INTERPRETING LANDSCAPE: ABSTRACTING KANANASKIS COUNTRY

by

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ABSTRACT

This thesis examines Kananaskis Country in Southern Alberta, which has traditionally been a vernacular landscape and represents an everchanging cultural perspective on landscape. By analyzing the historical use and current infrastructure of Kananaskis Country I will place a carefully considered intervention that speaks to the new relationship we have with the region and how our attitudes towards the environment can be expressed through architecture. This architectural intervention will incorporate a holistic approach of reading the landscape, while accentuating and aiming to be a part of the landscape. The goal is for people to experience a deeper understanding and connection to the ecology of the place by implementing creative cross-programmatic and adaptable design solutions. Constructing a building that will intertwine and heal our relationship between our built environment and the landscape is a political venture that has long term goals of stewardship, reinforcing collective identity and holistic awareness of the place.

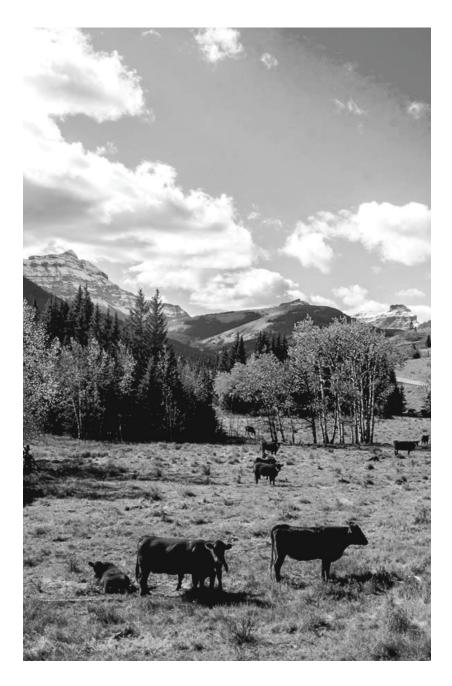
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CHAPTER 1: INTRODUCTION

THESIS QUESTION

With the cultural shifts of our attitudes towards nature, how can we design to achieve or exceed our current ecological ambitions of coexisting with nature through architecture?



Grazing cattle in Kananaskis Country; photograph by; Adam Paul Piotuch

OBJECTIVES

Design with the landscape! NOT conquer it.

Bring awareness to different groups in the region.

Bring our interconnectedness to the forefront.

Encourage stewardship.

Reinforce a collective identity.



Map of Canada highlighted is Kananaskis Country; base map from bing maps

PREFACE

I began this journey interested in what critical regionalism is, or what it could be in my home province of alberta. On my mothers side of the family we go back six generations in southern alberta. My family, like many others, was greatly affected by the oil boom in Turner Valley of 1941.¹ The discovery of oil in the region caused a population boom and locals to leave their traditional livelihoods, often in agriculture to make a quick buck in the energy sector. The changing of careers was often done in a gradation; some changing careers completely and others dedicating portions of their time to the new industry. My family has been caught in this gradation, and it seems through the generations we have been drifting further and further away from the rancher way of life. I have always been most interested in the rancher/ homesteader side of this story; perhaps, this is because my generation is the furthest separated. In early august 2016 I was looking to be inspired by my family's farms and I spent a week with my grandmother touring some of the old properties. Although I discovered some interesting aspects, what I found wasn't as inspiring as I had initially hoped. Most, if not all the true vernacular buildings were gone, including the original house my grandmother grew up in. During one of the touring days we sat down for lunch, and met one of my grandfather's old friends. He suggested that we take a trip out to cow camp, just inside of Kananaskis boundary west of Turner Valley in the Sheep River Provincial Park. Cow Camp is a utilitarian place where ranchers in the region go to release their cattle into the provincial parks for grazing and becomes the base point for make day trips in on horseback. Cow Camp became the catalyst that sparked the interest in Kananaskis Country, I found it to be an extremely rich layer of area, in addition with the picturesque views, I became very interested in our relationship that people have with this landscape.





Aug 2016 round up corral and sleeping quarters





1980 fall roundup Cow Camp, photos by Irene McClelland(Grandma)

¹ Sheep River Historical Society, In the Light of the Flares: History of Turner Valley Oilfields (Turner Valley, 1979), 7&9.



Cow Camp kitchen and sleeping quarters 2016

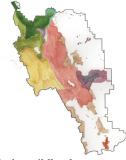
KANANASKIS COUNTRY



Road into Kananaskis Country photo by Joshua Jean

Kananaskis Country is a region in southern Alberta that is a cultural landscape. It is the pride and joy of the Alberta parks systems, particularly for southern Alberta. Kananaskis or K Country, which it is often referred to as, is 4000 km2 and today that includes: Bluerock Wildland Provincial Park, Bow Valley Provincial Park and Wildland Provincial Park, Bragg Creek Provincial Park, Canmore Nordic Centre Provincial Park, Don Getty Wildland Provincial Parks, Elbow-Sheep Wildland Provincial Park, Peter Lougheed Provincial Park, Plateau Mountain Ecological Reserve, Sheep River Provincial Park, and Spray Valley Provincial Park.² These Parks and Reserves make up the protected areas in Kananaskis which amount to two-thirds of the regions land while one-third remains unprotected public land use zones. Facing west, Kananaskis starts in the foothills of the Rocky Mountains and ends at the continental divided that separates British Columbia and Alberta. The continental divide can be visualized as separating the rivers flowing west or east. This landscape has always captured the imagination of anyone who lucky enough to experience it.

This begs the question what is a landscape? How do we perceive this



Parks, wildland reserves and unprotected



Major bodies of water and hiking trails



Watersheds

Data from Alberta Environment and Parks

² Jennifer Goertzen, *Controversy and Compromise: The Creation of Kananaskis Country*, 2005, ProQuest Dissertations and Theses.



Proteceted Areas in and around Kananaskis(Green) unprotected zones in Kananaskis (Grey); data provided by Alberta Environment and Parks; Bing maps common word? Is it simply a picturesque view? Kananaskis certainly has an abundance of these views. Is there a deeper meaning to landscape than a romantic idea of a portion of the earth's surface?³ Through the ideas of Carl Sauer and JB Jackson I would like to analyze the word landscape and how it might be interpreted when being applied to Kananaskis Country. Interpretations on landscape or our differences in our belief systems will alter how we use our surroundings. In turn, the landscape describes different user group's relationship to the land; such as rural ranchers, the urban city dwellers, colonial settlers and these are all layered over the relationship the First Nations have in the Kananaskis' landscape. The layers of the landscape take many forms, from history of the place to production of resources and the built environment and of course the natural environment. It represents our history and our belief systems.

A self-proclaimed *experiment that worked*,⁴ Kananaskis embodies our culture through the morphology of the landscape, through political and vernacular means. These two ideas of a vernacular and a political landscape are opposites. They are permanence to mobility, long-term goals to short term solutions.⁵ In Kananaskis Country the vernacular and political are in juxtaposition of each other; furthermore, they support each other just as much as they oppose each other. These are tensions in the landscape that are constantly being dealt with. These tensions do not start and stop at the borders of Kananaskis; but are examples of our connections to the surroundings. For example, the local rancher along Cowboy trail (highway 22) will have a different perspective and relationship with the land than the city dwellers ideas of consuming and conservation of nature. These tensions also speak to our industrialized ingenuity, our persistence on improving the land and utilizing it, our

Indian ink drawing of mountains in K Country



³ John Brinckerhoff Jackson, *Discovering the Vernacular Landscape*, (New Haven: Yale University Press, 1984), 6

⁴ Alberta Environment and Parks, "Kananaskis Country: History," *Government of Alberta*, October 2016.

⁵ Jackson, Discovering the Vernacular Landscape, 42,49

ideas about production through the lens of capitalism, mixed in is a progressive ideas about ecology and environmentalism.

Ideas about conservation have been developing ever since the frontier was closed in 1890's.⁶ Although what much will be discussed is an American story, it is a Canadian story as well. For example we adopted the grid from Thomas Jefferson ideas about landscape, we also adopted the idea of parks from Theodore Roosevelt and his ideas about conservation. In addition to these Ideas there is an interesting observation within Kananaksis by Ruth Olltman and her correlation between dependence on the valley and environmental awareness.⁷ I believe there is an opportunity to articulate our newly found environmental awareness, to have architecture that speaks to ideas about the landscape and ecology. These ideas would be based in adaptability and holistic approaches. Allowing a work of architecture to speak to these progressive ideas about ecology and the environment would be new for Kananaskis Country.

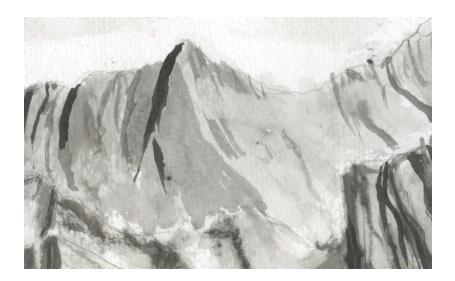
One of the oldest running industries in K Country from the industrial age is research.⁸ One of the first research center sites was the Barrier Lake site. The Barrier Lake site has been through some major changes over the years, highlighting some of the ideas about how perceptions on the landscape directly affect how we experience the landscape. Currently the Barrier lake research centre buildings are at the end of their life cycle and are being cleared out for major renovations. I seen this as an opportunity, rather than retrofit old buildings that no longer speak to our beliefs and goals with landscape and the environment, I see it as the perfect time to design a new facility. The new facility would be a place that brings forth new ideas and passions, joins together groups and people that can work together towards common goals of progress and

⁶ Christine Macy and Sarah Bonnemaison, *Architecture and Nature Creating the American Landscape* (London; New York: Routledge, 2003), 3.

⁷ Ruth C. Oltmann, *The Valley of Rumours*... *The Kananaskis* (Ribbon Creek, Seebe, Alta.: Ribbon Creek Publishing, 1976), 127.

⁸ Ruth C. Oltmann, *My Valley the Kananaskis* (DesLibris. Books Collection. Calgary, Alta.: Rocky Mountain Books, 1997), 61.

stewardship. With the cultural shifts of our attitudes towards nature, how can we design to achieve or exceed our current ecological ambitions of coexisting with nature through architecture?



