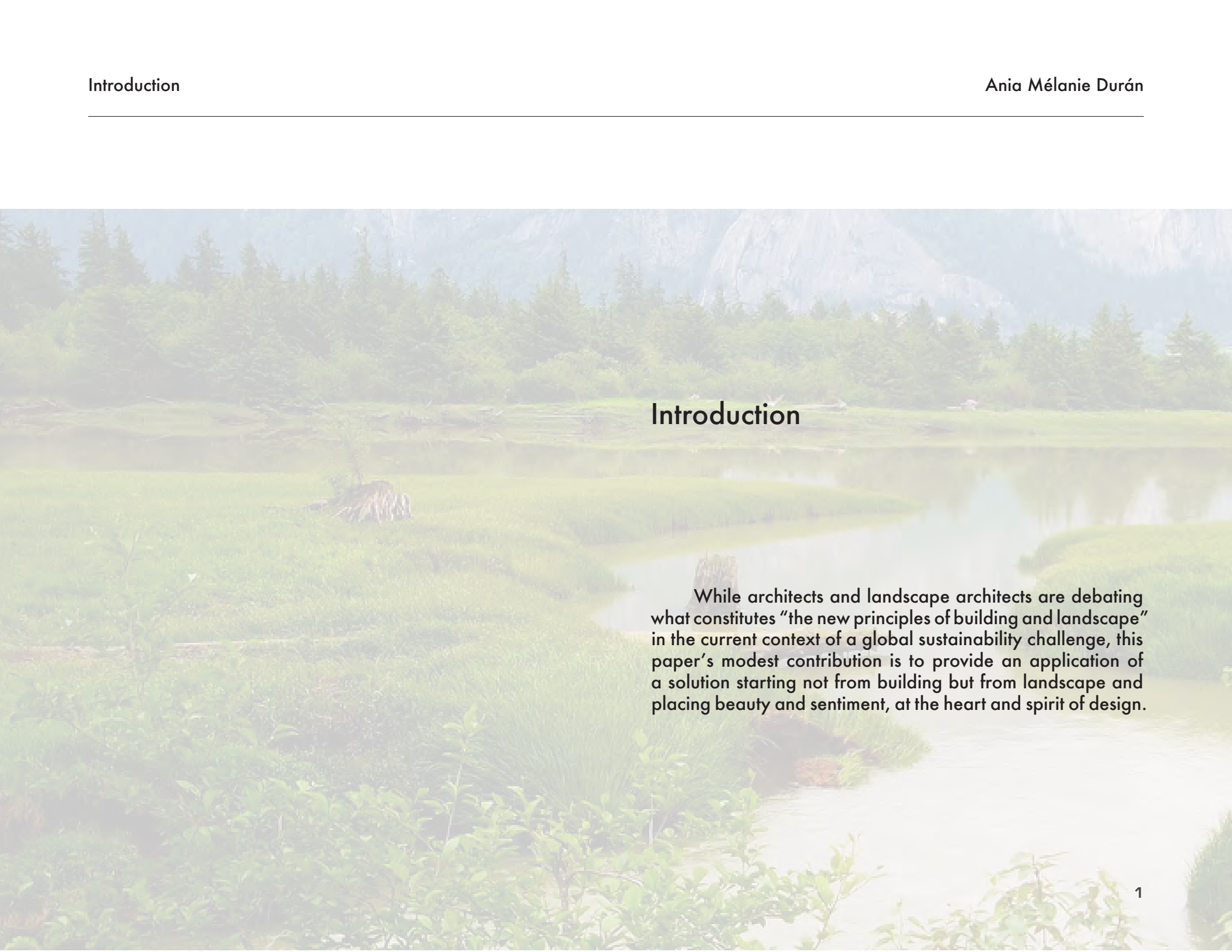
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Introduction

While architects and landscape architects are debating what constitutes “the new principles of building and landscape” in the current context of a global sustainability challenge, this paper’s modest contribution is to provide an application of a solution starting not from building but from landscape and placing beauty and sentiment, at the heart and spirit of design.

PART 1: PROJECT PROPOSAL

CHAPTER 1: Project Definition

1. PROBLEM STATEMENT

Squamish has had a strong sense of place due in large to the unique qualities of its majestic landscape and its small vibrant community. Particularly after the 2010 Olympic Games, the world has shown interest in Squamish due to the inter-play between its unique natural features, its proximity to both Vancouver and Whistler, and its vast opportunities for recreation (Squamish Historical Society, 2012).

Squamish's population is growing at the fastest rate in British Columbia. This requires building new developments (French, 2012). Unfortunately, new developments have shown a patent disregard to the very characteristics of place that make Squamish unique. The new architecture in Squamish is not consonant with the beauty of its surroundings.

Technology and mobility have modified constraints, boundaries, and distances, which had made this place distinct. This started with the Sea to Sky highway: which has given Squamish an image of highway town, lined by generic buildings that fail to show any casual visitor the town's unique character.

The highway and streets have damaged the original order in Squamish, making it difficult to get around in, and in knowing what to visit. To top it all, reliance on motorized vehicles reduces communication between the visitor and the people of the town which is what imprints fond memories of a place.

So, growth, reliance on motor vehicles and generic buildings are reducing the physical scope of Squamish. In turn, this reduces human interaction, and an appreciation of the natural beauty all around the place. This reduces the fondness towards Squamish by visitors and townspeople alike. Worst of all, the appreciation and respect for nature is reduced which generates signs of distress in



Figure 1: Gateway to Squamish
(Photography by Dan Borslein)



Figure 2: Vandalism in Downtown Squamish (District of Squamish Facebook Page)

the environment. It becomes just another town to pass through and not a place to stay, never to be remembered. Squamish might cease to be lovable and unique. How to restore its uniqueness and yet adapt it to modern needs for visitors and townspeople alike?

2. VISION

This project provides a landscape design solution in which existing and new man-made interventions are coherently tied into a meaningful landscape where the beauty of Squamish and its community shines brightly. This illustrates the practicality of starting from landscape design rather than from building design as the basis for township renewal and development.

3. GOAL

My goal is that by designing a greenway, a dwelling space is created where daily activities of people merge with the natural landscape in a meaningful experience of the site's identity.

Within this goal, one technical issue to resolve is to restore the water connection of the Upper Mamquam River, in an effort of building on the natural capital that makes Squamish unique.

4. RESEARCH QUESTION

How can characteristics of the landscape contribute to elevate the sense of place in Squamish?

5. RESEARCH OBJECTIVE

Find and develop reproducible design criteria to create a public space, specifically a greenway, which will strengthen a sense of place in Squamish.

6. SCOPE AND LIMITATIONS OF THE PROJECT

This study of place uses a phenomenological approach, where personal experience and re-interpretation of concepts are encouraged thereby facilitating its application in very diverse settings. This approach can be a powerful way of understanding subjective experience and gaining insight from people's motivations and actions. (Stan, 2012) In this context, I approach the project as if I were a tourist. Edward Relph states that a tourist can be a behavioural insider who makes observations about place and its activities. "Behavioural insideness means that one "knows" when [one is] in the place where one is." (Relph, 1976, p.53). Some authors assert that "the best person to experience and express the [defining characteristics of a place] is not the resident but the tourist (Jivén, 2003, p.79).

Cultural and social aspects, as well as individual and collective values and emotions play an important part in the creation of a sense of place. I consulted poetry, literature and art. I also searched through traditional and modern media focusing on Squamish to develop a sense of the values of the community and frame my proposal in a holistic context. The focus of the project, while strengthened by cultural and social matters is focused on physical characteristics.

If this project were to extend beyond its present scope, a more formal approach would be required to determine the sense of place of tourists and the townspeople. There are many methods consonant with the phenomenological approach proven to be effective. A judicious choice of one or more of these techniques would be required for further generalization of the findings in this study.

One final limitation must be spelled out: A theoretical solution providing design principles starting from landscape but extending to buildings does not by itself provide "a sense of place." These are merely guidelines. "A sense of place" is an experiential result that only the tourists and townspeople can evaluate. This is why this project uses a phenomenological approach. This project is not proving a hypothesis, as traditional studies using the scientific method would provide. Here "the proof is in the pudding." My contribution is to spell out a process taken from various sources; one that in the rush of our modern world may be considered burdensome, but which, I hope to convince the reader, is one worth trying if we want the place where we live, play, work and circulate be lovable and meaningful.

CHAPTER 2. Method

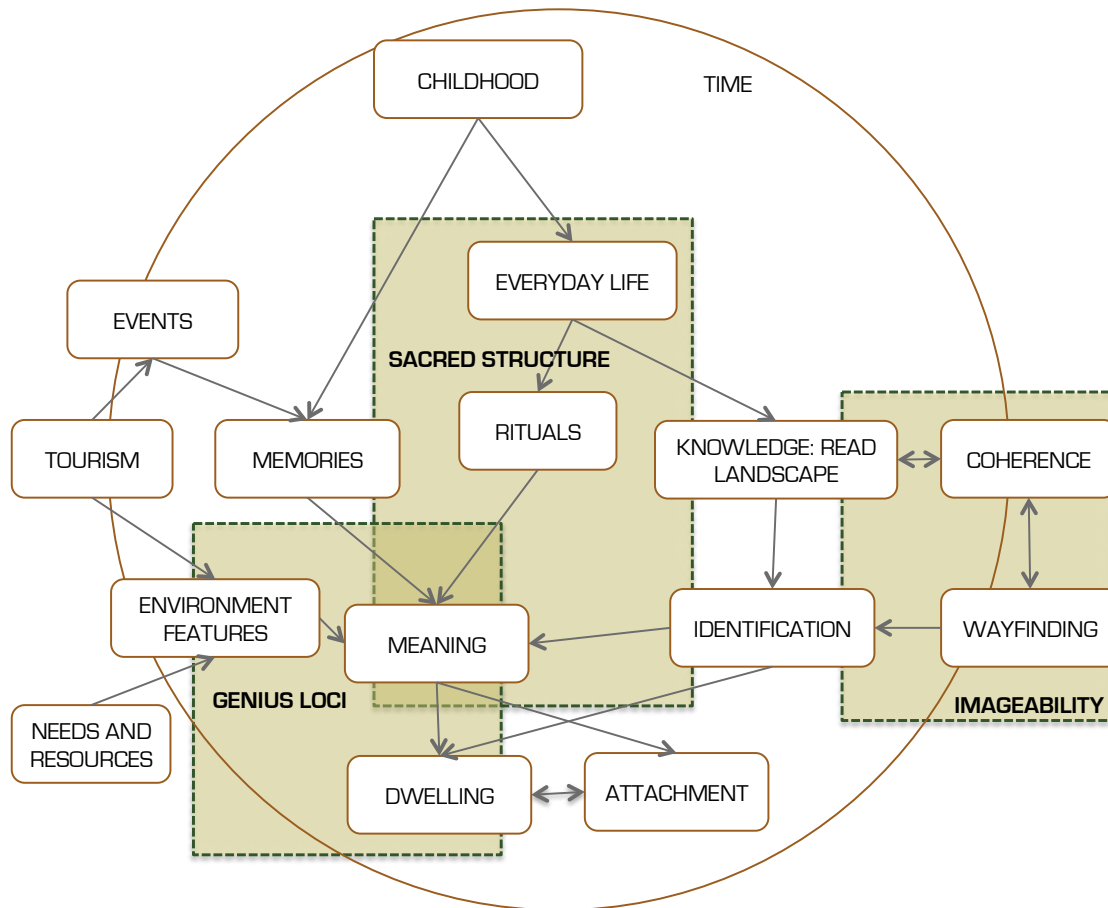


Figure 3: Interrelated concepts relevant to landscape architecture that conform a sense of place

The research process initiated with a visit to Squamish, with no preconceptions, allowing for the place to speak for itself through observation. A series of visits followed by a meeting with personnel from the District of Squamish derived a general problem statement: how to modify and elevate a sense of place in Squamish?

As a starting point, I did a general research on the literature relating to a place-making across a range of disciplines and authors, abstracting from this body of knowledge a list of concepts relevant to landscape architecture that influence a sense of place. An example of the concepts explored and their relationships can be seen in Figure 4. This list was evaluated and constantly synthesized based on the goal of finding an adequate approach that could conform the right landscape design. This process redefined the project as well as the site selection.

Regardless of the discipline from which one approaches a sense of place, it is natural that such notion lies within a phenomenological framework, as “place is not only held by the size of its configurations and aspects, but also shaped by what in it is presented, accepted and hidden, and those dimensions, in the end, are only obtained by direct and live experience” (Abreu, 2003) The phenomenological approach of this research aims at understanding a sense of place through the specific phenomena of genius loci and orientation, focusing on the theories of two authors: Christian Norberg-Schultz and Kevin Lynch. Their literature informed design principles and strategies that guide my own application of these concepts throughout the design process.

- Different precedent studies (chapter 4) were chosen for specific strategies or to help identify similarities in context, programming, design criteria, and/or lessons.
- The choice of a specific site was accomplished by revisiting the area, drawing critical information from a variety of sources, including blogs and newspapers. I further discuss the results of this process in Chapter 5.
- Ecological constraints and intentions proposed by officials and townspeople are accepted as given and, although not the focus of this research will be assumed throughout the design process.

The theoretical background, the precedent studies and the site descriptions and analysis lead to a series of design principles that guided the design process. The design process consists of a series of iterative schematic designs in which a proposal is constantly tweaked

by the previous iterations as well as a series of precedents. Every new schematic design adds on to the previous one, getting closer to a theoretical holistic solution and is evaluated in meeting the criteria for design and in offering a valid solution that is grounded on the framework and finally checked to see if it is ecologically sound. Iterations are proposed progressively as diagrams, schematic plans and models. The proposed solution is a production of the site design accompanied by my own artistic impressions that may evoke the feeling of sense of place that is aspired. I qualify it with a “may” because it is a key learning of this paper that a sense of place is an experiential construct for those that visit the place and for those that live there.

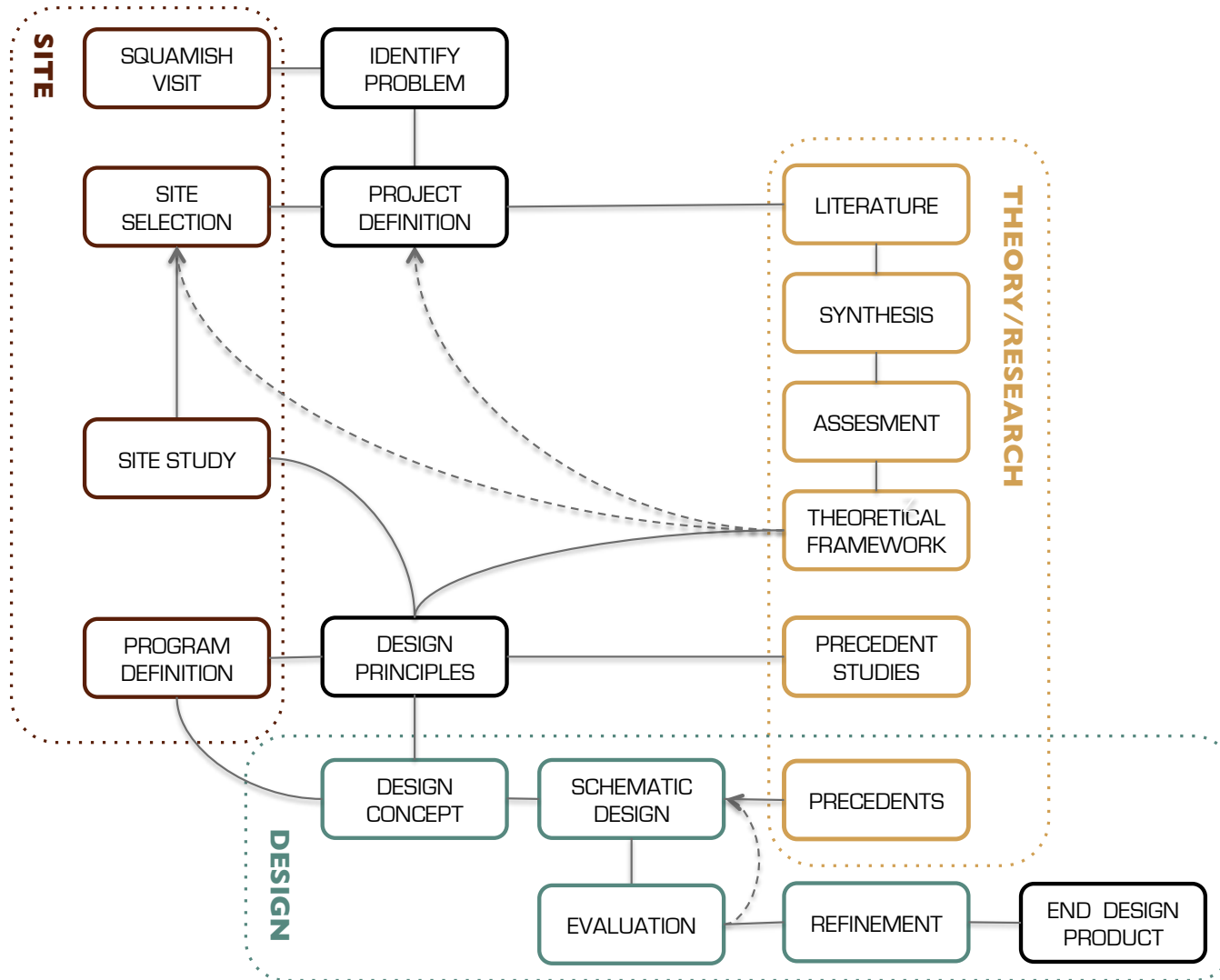


Figure 4: Method

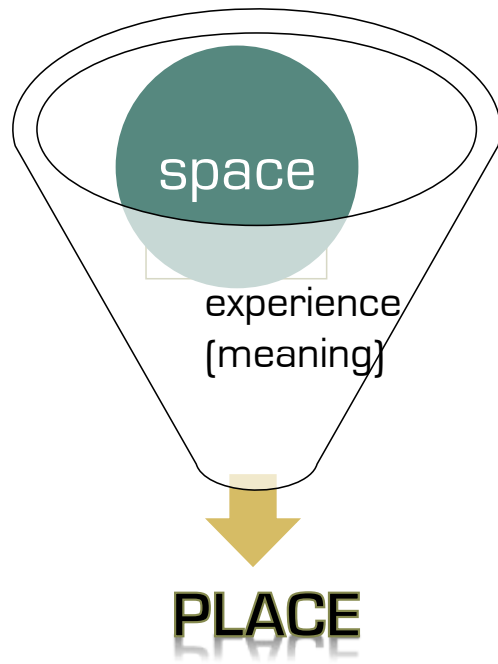


Figure 5: How does space become place?

CHAPTER 3. Theoretical grounding

1. PLACE VERSUS SPACE

Let us start by differentiating between space and place. Space refers to a particular setting, whereas place expresses a human relationship to that particular setting. Place is a totality of meaning, acquired through lived experience. (Tuan, 1977; Norberg-Schultz, 1980)

How does space become place? Humans give character and structure to a place. (Papenborg, p.2) According to Tuan, it is by being named, and embodied in architecture form that meaning emerges. Such meaning is created through lived experiences. "Moving [from] undifferentiated space to meaningful place requires experiencing it deeply and emotionally" (Davis, 2005, p.)

2. RESEARCH FRAMEWORK

“What, then, do we mean by the word ‘place’? Obviously we mean something more than abstract location. We mean a totality made up of concrete things, having a material substance, shape, texture and color. Together, these things determine an ‘environmental character’, which is the essence of place”

-Christian Norberg-Schultz, *Genius Loci*, 1980

Most studies employ a scientific method as means of achieving an absolute scientific truth in concrete quantifiable terms, where an object of study is dissected, abstracted, categorized and tested into quantifiable terms that will be a constant and absolute truth. The theoretical framework I propose for this research is based on phenomenology, concerned with the study of consciousness and lived experience as a source of not only of knowledge but of a guiding sense of meaning. Quantitative phenomena exist but it is not the main characteristic in a phenomenological approach. Likewise, the scientific method is valid and useful, but is not the final word or the final truth. Experience and meaning are the ultimate goals.

Phenomenology consists in the study of specific communicable perceptions (called phenomena) through an iterative process, allowing a being to consciously experience the phenomena free from empirical assumptions (Giorgio, 2007). An awareness of being-in-the-world, of consciousness of the surroundings, is an attitude

required to tackle the study of such phenomena. Phenomenology does not recognize that there is a subject that is sentient and an object of study which is not. Rather all existence is subsumed into an “expanded consciousness.” The trick is to refer all phenomena to this “expanded consciousness.” Since understanding all of surroundings is probably a “fool’s errand,” one way to shortcut this is by finding out the “intentionality” of the phenomenon. This is a complicated term, which essentially means finding as broadly as possible, the intuitive sense of each participant in the phenomenon of how it is evolving in space and time, and how this modifies the sentiment of the observer with the phenomenon (the meaning). Luis Khan exemplifies his phenomenological approach to architecture with the questions: “what does the building want to be?” One individual being’s opinion is not enough; the entire universe of people populating a perception of the phenomenon must provide their input and provide their sentiment or affection to the phenomenon. One key positive element of affection is finding beauty in the phenomenon. For without beauty as an attractor, sustainability is not possible.

