THE ENGAGEMENT OF ARCHITECTURE & LANDSCAPE:
CRAFTING AN ARCHITECTURAL ECOTONE

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THE ENGAGEMENT OF
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"The real voyage of discovery consists not in seeking new landscapes but in having new eyes."

- Marcel Proust
This thesis explores architectures dedicated to making the experience of the picturesque landscape accessible to humans. By examining the important role that the natural world plays within human existence, the unique qualities presented by architecture-nature relationships and the social and cultural context of 'nature dwelling', a contribution can be made to the design of architecture that exists in engagement with its site. The thesis proposes borrowing an ecological concept to develop the metaphor of an architectural ecotone which serves to describe a realm of architecture that embodies transition and reconciliation between landscape and constructed form. The thesis applies its findings to develop a 'kit of parts' design strategy for the investigation of elemental, integrated and site-specific assemblies for 'nature dwelling' in Bon Echo Provincial Park, Ontario. These assemblies seek to reconcile landscape-building conditions and provide the inspiration for the design of three small retreats within the landscape.
INTRODUCTION

The relationship between architecture and its site has long fascinated humans. In fact, in a very general sense, the rural landscape is a doorway to the field of architecture as a whole. Indeed, in rural and sparsely built areas, the manner that a work of architecture engages with its site captivates the public and holds special interest. It is for this reason that Frank Lloyd Wright’s Fallingwater® - a rural house memorably cantilevered above a waterfall - is one of the most famous and widely known works of architecture. Indeed, the immutable quality of ‘nature’ has an effect on us, conjuring reactions and appealing to us in a physical, emotional and even a spiritual manner. When juxtaposed against the qualities of a built form, truly inimitable circumstances are generated. The work of architecture’s sited-ness, in particular in ‘natural settings’, is, however, often idealized and oversimplified. Terms such as ‘natural architecture’, ‘organic architecture’ and ‘green architecture’ all attempt to define a kind of building that unfolds a privileged relationship with site. These terms, it must be said, are often vague and contradictory, prompting an incomplete understanding of a potentially very rich architectural question.

In far too many cases, the design process merely places an architectural mass upon the ground, blissfully ignoring the cues presented by respective site qualities and potentials, and as such misses tremendous opportunities to create rich experience and, reciprocally, to contribute to the site in a positive way. Might one be able to conceive of an architecture that both proffers rich and meaningful experiences to the dweller while at the same time benefitting the site itself, by revealing it, and contributing, in some way, to a deeper environmental understanding? Focusing on Canadian landscape traditions, this thesis is interested in the question of the work of architecture in the natural setting as a privileged architectural question. More specifically, this thesis considers this specific case of architecture as one where the act of habitation and the construction of the architectural site happen together. Leaning on Heidegger’s definition of dwelling as an act that reconnects landscape and body, this thesis explores the small rural retreat as a construction dealing with phenomenological orientation and anchoring. In probing this special case of architecture, this thesis seeks to articulate more precisely the role played by architecture in the primordial act of habitation of humans on the earth, and contemplates the notion of an indissociability of architecture and ‘landscape’ whereby each exists in relation and en-
INTRODUCTION

Ecotone originates from:

eco: the term ecology, which was coined by the German zoologist, Ernst Haeckel, who applied the term ökologie to "the relation of the animal both to its organic as well as its inorganic environment."

Haeckel developed ökologie from Greek oikos, meaning 'household' or 'home'.
tone: Greek tonos, meaning tension or tightening.

Ecologists define 'ecotone' as the "transitional area of vegetation between two different plant communities, such as forest and grassland. It has some of the characteristics of each bordering biological community and often contains species not found in the overlapping communities. An ecotone may exist along a broad belt or in a small pocket, such as a forest clearing, where two local communities blend together."

Borrowing this concept for architectural purposes, an architectural ecotone would define a class of architecture situated in a transitional area between two different environments: the built and the natural.