On site Indian ink drawings looking at the ridge beyond Lineham Creek

CHAPTER 2: UNDERSTANDING LANDSCAPE

Landscape is a complex term that has developed through the centuries, having different meanings throughout the test of time. JB Jackson breaks down the origin of the term landscape, first by isolating land from scape. Land is being a defined space, one with boundaries, though not necessarily one with fences or walls.⁹ He then looks at scape, which he discovers was derived from the word shape, and meant a composition of similar objects. Therefore, landscape could be interpreted as a collection of lands.¹⁰ Carl Sauer has a similar definition of landscape derived from German; land shape, in which the process of shaping is by no means thought of as simply physical. It may be defined, therefore, as an area made up of a distinct association of forms, both physical and cultural.¹¹ Kananaskis, could easily be thought of in this respect. A region without walls, it is divided up into two major categories: protected and unprotected. Furthermore, it is subdivided into provincial parks, wildlife preserves, ecological sanctuaries, public land use zones and snow vehicle zones. The existing watersheds of the region predominately determine these zones as well as the different land uses associated with them. Essentially, these are a composition of man-made spaces projected onto the land; therefore, it is a synthetic space.¹² We can do a similar exercise with the name Kananaskis Country; Kananaskis was the name given to a specific valley by John Palliser, one of the first white explorers to visit the area. Kananaskis was the name of a Cree warrior whom survived an ax blow to the head.¹³ Country or countryside came to indicate a much more extensive, though less precisely defined area: the territory of a community of people all speaking the same dialect, all engaged in the same kind of farming, all conscious of having customs and traditions

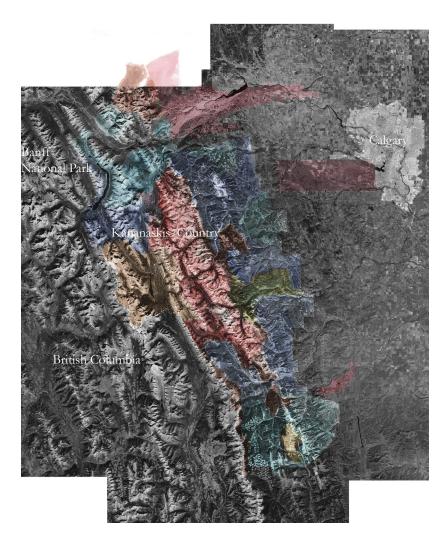
⁹ Jackson, Discovering the Vernacular Landscape, 6,7.

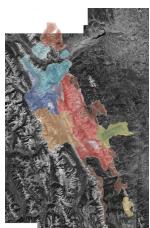
¹⁰ Ibid.

¹¹ Carl Sauer, *The Morphology of Landscape*. (University of California Publications, 1925) 300.

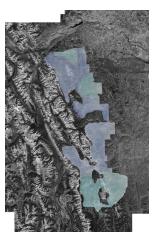
¹² Jackson, Discovering the Vernacular Landscape, 156, 157.

¹³ Oltmann, My Valley the Kananaskis, 15.





Provincal Parks and Wildlife Reserves



Unprotected Regions



First Nations Reserves

Base map from bing

of their own and of possessing certain ancient rights and privileges.¹⁴ Settlers along the eastern slopes of K Country have predominately been cattle ranchers and farmers. They have long used Kananaskis Country as common lands, but it wasn't until the 1960's and 70's that they recognized the growing pressure from tourists to have these borders defined. There is something wild about mountains and how it is able to keep its wilderness. Even the national grid fails to take hold and tame this landscape, this is in the minds of everyone that heads west in to K Country.

Carl Sauer, in the morphology of landscape, describes cultural landscape as a process, culture is the agent, the natural area is the medium, the cultural landscape is the outcome. Landscapes grasp our interests based on how useable they are to us and how can we manipulate it for our own gain.¹⁵ No group sets out to create a landscape, they set out to create a community and in doing so the landscape becomes the by-product of their activities.¹⁶ These landscapes that we create can often become layers over top of one another. For example, the Stoney Indians believed the spirits of their dead animals went to live in the Palliser River canyon, a sacred place for the First Nations which is now a part of the tourist system in K Country. Another example is the alpine meadow where the open pit coal mine used to be from 1947 to 1952. And beneath the ski runs on the other side of the mountain, officially known today as Nakiska, are forgotten tunnels used for the coal mine's underground operations.¹⁷

One aspect of landscape that JB Jackson talks about is how landscape is a space deliberately created to speed up or slow down the process of nature, essentially man taking on the role of time.¹⁸ These two spectrums of landscape could be most exemplified through the basic

Map generated from Bing

maps

¹⁴ Jackson, Discovering the Vernacular Landscape, 149.

¹⁵ Sauer, The Morphology of Landscape, 308.

¹⁶ Ibid.

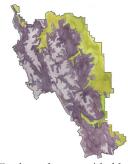
¹⁷ Johnnie Bachusky, "Ribbon Creek," Ghost Towns of Alberta, February 2017.

¹⁸ Jackson. Discovering the Vernacular Landscape, 156,157.

breakup of the region: protected and unprotected. There an interesting aspect on how protected areas are generally not as useful, they tend to be deserts or mountainous areas, where as productive areas such as grasslands are left unprotected.¹⁹ This is true in Kananaskis Country with the mountainous zones being protected while the foothills are left unprotected. To examine the definition of cultural landscape with humans talking on the role of time, can be done by analyzing the way the forests are treated in each zone. In the unprotected zones, there are areas in which industry harvests trees in small pockets. When examining these pockets, one can see that there are efforts to replant and encourage growth, while staying a pre-determined distance away from major rivers and streams to control erosion, this could be seen as people speeding up nature. On the converse side of this are the protected zone, in which the harvesting of trees forbidden, it is also illegal to burn deadfall. The manifestation of slowing nature comes in the form of fire lookouts. These are stations placed approximately 40 km apart from each other to watch for signs of forest fires. Although the majority of fires they report and prevent are human caused, they also prevent natural wildfires, the most common of which are ignited from lighting strikes. Fires are a natural part of the cycle of forests. Some species of trees require fire to open and spread their seeds and it is often the case that forests respond to fires by growing back stronger and more enriched than their



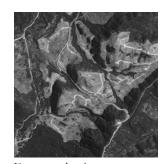
Protected unprotected data provided by Alberta Environment and Parks



Geology data provided by Alberta Environment and Parks

19 Richard Manning. Rewilding the West : Restoration in a Prairie Landscape. (Berkeley: University of California Press, 2009).6.





Forestry clearings Google maps

Barrier Lake fire lookout station Aug 2016

previous state.²⁰ Our society will eventually have to come to terms with the rejuvenation power of fire in the landscape.²¹ In our enthusiasm for forest management we would do well to remind ourselves that these same forests practiced self-management for more than 9000 years.²²

Additionally, this can be done through the lens of the energy industry. The site of the first oil rush in Alberta happened around the Sheep River valley in 1914.²³ Although the industry has slowed down in the region, there are still live wells extracting fossil fuels from the ground. There is the idea of people speeding up nature through the extraction of this resource that has been formed over millions of years and quickly becomes a source of energy. To contrast this in the protected zones, there are the hydro dams that are placed along a few of the rivers. I am reminded of the Organic Machine by Richard White, when dams were first being thought of, particularly for the Colombia river basin in the United States, the engineers thought they were mimicking nature by placing dams where old glacier dams had previous been and provided ideal spots through their sedimentation and settlements in the basins. At the time the engineers thought they were not doing any harm and through the Emersonian view, were enhancing the landscape on purely good terms.²⁴ Richard White describes an Emerson's vision of the machine as a force of nature found its fullest expression as part of the old romance of energy in Western society, a dream of liberation from labour, an end to social conflict and environmental degradation through the harnessing of natures' power to human purposes.²⁵ The dams represent man slowing down nature, by preventing and or controlling water flow.

²⁰ Don Gayton. The Wheatgrass Mechanism : Science and Imagination in the Western Canadian Landscape. (Saskatoon: Fifth House Publishers, 1990),138.

²¹ Manning. Rewilding the West : Restoration in a Prairie Landscape, 21.

²² Gayton. The Wheatgrass Mechanism : Science and Imagination in the Western Canadian Landscape, 138.

²³ Sheep River Historical Society, In the Light of the Flares: History of Turner Valley Oilfields, 9.

²⁴ Richard White and Eric Foner, *The Organic Machine* (Critical Issue. New York: Hill and Wang, 1995), 52.

²⁵ White and Foner, The Organic Machine, 48.

Through these two examples, we see that when we slow nature down it is done in the protected areas, when speeding nature up it happens in the unprotected zones. Through ideas such as sustainability we seem to be turning away from these old concepts and trying to discover a new way to live harmoniously with nature.

Looking again at JB Jackson's ideas about landscape, he formulates a new definition of landscape: " a composition of man-made or manmodified spaces to serve as infrastructure or background for our collective existence; and if the background seems inappropriately modest we should remember that in our modern use of the word it means that which underscores not only our identity and presence, but also our history".²⁶ This definition is truly fitting for Kananaskis. From our colonialist past with the First Nations, the development of industry to the creation of parks.

26 Jackson. Discovering the Vernacular Landscape, 8.



Rolling Farmer's fields Kananaskis Country photo by Joshua Jean

CHAPTER 3: POLITICAL / VERNACULAR

JB Jackson describes an ideal landscape as not a static utopia dedicated to ecological or social or religious principles, but as an environment where permanence and change have struck a balance.²⁷ I will break this idea down into political and the vernacular, and apply these to the features of Kananaskis Country. Understanding the ideas of the vernacular and political is important to inform the type of intervention I am looking to make in the region.

A vernacular culture would imply a way of life ruled by tradition and custom, entirely remote from the larger world of politics and law; a way of life where identity is derived not from permanent possession of land but from membership in a group or super-family.²⁸ I reference the cattle ranchers when thinking about this idea of vernacular. A vernacular landscape would be, one where evidences of a political organization of space are largely or entirely absent.²⁹ I then think about Cow Camp, the base camp for the ranchers letting the cattle out to graze. It is setup for seasonal use and operates with short term solutions and self-interest.