The main factor of interest for this design project is the community attachment and sentiment to a particular setting as they build upon the physical or spatial relationships between the landscape and the buildings. We will understand this relationship by understanding the sense of place at Squamish. I will follow two approaches to place-making: Norberg-Schultz’s theory on genius loci, referring to the ground and spirit of place; as well as Kevin Lynch’s idea of imageability—the grounding of place via design principles to facilitate development of mental structures vis-à-vis the environment surrounding the place—in other words, creating “an expanded consciousness.”

3. A SENSE OF PLACE

The study of place has been approached through a wide variety of disciplines ranging from philosophy (Heidegger, LeFevre), geography (Tuan, Relph), environmental psychology (Kaplan, Kellert), or architecture and urbanism (Alexander, Bachelard, Norberg-Schultz, Seamon, Jensen, Jackson, Davis, Kruger, Lynch, Lippard, Eliade, Hester, Paterson, Cullen) to mention a few.

Due to the interdisciplinary nature of the study of place, finding a common definition for a sense of place can be challenging. A sense of place is often referred to as place attachment, topophilia, place identity, insideness, and community sentiment (Cross, 2001). A study in sense of place can range from a purely social approach to an approach that deals with physical aspects of a place. Most literature about sense of place defines it as the feeling of attachment for a place. (Tuan, Relph). Environmental psychologists define a sense of place as the as the biophilic features of the landscape, which trigger affective responses (Kellert, Kaplan). A sense of place can also out-rule the physical aspect of a setting and describe a feeling of social bonding, for example, within a community. However, for the purpose of the landscape architecture focus of this research, I have focused on the literature in which setting plays a large component in creating a sense of place. In the case of Squamish, I believe most would agree, a sense of place can be found inherently in the setting due to its natural attributes.

From the landscape architecture approach of this research, I will define a sense of place as the affective attitudes towards place resulting from a strong and harmonious relationship between human manifestations and the setting, which in time, it is hoped will develop a strong and caring community. A strong sense of place is the result of human manifestations that seem to belong in a specific setting, it is when a city or town and its landscape have an essential bond, and where a man-made piece fits and enhances its surroundings, creating such an evocative image that one cannot imagine it could be anywhere else. Or to bring in a maligned term in academic studies—a place that is beautiful.

The relationship to place can happen at an individual level, but it is clearly more desirable to experience a collective sense of place eliciting similar feelings towards a particular place. (Wilkie, 2003) A collective sense of place occurs most frequently when the biophysical characteristics of place are strong enough to evoke a relationship. Such is the case of Squamish, which doesn't fail to convey feeling of awe and admiration to any explorer or resident. My focus was in finding factors that contribute to a collective sense of place. (Cross, 2001).

4. A QUICK THEORETICAL WALK AROUND THE STRUCTURE OF PLACE : *GENIUS LOCI*

4.1 Dwelling

The phenomenological study of place was initiated by Heidegger and followed up by Maurice Merleau-Ponty. Their writings influenced an approach to architecture, urbanism, and landscape architecture based on the concept of dwelling, or having an “existential foothold” (Relph, 1976, Norberg-Schultz, 1980, Seamon, 1998), as well as the relationships between movement and meaning as places are experienced through the body.

“Man dwells when he is able to concretize the world in buildings and things (Norberg-Schultz, 1980, p.23.) ...when he can orientate himself within and identify himself with an environment, or, in short, when he experiences the environment as meaningful”. (Ibid, p. 5)” When man dwells he IS simultaneously located in space and exposed to a certain environmental character. But he also has to identify himself with the environment, that is, he has to know how (my underline) he is in a certain place.” (Ibid).

The most basic concept of dwelling is a protective insiderness that has to be reached through a path and crosses a boundary from being in “the outside.” The ideas of insiderness and outsiderness are given through different degrees of enclosures. (Seamon, 1998)

4.2 Genius Loci

Christian Norberg-Schultz, influenced by Heidegger’s philosophy ...seeks to find the experiential a priori existentials that are manifested in the *topos* (the contents of the landscape that are pre-understood before cognitive judgment...). It is an “interpreted” phenomenon of the landscape. (Backhaus p.xvi)

In his view, the role of architecture (and landscape architecture, for that matter) is to understand the vocation of place, to make the world visible by making the “genius loci” concrete by gathering together what is known and what is felt. (Norberg-Schulz, 1980, p. 23) The term is attributed to the Romans, who believed every being has a “genius,” that is, a spirit that gives life, determines its character and accompanies the being through all his lifetime. It is literally translated as “spirit of place”. “Genius loci” is described as representing the sense people have of a place, understood as the sum of all physical as well as symbolic values in nature and the human environment.” (Jivén, 2003, p.70) Revealing the genius loci through design is an essential way of enhancing a sense of place and [may] (my italics) result (...) in a harmonious integration with the environment. (Chen, 2009)



Figure 6: Figure-ground relationship of the site discussed in Chapter 5.

Norberg-Schultz gives genius loci two connotations: structure and meaning. We can describe the structure in terms of *topos*, as variations in surface relief, which give character and meaning to place. “If man made places are at all related to their environment, there ought to exist a meaningful correspondence between natural conditions and settlement morphology.” (Norberg-Schultz, 1980)

The second aspect of genius loci, meaning, is given through themes, or variations, which describe the individuality of the structure. Kevin Lynch’s theory of imageability, described in the next section tackles this aspect thoroughly.

4.3 The Structure Of Place

Norberg-Schultz proposes that towards a phenomenology of place we must distinguish natural from man-made phenomena. In doing so, place should be described in terms of “landscape” or “settlement” and analyzed in terms of “space” and “character”. Space refers to a three dimensional or topological organization; the prepositional qualities of which outsidersness / insidersness is the primary aspect. An important part of understanding place through spatial qualities is wayfinding, which will be further explored in the following section.

“Character” alludes to the general atmosphere determined by material substance, shape, texture and color and defined by the treatment of boundaries. Settlement and landscape have a figure-ground relationship, which determines the boundary. This relationship also implies a variety of degrees of extension and enclosure. An enclosure provides a center from which place extends in different directions, towards earth and sky. Centralization, direction and rhythm are important in defining space. (Norberg-Schultz, 1980, p.14)

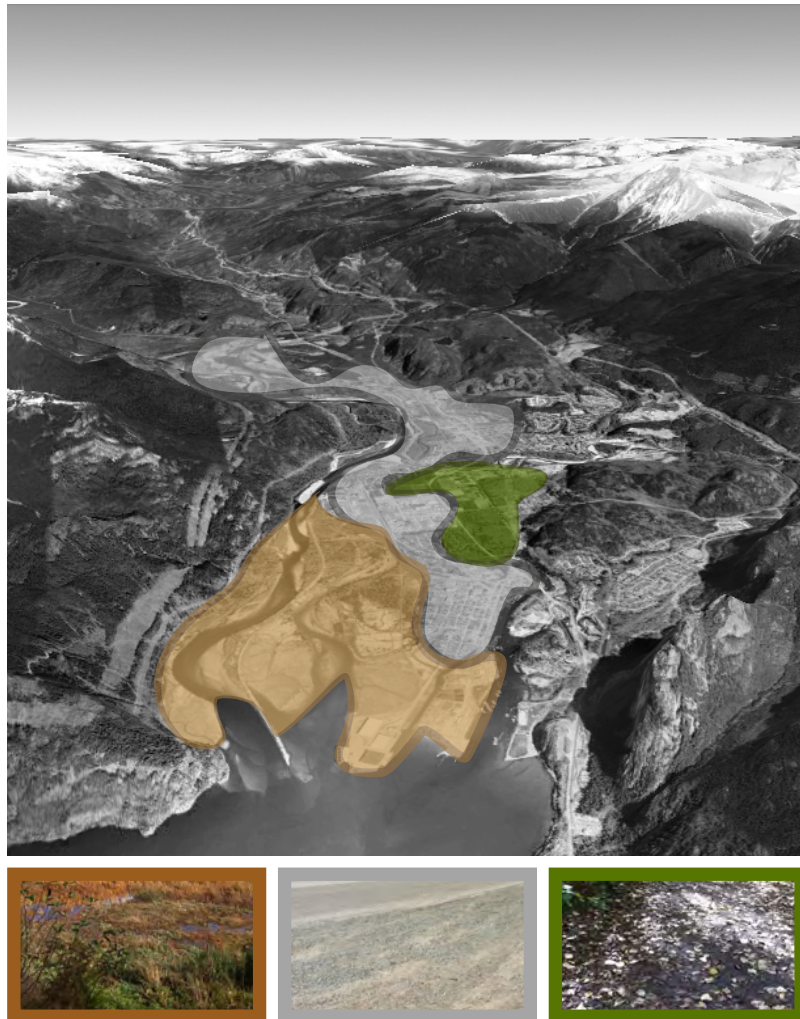


Figure 7: The ground of Squamish

4.4 Environmental Character

At the environmental level, we can understand the character of a place by considering how the forest ground (earth), sky and the optical array uniquely interact. We can think of the strong environmental character of the Squamish landscape in terms of these elements. The ground of Squamish is brown and beige, dark colors constantly wet, a mushy texture that merges into the rivers in a blend of beige browns and greens painted by the water current. The optical array is clearly defined from the flat valley ground. Dark greens and browns composing the forest cover as well as the vertical slick surface of the granite walls form a wide visual thickness. Finally there is the changing sky, with its dark light and misty texture.

4.5 Man-Nature Understanding

Vernacular knowledge provides a means to befriend the genius loci and reveal a sense of place (Whiston, Jensen, Norberg-Schultz). It contributes the best knowledge about the meaning of natural places, as this knowledge was essential in primitive dwelling, which gathered the understanding of the world. Gathering implies natural meanings are brought together in a new way in relation to human purposes. For gathering to be meaningful it must have a structure similar to other aspects of reality and ultimately to natural sources, or in other words, categories of space and character.

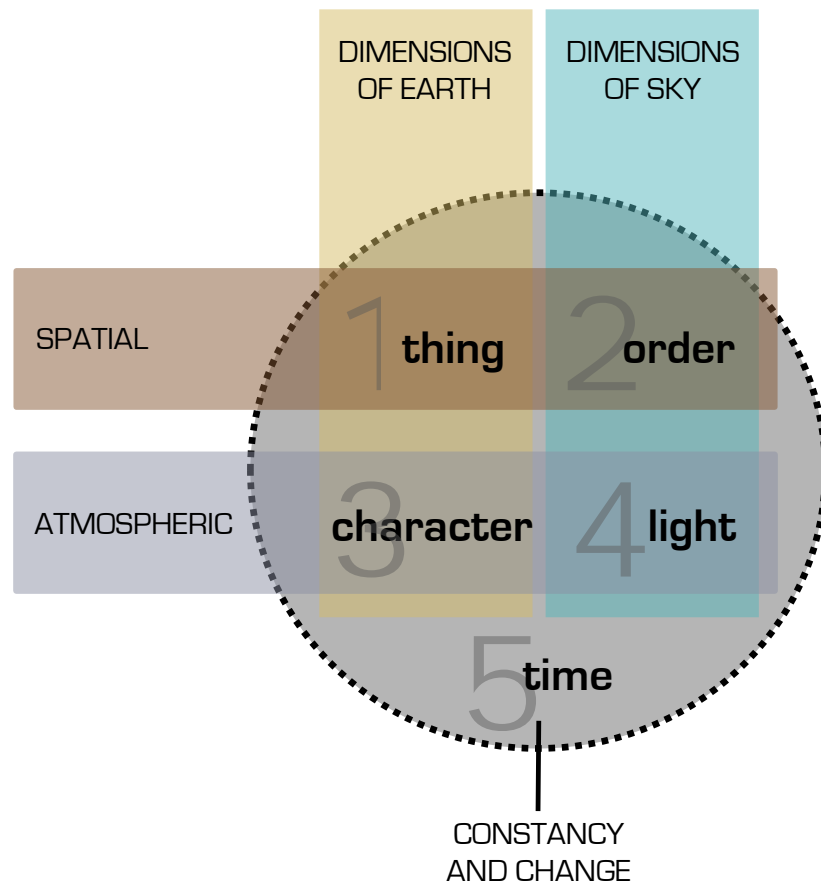


Figure 8: Diagram illustrating the phenomenological process of concrete natural understanding, based on Norberg-Schulz ideas.

In dwelling, man first tries to **visualize** his understanding of nature through **building** what he sees, based on the organization of the land's *topos*. "When nature suggests a delimited space, he builds and enclosure, where nature appears centralized, he erects a Mal; where nature indicates a direction, he makes a path" (Ibid, p. 17). Then follows **complementation** by adding what is lacking. Finally, man **symbolizes**, translating the meaning of nature into another medium.

Norberg-Schulz denotes there are 5 modes of concrete natural understanding that designate the meanings natives have abstracted from the forces of nature. These modes of understanding are essential qualities that characterize a landscape and gather the understanding of the world: **thing, order, and character, light and time.**

- (1) **Thing:** Water, mountain, tree, forest, it is the object that is a point of departure for identification and gathering which is discovered, not chosen.
- (2) **Order:** Abstraction of the cosmic order provided by the course of the sun and the definition of cardinal points.
- (3) **Character:** Relating things of the natural environment to basic human traits, the anthropomorphic personifications of place; places as manifestations of gods. (Ibid, p.31)
- (4) **Light:** Most general and less constant phenomena
- (5) **Time:** temporal rhythms; constancy and change; rituals, which are the concretization of man's participation in natural totality

Time is the dimension of constancy and change, and makes space and character parts of living reality, which at any moment is given as a particular place, which is the **genius locus**.

4.6 Landscape Character

The combination and juxtaposition of these 5 modes of natural understanding results in basic landscape characters (or typologies): the romantic, cosmic, classical or complex landscapes, the last one resulting from a combination of the rest. (Norberg-Schultz, 1980; 1985, p. 48, Goldfarb, 2011) (Please refer to the Appendix A for a specification of the basic landscape characters.)

The categories for understanding the landscape character however, only seem to be useful if the place of study is an archetype of any of the three categories. One can certainly find a multitude of places within the forest of Squamish, as in the romantic landscape, but we also find the sculptural presence that belongs to the classical landscape as well as characteristics of the cosmic evoked by the expanse of the ocean and the flat valley facing the infinite horizon into the Howe Sound. (Childs, 2006, p.88)

Although the genius loci of Squamish inclines towards the characteristics of a romantic landscape because the forces of nature are strongly felt, it is not an archetype of such and therefore would result under the 4th category of “complex” which leaves very vague

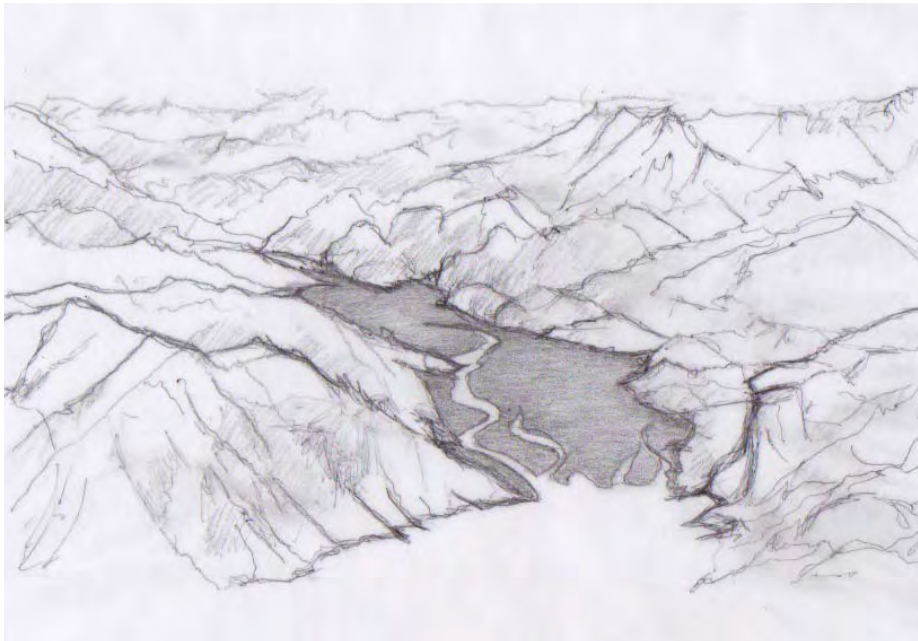


Figure 9: The Squamish Room

definitions of its character. However, the characteristics detailed by Norberg-Schultz in such categories correspond to features that can be understood through methods of observation and can provide an understanding of Squamish as its own landscape archetype.

I have started by identifying the qualities of the ground, which are the more constant ones. The ground of Squamish valley is continuous, unlike the romantic landscape, until it takes off into the mountains. The break in its continuity is provided by the incisions of the rivers. The dykes accentuate such incisions, creating elevated points that delineate the break in the valley's floor. The ground along with the topography determines the degree of extension, which is the distinctive quality of any landscape. (Norberg-Schultz, 1980, p.32) Topography creates directions and defined spaces and has specific structures and scale of relief. The degree of the effect of these characteristics depends on the level of scale. The case of scale of topography in Squamish is responsible for a strong effect the feeling of enclosure that walls the extended flat wet landscape of the valley. The ground of Squamish is open and free, yet the scale of its extension is abruptly interrupted by the valley's walls. There is a strong sense of enclosure provided by the meeting of the very flat floodplain almost cornered by a wall of geological features amongst which the Chief is distinguished. However, a feeling of direction an extent is created by an opening on the horizon between the mounds. This gives a sense of a macro landscape. (Figure 9)

Furthermore, Norberg-Schultz further explains that the character of the landscape is complemented by elements of texture,

colour and vegetation. In the case of Squamish, the secondary element of vegetation plays a huge part in determining the landscape character. The overwhelming presence of vegetation where the barren granite walls are not exposed remind the observer of a breathing fertile landscape full of life. The forested landscape is usually more prominent than the spatial relief but this is not the case of Squamish. When relief and vegetation combine they form very particular landscape. In the case of Squamish, nature becomes mobile with the existence of swift rivers. The forest, rock and water all compete with similar forces that culminate in the meeting of the three rivers, in the valley.

The rivers form the edges dominated by Earth. The character is determined by the rocks, the Chief, and the distant mountains, complimented by the green colour and fine textured grain of trees. Squamish yells wet, the ground is wet, the air is wet. The flatness of its wet ground is emphasized by the rocks that emerge from it into a massive mountain range. The tone of light is dark.

4.7 Design Principles

In light of the above, here is a list of the design considerations:

*Reveal the genius loci
of Squamish and create
landscape of dwelling*

Strategies:

- Structure must echo that of Squamish: gathering, large room
- Thing- respect sacred places
- Enhance the character of Squamish by purposefully utilizing the particular qualities of natural lighting, winds, native vegetation, materials and water of Squamish.
- Reveal processes of time: flooding
- Inspire from native knowledge



Figure 10: Climbing (Photography by Paul Bride)

5. PLACE ORDER: IMAGEABILITY

5.1 The Body Of The Observer

Merleau-Ponty's approach to phenomenology starts with perception, which is carried out by the body. The body is the origin of expressive movement and the condition for experience; it is our medium to perceive the sensory input with which we can experience the world. The meaning of experience is explicable in terms of the way the body interacts with the subject and inhabits in space and time and it can be understood through prepositional relationships such as up/down, above/below that evoke specific metaphors. Chris Tilley's approach to landscape phenomenology is the idea of landscape as a set of relational places linked by pathways, movements and narratives, a framework he employs to research Neolithic structures. "The prepositions represent our fundamental need to be rooted in both space and time – to orient, feel, and comprehend our being in the various circumstances present to us in our world." (Paterson, 1993)

5.1.1 Design Principles

Design for the body

Strategies:

- Maximize opportunities for specific prepositional relationships.

5.2 Imageability

Orientation is essential to our well-being and it is through classification and categorization that we understand cities. Landscape and urban design are temporal arts that use sequences that incorporate uncontrolled variables such as light and climate. However, Lynch's approach provides a useful framework for addressing a phenomenology of landscape through design by being able to define elements that purposely address the way people psychologically structure an environment.

By nature of us being free-moving animals, we tend to organize and classify the information that our senses portray and simplify the environment around us. **Legibility** refers to how efficiently we can

create a symbolic categorization, "the ease with which its parts can be recognized and can be organized into a coherent pattern" (Lynch, 1960, p.2-3) A legible environment not only provides security and orientation, but it can also guide activity, knowledge and portray values. Legibility also encourages a deeper more intense human experience and emotional satisfaction. Places that are legible can become better known and therefore, adhere more meaning as we are able to translate them into mental symbols. By providing legibility in the design of the Britannia Slough Greenway, I can encourage community engagement in the environment.