An architectural ecotone exhibits an architecture that is deeply influenced by the topography, landforms, vegetation and other landscape conditions that it exists within. It establishes a situation where the landscape and the architecture each hold equal importance and wherein the landscape "receives the building and in the process not only accommodates and shapes it but also is shaped by it."

The culmination of this thesis shall be the design of a project that exists in the realm of an architectural ecotone for a site in Bon Echo Park, Ontario, and will be presented in Part 4.

The idea of nature as a superior and healing power has long influenced Canadian and North American culture. Nature tourism and national parks developed historically to allow the citizen to escape into the 'wild'. In Canada, the act of retreating into 'Nature's realm', which many Canadians partake in during their leisure time, demonstrates a deeply held cultural fascination for this country's vast environment. Canadian architecture, too, reserves a special place for buildings in nature, and even, nature in buildings. The act of bringing 'nature' directly into the urban realm demonstrates just how much of an integral role it plays in the life and minds of people. Though urban life can be seen as more organized, coherent and controlled, there is still at the human core, the desire to withdraw from the city's measured conditions into an environment of unpredictability, sublimity and repose. The cottage or cabin and the idea of camping provide the means for human intervention within the landscape to physically epitomize human's desire to fuse with their natural environment in an act that brings greater dimension to their mortal existence. As Scottish-born American naturalist, John Muir wrote: "Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul."

In order to probe the idea of the architectural ecotone metaphor, this thesis will investigate the modalities of architecture's relationship to 'site' and to 'nature', and attempt to isolate a number of primordial landscape - building conditions. The thesis will also propose architectural systems and strategies to respond and organize these conditions. As the thesis aims to focus upon essential conditions, the architectural propositions shall be small in scale, strictly


A 'ecology'. Encyclopaedia Britannica Online.
B 'tonos'. Encyclopaedia Britannica Online.
abiding by minimal conditions of life in nature.

Part 1 of this thesis explores the framework of the dialogue between nature and human existence, examining the special relationship between the natural world and the human world. Part 2 explores cottage and camping traditions in Canada and the national park system, in order to probe the social, political and architectural precedents of landscape-oriented constructions. As a way of exploring and developing an elementary architectural palette of site specific constructions, Part 3 will examine the provocative relationship between the landscape and the built form and will elaborate the archetypal forms exploring the architectural engagement of nature and landscape. Finally, an architectural proposition for a rural retreat on a site in Bon Echo Provincial Park will be presented and explained in Part 4. The project seeks to implement the discoveries of the thesis research and elaborates a generalized 'kit of parts' in order to exhibit investigatory elements or components that physically manifest the ideas encountered in this thesis research. Part 4 will begin with a brief study of the park's history, followed by a reflection on a number of individualized elemental assemblies as they engage the landscape. The thesis will investigate and propose ways that these assemblies can be amalgamated and adapted to multiple conditions, to create small retreats existing in the category of an architectural ecotone, for use by the Ontario Parks system in other locations.
PART I | HUMAN'S ENDURING FASCINATION WITH NATURE

"We must build landscapes that heal, connect and empower, that make intelligible our relations with each other and with the natural world: places that welcome and enclose, whose breaks and edges are never without meaning."  
Alexander Wilson
The Culture of Nature: North American Landscape from Disney to the Exxon Valdez

‘picturesque’ as defined by Yve-Alain Bois in his article about Richard Serra's work, entitled "A Picturesque Stroll around Clara-Clara". Bois' definition draws on the theory of the picturesque garden rather than the pictorial, representational understanding of the term. He says that the theory of the picturesque garden is "not to force nature, but to reveal the 'capacities' of the site, while magnifying their variety and singularity."  

Nature has long provided the inspiration, means and setting with which to construct shelter, however the development and urbanization of society at times tends to ignore this idea. By doing so, architecture can be presented as something that appears disconnected and incomplete. By examining the important role that the natural world plays in human existence and the way in which architecture can be thoughtfully manifested in this realm, it may be possible to understand the framework in which the nature-architecture dialogue can exist. This can make possible the development of a design strategy that bridges the gap between the natural world and the inhabitable, built one - effectively devising an architectural ecotone.