Political Landscape features have the visibility and sanctity of boundaries, the importance of monuments and of centrifugal highways, and the close relationship between status and enclosed space.³⁰ By political JB Jackson means those spaces and structures designed to impose or preserve a unity and order on the land, or in keeping with a long-range, large-scale plan.³¹ Under that heading we should include such modern features in Kananaskis as the Trans-Canada Highway #1 and Kananaskis Trail #40, the hydroelectric dams, and power transmission lines. Through the lens of a political landscape, natural environment has no inherent identity of

28 Ibid.

30 Ibid, 48.

Taken from Trans-Canada highway looking west



Popular trees growing around Cow Camp

²⁷ Jackson, Discovering the Vernacular Landscape, 148,149,150.

²⁹ Ibid.

³¹ Ibid, 150.

its own; it is simply a means to an end, a human end.³² This idea, in addition with, *"Kananaskis is an experiment that worked*³³, is Emersonian ways at looking at the world.

The political landscape is large scale, easy to spot and permanent. The vernacular or inhabited landscape is likely poor and small and hard to find.³⁴ They are usually there together yet really tough to distinguish them apart. The political landscape is deliberately created in order to make it possible for men to live in a just society. The inhabited landscape merely evolves in the course of our trying to live on harmonious terms with the natural world.³⁵ One thing I would like to address is that, although I am breaking down Kananaskis into political or vernacular aspects, I don't believe that these ideas are necessarily separate from each other. For example, when much of the political infrastructure is being built there is vernacular camps and trails. Often political infrastructure is put in place to support the vernacular. The easiest example of this is the creation of Highway 40 was to relieve pressure on the collective ranch lands of the eastern slopes from tourists.

Spaces in the vernacular landscape indicate personal relationships. They indicate the involved and often conflicting traditions of the community and who controls the vast number of "waste space". Vernacular landscapes as a type generally have these features: small, irregular in shape, and subject to rapid change in use, in ownership and in dimensions.³⁶ Houses and even villages in vernacular landscapes, grow, shrink, change morphology and change location. There is always a vast amount of "common land:"--- waste, pasturage, forest, and areas where natural resources are exploited in a piecemeal manner. Roads are little



Great Great Grandpa Mckellar logging with Zig and Charlie 1933, in current Sheep River Provincial Park Family Photo

36 Ibid.

³² Ibid, 28.

³³ Alberta Environment and Parks, "Kananaskis Country: History," *Government of Alberta*, October 2016.

³⁴ Jackson, Discovering the Vernacular Landscape, 151.

³⁵ Ibid.



Kananaskis Dam 1946 Glenbow Museum archives NA-5679-13



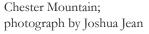
Barn at Cow Camp Aug 2016

more than paths and lanes, never maintained and rarely permanent.³⁷ This description of vernacular landscapes fits largely into what the region Kananaskis Country was in the past. A place to exploit resources and utilized as common land, such as the case with industry workers and their roadways, with people living on the fringe of the foothills taking from the land as need be. The vernacular landscape is a scattering of hamlets and clusters of fields, islands in a sea of waste or wilderness changing from generation to generation, leaving no monuments, only abandonment or signs of renewal.³⁸ This point makes me think of the abandoned mining town of Ribbon Creek. Once the coal industry was shut down the village was abandoned and morphed into ruins. Mobility and change are the key to the vernacular landscape, but of an involuntary, reluctant sort; not the expression of restlessness and search for improvement but an unending patient adjustment to circumstances, an impressive display of devotion to common customs and of an inexhaustible ingenuity in finding shortterm solutions.³⁹ There is cultural poverty in the vernacular though, its lack of any purposeful continuity. It thinks not of history but of legends and myths. This is an accurate way to describe K Country. The people that have been there for generations pass down their stories.



- 38 Ibid.
- 39 Ibid.





Foundation of truck service station Ribbon Creek; photograph by Johnnie Bachusky

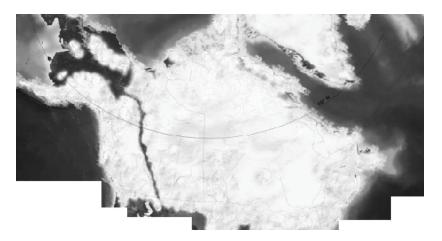
A landscape without visible signs of political history is a landscape without memory or forethought. We tend to think that the value of monuments is simply to remind us of origins. They are much more valuable as reminders of long-range goals, collective purpose, objectives and principles.⁴⁰ As such even the least sightly of monuments gives a landscape beauty and dignity that keeps the collective memory alive.⁴¹ The important aspect of all this is that we are entering a new era with our relationship to the landscape and the environment and it will be important that we keep our collective goals in mind and strive toward a more harmonious future with the environment.

⁴⁰ Jackson. Discovering the Vernacular Landscape, 151, 152.

CHAPTER 4: CONSERVATION IN KANANASKIS COUNTRY

Kananaskis has been forming for around 200 million years from the tectonic plates driving up the mountains.⁴² The peaks of these mountains were reformed during the last ice age when a sheet of ice a kilometer thick covered the region 12000 years ago, thus making the range smaller than the pre-glacier peaks.⁴³ Based on archeological evidence, the First Nations date back some 8000 years in the area.⁴⁴ I wouldn't be surprised to find out later down the road that First Nations were here even earlier that; this is because the ice free corridor that allowed much of the habitation of Latin America would have come through this region between the two major glaciers that covered Canada.⁴⁵ The first people were Neolithic and cave dwellers that remained in the region for approximately 4000 years.⁴⁶ In the early 18th century, the valley was under the control of the Blackfoot Confederacy (Blackfoot and Piegan) and co-habited by the Sarcee tribes. For thousands of years these people were completely dependant on the area. Everything they relied on for

⁴⁶ Alberta Environment and Parks, "Kananaskis Country: History," *Government of Alberta*, October 2016.



Glaciers covering Canada over 12 000 years ago Map by Ron Blakey

⁴² Alberta Environment and Parks, "Kananaskis Country: History," *Government* of *Alberta*, October 2016.

⁴³ Ibid.

⁴⁴ Oltmann, My Valley the Kananaskis, 10,11.

⁴⁵ Gayton, The Wheatgrass Mechanism: Science and Imagination in the Western Canadian Landscape, 109.

survival was regional based. This was true for the early explorers as well, such as James Sinclair in 1841, and John Palliser who made his expedition around the region in 1857-60 surveying resources for the government. He also would name the region after the legend of an aboriginal man who survived an axe blow to the head.⁴⁷ Other settlers would also embrace full dependence on the region. The most famous settler was George W. Pocaterra, who would spend many months at a time fur trapping in the Kananaskis Valley.⁴⁸ It wouldn't take long for industry to move in. Logging interests were being explored around the Bow River as early as 1880, mining around Ribbon Creek on Mt Kidd and Mt Allan were being explored in 1907, and Calgary Power was looking at sites for hydro-dams in 1912.⁴⁹

With the industrial age now in Kananaskis Country, so was the idea of semi-dependence. Although people were making a living in these industries, they would often rely on outside sources for their food and groceries.⁵⁰ Tourism early on did not have a major role in the region, but started out at the turn of the century when packhorse trips were made from the town of Banff following Spray River to the Spray Lakes. This would have been during the time when parts of Kananaskis Country were apart of the Rocky Mountain National Park (Banff) in 1902-1911, and then eventually turned over to the province of Alberta in 1930.⁵¹ The incredible increase in Calgary's population had an effect that was felt in the Valley beginning in the 1960's. Banff National Park was becoming crowded with Calgary's recreational outdoor enthusiasts, and that of the rest of North America and beyond. Consequently, the provincial forest reserves began to feel an expanding demand for recreational room. In

⁴⁷ Oltmann. My Valley the Kananaskis, 18, 21, 26.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Oltmann. The Valley of Rumours . . . The Kananaskis, 127.

⁵¹ Alberta Environment and Parks, "Kananaskis Country: History," *Government of Alberta*, October 2016.



Barrier Lake with Mt. Baldy in the background

forms: campgrounds, a youth hostel, cottages and a ski resort.⁵² By 1972 construction on highway 40, Kananaskis Trail, had begun. The new highway was to relieve pressure off Banff National Park, as well as on the eastern slopes where much of the forestry and cattle grazing was taking place. By 1977 Kananaskis Country was officially granted a status with the Alberta Heritage Fund, and just as Theodore Roosevelt did, we protected the headwaters from industry.⁵³ There are now new and improved campgrounds, day use areas for picnicking, fishing, boating, and cycle and hiking trails.⁵⁴ In addition, there are Cross-country skiing trails, restaurants, a lodge for handicapped people and senior citizens, a gas station, grocery stores, 36hole Kananaskis Country golf Course of international calibre, and Mount Allan has been developed for the 1988 winter Olympics downhill ski events, as well as for recreational skiing.⁵⁵ It has turned into a dependence for spiritual needs for the city dweller.

Ruth Oltmann makes the connection between dependence on the Kananaskis Valley and its direct relationship with environmental awareness in the conclusion of her first book, The Valley of Rumours....The Kananaksis. The connection between dependence and environmental awareness is clear. The more you are dependent on a place, the less you will recognize the environmental impacts that you are making as a society.⁵⁶ People who were completely dependent on the region, their actions were done on such a small scale in comparison that any impacts would be negligible. The industrial age ushered in a new relationship with the landscape, semi-dependent. Many of these workers livelihoods were based in the valley, for example, coal mining around Ribbon Creek. An example that Ruth witnessed was workers being greatly disturbed by a diseased animal, but would fail to recognize

- 55 Ibid.
- 56 Ibid.

⁵² Oltmann. The Valley of Rumours ... The Kananaskis, 95, 105, 124, 126.

⁵³ Ibid.