When I defined a sense of place, I referred to the harmonious relationship between man and the environment that he dwells in. Such harmonious relationship can be established through a good environmental image that provides emotional security. Identity, structure and meaning are the three components of an environmental image (Ibid, p.8) An environmental image is the result of both the setting and the observer: the setting suggests an order, which the observer endows with meaning. Lynch defines imageability as the quality of objects to evoke a strong mental image and correspond to vivid areas of the city.

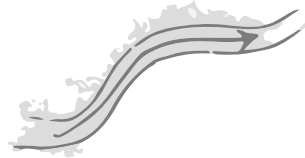
"Wayfinding is the original function of the environmental image, and the basis on which its emotional associations may have been founded" (Lynch, 1960, p.125) The image is the reference on which we base our movement, and furthermore, an organizer for our activities. Places that are highly imageable tend to invite the senses to participate, to move through them. Without a clear mental image, one

cannot participate in place, as one becomes terrified with confusion and disorientation, resulting in alienation from place and society, or what Relph would call outsidersness.

Lynch's study offers elements that can be applied to the context of a town. It focuses specifically on public images, which are legible places that may offer a common mental image. Creating a public image is also an interest for this research in Squamish as such places may evoke a common response in the community, and therefore, elevate a sense of place.

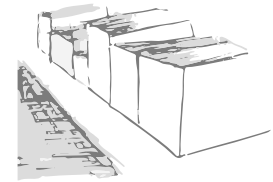
With an emphasis on the physical aspects, 5 formal elements compose the image of a city: path, landmark, edge, node and district.

5.2.1 Paths



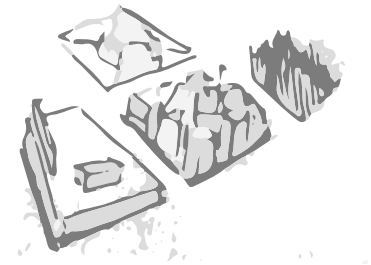
These are channels along which the observer moves. In the case of Squamish, paths could be streets, walkways, trails, railroads or canals. Paths are the predominant elements of environmental images and other components are arranged along them. A well-formed city is highly reliant upon the most predominant city element, paths. Examples of well-designed paths may include the presence of special lighting and displaying clarity of direction.

5.2.2 Edges



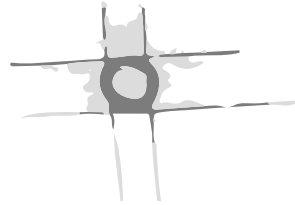
These are linear elements that mark a boundary between regions, whether they be barriers, or a single line where two regions join. Edges are essential in outlining and holding areas together. (Lynch, 1960, p.47)

5.2.3 Districts



These are sections of the city of substantial size with a "two dimensional extent, which the observer mentally enters "inside of"". (Ibid, p,47) They are recognizable whether inside or outside by a common identifying element which can be used as reference. (Ibid) Both districts and paths can be dominant elements of structure.

5.2.4 Nodes

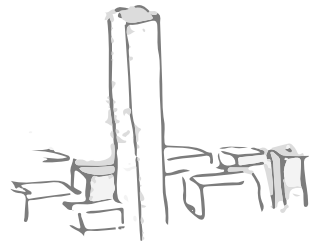


These are points that can be entered and are the foci to and from which we travel. They can be a crossing of paths or a shift of structure, or concentration of a use or physical character. Nodes that are the focus of a district are called cores.

“These elements, when placed in good form, increase human ability to see and remember patterns, and it is these patterns that make it easier to learn.” (Sundilson, 2011)

Lynch intends for an ordered environment to display both logical clarity and formal diversity at once. Landmarks and pathways are easily identifiable and grouped into an over-all pattern of legibility: We like surprise as long as there’s no real danger of disorientation. A user must be able to adapt the image. This is an open-ended process. For example, striking physical features may suggest their own patterns.

5.2.5 Landmarks



These are external points of reference are usually a defined physical object such as a mountain. These can be within the city or in the distance as is the case of the Chief in Squamish, undoubtedly the dominant landmark of the town. Landmarks don’t necessarily have to be visible from a distance and they can be visible from restricted locations, such as a tree. Landmarks are clues for identity.

5.3 CONCLUSION

The focus of place is given not only by three dimensional spaces but also by the spirit of place(genius loci and/or intentionality of place, or being-in-place). Norberg-Schultz uses a very clear phenomenological approach in defining his method of study. His understanding of landscape character as part of a totality of concrete things was key to the design principles for Squamish. Even better, Norberg-Schultz’s categorization of concrete phenomena constituting the understanding of place is strengthened by Lynch’s specifics of the intentionality of place that goes beyond the physical qualities into imageability. Both approaches provide me with a clear and complete theoretical construct for a design project at Squamish.

CHAPTER 4. Precedent Studies

1. EXTENDING THE COMPOSITION OF THE SITE

Salinas Swimming Pools and Promenade by Global Arquitectura Paisagista

Madeira, Portugal

This precedent illustrates great the sensitivity to site, an understanding of its genius loci and the enhancement of the sense of place through it. The project is grounded in the site's context, considering its environmental character as well as its built form and history, both landscape and culture conforming a sense of place.

The Salinas Swimming Pools are located on the island of Madeira, Portugal, precisely at the edge of rugged cliffs eroded by the forces of the Atlantic Ocean. The geological structure composed of eroded lava formations and a layered escarpment coloured in sheets of deep orange black, brown and grey give the site its particularity.

The site has a strong history of fishing, agriculture, artisan industry and salt extraction and is looking to incorporate touristic services. Its previous layout was poorly articulated with the rest of the town and the extreme conditions of the high eroded escarpment where most of the activity laid made the site “both beautiful and weathered by social and physical erosion” (Afasia, 2012). The up-level canals found in the gardens are an interpretation of the levadas, or canals that are particular to the agricultural history of Madeira.



Figure 11: A levada in Madeira (Fotoditzi, 2007)



Figure 12: View from the cliff (Guerra, 2012)

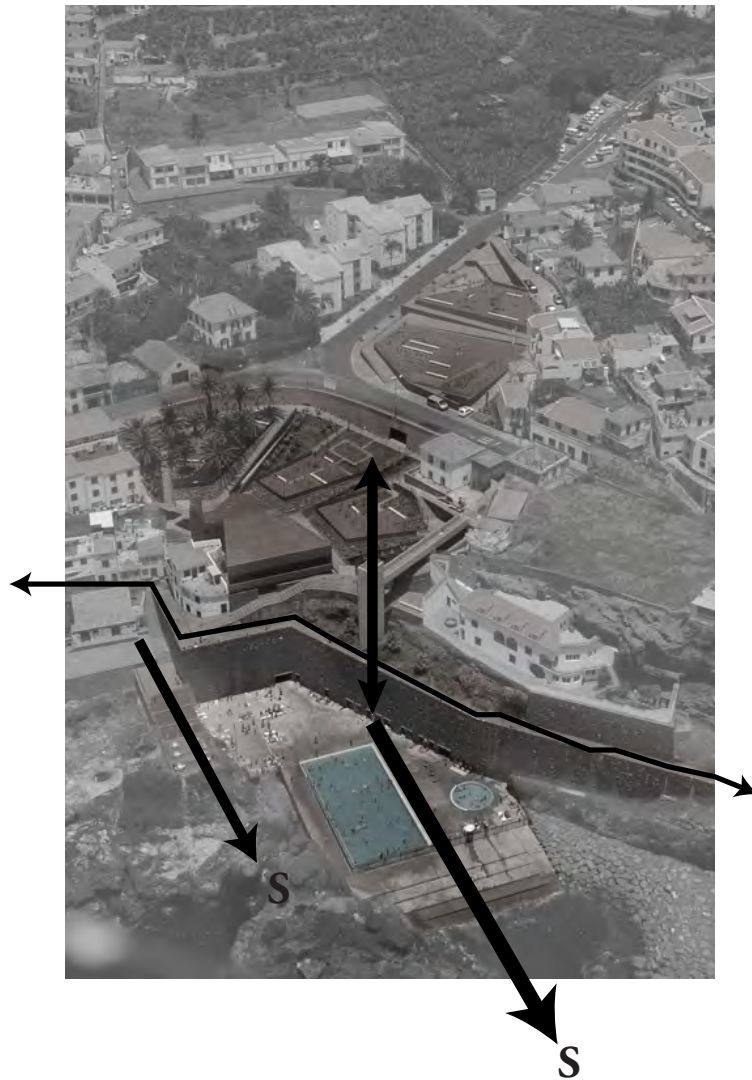


Figure 13: Extending the composition of the site

A thick wall is a meaningful element in the composition, true to the site's context, built out of volcanic stone with the use of traditional techniques. It gathers the site's activities and provides shelter from the forces of the wind and water as well as supports the cliff, and give the landscape a human scale. The long wall is a reflection of the site's geological formation and provides a sense of order to the site. It provides definition to the edge by emphasizing the natural form and ruggedness of the cliffs that inspire the wall's abrupt angles.

The wall provides continuity to the path circuits and accommodating its share of the path as it follows the edge of the cliffs. It informs direction and leads to and from the main node, the building complex, which in turn is distributed vertically.

The design also contributes to Salinas's imageability by providing a distinct definition of spaces marked by the successive walls and platforms that can be perceived from a distance. The vertical complex provides a landmark and enables orientation while aiming to be perceived as an accessible entity connected to the whole.

"The entire project is an attempt to conjugate the various horizontal and vertical fluxes that complement the site, making it stand out and rendering it more accessible and inviting, structuring open and public space into an existing and at the same time new landscapes" (Afasia, 2012)



Figure 14: Maritime pool (Guerra, 2012)

A cosmic order is also evident in the complex's design. The center of the complex is reflected by the main vertical element, that we can interpret as the "axis mundi". It collects the heaven and earth metaphorically by emphasizing this element and elongating it towards the sky. The prepositional qualities of the site are at play. As one transverses from top to bottom, a series of experiences that relate to the cosmic order of the site are indicated and enhanced by the form and direction of the platforms, whose precise geometry points to the south and creates an intimate relation with the sea. The verticality of the wall is broken at the bottom as it steps down to dialogue with the ocean, which in turn tints each step in a distinct gradient of colors that indicate the daily and seasonal rhythms of the tide.

Similarities

- Water forces
- Natural beauty
- From natural resource extraction to tourism
- Connectivity required

Goals

- Coherence in construction and dwelling the landscape
- Articulation, orientation
- Respect for site's history and geology.

Strategy

- Strip site to its essentials.
- Understand landscape as a cultural and natural process.
- Apply traditional construction strategies.
- Tie with existing promenade through unifying element
- Enhance the site's order – two axis, along the coastline and upwards
- Architectural elements that condense the understanding of place

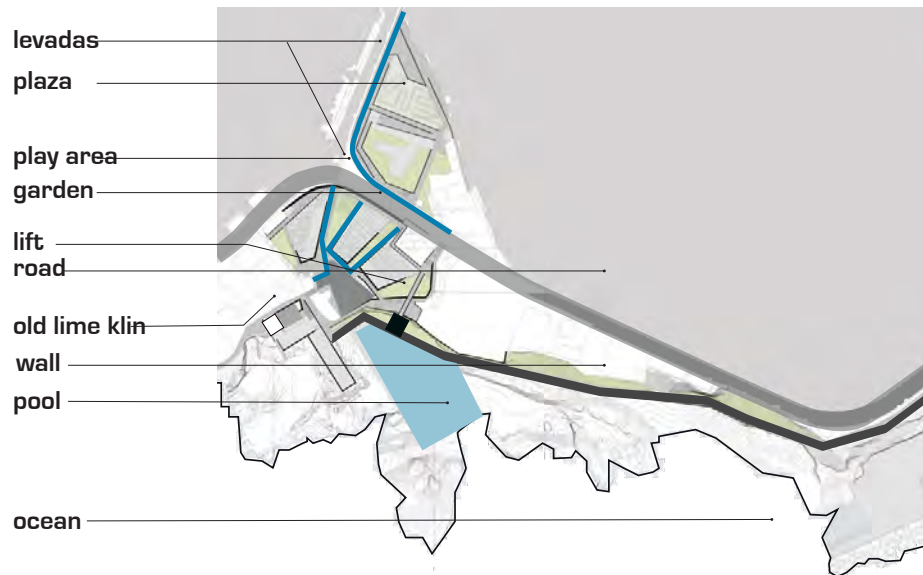


Figure 15: Design Programming

Lessons Learned

Adding program, revealing the site's essence and enhancing imageability and wayfinding resulted in favourable social changes with a collective value for the place.

2. IDENTIFYING SACRED STRUCTURES

Planning Strategy for the City of Manteo by Randolph T. Hester, Jr.

North Carolina, USA

Hester’s methodology provides a phenomenological approach to understanding the attitudes and perceptions of a community by means of identifying rituals manifested through spatial and physical structure.

The town of Manteo is of a similar scale of Squamish and in both cases tourism has been a significant economic driver that originated from the creation of a highway in the 50s. This precedent study shows how social activities play an important part in developing a sense of place and identifying them can inform design. It provides an example of a successful revitalization of the town of Manteo through urban design that maintains the community’s lifestyles and valued landscapes.

Hester’s objective was to provide a planning strategy to recover the once popular beach destination from a significant economic decline while avoiding tourist takeover by capitalizing on “smallness, intimacy, natural beauty, village character, and a rural past.” (In Seamon, 1993 p.271) In order to do so, he initially proposed conventional planning moves such as: neighbourhood preservation through zoning restriction, encourage walking by compacting facilities, and the protection of existing historical architecture. He complimented this information with input obtained from a range of questionnaires.

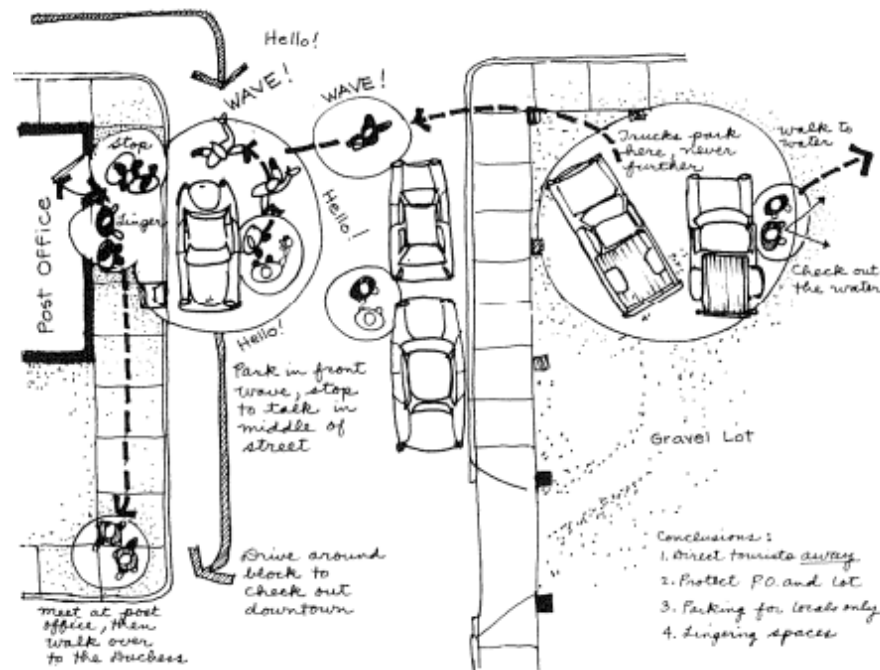


Figure 16: Newsing at the Post Office (Hester, 1985. p.12)

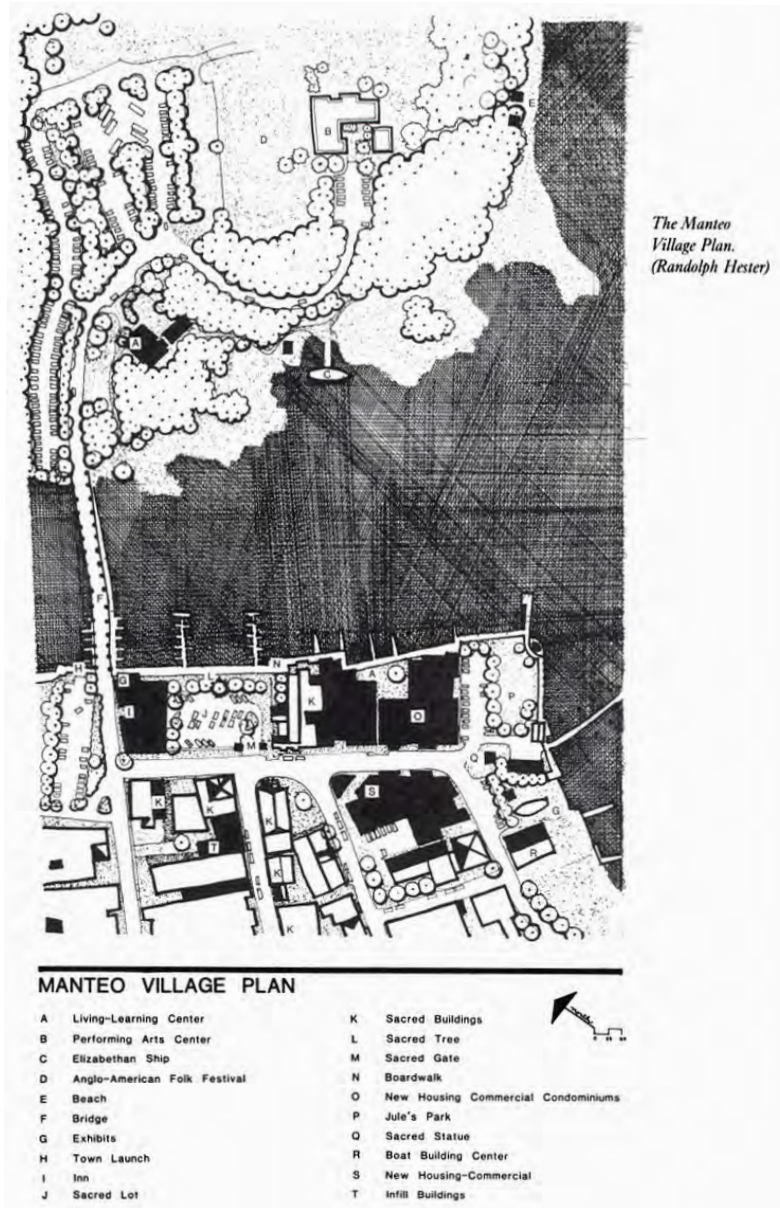


Figure 17: Manteo Village Plan (Hester, 1985. p.12)

However, resorting to these quantitative methods was not enough to contribute to the town's sense of place and authentic image. He needed to understand which places made people so passionate about Manteo on a deeper level. This called for a phenomenological approach in which the phenomena of study was people's attachment to places by means of observation of rituals and everyday-life, and the analysis of these through behavioural mapping.

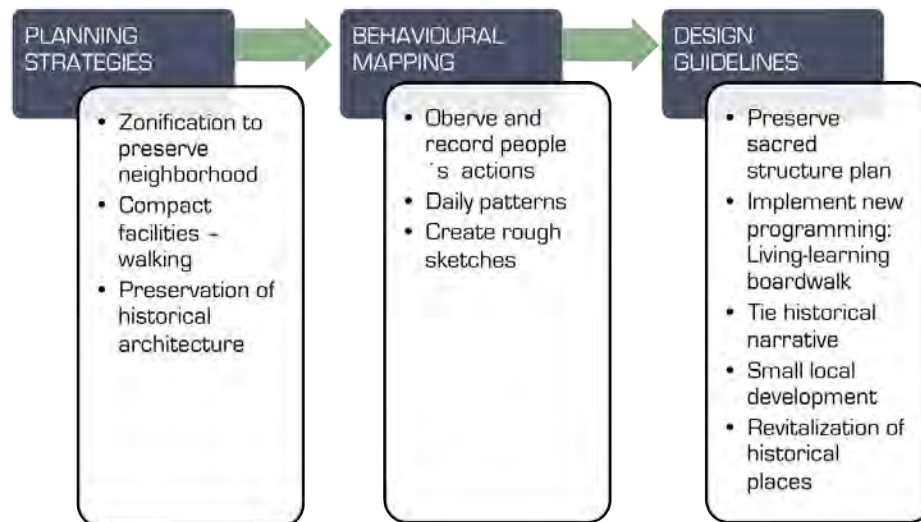
Through a phenomenological methodology, Hester unveiled the meaning of place that was grounded in the people but could have not been found through a scientific methodology. He discovered that the most sacred places can exist in the mundane and therefore, easily overlooked by development. The plan of the sacred structure of Manteo helped the community to acknowledge everyday places as sacred and legitimize them. The sacred structure constituted a part of Manteo's imageability.