⁵⁴ Ibid.

the alterations on the landscape of the mine.⁵⁷ Our ability to perceive quality in nature begins, as in art, with the pretty.58 It expands through successive stages of the beautiful to values yet captured by language.⁵⁹ Globally, graziers have a real affection for and attachment to the animals they herd and the landscape they inhabit, certainly this is the case of ranchers the use Kananaskis Country.⁶⁰ Paradoxically, cattle grazing has posed one of the largest threats to the environment on the grasslands.⁶¹ The cattle ranchers are even further detached from Kananaskis than the mine workers for they generally live outside the region. The last category is independent, where we see the predominate use of K Country geared towards tourism and recreation. The example Ruth uses is of Elizabeth Rummel, who came to the Valley before the industrial age. She was not dependent on the Valley for her livelihood therefore, she appreciated the Valley for its aesthetic value alone.⁶² When they discovered in 1932 Calgary Power felling trees for the Upper Kananaksis Lake dam her and her family were heart broken and never went back again.⁶³ When you are not dependent on the valley for your livelihood, you become more aware of the danger of environmental damage than people were in the earlier years.⁶⁴ For example, the drive to protect animals from cruelty had begun like industrialism, in Britain in the early nineteenth century, which was a direct result of urbanization.65 Nearly all reformers were middle-class city dwellers. Critical and fearful of urban mechanization and poverty, they rued the loss of rural innocence, particularly farmers' affinity for their animals.⁶⁶ There is the economic question of conservation, that generally gets answered with tourism, but we should be wary. Industrial-



Image 33 Upper Kananaskis Lake photo by Geoff Reid

- 60 Manning. Revilding the West: Restoration in a Prairie Landscape, 172.
- 61 Ibid.
- 62 Oltmann. The Valley of Rumours... The Kananaskis, 127.
- 63 Ibid.
- 64 Ibid.
- 65 Manning. Rewilding the West: Restoration in a Prairie Landscape, 37.
- 66 Ibid.

⁵⁷ Oltmann. The Valley of Rumours... The Kananaskis, 127.

⁵⁸ Aldo Leopold, Michael Sewell, and Kenneth Brower. A Sand County Almanac With Essays on Conservation. (New York: Oxford University Press, 2001), 160.

⁵⁹ Ibid.

strength tourism in nation parks is arguably more damaging than grazing. Our sense of duty to the landscape, in fact, our self-interest in preserving its integrity, is evolving, and many ranchers are ahead of the rest of us in the process.⁶⁷ Education for the current users of Kananaskis Country needs to be implemented because we are becoming increasingly detached. Professionals have increasingly run governments and less by lay citizens, and the representational process has gotten more and more people less involved. Moreover, urban specialization freed us from dependence on local ecology, which has impacted our collective identity.⁶⁸ The union of ecology and democracy is essential for making a sustainable future and providing us with greater happiness.⁶⁹ The final steps with these ideas are the translation of them it into an architectural language. The dependent people were living in Tipis, canvas tents, or roughly built shacks. The semi-dependent people living in log or stick frame homes with concrete foundations. What we haven't' seen in Kananaskis Country yet is the translation of architecture representing our new outlooks with the environment in mind, being independent of and improving our relationship with the landscape.

⁶⁷ Manning, Rewilding the West: Restoration in a Prairie Landscape, 172.

⁶⁸ Randolph T. Hester, *Design for Ecological Democracy* (Cambridge, Mass.: MIT Press, 2006), 5-7.

CHAPTER 5: THE BARRIER LAKE RESEARCH CENTRE

The largest and most lasting industry in the K Country has been research; it has extended from 1934 to the present day.⁷⁰ The first site to establish research facilities was present day Barrier lake research centre. It was chosen because of its location being an excellent sample of the typology of forest in the valley.⁷¹ The Colonels' Cabin was the first built in 1936 but was taken over by the Department of Defence in 1939.⁷² By 1948 the site returned to its original program of forestry studies. They had initially hoped to acquire buildings from the abandoned Ribbon Creek mining town, but in 1964 the University of Alberta allocated 100,000\$ to build new facilities by 1965 the first stages of the laboratory had been completed.⁷³ By the 1970's they had developed the following programs: studies on decomposer systems, environmental chemistry and physiology, large mammal studies, production on Rocky Mountain ecosystems, aquatic biology, land management and geomorphological investigations.74 Today the site has multiple buildings that vary in program from offices of forestry workers to sleeping quarters for students and can accommodate nearly 100 people.⁷⁵ This site is one of three research facilities in Kananaskis Country. The buildings of the Barrier Lake Research Centre have come to the end of their life cycle. They are currently (January 2017) clearing out of the buildings for major renovations. And I believe this is an opportunity to design a building that is up to date with our current perceptions rather than reuse old building that are stuck in the past.

70 Oltmann. The Valley of Rumours... The Kananaskis, 61-72.



Colonels' Cabin photo by Barry Taylor



PoW camp in 1940's photo from Edmonton Journal



Science lab building 2016: Photo from Adrienne Cunnings



Forestery buildings 2016: Photo from Adrienne Cunnings



One of the duplexs 2016: Photo from Adrienne Cunnings

⁷¹ Ibid.

⁷² Ibid.

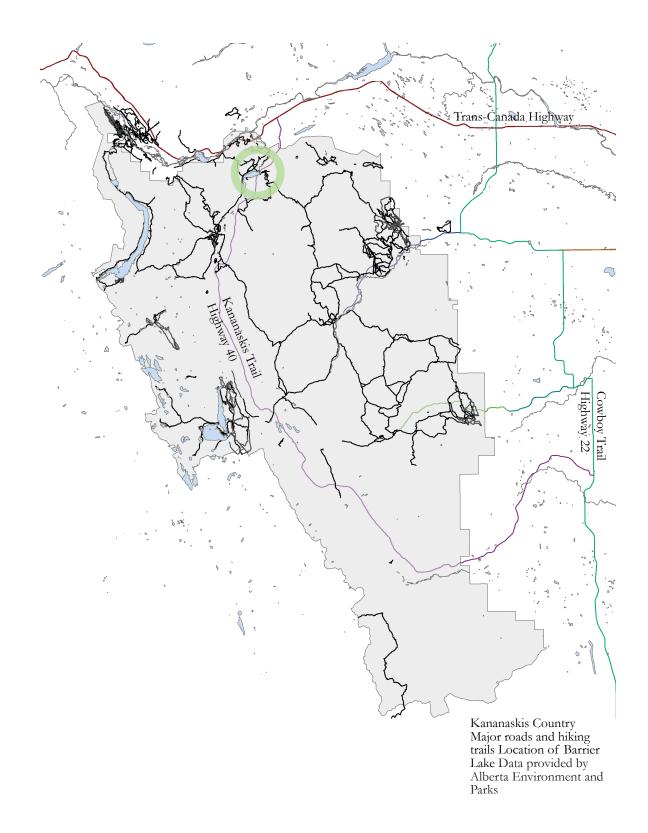
⁷³ Ibid

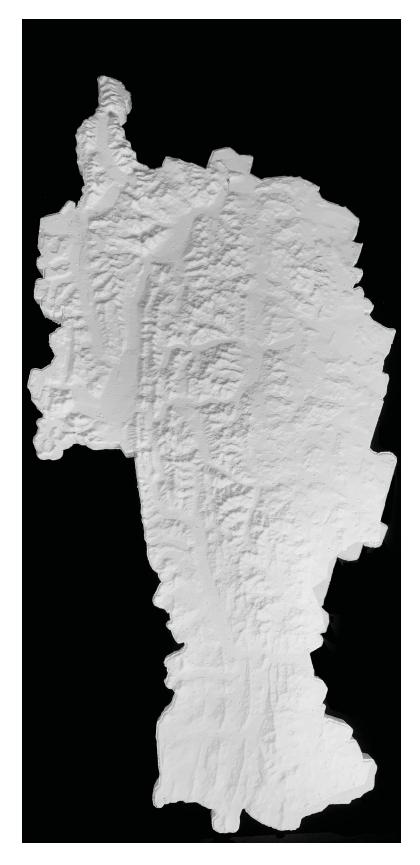
⁷⁴ Ibid

^{75 &}quot;BGS Institute: Field Station Facilities" University of Calgary, accessed on January 27, 2017, https://bgs.ucalgary.ca/facilities/facilities

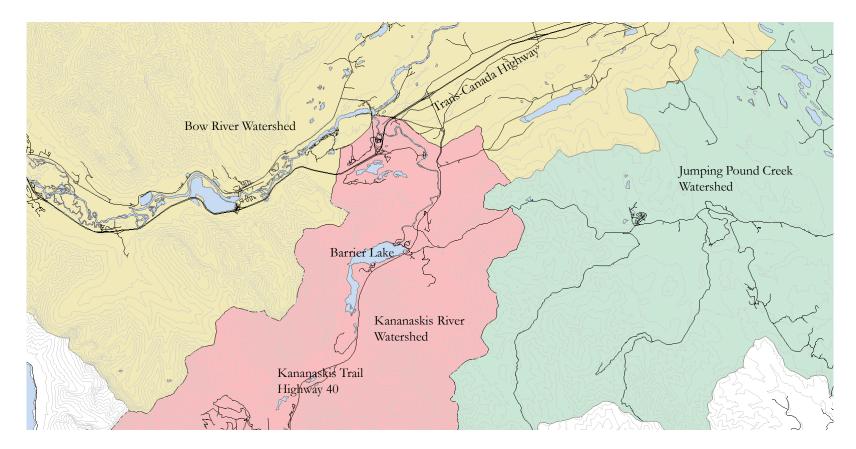


Barrier Lake Research Centre 2016; photo from Adrienne Cunnings

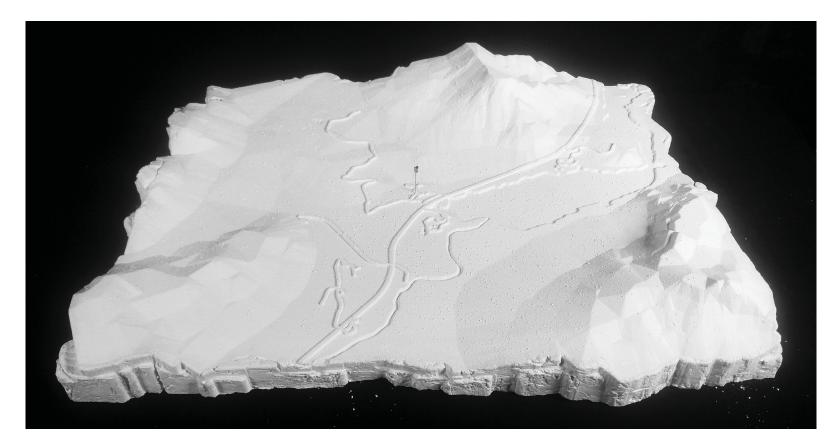




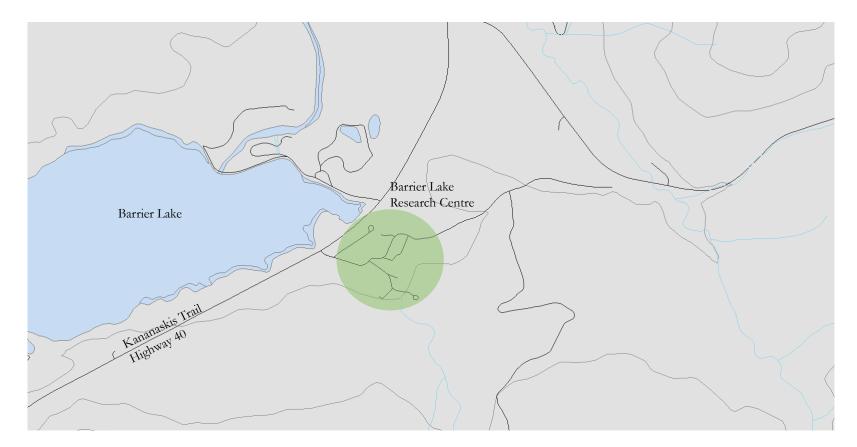
Kananaskis Country Plaster model 1:100 000



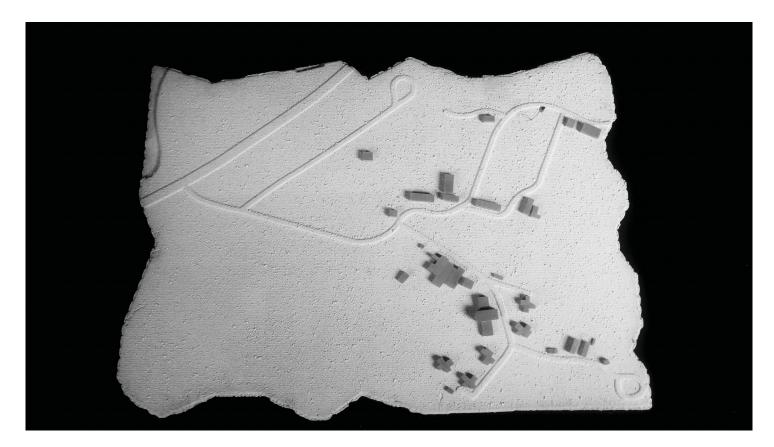
Topographic map Watersheds 1:10 000 Data provided by Alberta Environment and Parks



Barrier Lake Mt. Baldy Pin= research centre Plaster Model 1:10 000



Topographic map 1:5 000 Data provided by Alberta Environment and Parks



Barrier Lake Research Centre Plaster Model 1:1 000

CHAPTER 6: OBJECTIVES

DESIGN WITH THE LANDSCAPE

One of my first objectives was to design with the landscape, and not conquer it. This means it has to be contextually responsive. In an interview with Rem Koolhaas, the describes a new stream of inspiration for architecture coming from preservation. The beautiful thing about preservation, Koolhaas states, is that when you begin with something that already exists, it is already local. By definition, a preservation project is a homage to earlier cultures and mentalities to which you can add a new dimension, a new function, a new beauty, or appeal.⁷⁶ This is adding to the idea of layered landscape. In addition to Koolhass, Randolph Hester says that by emphasizing the landscape, it will in itself create local identity. By emphasising the regional ecology, it creates uniqueness on itself, bringing emphasis to the landscape and the local culture.⁷⁷ When thinking about ecological building there is a need for a variety of detailed site studies, building form, orientation analysis, and local climate considerations.⁷⁸ There needs to be optimization, integration of building systems, and combining technological solutions with passive systems to improve performance. Buildings of the future should utilize state-of the art materials and technologies in order to minimize energy demand and thus actively protect the environment.⁷⁹ Michael Lauring argues a term, ecological architecture, is loaded with cultural meaning; it changes over time and there is no clear definition. Lauring continues by suggesting a new definition that could combine aspects from the technological, cultural, systems-based and user-focused strategies.⁸⁰



⁷⁶ Diana Budds, "Rem Koolhaas:"Architecture has a Serious Problem Today"," Ca.Design, May 21, 2016, https://www.fastcodesign.com/3060135/remkoolhaas-architecture-has-a-serious-problem-today

80 Ibid.

⁷⁷ Randolph, T Hester. *Design for Ecological Democracy* (Cambridge, Mass.: MIT Press, 2006).

⁷⁸ Terri Peters, "Interconnected Approaches to Sustainable Architecture," Architectural design 81, no. 6 (2011), 14.

⁷⁹ Ibid.

Ecological architecture could harness the poser of new technologies and tools not solely to optimize and minimize, but also to advance social and cultural agendas. This could allow ecological design to become more architectural, towards specific strategies and processes that use a place based approach.⁸¹ Important to recognize is the possibility of subtle information transfer from the perceived back to the perceiver, laying the foundation for our need for landscape.⁸² Rocks, grasses and mountains may have influence, something aboriginal cultures acknowledge and we have long suspected.⁸³ Sacredness manifests fundamental convictions requiring sacrifice, values worth defending, and virtues to be attained.⁸⁴ I instantly think of hard labour that results in pride and greater self worth. The landscapes that we then create express our essential nature, our spirit, and the animating force of our existence.⁸⁵ Sacred landscapes, then, are places that are consecrated by sacrifice and special treatment, and endowed by a community with the power of highly revered convictions, values and virtues.⁸⁶ These are experienced through the ritual use of those places.⁸⁷ Today prospect-refuge, biophilia, and ecological spiritualism serve contemporary needs for these expressions, often attempting to reconcile paradox and contradiction, and reconnect with primal forces.⁸⁸ I see Kananaskis Country being a sacred landscape, and this calls for the establishment of ethics on how to treat the landscape based on this notion. All ethics thus far rest upon a single premise: the individual is a member of a community of interdependent parts.⁸⁹ His instincts prompt him to compete for his place in that community, but his



81 Terri Peters, "Interconnected Approaches to Sustainable Architecture," *Architectural design 81*, no. 6 (2011), 15.

85 Hester, Design for Ecological Democracy, 117.

- 87 Ibid.
- 88 Ibid.

⁸² Gayton, The Wheatgrass Mechanism: Science and Imagination in the Western Canadian Landscape, 57.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁶ Ibid.

⁸⁹ Leopold Sewell and Brower, A Sand County Almanac With Essays on Conservation, 171.

ethics prompt him also to co-operate.⁹⁰ The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: land.⁹¹ A land ethic of course cannot prevent the alteration, management, and use of these "resources," but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state.⁹² In short, a land ethic changes the role of people from conqueror of the land-community to a plain member and citizen of it. It implies respect for his fellow-members, and community.⁹³ No longer should we rely on technological fixes, but design with "sustainable" ideas deeply imbedded into our designs.

ENCOURAGE COLLABORATION

In the Wheatgrass Mechanism by Don Gayton, he participates in a science conference in Bragg Creek on the edge of Kananaksis Country. Bragg Creek lies, in what ecologist call a zone of tension, where montane forest vegetation meets with prairie grasslands.⁹⁴ Fingers of each mesh together and they begin to look like each other: the prairie is long and shaggy, and the open woods are full of grass.⁹⁵ The conference of scientist then goes out into the field to examine and determine the damage caused by grazing in a near field. Inappropriate plants like timothy and white clover were present, two cultivated species that don't belong in native grassland.⁹⁶ In this case, cows must have been acting as mechanisms of succession. They would have been moved to this pasture from some cultivated pasture somewhere, bringing seeds of the foreign plants in their rumens.⁹⁷ After hours of debate, they failed to reach any kind of



⁹⁰ Leopold Sewell and Brower, A Sand County Almanac With Essays on Conservation, 171.

92 Ibid.

93 Ibid.

96 Ibid.

97 Gayton, The Wheatgrass Mechanism: Science and Imagination in the Western

Indian ink drawings

⁹¹ Ibid.

⁹⁴ Gayton, The Wheatgrass Mechanism: Science and Imagination in the Western Canadian Landscape, 52-59.

⁹⁵ Ibid.

conclusion about the grazing land status. Gayton ends the chapter by suggesting if they had people there that had been trained in different modes of observation, such as poets or painters, they could have aided in drawing out different patterns.98 One of the biggest criticisms of the scientific model of testing is the isolation of a single variable at a time, which destroys the essence of real-world systems.⁹⁹ Out of this comes the idea of holistic approaches to problems and opportunities, including design. Connectedness enables, disconnectedness disables.¹⁰⁰ We seem to be on a pendulum swing where a revitalized sense of aggressive stewardship is needed to counterbalance the harmful effect of individualism, selfishness, and greed.¹⁰¹ Inclusiveness is key.¹⁰² When approaching design, form that follows function too strictly, produces lifeless efficiency and spiritless convenience, although rational and scientific, is machine like living.¹⁰³ Our new approaches to design should be wary of function that becomes the primary principle, overwhelming more humanistic intents. Participation, wisely and fairly pursued, interjects our best objectives, among which is the pursuit of the sacred.¹⁰⁴ One key to encouraging collaboration is adaptability in design. Some keys to adaptability are: maintaining flexibility above all else, spaces with permeability are more flexible than spaces with hard edges, spaces that are subdivided: two equal spaces are less flexible than unequal spaces, investing more in the structure than the finishes, one sizable indooroutdoor space is more adaptable than many tiny ones, and adaptability is provided, foremost, through particularness and limited extent.¹⁰⁵





- 99 Ibid.
- 100 Hester, Design for Ecological Democracy, 49.
- 101 Ibid, 375.
- 102 Ibid.
- 103 Ibid, 117.
- 104 Ibid.
- 105 Ibid.

Canadian Landscape, 52-59.

⁹⁸ Ibid.

There is an urgent need for new knowledge relating to the global, multidisciplinary issue of sustainable design.¹⁰⁶ Two main ways in which architects are responding to the emerging brief of sustainable building are firstly by bringing new knowledge from outside the profession into design teams, and secondly by attempting to create this knowledge from within the design team or office.¹⁰⁷ This is a great premise of the need for collaboration to start at the design phase and not just with the outcome of the building.