Similarities

- Small town
- Strong and vibrant community
- Town revitalization
- Tourism oriented economy

Goal

Create a community plan in which meaningful places that are essential to Manteo's sense of place would not be compromised.



Strategy: Process for finding sacred structure of Manteo:

1. Apply questionnaires and interviews to people to determine their attitudes.
2. Behavioural mapping to determine what was not revealed: record activities, social patterns, places, events and movement.
3. Unify sketches to show routines and the reveal landscapes that were intertwined with the lifestyle of the town. Daily rituals indicate attachment and cultural dependence.
4. People ranked in order of importance places that were discovered.
5. Create a list of places that people were not willing to sacrifice to tourism.

Design moves

- Traditional colonist ship reconstructed in the waterfront (historical narrative)
- Revitalization of boat-building center (link programming, engagement)
- New state historical park. (Direct contact with nature)
- Preserve sacred places (place meaning)
- Weaving of tourism and local patterns through “living-learning boardwalk” (wayfinding, programming)
- Small parcel redevelopment vs wholesale urban redevelopment (local vs global).

Figure 18: Hester's process

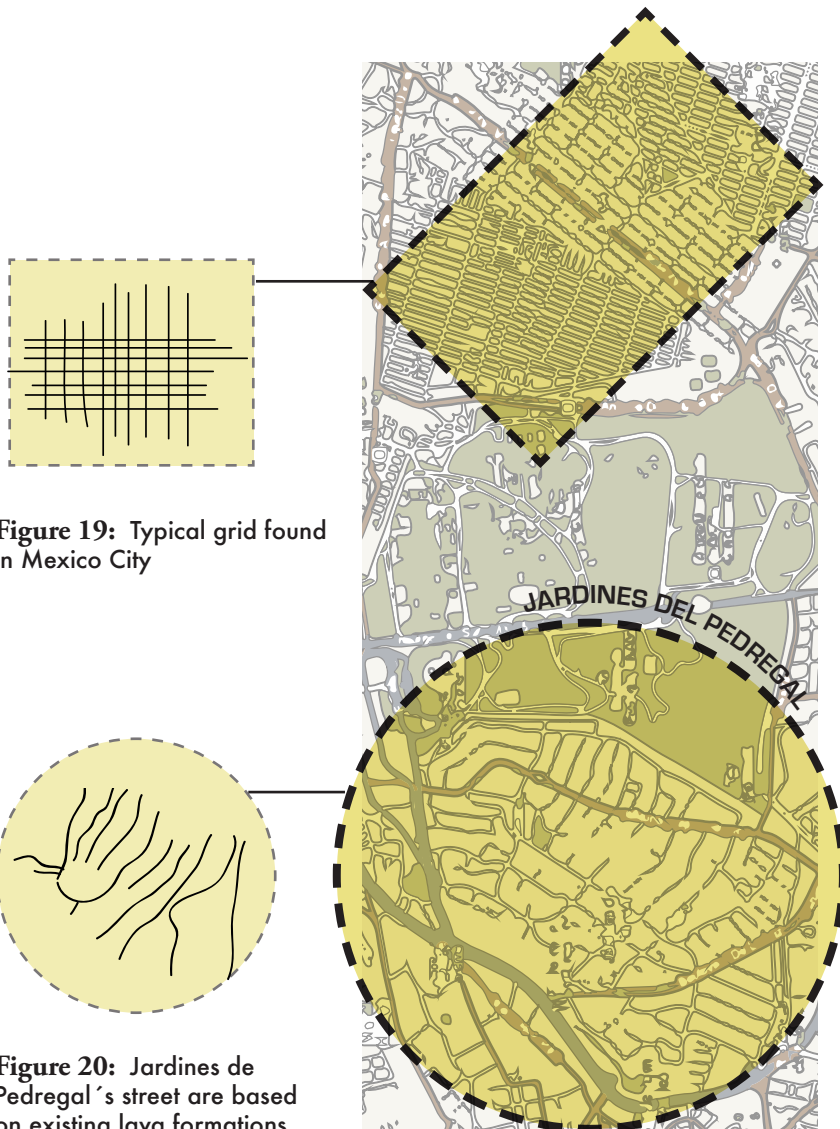


Figure 19: Typical grid found in Mexico City

Figure 20: Jardines de Pedregal's street are based on existing lava formations

3. URBANISM THROUGH GENIUS LOCI

Jardines del Pedregal By Luis Barragán

Mexico City, Mexico

Luis Barragán played the role of both planner and architect in the design of the residential neighbourhood of Jardines del Pedregal. Both his architectural additions and his planning moves, grounded in the understanding of the environment, resulted in a highly valued cultural landscape. His work in Jardines del Pedregal is unique in that he married modern architecture with landscape, creating a neighbourhood with a strong character and sense of place.

Jardines de Pedregal was once an unattended landscape, associated with evil spirits by the natives, left intact by Spanish colonizers and, until Barragán's interventions, considered as a place of scorpions, snakes and thieves. (Eggener, 1999, p.126) The area turned from an uncared-for landscape to a strong component of Mexico City's imageability, and continues to do so despite the fact that Barragán's proposal has been largely intervened with.

Jardines del Pedregal lies within a dramatic sea of lava formations with very peculiar native flora, such as palo bobo (*Senecio praecox* DC). It also has remnants of pre Hispanic architecture, which gave the site particular scientific and cultural significance. Barragán took interest in this mysterious land and with his own investment created an urban plan for a residential area.

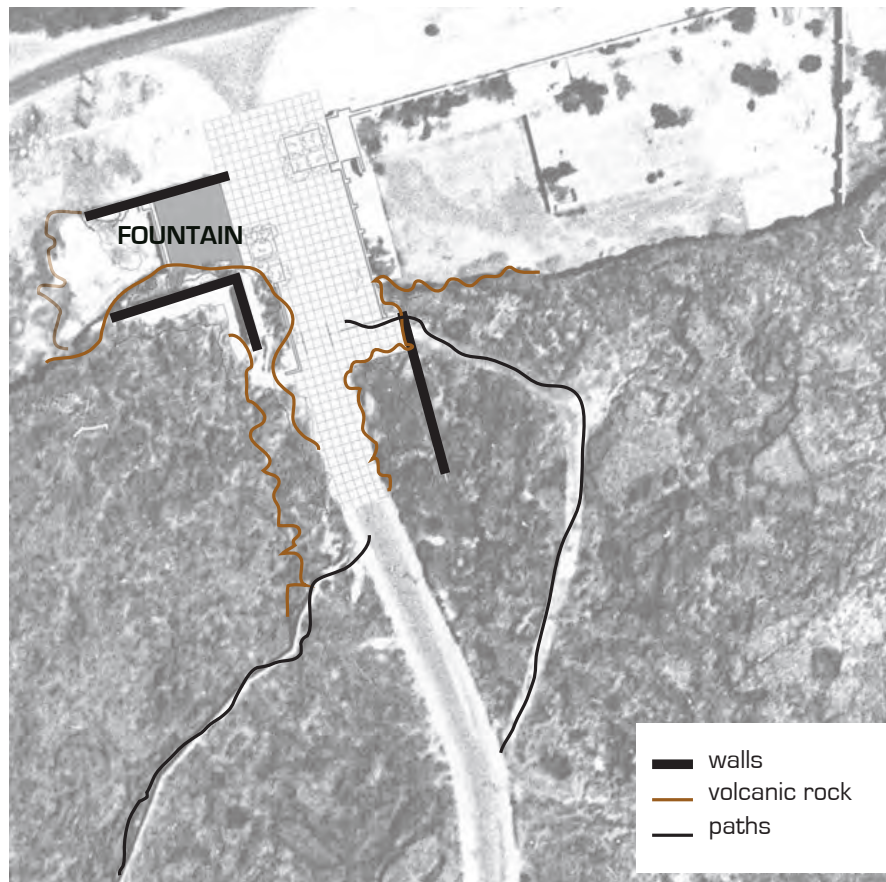


Figure 21: Access plaza

Barragán worked alongside artists in the making of the development and the plaza, informing a collective sense of place. The streets and avenues were laid out following the patterns indicated by the natural flow of the lava. “Crevices between the lava formations were cleared as paths, and rough-cut stairways passed between rock terraces.” (Eggener, 2002). The streets were named after elements and flora of the site, such as Lava, Crater, Xitle, Colorines (a native tree), Lluvia (rain), Fuego (fire). These actions added to the identity of the neighbourhood, clearly erected from a telluric landscape.

The paths and stairways led to different pools: plazas, fountains and flat grounds, which acted as nodes that contrasted with the surrounding rugged landscape. The main access plaza was located at the north of the site. A row of low iron pickets and volcanic-stone walls of various heights enclosed the plaza to the west. The massive lava boulders traversed the walls as well as the flat paved ground. A fountain lied within a room created by the enclosure of walls. Between the walls, the opening directed the viewer towards the volcanoes and mountains in the distance. The contribution of a sculpture, *Animal del Pedregal*, adds to the character of the room, as the art as well is inspired by the landscape:

“the Animal del Pedregal provided an oddly archaic and expressionistic note of welcome: raising its head and bellowing at the sky, its muscles tensed and twisted, frozen in convulsion like the lava all around it, like a horse with its legs cut out from under it.”

(Eggener, 2001)



Figure 22: *Animal del Pedregal* by Mathias Goeritz (Eggener, 2001)

Figure 23: *Demonstration Gardens* (Eggener, 2001)

Figure 24: Volcanic stone walls frame views of the volcanoes.(Eggener, 2001)

Houses stood behind walls that were flushed to the street and were made of volcanic stones, in an Aztec masonry style. The walls were meant to be treated as elements of the landscape, overgrown with vegetation. Buildings complimented natural forms through simplicity-- abstract in quality, preferably straight lines, flat surfaces, and primary geometric forms. Buildings and gardens-designed elements-were to be secondary to pre-existing natural forms.

The urban plan included demonstration gardens, where Barragán showed prospective buyers the potential of the landscape as well as to promote his idea of the integration of landscape and building. The strength of his design in these gardens was the effects created by the chosen colour palette. The brilliant tones of green, which match precisely the trunks of the particular native tree, along with the bark of the paths, create a striking contrast with the black lava. Barragán left largely in place all the rocks and vegetation and chose deformed trees at local nurseries to compliment with the sculptural nature of the landscape. He used dovescotes not only as a feature that gave a human scale to his massive thick-walled architecture but to attract birds as well, whose sounds and droppings revealed a sense of time by the displaying an aged appearance.

Barragán's planning code

1. Houses must be of contemporary style and work to preserve and enhance the landscape. Contrast but not compete.
2. Constricted house footprints in large terrains. 2/3 of region must be open space.
3. Lava rock to be protected and only removed in small portions to build walls or paths that will promote the integration and site's image.
4. Native vegetation preserved. Follow natural lines of the terrain (most residential areas were orthogonal grids Spanish-colonial grid system found in Mexico. (Eggener, 1999, P.127) Amorphous blocks. Lava sticks out from pavings.
5. Names of streets suggest natural flora and natural elements.

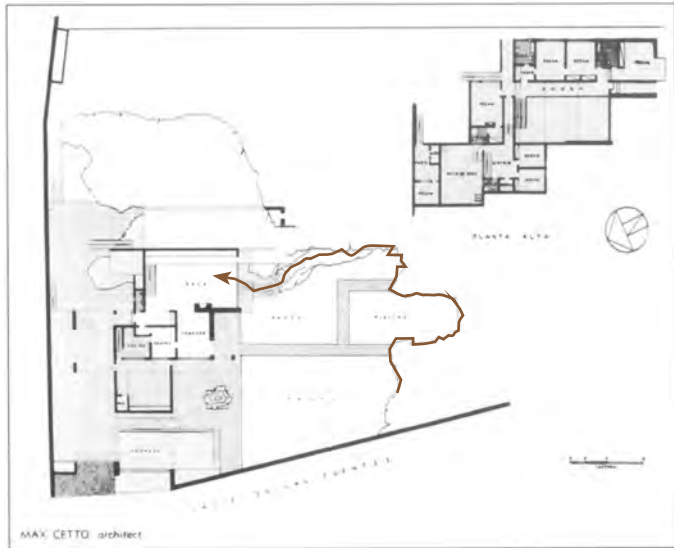


Figure 25: Integration of lava formations into the building
Figure 26: House in Jardines del Pedregal designed by Barragán and Cetto.
 (Palo bobo in foreground)(Eggener, 1999, p.130)

Goal

To preserve the harmony of the architectural

Similarities

- Urban dwelling in nature through landscape
- A case of urbanism through landscape, applying genius loci.
- Development occurring in a natural environment.

Program

Residences, streets, ponds, paths, fountains, plazas, demonstration gardens, art

Strategies

- Celebrate native landscape
- Respect organical rythms, patterns, order and things of place.

Lessons learned

An urban project grounded in the landscape may result in harmonious design of great imageability and contribute to a sense of place.

The design lost integral parts of its structure, resulting in underused and meaningless spaces that ceased to contribute to the larger image of place.

CHAPTER 5: Site Description and Program

The site selected for the design of this project is at the interface between settlement and landscape. It is located west of the Smoke Bluffs' skirt, north of Upper Mamquam Blind, between Dentville, and the Downtown Area.

This site has a strong history, as Dentville was one of the first neighbourhoods that conformed the town of Squamish. The logging industry and the railway lines constitute an important part of Squamish's history and identity, as these industries were responsible for the population of the town. Dentville has now evolved into an "up-and-coming area" due to revitalization of old constructions and the acquisition and development of its terrains at affordable prices. This area is widely used by the community youth as it includes an elementary school, a secondary school and Capilano University, as well as a Youth Center and an important part of the site: the skate park. The new Adventure Centre is located in the area of study. This site could be the

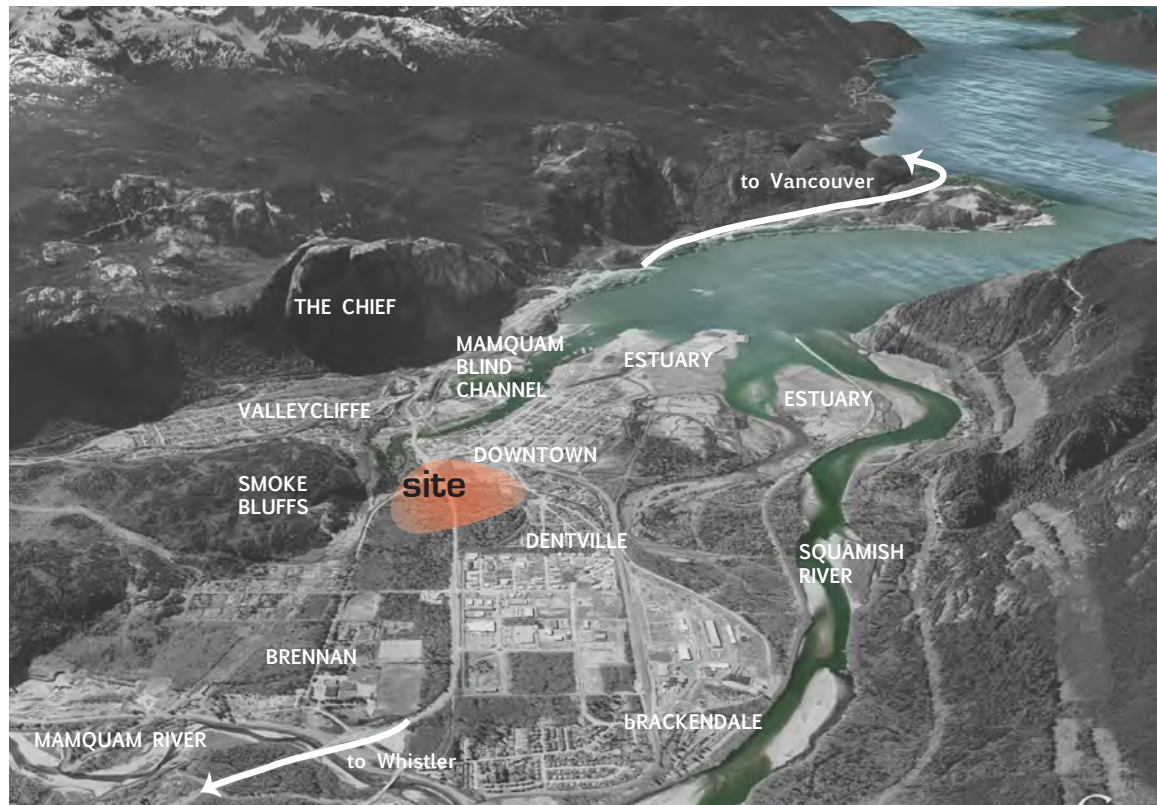


Figure 27: Site location viewing south into Howe Sound.

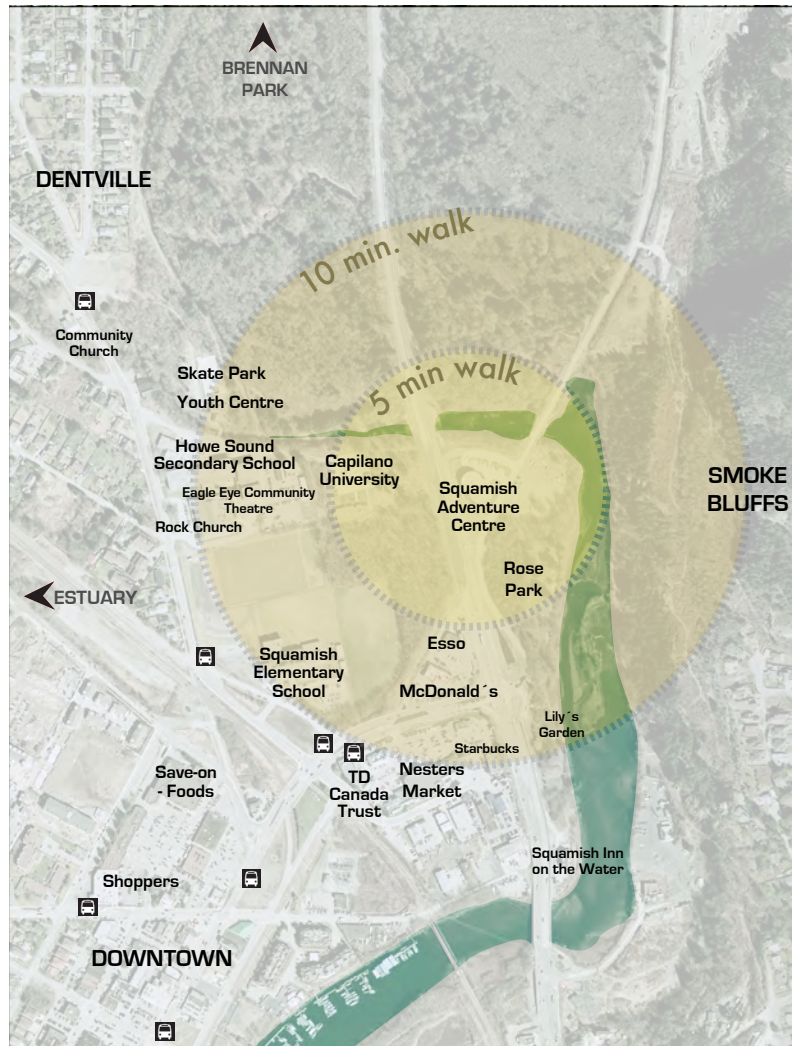


Figure 28: Nearby amenities

heart of the community as it offers a wide variety of places of everyday life activities as well as a tourism node.

The site selected used to be traditional territory of the Squamish Nation. Being close to town and also to waterways, the more easily accessible lower portions of the present day park area were logged at least once in the past 120 years. (Smoke Bluffs Development Plan, 2006) This can be noticed in the disturbed young alder forest, with an apparent eroded and compacted ground.