BRING OUR INTERCONNECTEDNESS TO THE FOREFRONT

Landscapes, are not merely soil; they are a fountain of energy flowing through a circuit of soils, plants, and animals.¹⁰⁸ The velocity and character of the flow of energy depends on the complex structure of the plant and animal community.¹⁰⁹ The interdependence between the complex structure of the land and how it functions as an energy unit is one of the basic attributes of the circuit.¹¹⁰ When a change occurs in one part of the circuit, adjustments are made in other parts. Change does not necessarily obstruct or divert the flow of energy; evolution is a long series of self-induced changes, the net result of which has been to elaborate the flow mechanism and to lengthen the circuit.¹¹¹ Evolutionary changes, however, are usually slow and local. Man's invention of tools has enabled him to make changes of unprecedented violence, rapidity, and scope.¹¹² And this is the biggest problem when associating our disconnect to place and the local ecology. Yet, if we are to learn to reassemble some of



111 Ibid.

112 Ibid.

¹⁰⁶ Peters, Architectural design 81, 16.

¹⁰⁷ Ibid.

¹⁰⁸ Leopold Sewell and Brower, A Sand County Almanac With Essays on Conservation, 181.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

the productivity, we must know something of the landscape's original condition, and the relationships among its entire species, including humans.¹¹³ Part in what makes an ecosystem endure is the coevolved species, a given collection of plants and animals that evolution has fine-tuned, not just to exist in place, but to exist and thrive in the presence of one another.¹¹⁴ The ordinary citizen today assumes that science knows what makes the community clock tick; the scientist is equally sure that he does not. He knows that the biotic mechanism is so complex that its workings may never be fully understood.¹¹⁵ To counter the decline in local knowledge caused by placelessness and technology, many programs teach lost skills and build a constituency for public place.¹¹⁶ Scientific understanding and shared experiences reunite people with other people in their community and the ecosystem within which they dwell.¹¹⁷ This was important when I was designing the research center. It should be a place of education and discovery.

ENCOURAGE STEWARDSHIP

There has been movement towards democracy around the world, but not with ecologically based thinking involved.¹¹⁸ There is a problem for how participatory democracy and landscape ecology have developed. Landscape ecology comes from a top down approach and there is skepticism in trusting the public to do their part.¹¹⁹ Good architecture make us aware of our oneness with the distinctiveness within our ecosystem; this gives identity to place, and thus impelling form produces stewards.¹²⁰ Traditionally a steward watched the land for the landlord, took care of the landscape and watched over the workers. Required was a constant

- 116 Hester, Design for Ecological Democracy, 369.
- 117 Ibid.
- 118 Ibid, 5-9.
- 119 Ibid.
- 120 Ibid.



¹¹³ Manning, Rewilding the West: Restoration in a Prairie Landscape, 16.

¹¹⁴ Ibid.

¹¹⁵ Leopold Sewell and Brower, A Sand County Almanac With Essays on Conservation, 171.

presence in the landscape, a balance, a commitment of hard work to serve the land so that the land serves you.¹²¹ Stewardship involves actions taken to maintain, restore, and improve one's community, the landscape, and larger ecosystems.¹²² Reciprocal stewardship is grounded in an intimate knowledge of and love for his cultural and biological landscape, which lead one to take active responsibility for the people and the place around them.¹²³ Comprehending the interconnectedness of people and place spurs one to voluntary action far beyond self-interest.¹²⁴ There needs to be a wide range of settings for people to engage in stewardship activities such as: ones yard, neighborhoods, private farmland, in public wildlands, through a region, and in international flyways.¹²⁵ By careful location based on everyday life patterns and intentional futures, places of stewardship can create center, limit extent, and express particularness essential to ecological democracy.¹²⁶ Settings should be designed to offer hands-on learning regarding locality, hard physical labour, and occasions to restore damaged ecosystems.¹²⁷ Landscapes should be designed to invite stewards to partner with others, cooperatively sharing expertise and labours. By caring actively for land, our locality, and other people, we reap extraordinary personal and public benefits.¹²⁸ It is inconceivable that a ethical relationship with the land can exist without love, respect, and admiration for the land, and a high regard for its value.¹²⁹



121 Ibid.

- 122 Ibid.
- 123 Ibid.
- 124 Ibid.
- 125 Ibid.
- 126 Ibid.
- 127 Ibid.
- 128 Ibid, 385.
- 129 Leopold Sewell and Brower, A Sand County Almanac With Essays on Conservation, 189.

Indian ink drawings

REINFORCE COMMUNITY AND COLLECTIVE IDENTITY

People form societies and landscape in particular ways and give their place of habitation a special identity.¹³⁰ Landscapes may be rendered sacred as embodiments of personal and cultural identity and history.¹³¹ Sacred spaces form, embody, and symbolize our highest values, convictions, and virtues, but they also make visible our efforts to comprehend mysteries and profess faith.¹³² They provide orientation, worldview, identity and rootedness. They express our beliefs in comprehensible form.¹³³

Looking again at the ideas of Koolhaas on preservation, I wanted to emphasize the points on how these projects reinforce earlier cultures and mentalities through the use of landscape preservation. 134 What makes preservation projects important for community building is celebrating the past culture, and for collective identity it is emphasizing the uniqueness of local ecology. For community members to work together, they must share interests and have places that draw them together for face-to-face civic engagement.¹³⁵ This aggregate of shared experiences, activities, and interests, and of associated settings is called centeredness.¹³⁶ Centres are essential for economic complexity, local identity, and rootedness. They build socio-spatial capital, enhance deliberative democracy, and incubate ideas regarding locality.¹³⁷ Centres are places where people gather to undertake many different activities. They are focal points and nodes of activity and interest that serve as points of orientation, and invite investments of time and energy.¹³⁸ Good centres are surprisingly easy to create when their importance is recognized and their advantages



¹³⁰ Hester, Design for Ecological Democracy, 132.

¹³¹ Ibid, 118.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Budds, Rem Koolhaas:"Architecture has a Serious Problem Today"

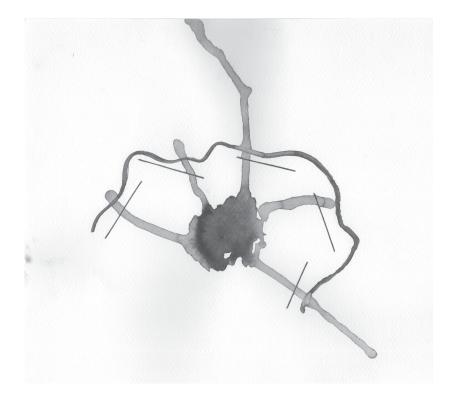
¹³⁵ Hester, Design for Ecological Democracy, 21.

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

are embraced.¹³⁹ The new research center could be the centre for conservation and ecological ethical ideals moving forward.



Indian ink drawing around centeredness

¹³⁹ Hester, Design for Ecological Democracy, 21.

CHAPTER 7: METHODOLOGY AND DESIGN









Watercolour exploration



Watercolours

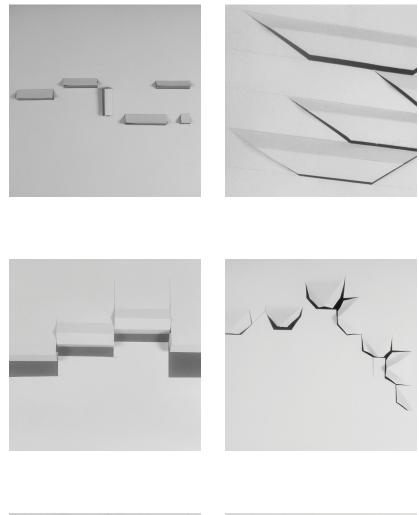


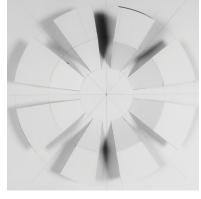






Watercolours with abstracted buildings of the current Barrier Lake research centre at 1:1000