Figure 29: Disturbed landscape with cedars in the Britannia Slough

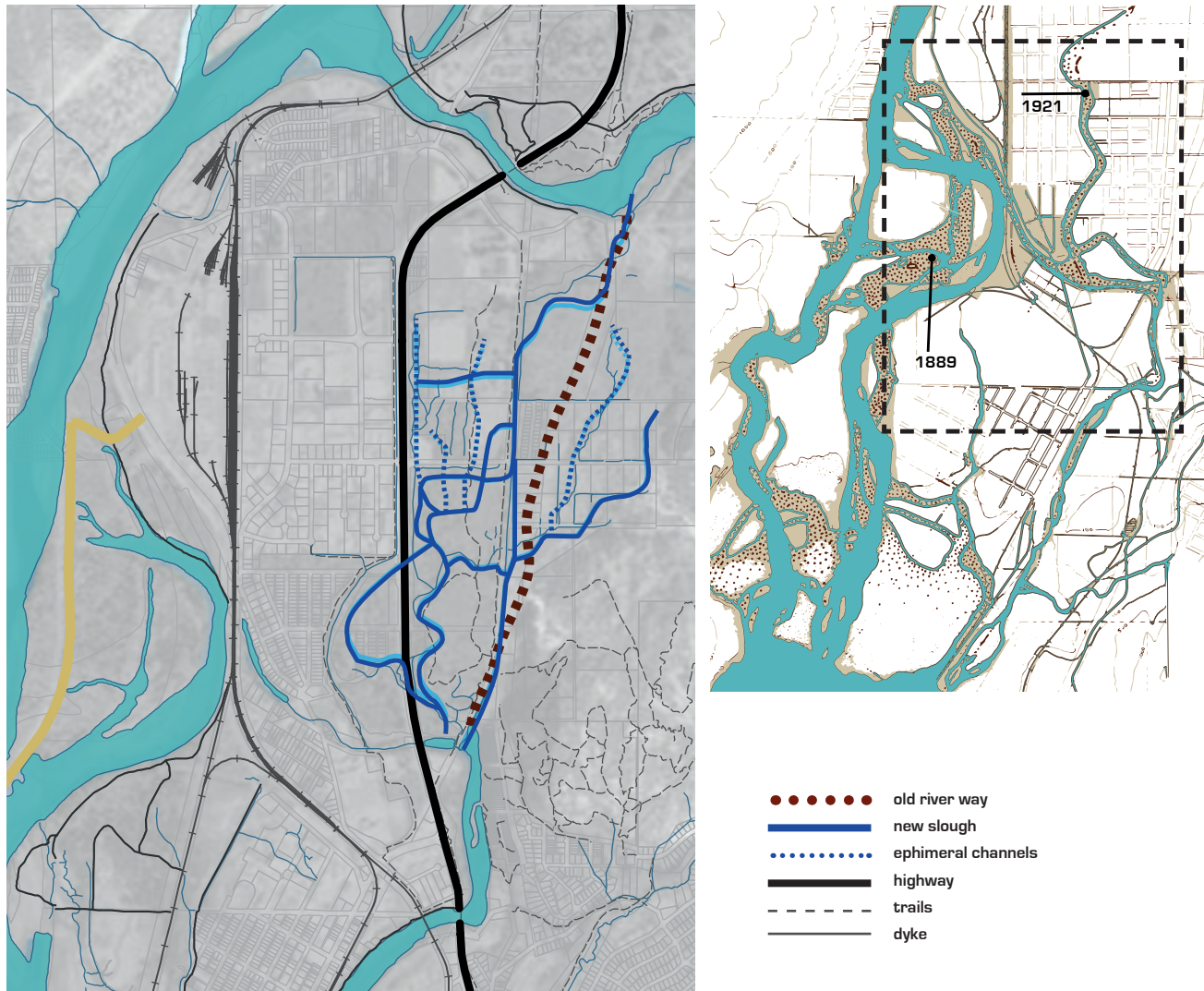


Figure 30: Reconnection to the Mamquam River

ECOLOGY

Recently, the Squamish Watershed Society has made an effort to reconnect the Upper Mamquam Blind to the Mamquam River through the Britannia Slough, which borders the residential area of the site. Such connection would not only serve to relief some water from the Squamish River, but would also create wildlife habitat. Consideration must be given to the salmon population as well as the red-legged frog, which are of ecological significance and closely monitored. Within the site, there are ephemeral channels formed seasonally and ephemeral wetlands located at the low points within the young forest.

The Britannia Slough, which will reconnect the hydrology of the site, is located on both sides of Highway 99. The channels provide habitat for a variety of wildlife including

shorebirds and waterfowl, fish (particularly salmonids) and benthic invertebrates. Juvenile coho are believed to move into off-channel habitats, into the proximity of the site, for reasons of protection. This area was all originally estuary habitat altered by diking and roads. The wetlands play an important role in the infiltration of pollutants as well as flooding absorption.

The terrestrial environment consists of flora and fauna belonging to the Coastal Western Hemlock biogeoclimatic zones:

Trees and shrubs:

- willows (*Salix sp.*),
- rose bush (*Rosa sp.*)
- sweet gale (*Myrica gale*)
- hardhack (*Spirea douglasii*)
- salal (*Gaultheria shallon*)
- false azalea (*Menziesia ferruginea*)
- Pacific crabapple (*Malus fusca*)
- maples (*acer sp.*)
- alders (*Alnus sp.*)
- black cottonwood (*Populus balsamifera*)
- Sitka spruce (*Picea sitchensis*)
- western redcedar (*Thuja plicata*)
- Douglas-fir (*Pseudotsuga Menziesii*)
- western hemlock (*Tsuga heterophylla*)
(Skwelwilem WMA Management Plan, 2007)

Amphibians:

- Red-legged frog (*Rana aurora*)
- Western Toad (*Bufo boreas*)
- Identifying Amphibian Eggs
- Boreal Chorus Frog (*Pseudacris maculata*)
- Northwestern Salamander (*Ambystoma gracile*)
- Pacific Giant Salamander (*Dicamptodon tenebrosus*)

Terrestrial fauna:

- bald eagle
- black bear
- black-tailed deer
- northern spotted owl
- otter
- pileated woodpecker
- raccoon
- cougar
- elk (Recovery Program underway)

Other significant species found on site:

- Spotted Tohee
- Western Skunk Cabbage (*Lysichiton americanus*)
- North-western Salamander (*Ambystoma gracile*)
- Dragonflies

Most of the associated plants and animals in their traditional territory have important roles in the Nation's value systems, in their spiritual practices, and in the socio-economic fabric of their communities.

1. Recreation

The site has a widely used skate park and is located in close proximity to Brennan Park, which has formal sports programming. The wooded area north of the Skate Park is widely used for mountain biking and hiking, as the head of Discovery Trail lies here.

However, the most popular activity surrounding the site is mountain climbing in Smoke Bluffs. “The first Smoke Bluffs climbing routes were established circa 1973. Over the past 30 years, the Smoke Bluffs area has exploded in popularity to reportedly become the most climbed area in the entire country. (The approximately 500 climbing routes in the Smoke Bluffs see an estimated 20,000 climber days per year)”. (Smoke Bluffs Development Plan, 2006).

2. Open source input

There is no doubt that the Squamish community feels a strong affection for the environment. I have found a significant amount of blogs from members of the community focusing almost entirely on outdoor activities. They speak highly and passionately about the natural features of Squamish, which play a huge role in Squamish’s sense of place and are a big reason for the growing population.

“The time had finally come to head to Squamish/Whistler, BC for our annual wedding anniversary vacation. Emily and I have been traveling there for our last five anniversaries, with the last four centered around mountain biking.”

- Nate Dogg

“We have the terrain, the trails, the riders live around here and now comes the exposure. Wonder where the sport will be at here in 5 years? 10 years? Tough to say but I will be here in the middle of it...my gut feeling is that it will be pretty awesome.”

- The Squamish Dude

The Chief repeatedly announced villager’s achievements in sports competitions, specially in “extreme” outdoor adventures sports such as climbing and mountain biking. A very large amount of blogs found online indicate a strong passion for climbing and portray videos of people returning to places that are a personal challenge them in the Smoke Bluffs area.

“The night before the first cloud rolled in, Lydia and I busted out a beautiful 5.12b finger crack at the Smoke Bluffs behind our house. It doesn’t look like much, but it climbs like a 5 star route. I hope to go back and solo it soon”

- David Chaundy-Smart

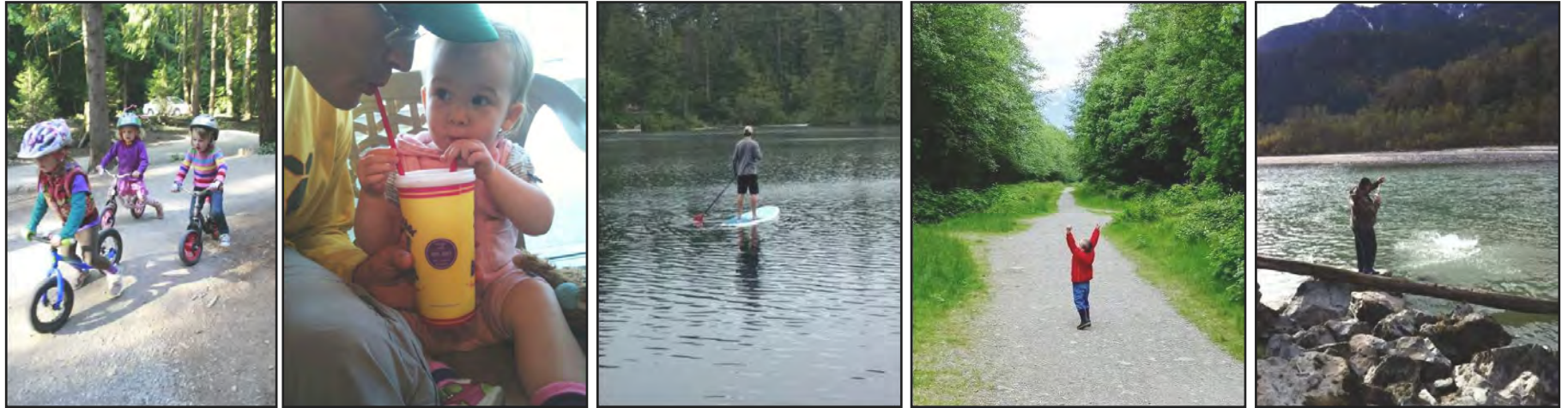


Figure 31: "What do you do in Squamish?" Images taken by members of the community and submitted to the Chief (The Squamish Chief, 2012)

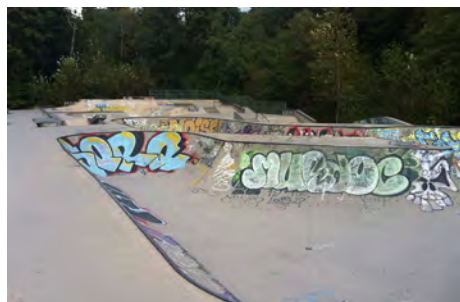


Figure 32: Squamish Secondary School

Figure 33: Dentville residences

Figure 34: Youth Centre

Figure 35: Skate Park

3. Settlement:

Howe Sound Secondary and Squamish Elementary school implement project-based learning. Their mission statements value highly the sense of community. Established in 1972, Capilano University’s curricula are an example of the opportunities that Squamish offers. Its “first students embraced a curriculum that took them on lengthy backcountry expeditions to Garibaldi and Cathedral Provincial Parks, cross country skiing expeditions to 108 Mile House in the Cariboo, and hiking or kayaking trips to Vancouver Island’s West Coast Trail and the Broken Islands.” (Capuinformer, 2012) Today, Capilano University offers programs such as outdoor recreation and advanced wilderness leadership, North America’s first mountain bike operations certificate and the only professional scuba dive certificate in Canada.

Located at the north of the schools, the skate park and youth centre conform an area is highly valued by teenagers who frequently visit its grounds. The surrounding woodland provides privacy and an adequate setting for the mischievous teen.

The Adventure Centre serves a variety of uses: visitor center, outdoors sports museum and economic development office. It is a much-acclaimed building that portrays the West-Coast Modern style. However, the white elephant of Squamish, as a community member called it on a newspaper comment, bears no relationship to

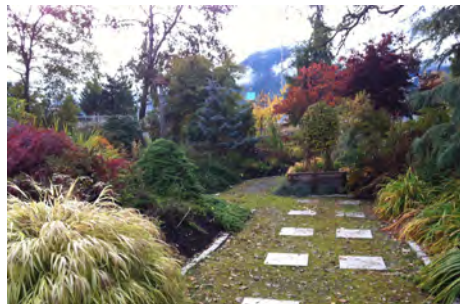


Figure 36: Water feature at the Squamish Adventure Centre

Figure 37: Rose Garden

Figure 38: Viewing deck from Rose Garden

Figure 39: Smoke Bluff's exposed tinted stone

any program on site, or to the Squamish fabric, and is an expense of thousands of dollars to the Squamish community. Furthermore, the flashy water feature that is showcased in its facade is a pathetic solution when one realizes that the beauty of the real water feature that lays behind it.

Rose Park, which lays in close proximity, to the south of the Adventure Centre, is a hidden gem to the casual Squamish visitor. It lies at the west to the entrance from Highway 99 to Squamish, but is screened away by a row of trees. Behind the trees, the formal garden opens views into Smoke Bluffs, revealing the exposed rock tinted by the Mamquam tides.

A land use study is currently being discussed for development on upper Mamquam blind and along the Channel's edge. The District of Squamish has had workshops to acknowledge the communities suggestions. Kingswood group is proposing to develop a national climbing centre and a development along the Mamquam Blind Channel. They have not succeeded in obtaining a rezonification. "Traffic volume and safety, natural habitat and environment, east-west connection and rezoning are some of the issues that the community wants addressed before any development can go there." (Ksinoski, 2012)

4. Colours of Squamish

"I see patterns formed by the rock types and wind whereas my climbing neighbors see routes and sanctuary points. Walking the endless trails of Squamish I am bombarded by the constantly changing array of colours. I try to capture the light as it pours through the dappled alders and penetrates through their leaves."

-Sue Pedersen, Squamish artist

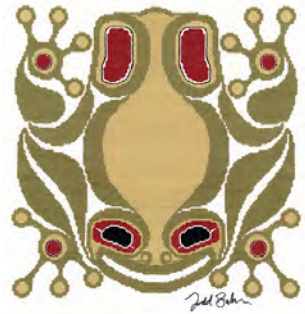


Figure 40: Squamish Frog: Cross stitch art (Baker, 2010)



Figure 41: The Chief. (Painting by June Thomsen)



5. Materials

The materials that characterize Squamish are the use of timber, as well as the distinctive granite presence of the “salt and pepper” spotted grey-black granite that can be seen from the rock outcrops. Squamish also has a known industry of basalt stone extraction, sold in large quantities at local quarries. The Chief is one of the world largest single piece of such granite.



Figure 42: The Smoke Bluffs

6. Squamish 's Image:

The main components in Squamish's imageability are the landmarks, composed mostly by the shocking geological features of the site, specially the blatant presence of the Chief and the distinguishable peaks.

The districts in Squamish play a huge role in defining Squamish's hierarchy. The area of downtown, is a clear district delineated by the water's edge as well as by the estuary, which forms a district of its own largely differentiated by its particular landscape character. Other districts are composed of neighbourhoods and residential complexes, which are scattered in clusters surrounded by open space and joined together by streets. The fact that the districts are physically separated by open space creates a clear distinction between them, which gives them a feel of independent entities more that districts that compose the town.

The dyke network in Squamish contribute largely to the image of the town, working as both edge and path, whose display of movement is strengthened by the adjacent rivers.

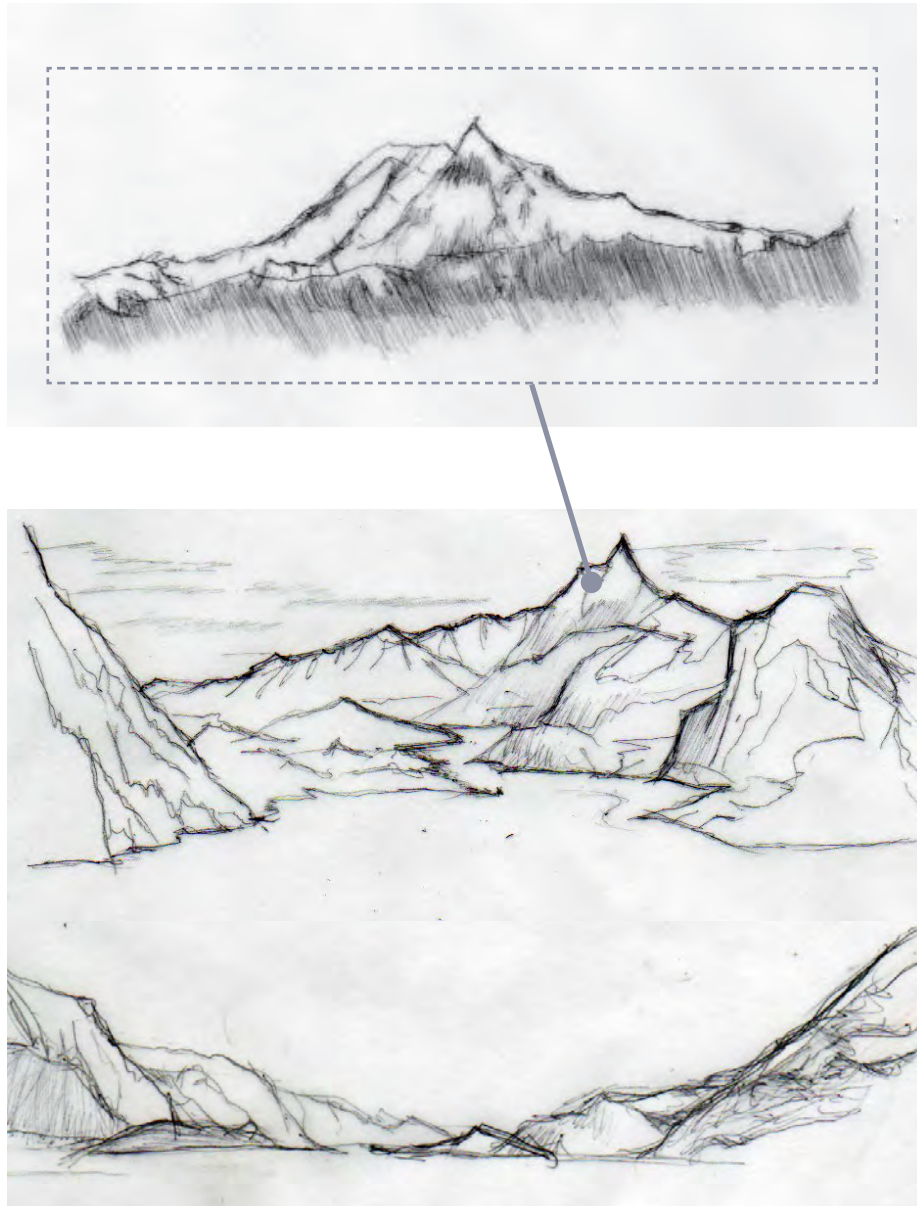


Figure 43: Sketches of Squamish's constant landmarks.

6.1 The site's imageability:

The imageability of the site selected is composed primarily by the edges, which constrict movement around the site, and distinguish three districts within. To the east, the Adventure Center and Rose Park area is delineated by the edge of the water on one side, and the Highway on the other, separating it from the "educational district" on the west. The educational district, in turn, is separated from the Dentville area to the north by a vegetated edge and ditch. It is also edged by the railway lines to the South, which separate it from the Downtown area. The Smoke Bluffs area, on the other hand, seems like a completely isolated district, as it is only visually connected to the site; the Mamquam Blind Channel provides an evident edge and it is likely that this neighbourhood would not play an important role in the image of a Dentville residents if it wasn't for the landmark quality that Smoke Bluffs contributes to the larger Squamish image. When scaling down to the site, however, Smoke Bluffs turns into an edge, not a landmark.

As one enters the open space area, south of Brennan Park (the Britannia Slough area), the paths become essential to wayfinding, as the landmarks are no longer evident screened by the thickness of the young alder vegetation. The ditches, streets, and trails provide the means for orientation and mental mapping here.

The main node on the site should be where these three districts meet. This important node, however, is chaotic in its mental representation and its circulation is largely restricted, which give it more characteristics of an edge. This node could turn into the main element of the site's imageability if it were to encourage orientation as it is where the forces of the three districts could meet.

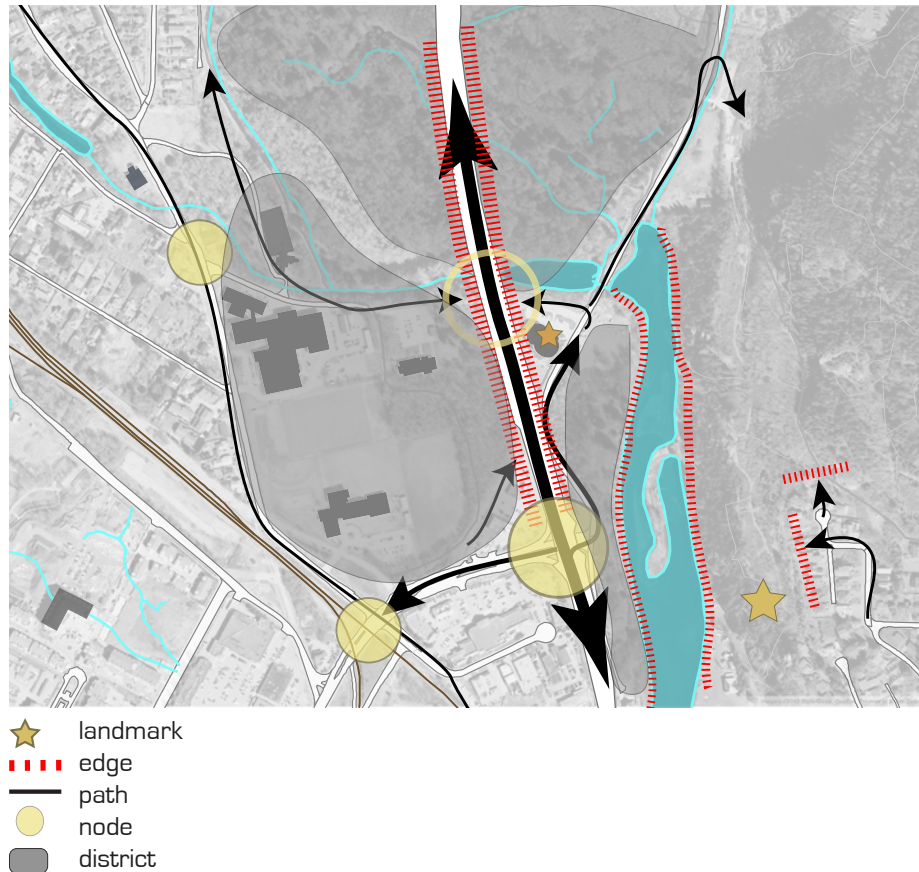


Figure 44: The site's image

Dentville District (mostly settlement)

- Residential
- Open feeling
- One to two story buildings placed on a side of the terrain, open space to the front.
- Streets, gravel
- Main imageability component: landmarks

South Brennan District (mostly landscape)

- Open space
- Young forest: mostly alders and maples with some cedar
- Dark, enclosed, walled by Smoke Bluffs, screened sky
- Wet brown ground, lightly vegetated
- Main imageability component: paths

Adventure Center District (settlement and landscape)

- Tourism
- Enclosed by vegetation on one side, open feeling to the other
- Landscape ground composed by lawn
- Main imageability component: edges

Smoke Bluffs District (mostly landscape, some settlement)

- Residential, industrial
- Small housing and large forested open space
- The floor is paved, then forested, then rock
- Main imageability component: landmarks, districts, edges

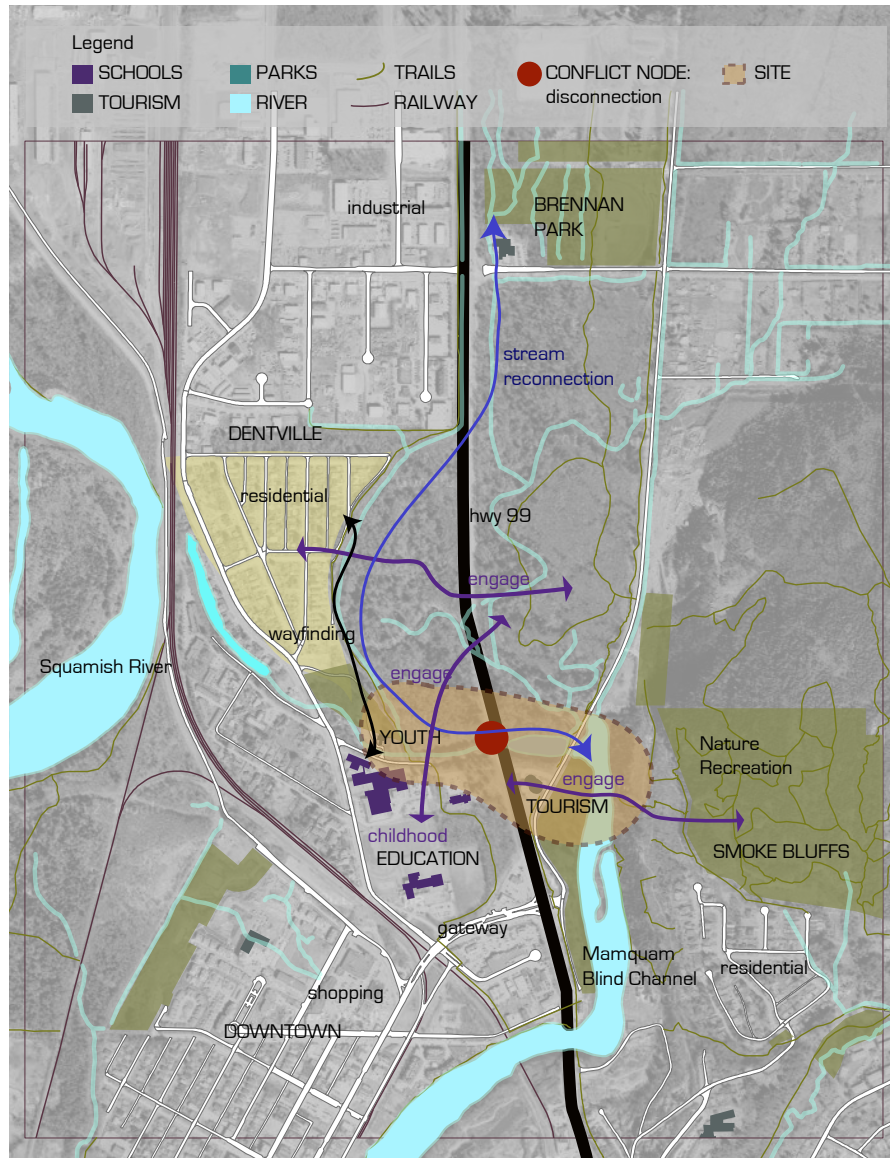


Figure 45: Residence + School + Tourism opportunities
 Figure 46: Historical event at the Mamquam Blind Channel

7. Conditions that support the proposed greenway project:

- The Britannia Slough will be reconnected to the Mamquam River.
- The Adventure Center grounds belong to the District. There is interest in the creation of a blueway.
- The Smoke Bluffs Residential Area has a right of way in direction towards the site.
- The adjacent industrial area is currently in the process of rezonification.
- The Britannia slough area is designated as a greenway and recreation corridor.



Logger Sports event on the Mamquam Blind Channel, Smoke Bluffs in background (circa late 1950s)
 Photo courtesy of Squamish Town Center Association – Heritage Project

8. Design principles

The following design principles were drawn from the site analysis:

- Preservation and enhancement of ecology and setting for outdoor sports and recreation is of utmost importance to Squamish.
- Reveal the site's history.
- Expose the site's natural beauty to the urban fabric.

Opportunities

Recreation
Proximity to water.
Adventure Center: Touristic node.
Education + Residential + Tourism – engage with the landscape
Opportunity to connect to Rose Park.
The main entrance to Discovery Trail lies within the site

Constraints

Highway division
Sacred places (Smoke bluffs, Skate park, Rose Park)
Flooding
Ecologically sensitive area

CHAPTER 6. Schematic design and program

Preliminary Program

- Boardwalk
- Bridges
- Parking
- Ecological restoration and habitat enhancement: river reconnection
- Flood celebration area
- Fishing deck
- Picnic area
- Sitting area
- Viewpoint deck: framing views
- Small amphitheatre, performance space, outdoor classroom
- “Follies” –longhouse, logging, and rail allusions
- Tree house
- Moon and star watching area
- Platform – zip line
- Fire pit

PART 2: DESIGN RESOLUTION

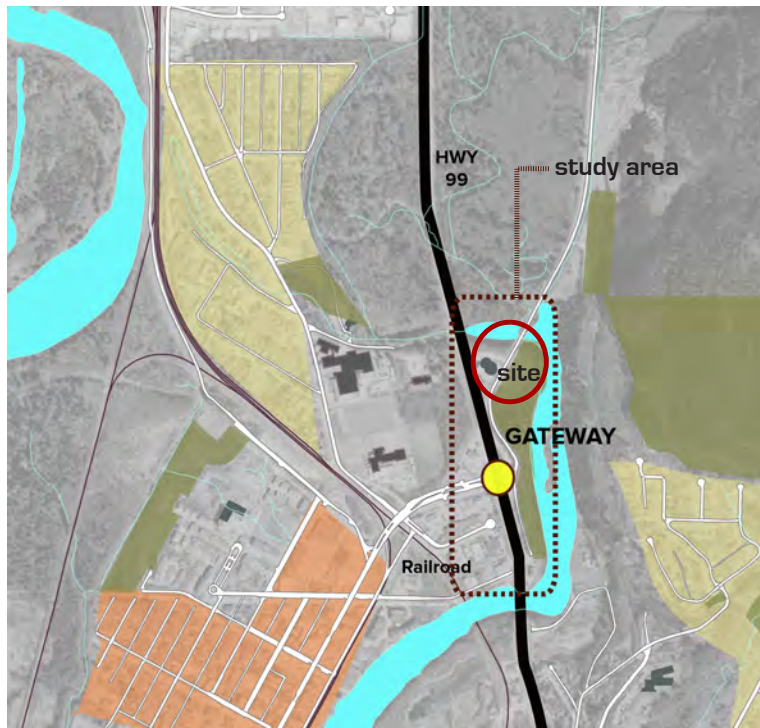


Figure 47: River, estuary, and valley wall point of convergence

Figure 48: Study area and site location

CHAPTER 7: Site Design

1. PROBLEM REVISED

As the iterative design process was carried out and with it continuous research and review of the site, it became evident that a more significant contribution in terms of the town's image and identity could come from a study of the whole "gateway area". An image diagram extended to both ends of the Mamquam Blind Channel crossing Highway 99.

Within the study area lies the site which was selected due to its qualities of character as well as significance for the community and programming; it is a point of convergence both experientially and functionally. At the same time, this specific site offers the opportunities to operate as a recreational node that can tie together the recreational fabric and offer a starting point for tourists to venture away while at the same time reinforcing the image of Squamish as the Outdoor Recreation Capital of Canada. Its location at the point of convergence of the distinct districts offers an opportunity to create a closed looped circulation network for pedestrians.

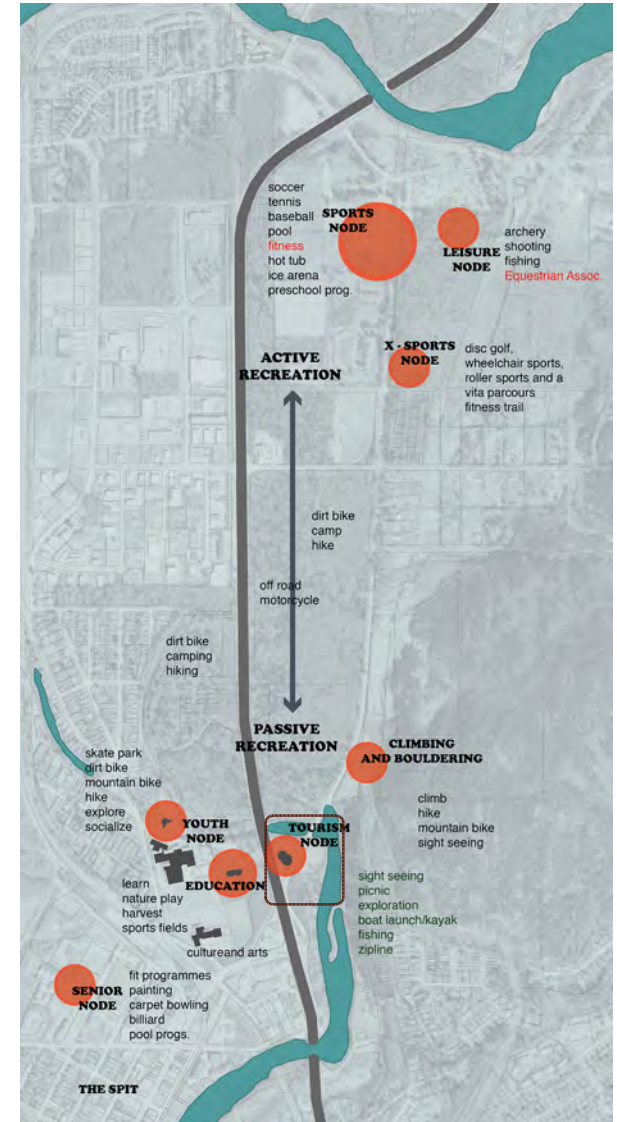
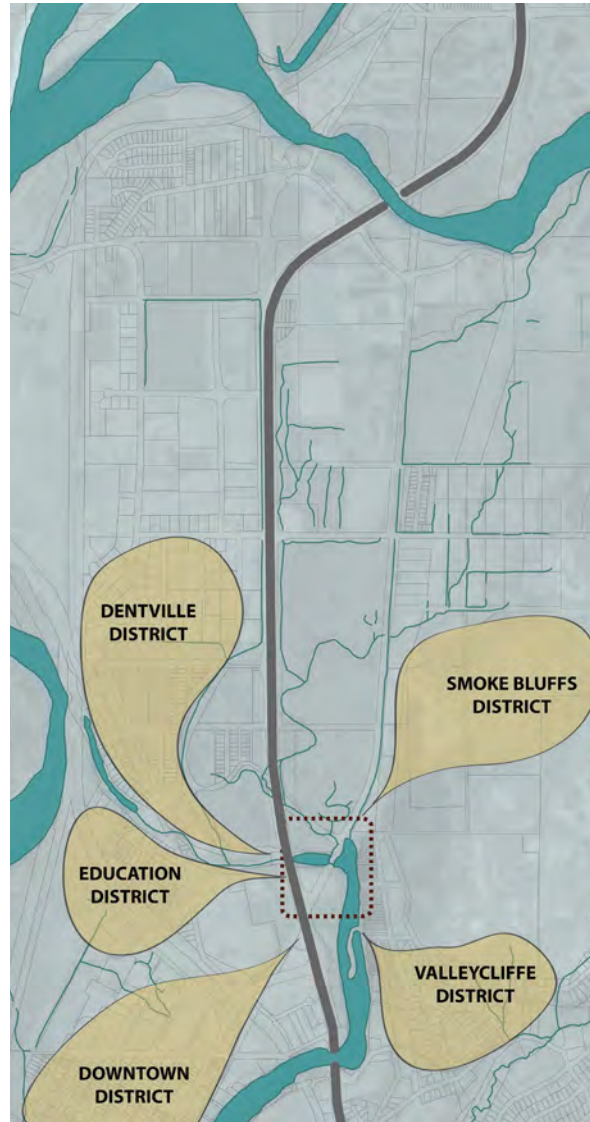


Figure 49: Convergence of landscape and settlement character.

Figure 50: Convergence of significant districts.

Figure 51: Opportunities for recreational node and connection to recreational network.

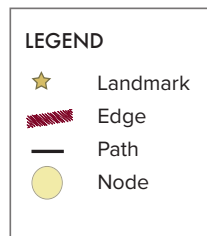


Figure 52: Image diagram of existing conditions
 Figure 53: Image diagram of proposed conditions

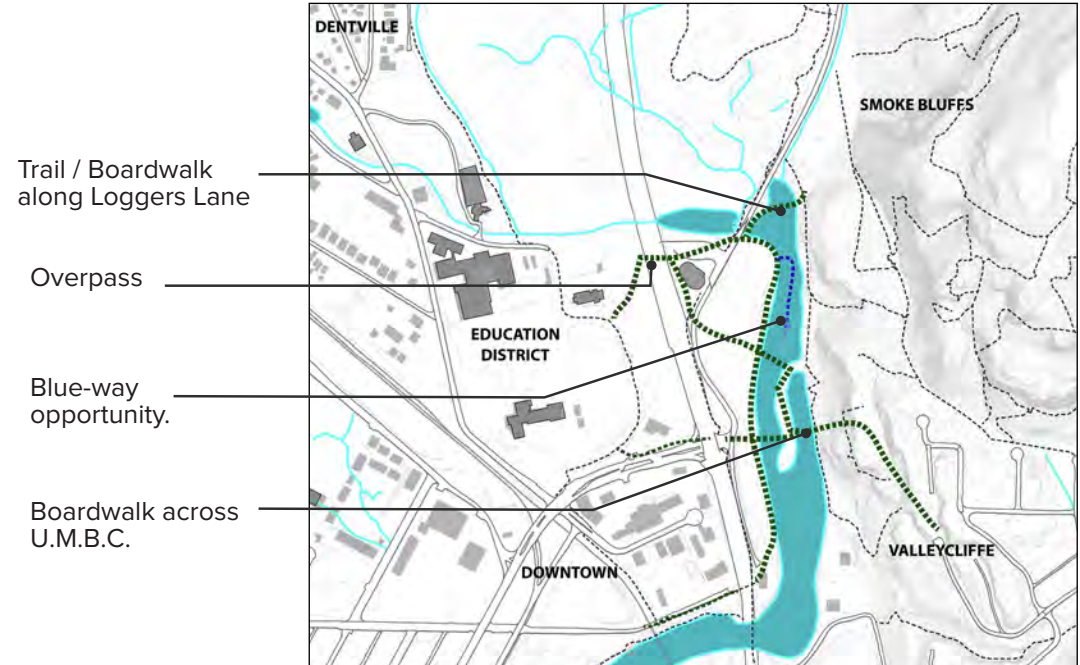


Figure 54: Proposed circulation

2. GATEWAY MASTER PLAN

The design proposal initiated by understanding the gateway experience in terms of wayfinding and Kevin Lynch’s imageability and creating a clear circulation backbone for the entire area. The intentions carried out were to transform edges into paths and create a free pedestrian commuting experience that might in time become an everyday place to be cherished. The overpass and boardwalk across the Upper Mamquam Blind are two major moves that transform an edge condition into nodes and landmarks that also create a connection between the education district and between Dentville and Valleycliffe.



The master plan creates a gateway experience that makes the features of the fjord and the Mamquam Blind Channel present to the fast visitor and encourage them to stop.

Mamquam Blind Bay creates a starting and endpoint where the body of water extends the view to the wider landscape and offers opportunities for fishing and recreation. It serves an ecological function extending the character and habitat of the estuary right at the footsteps of the Adventure Centre.

The Mamquam Centre in turn intensifies the recreational and cultural activities that will tie into the program of the Adventure Centre and the surrounding districts. The Mamquam Centre was the focus of the site design and will be explored in depth in the following chapter.

Logger's Allée becomes an icon of the historical line that guided pioneers all the way to Pemberton and delineates the view to mount Garibaldi and encourages wayfinding.

The forest art gallery, an exterior art and first nations gallery is located on the west side of Highway 99, now connected by the pedestrian overpass. Along with the nature play area and treehouse, their program supports the educational district adjacent to it.

Figure 55: Gateway Master Plan



A key element to the master plan in terms of Squamish's gateway is the introduction of a roundabout. Using images from the traffic circle in Podcetrtek, Slovenia, designed by ENOTA architects, we can start to imagine a similar setting in Squamish. The roundabout as opposed to the current red light intersection allows for an emblematic piece that introduces the town. It has numerous other benefits such as:

- Improved pedestrian crossing experience
- Opportunity for a wider vision array at the node
- More environmentally sensitive: allows the introduction of more vegetation and medians
- Eliminate the need for a turning lane
- Allows a higher movement rate
- Diminishes from 32 potential collision points to only 4.

As one turns around the traffic circle the boardwalk across the Mamquam Blind Channel becomes visible as well as the zip-line that represents the recreational opportunities on site.

In the same manner that the view to the boardwalk is framed, vegetation is used to enhance views towards the natural landmarks as well as the Mamquam Centre's landmark to give a legible meaning to the site. It is also used as a screen to make the retail along the highway less of a significant feature of the site's image and focus the driver's attention towards the unique natural features of the site.



Figure 56: Traffic circle in Podcetrtek, Slovenia: an inspiration for Squamish's gateway



Figure 57: The Mamquam Centre

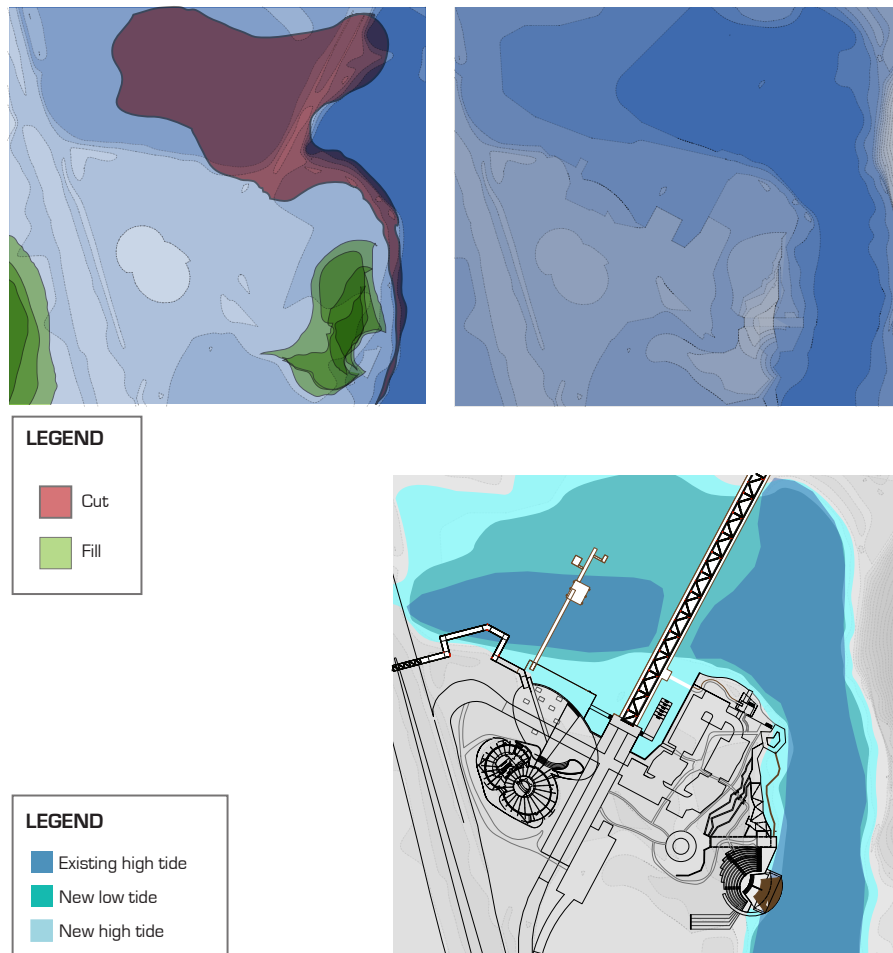


Figure 58: Proposed topography
Figure 59: Earthworks diagram
Figure 60: Proposed tidal reaches

3. Site Design: The Mamquam Centre

The Mamquam Centre is a place that operates as a waterfront commuter way, strengthens the community’s activities and welcomes people looking for outdoor recreation opportunities. It is a place where the visitor can park his vehicle in a forest setting and be face to face with the magnificence of the Smoke Bluffs and the Mamquam Blind Channel’s tidal waters.