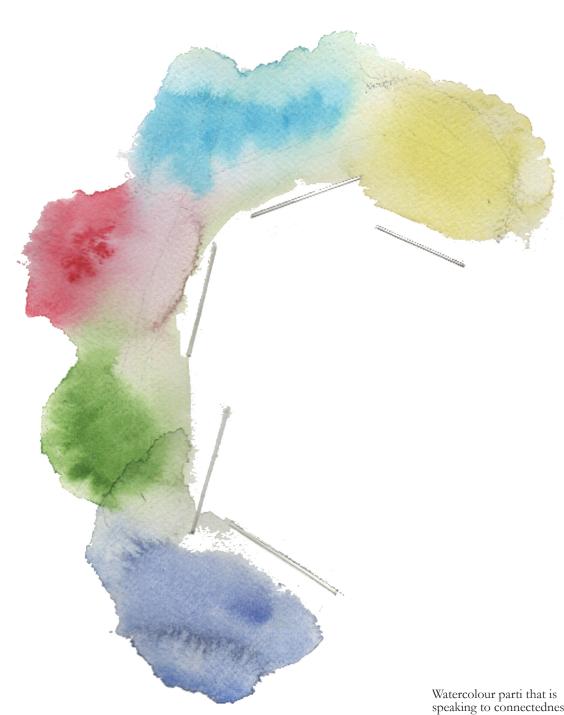


Form finding exercise by cutting and folding paper

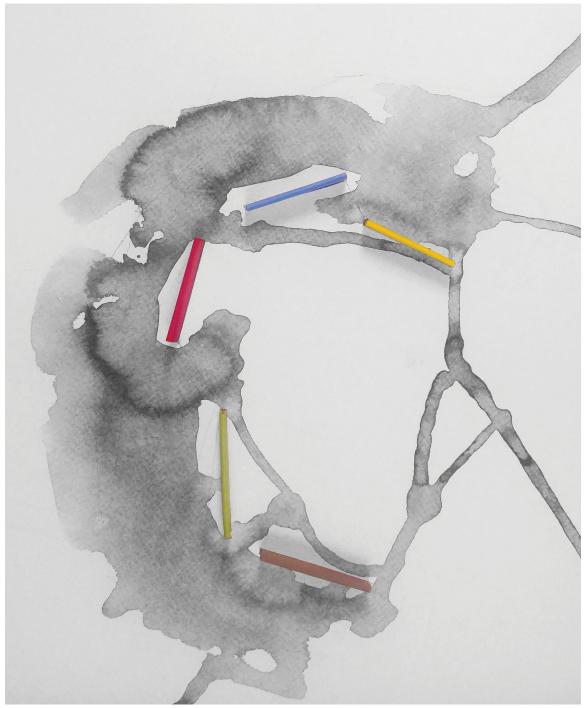




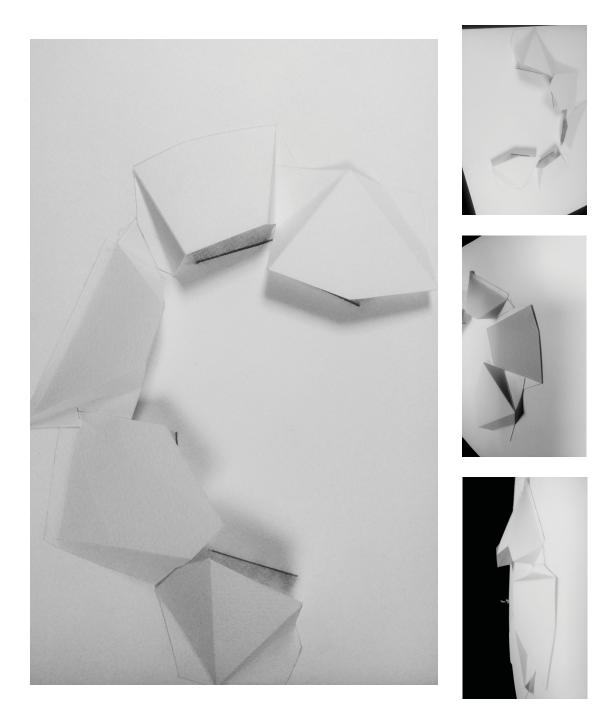
Shadow studies: December 21 on the left and June 21 on the right. This helped determine the placement of the building on the site by pushing it to the north end.



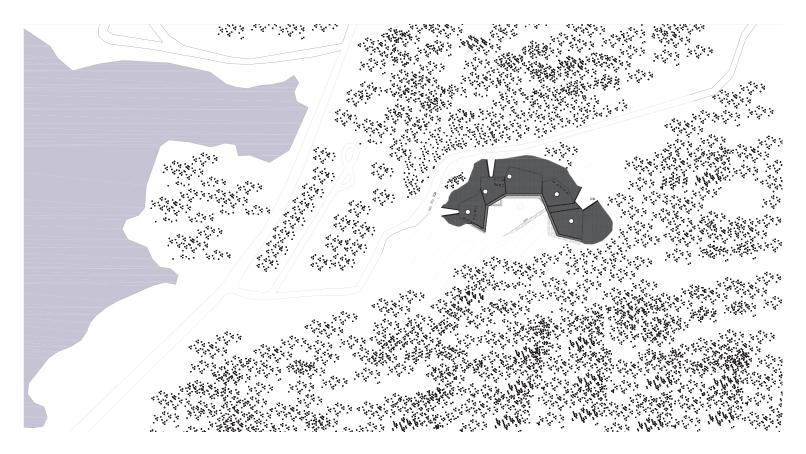
Watercolour parti that is speaking to connectedness in the program.



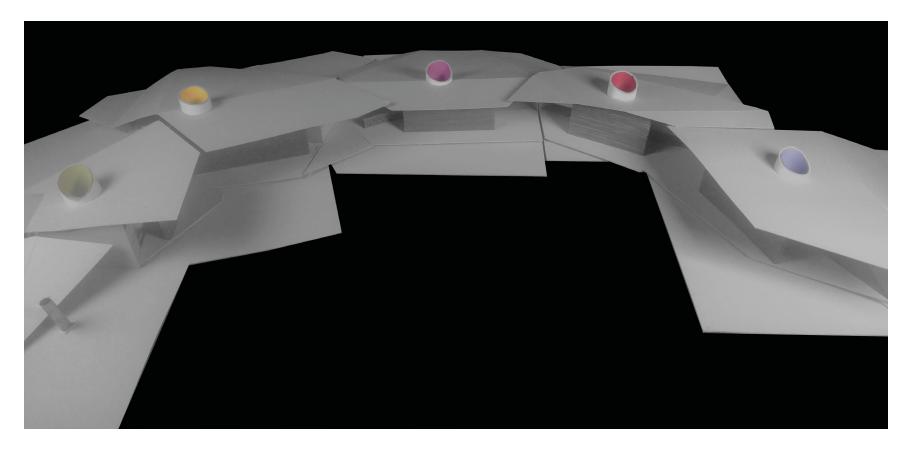
Indian ink and folded paper parti that is speaking to passive energy ideas and circulation



Form is discovered through this folded paper model

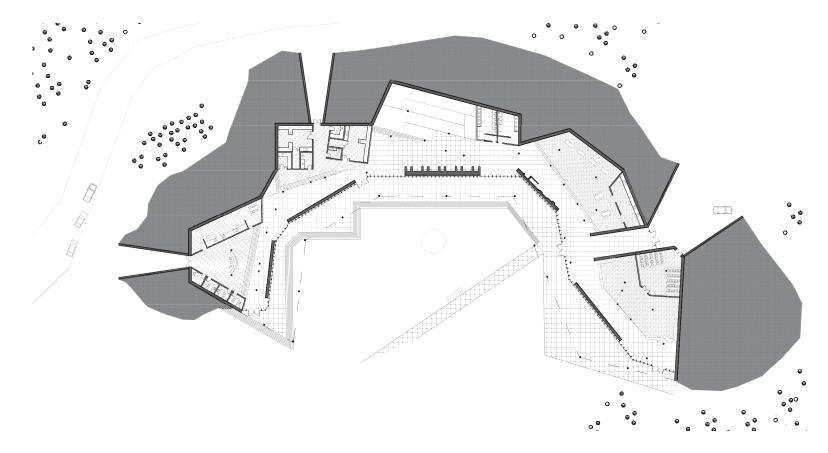


Site plan 1:4000





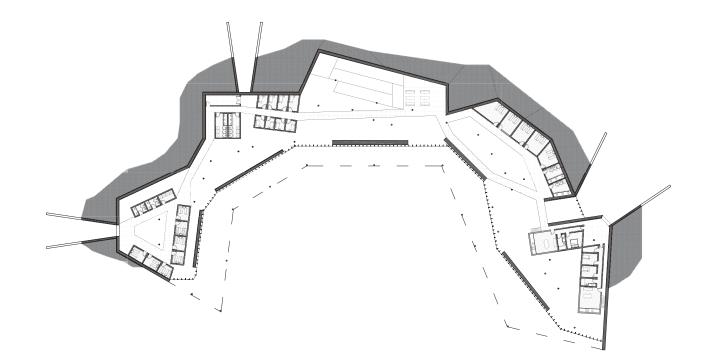
Card sketch model 1:100



Ground Floor plan 1:1000



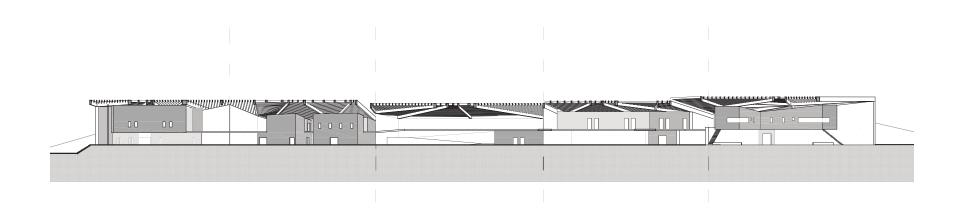
Watercolour ground floor plan



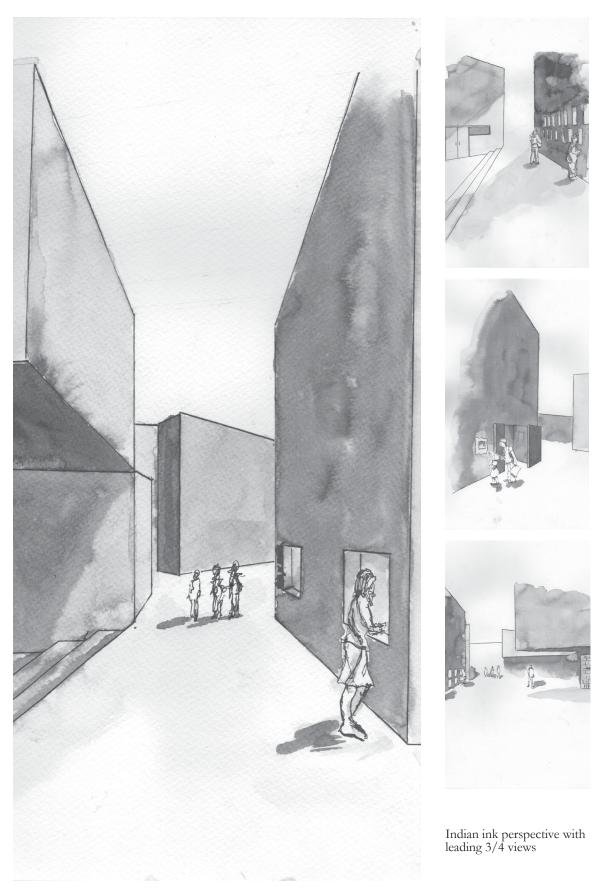
Second Floor plan 1:1000



Watercolour second floor plan

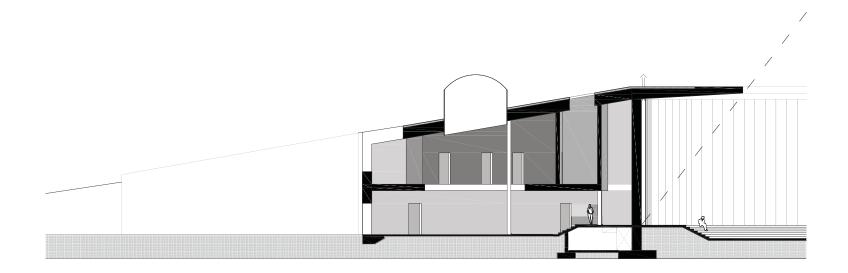


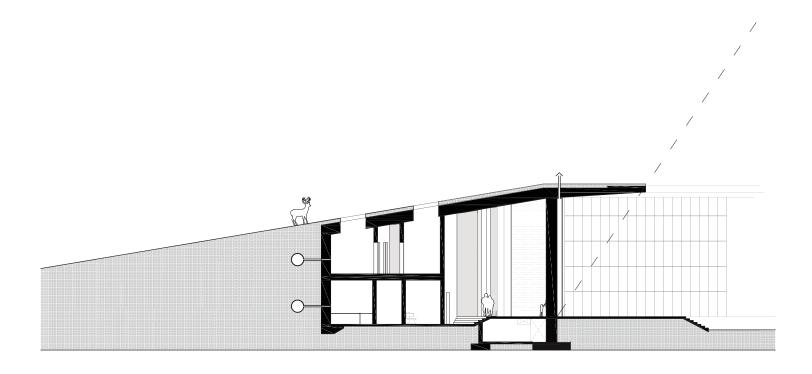
Roll out section

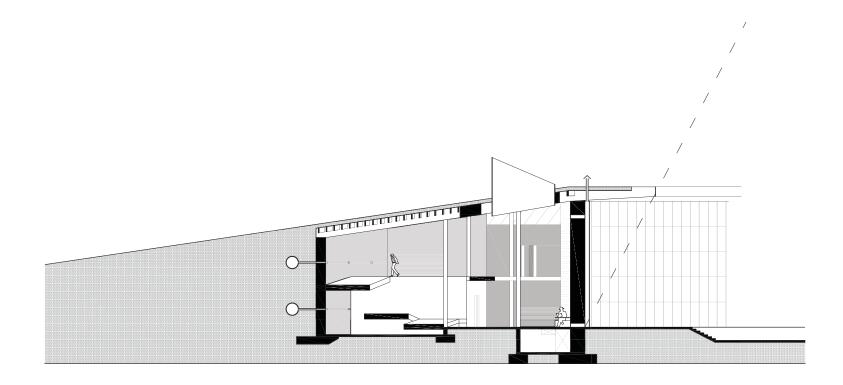


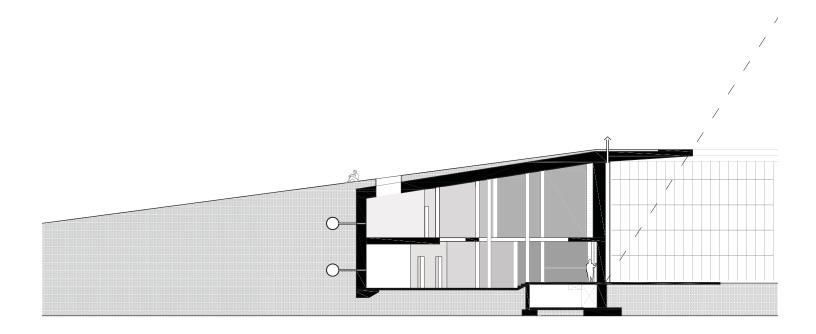


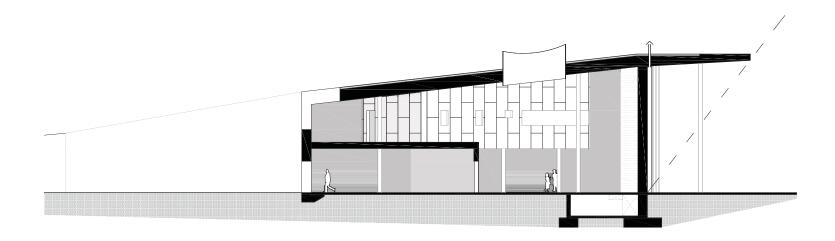
Indian ink view outside at Mt.Baldy

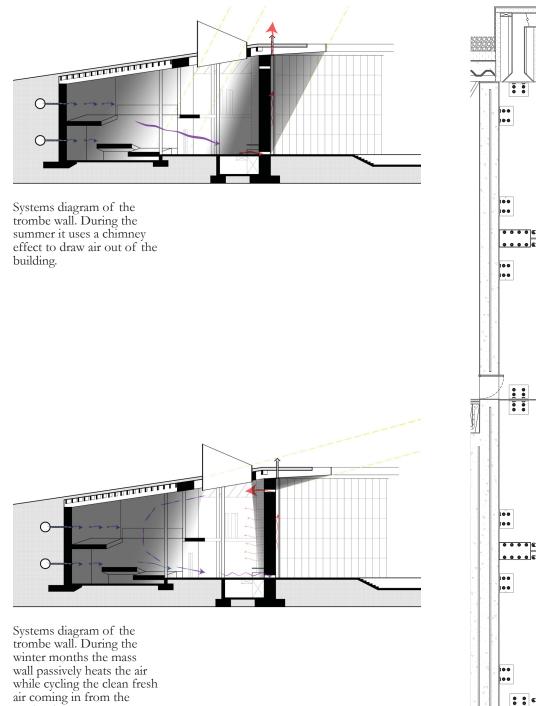




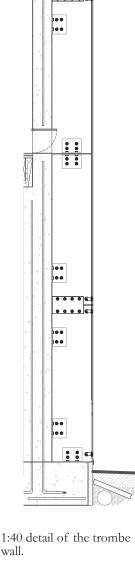








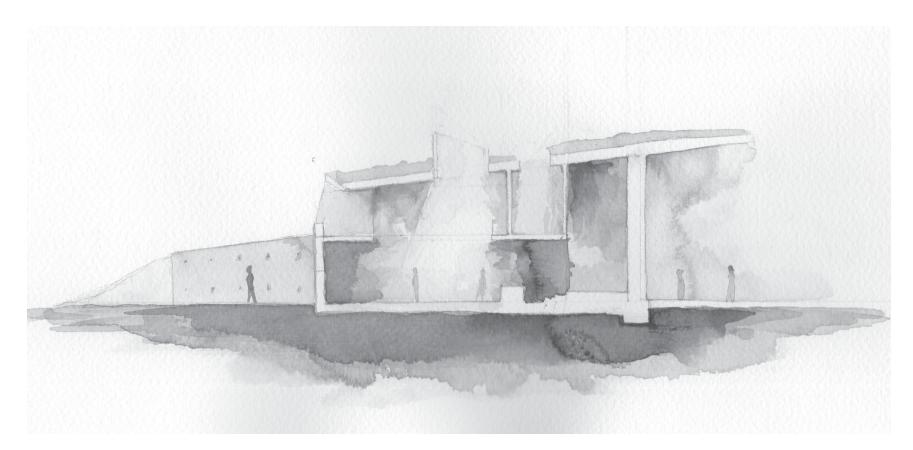
earth tubes.



wall.



Indian ink Section of the bay 3



Indian ink Section of bay1



Indian ink perspective of outdoor centre

CHAPTER 8: CONCLUSION

Kananaskis is a sacred landscape, from the onset I have always been interested in our relationship as a society we have to this place. One key take away from this thesis is the understanding that landscape is largely man made. The way we think about the world has direct impacts in the way we morph the landscape. The way we morph the landscape has been done through the buildings we construct and the fields we plough. Analysing the morphology of the landscape through terms of vernacular and political I began to sort out what I love about Kananaskis Country. My sense of nostalgia was always bringing me back to the vernacular, a romantic notion of the cattle drive or camping in the mountains, experiencing the wild, just has Roosevelt had intended to preserve it. The obvious political structures in Kananaskis had brought distaste; the dam, highway 40, the power lines were all disruptions in the beauty of the landscape. The realization that the political interventions in the landscape were also there to support the vernacular, aesthetic qualities and the ecological integrity of Kananaskis Country was a start of a new understanding of landscape. It is about balance in the landscape: the permanent and the mobile, the picturesque and the inhabited, sort-term solutions and long-term goals.

The complexity of the landscape should not be underestimated, and considerable effort should be taken in pursuing a deeper understanding. We find ourselves in a time that understanding and connection to landscape is at a critical point of being lost, a by-product of the placeless modern city. The further we specialize in an area, such as architecture or science, the more we become disconnected from the whole. As we have started to search for these connections more and more vigilantly, the understanding may not come from suspected areas of study, but from the holistic approaches. In our pursuit, it is important to stay openminded and try and gain insight from other professions. Such as how an artist sees colours, engineers see load paths, how poets understand struggle, and how architects find form. Cross collaboration in program was at the heart of this project, finding ways to gain influence and greater understanding from other professions.

Attempting to reconnect with the landscape led to ideas about conservation and preservation. These ideas drove the project to try and further develop a land ethic in which we can, as a community, gauge our actions. It is not just about finding a proper set of ideals and morals and having them set in stone, but setting a stage for them to develop and evolve over time so that we can act accordingly. In this case, the stage takes the form of the research centre and artist residency with emphasis on public education. Going forward with these ideas the intention was to develop people into stewards of the landscape, with the understanding that being a steward of a sacred place, such as Kananaskis Country, is a labour of love.

The direct manifestation of these ideas finds its form in the architecture we develop whether it is in vernacular or political terms. The question becomes, how do we want our buildings to interact with the landscape? What are our beliefs and how do we want our ideas to be represented through the alterations of the landscape? Should there be deeper integration and reading of the landscape or does one develop buildings that ignore their context? How do we set the stage for our current ecological needs and allow them to develop. These are ethics and philosophies that we as architects need to develop. The research centre revolves around the approach of a deeper reading into the landscape and environmental context. It utilizes the sun for passive heating in the winter and prevents over heating in the summer through passive ventilation. The centre becomes part of the land allowing the landscape to crawl on to the roof, thus reducing the fragmentation of plant and animal habitat. Through the design I am also moving away from a traditional strict grid and much of what I designed is based on experience rather than efficiency, in an The research centre is a political venture; I believe this is an important tool to further develop a positive collective identity through emphasising the uniqueness of our surroundings both physical and cultural. The goal is that the centre becomes a place where people gather for their daily, monthly or even annual rituals. The centre would then produce a greater appreciation and a greater understanding of Kananaskis Country and a sense of rootedness would then be achieved.

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