The Mamquam Blind Bay becomes an important community node where activities occur in the marshy tidal waters. In order to create this landscape type the area is dredged, moving the material to create a steeped terrace that rises over to enclose the Mamquam Bouldering Centre. The earthworks create abrupt shapes that reflect the character of the sharp Smoke Bluffs it faces and the characteristic of the steep-flat Squamish dialectic that defines its landscape.

The topography and positioning of the site result in a particular moisture regime map. This was a criteria used to choose native vegetation that responded adequately to the site’s conditions. The planting character forms a transition as one traverses from the Adventure Centre, a more formal and light planting towards the Mamquam Bouldering Centre, where the dense coniferous vegetation prevails.

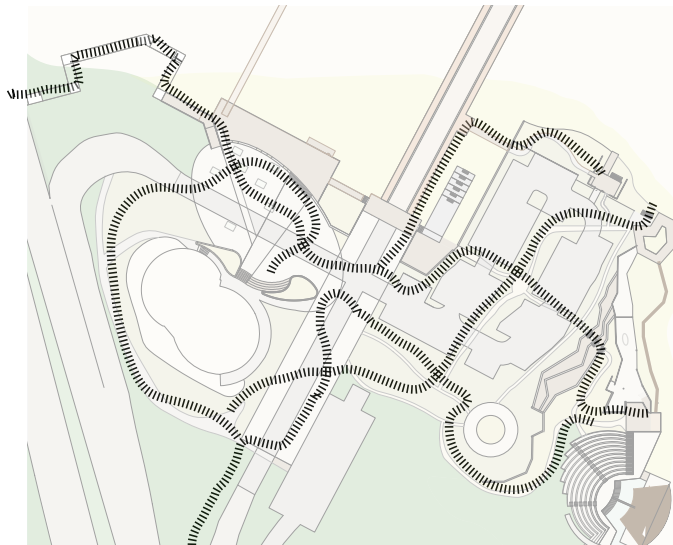


Figure 61: Site moisture regime
Figure 62: Free pedestrian experience

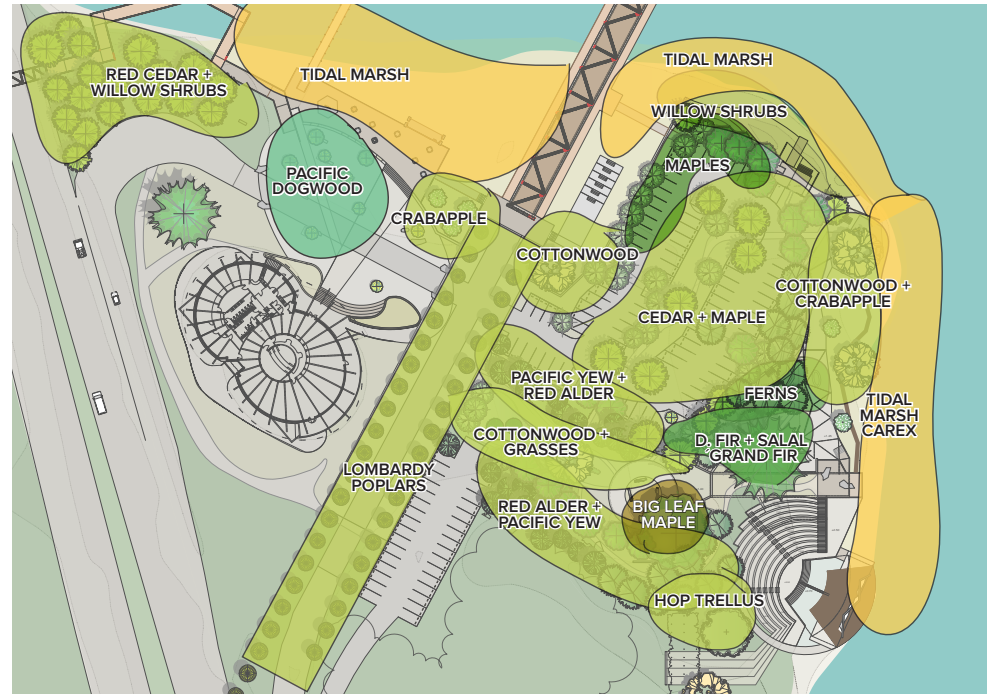


Figure 63: Planting character

The spaces are designed to maximize pedestrian experiences and body movement throughout the different positioning towards the waterfront and along it. The plaza facing the Mamquam Blind Bay is a social space where pedestrians and cars mix as indicated by the paving patterns. The Mamquam Bouldering Centre is a place that offers year-round climbing, an activity that is a big part of the Squamish lifestyle. The programming of the Centre also backs up the Educational District’s needs allowing its activities to spill over to the Mamquam Centre, using Judd’s Stage for drama class, as an example.

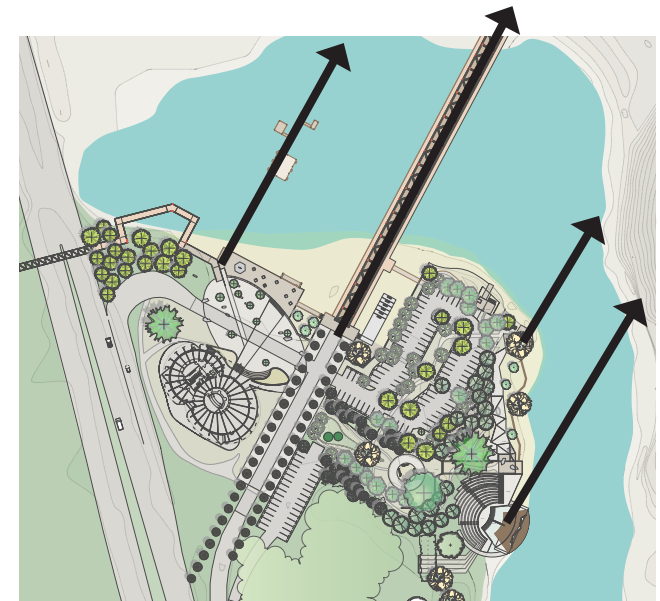
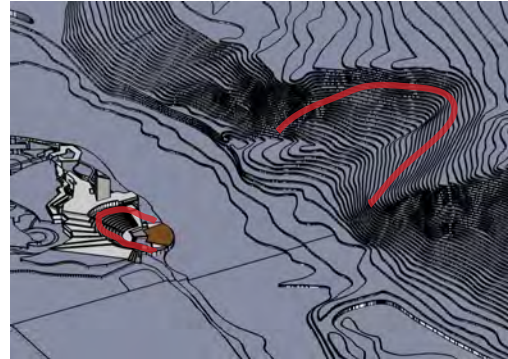
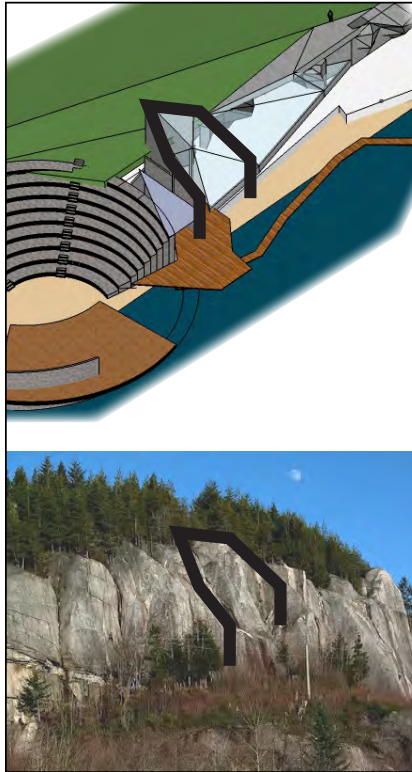


Figure 64: Forms inspired by the landscape
Figure 65: Echoing the Bluffs

The architectural pieces emerge as a reflection of the site's *topos* and qualities. The spaces are oriented towards the Chief and Mount Garibaldi, one of the criteria that shaped the Centre. Another criteria was complementing the existing forms and structures of the site, in the way Judd's stage echoes the topography of the Bluffs integrating them as part of the show.

Figure 66: Orientation towards Mount Garibaldi
Figure 67: Orientation towards The Chief

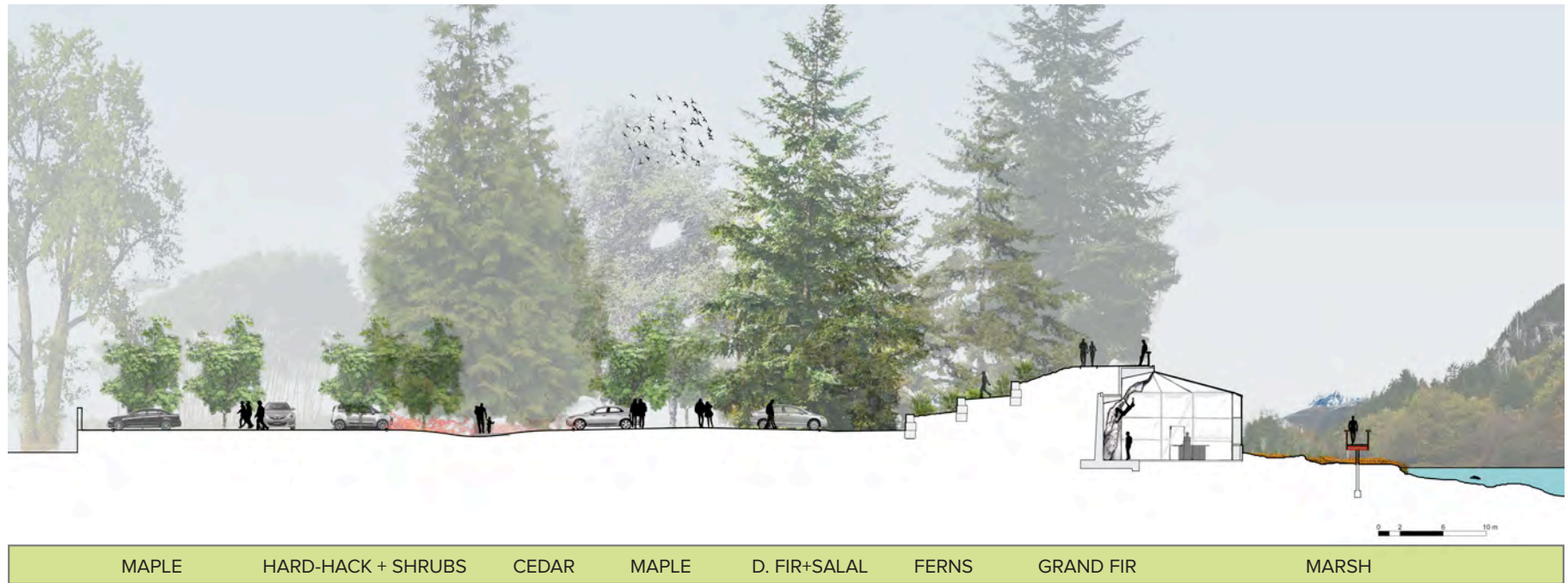


Figure 68: Section B-B' - Parking, terraces and Mamquam Bouldering Centre

The glass facade of the Mamquam Bouldering Centre allows the climber to have a straight view into the Smoke Bluffs. The black framing of its crystals mimics the breaks in the Bluff's rocky surfaces. Stained Concrete used for the foundation walls mimic the tidal stains occurring in the rocky slopes across the Channel. The escalating forms of the Mamquam Bouldering Centre are inspired as well by the natural features. The type of space provides an excellent opportunity to design for body movement and incorporates fun features such as the high access door from which one has to enter the center by climbing.



Figure 69: West Elevation- Judd's Stage and Mamquam Bouldering Centre
Figure 70: Mamquam Bouldering Centre Materials Palette



Figure 71: Elevation A-A'

Figure 72: Materials Palette for Elevation A-A

The North Elevation of the Site takes us through the Cottonwood Viewing Deck, Kayak House, Logger's Bridge, the Plaza and the pedestrian overpass. The materials chosen throughout the project reflect local resources and also make allusion to Squamish's industrial past and logging industry.

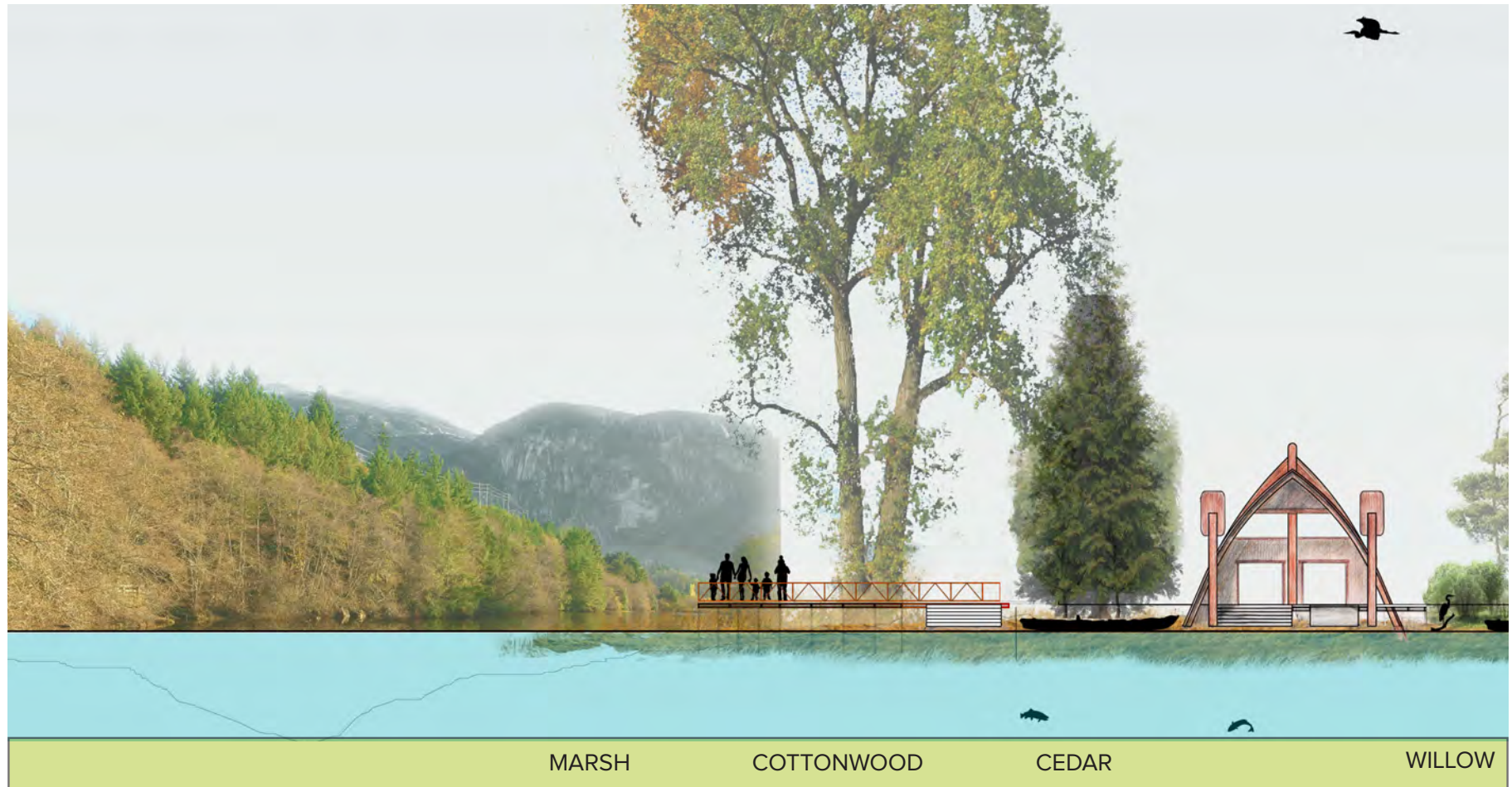


Figure 73: Elevation A-A' : Viewing deck and Kayak House

The viewing deck is a spot where one can view down the Mamquam Blind Channel to the Chief as well as towards Mount Garibaldi and it offers an excellent spot to enjoy the Bluffs. A platform surrounds a large cottonwood where people might meet and enjoy the view.

The Kayak house offers boat rentals for tourists. Its playful facade makes obvious allusion to the use of the building, reinforcing the image and legibility of place.



Figure 74: Elevation A-A': Kayak House, Alder Grove and Logger's Bridge.

As we move along a soft path we find an alder grove that encloses the parking lot behind, as well as large cedars. The marshy edge is slowly met by willow bushes. A ramp meets the path, from where one can climb straight to the boardwalk on Logger's Bridge. A row of Lombardy poplars, the only non-native species on site, delineate the

historically significant path into the distance.

For a different experience, one might go around the walls edge and sit on the marsh stairs enjoying a different setting every moment that depends on the daily tides.

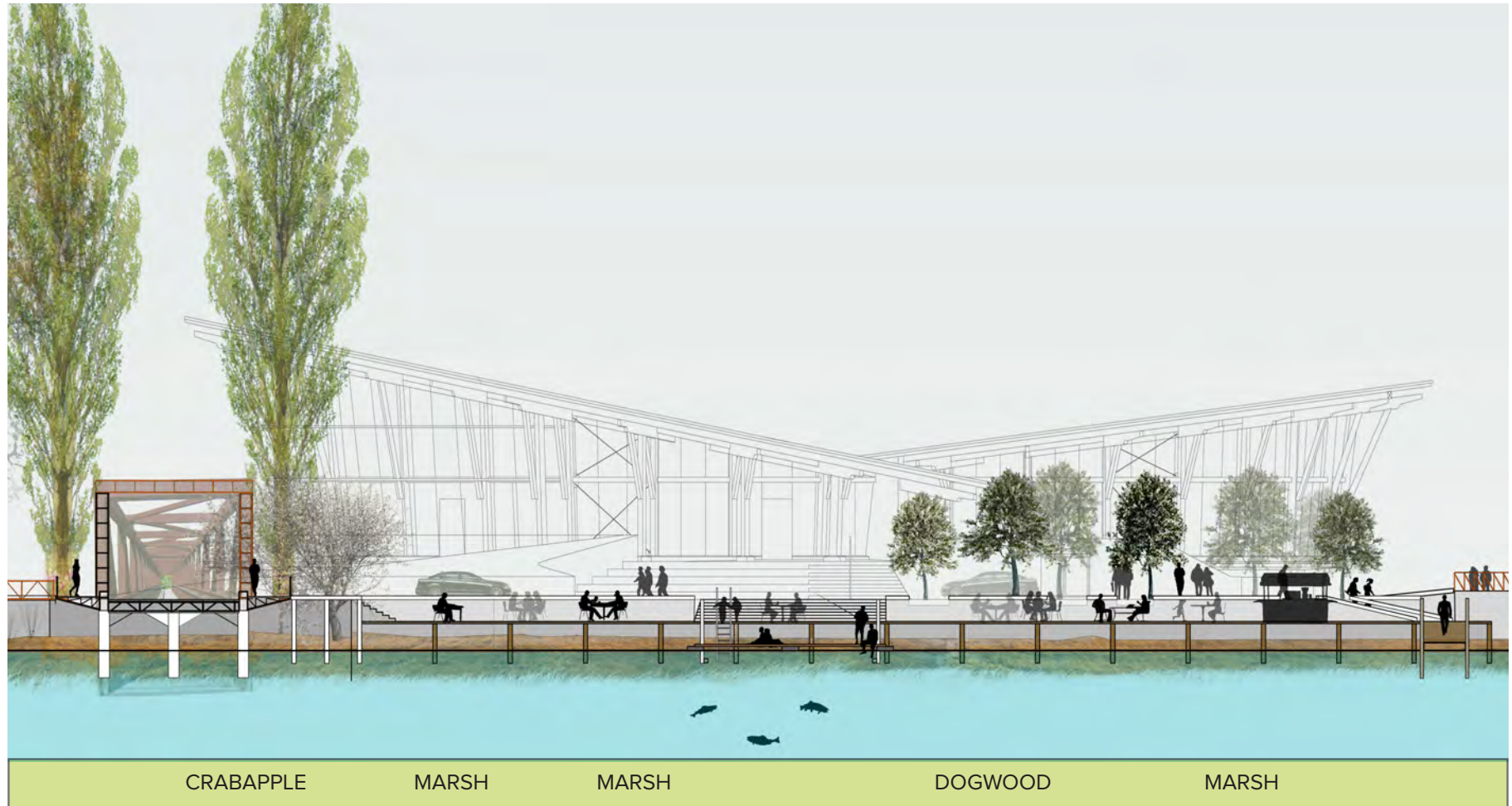


Figure 75: Elevation A-A': Logger's Bridge and the Plaza

The cobblestone patterned plaza is a fun place where people can arrive, meet or end their day's climbing journey with a beverage at the beer garden. The composition of the patterns extends a path from the door of the Adventure Centre out into the Mamquam Blind Bay. The design of the Plaza mixes cars and people using the patterns as space indicators rather than barriers. At the plaza we find

a diverse range of sitting spots integrated into the wall, sitting rocks and concrete benches shaded by Pacific dogwoods.

The cobblestone plaza leads to the floating deck and ramp whose heights vary depending on the tides. Fisherman decks are extended into more private spaces floating in the middle of the Mamquam Blind Bay.



Figure 76: Elevation A-A': Pedestrian overpass

The Plaza in turn is connected to the western side of Highway 99 through a pedestrian overpass. The materiality of the corten and rusted steel overpass make it an icon that reminds us of Squamish's industrial pass. The path that the overpass ramp follows creates turns and lines that respond to specific views and prepositional qualities.

The experience is constantly changing as the ramp elevates into a canopy walk between western red cedars and extends out over the Mamquam Blind Bay. It then folds back into the canopy enclosure before hitting the arrival platform to traverse the highway. The location of the overpass is also a historical crossing point.



Figure 77: Section C-C'

Figure 78: Materials Palette for section C-C

This section takes us across the Adventure Centre into the gathering node, a more private space in a densely vegetated area. A tunnel opens up at this spot that leads to Judd's Stage, ending at the marshy water's edge.

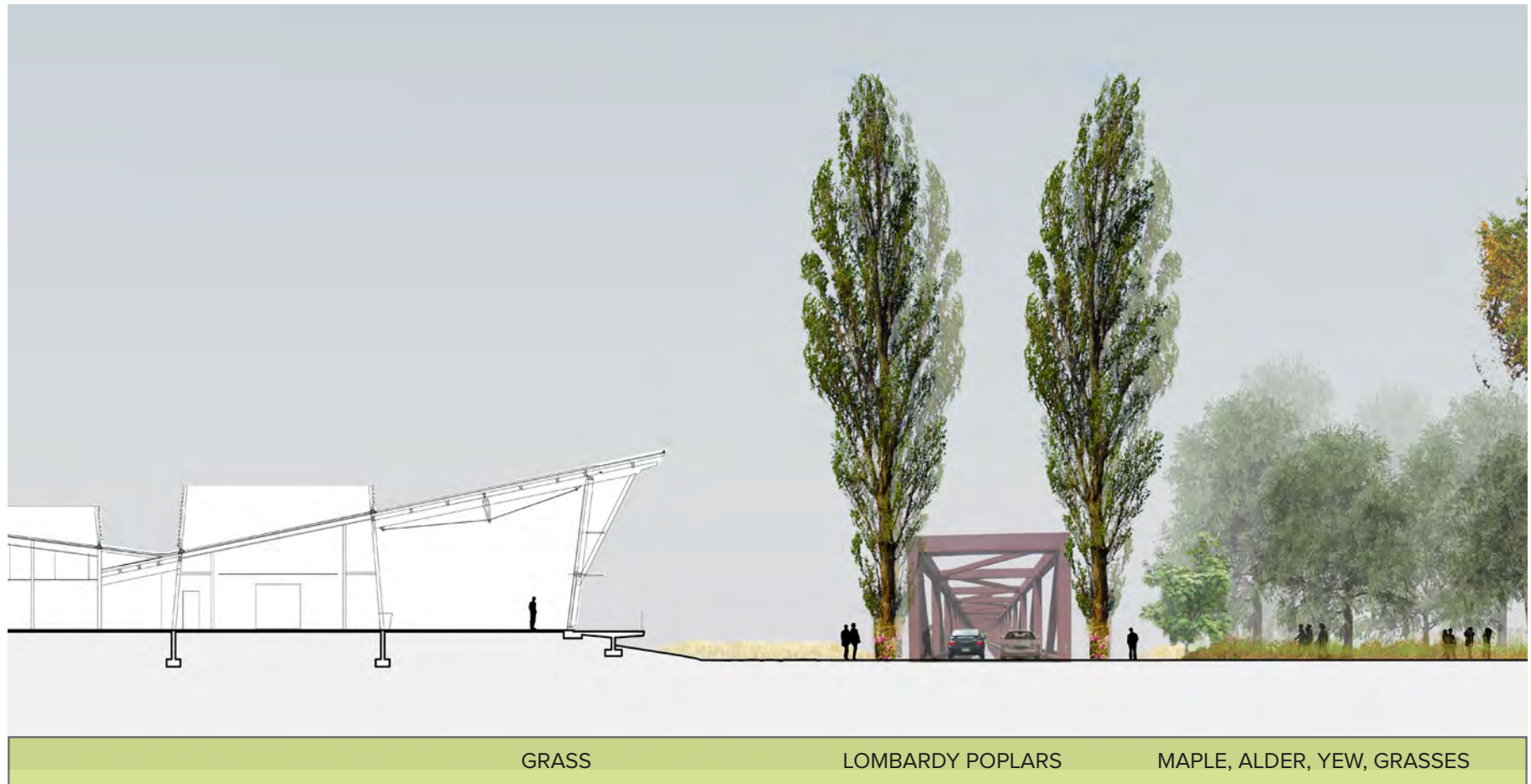


Figure 79: Section C-C': Adventure Centre, Loggers Allée and Path to Gathering Circle

On the east side of the Adventure Centre we find Logger's Allée, a historical route delineated by Lombardy poplars. This non-native species was specifically chosen to conceptualize white man's settlement through this historical path. Logger's Lane is now turned into a Bridge supported by Cor-ten steel trusses that again relate

the industrial aesthetic. The allée has wide lanes for pedestrians and narrow lanes for cars, using cobblestone creating a pedestrian friendly environment and encouraging cars to slow down. There are no barriers or grade change between cars and people.



Figure 80: Section C-C': Path, Gathering Circle and Tunnel

A grassy and densely vegetated path leads to a cottonwood where a north-south axis opens up, connecting to the parking area. The white bark of the red alders contrasts with a dense green backdrop created by pacific yews and encloses the bushy area leading to the gathering circle.

At the gathering circle we find a fire pit and logs for sitting. The area is enclosed not only by vegetation but by the introduced earthworks that culminate in an opening: the tunnel. On our way to the water's edge grandiose exit we can find service areas, storage rooms, sales booths and restrooms that service events and the Mamquam Bouldering Centre.



Figure 81: Section C-C': Tunnel and Judd's Stage

One can also walk over the tunnel along the path that climbs the slope and arrive at the amphitheatre from the top, surrounded by Douglas firs. Judd's Stage receives its name in reference to the pioneer who serviced "Judd's Stage" the first vehicular mode of transportation for the people of Squamish, hence the word game.

The stepping geometry and orientation of Judd's Stage respond to the views and solar exposure. The amphitheatre is wrapped by a ramp that encloses the spaces as it leads to the stage. As a backdrop to the amphitheatre we notice a very tall emblematic wall that locates the Mamquam Bouldering Centre, a landmark perceivable from the Highway. This is also a less formal climbing wall. A series of

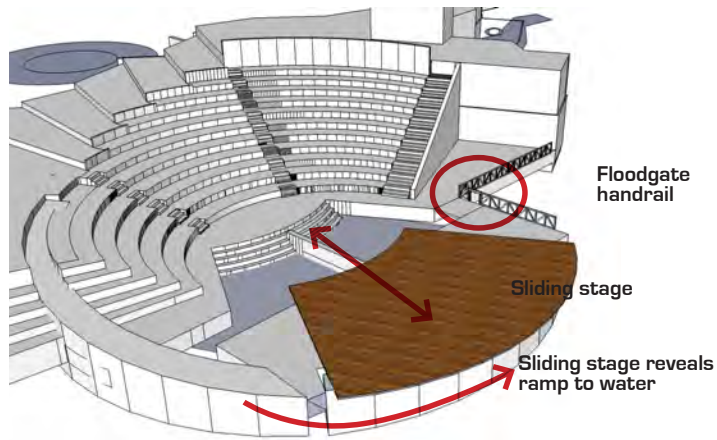


Figure 82: Judd's Stage mechanisms

prepositional qualities are evident in this space with several lookout points, sitting areas, and positioning opportunities.

Judd's stage can host small events as well as large community events of up to 600 people and its design offers a flexible space. The amphitheatre's flood levels can be manually controlled by a floodgate integrated in the handrail. The stage can slide on a railing, creating a range of creative possibilities for events. As the stage slides forward, a ramp is revealed that descends into the water.

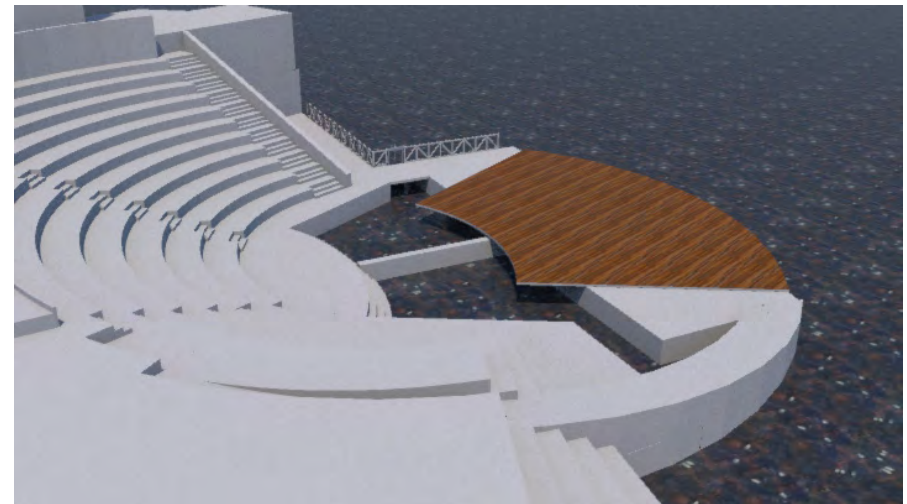
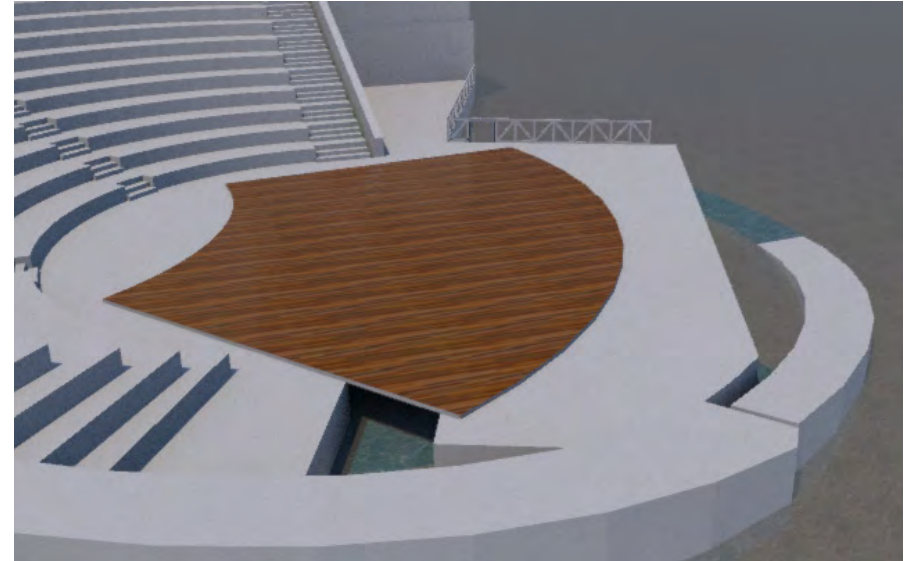


Figure 83: Stage covering the floodable area and exposed back ramp
 Figure 84: Open stage with flooded center area

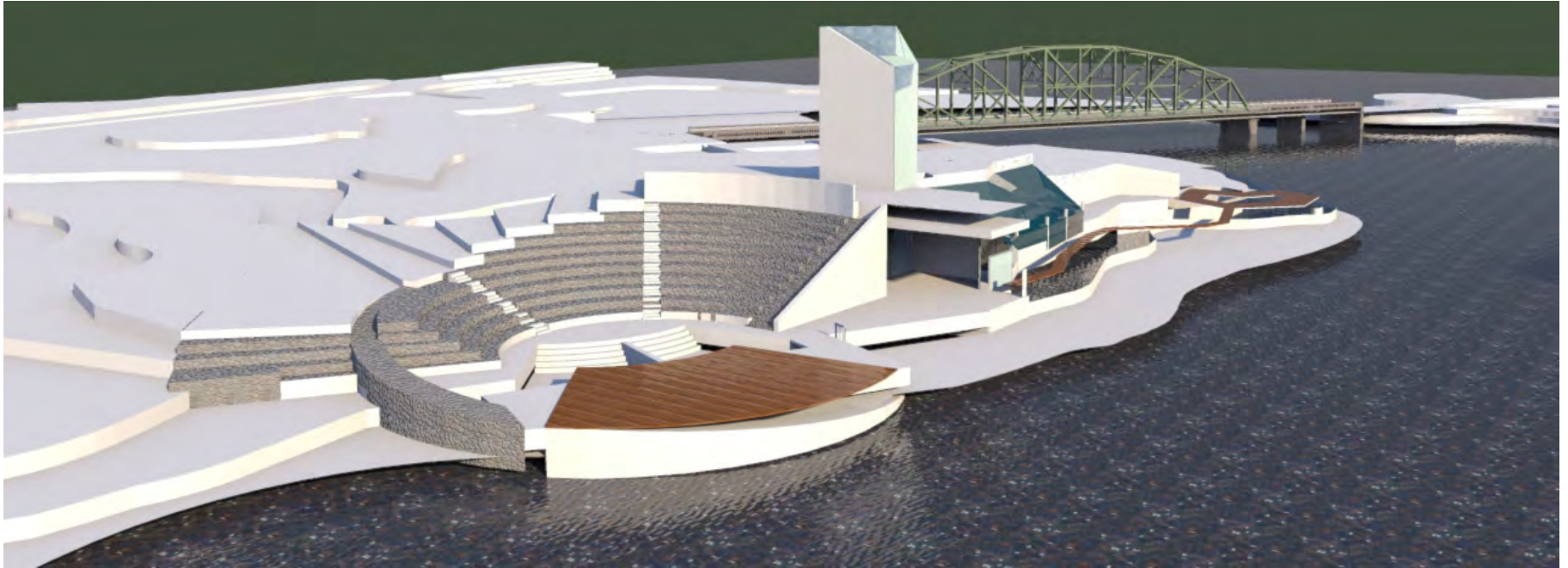


Figure 85: Perspective of Eastern waterfront: Judd's Stage and Mamquam Bouldering Centre
Figure 86: Perspective from Judd's Stage facing Mount Garibaldi

APPENDIX A. Norberg-Schultz's landscape character



ROMANTIC LANDSCAPE

- Archetype: Nordic Forest Indefinite multitude of different places
- Lacking order
- Discontinuous ground
- Microstructure
- Water is present and natural forces are strongly felt
- Narrowed sky through trees and rocks
- Dwelling: empathy, hiding place
- Form: organic growth: accentuate vertical, skeleton



COSMIC LANDSCAPE

- Archetype: Sandy desert
- No individual places
- Sense of pleasantness
- Simple composition: line and surface
- Infinite extension
- Absolute order manifested by environment



CLASSICAL LANDSCAPE

- Archetype: Greek landscape
- Earth-sky balance
- Environment made of things
- Evenly distributed light and transparent air
- Sculptural presence
- High sky
- Human dimension
- Environment made of things
- Individual places
- Dwelling: gathering

Figure 87: Norwegian Forest
(Photography by DragonKira)

Figure 88: Sahara Desert Landscape
(Photography by SaharaMet, R & R Pelisson)

Figure 89: Delphi, Greece
(Photography by Jean Marie Robin)

APPENDIX B. Plan of Work

Site analysis:

- Hester’s methodology for sacred places
- Map site’s phenomenology
- Register topography

Schematic design:

- Apply and evaluate proposed programming on site in plan.
- Create hand drawings and sketches

Site design

- Create base model in Sketchup and sections to further explore site design

Detail design:

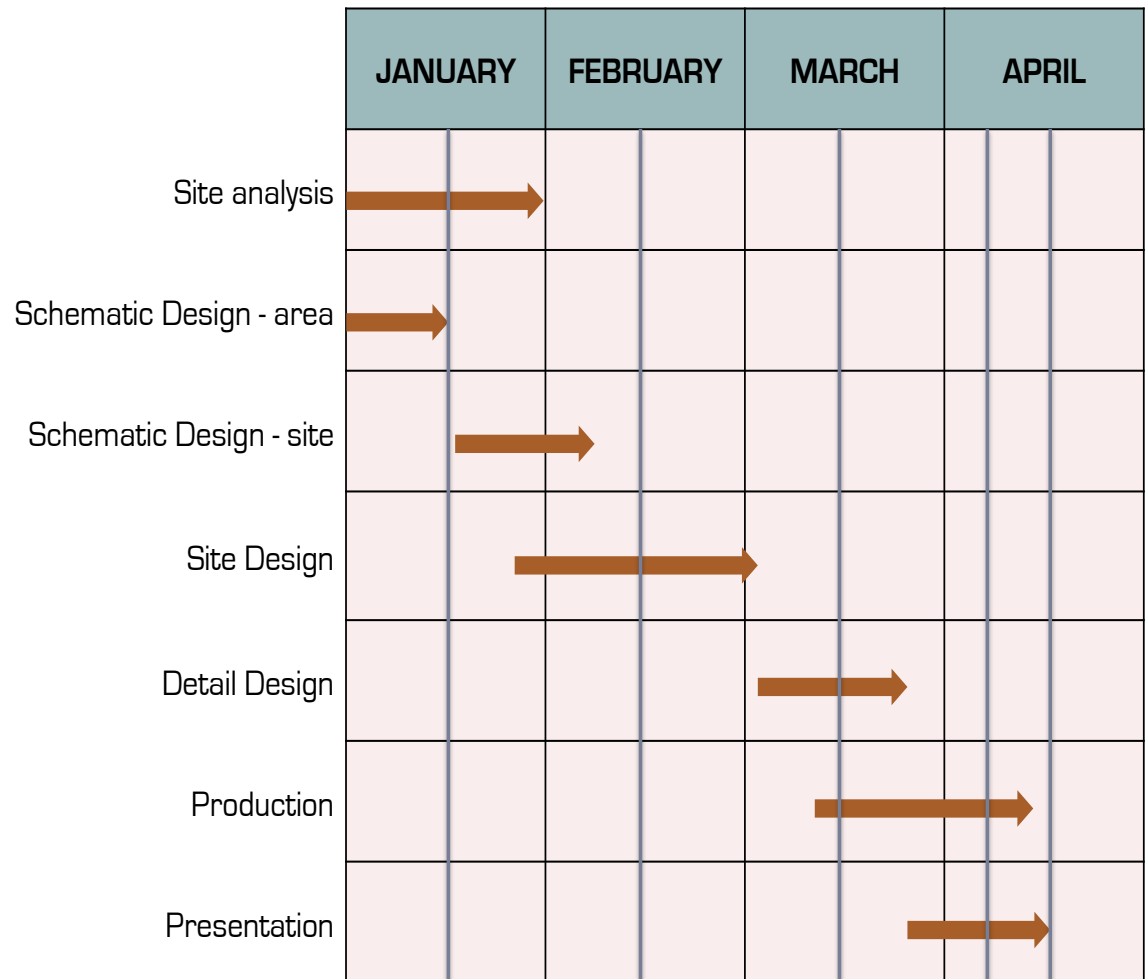
- Refine Sketchup model and create cad drawings to evaluate proposal more precisely

Production

- Elaboration of plans, sections and perspectives

Presentation

- Create InDesign format



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