THE PICTURESQUE & POSITIVE AESTHETICS

There is a quality inherent in the natural world...
that provokes certain reactions and feelings in each of us. The swaying of grasses in the wind or the dappling of sunlight passing through leaves strikes a chord that perhaps speaks to a link that has long existed between humans and nature. Thoreau speaks for the many for whom the landscape possesses more power than the city: "Standing quite alone, far in the forest, while the wind is shaking down snow from the trees, and leaving the only human tracks behind us, we find our reflections of a richer variety than the life of cities."

Perhaps the experience of nature generates strong, emotional connections for humans due to the fact that nature is an environment of immersion and sensuality rather than simply being presented as an image or view. As Carlson writes in reference to natural qualities: "it is being 'in the midst' of them, moving in regard to them, looking at them from any and every point and distance, and, of course, not only looking but also smelling, hearing, touching, feeling. It is being in the environment, being a part of the environment, and reacting to it as a part of it." This personal connection and reaction can prompt a deeper, more meaningful connection to the landscape.

This connection and reaction relates back to the understanding of the picturesque as offered by Bois that draws from the comprehension of the picturesque garden. As discussed earlier in this thesis, Bois' definition of picturesque - understanding an environment as a "process of ongoing relationships" and utilizing design to reveal the capacities of this environment - is an effective method to describe how humans can understand and exist in the landscape.

Supplementing the idea of the importance of human immersion in nature, the concept of positive aesthetics asserts the idea that all nature, especially wild nature is beautiful and only the interventions of the human hand can detract from this beauty. The concept of positive aesthetics originated in the early nineteenth century as related to the kind of nature appreciation written about by landscape artists and others concerned with nature. These individuals viewed the environment as a beautiful and pure thing when untouched by the human hand. In his book, Man and Nature, published in 1864, early American environmentalist George Marsh writes that "nature left alone is in harmony." Marsh believed that the intervention of humans upon the landscape destroyed this harmony and purity. John Muir was most notably related to the ideas of positive aesthetics and described his appreciation for the untouched wilderness: "None of Nature's landscapes are ugly so long as they are wild." Muir's writing moved to support the protection of unspoiled nature as he described its beauty the reactions that the environment evoked when there was no human intervention present.

This thesis grapples with both the ideas of picturesque as defined by Bois and positive aesthetics.

7 Carlson. 35
8 Bois. 36
9 Carlson. 5
10 Carlson. 6
11 Carlson. 7
12 Carlson. 7
and pursues an architecture that incorporates concepts from each of these aesthetic ideals. This thesis posits that nature that is marked by the thoughtful touch of the human hand is more understandable and graspable than when it is left untouched.

When referring to the aesthetic qualities of the landscape, the object of appreciation is one's surroundings in which one is immersed. Every move, from a mere shift of the eyes, to movement through space, changes our perception of the surroundings, effectively changing the 'aesthetic object'. This experience is of course much more dynamic than the static contemplation of the work of art on a wall. The landscape is a constantly changing 'object' and all of the senses operate when one is immersed within it. Shifts in light and shadow change perception of space; light breezes brush the skin, carrying the scent of leaves; day turns to night and temperatures drop; seasons pass, rain falls: all of these elements alter a person's experience within their environment - creating a whole body awareness. Environmental artist Patricia Johanson suggests that within nature, "the possibilities for synchrony - for personal connection - are virtually endless and far more compelling because they are operating on a deeper level - not merely 'aesthetic' but also 'biological'." These experiences may be highlighted, focused and enhanced with the incorporation of thoughtful architectural design.

According to Merleau-Ponty, immersion within the natural environment allows humans to "comprehend our own obscurity." Merleau-Ponty suggests that in contemplating the immensity of nature, we are brought to the contemplation of human mystery, the mystery of our own bodily life. Many kinds of manifestations of the natural world can perform this revelatory act: small fragments and immense expanses. There are those that "surround and threaten to engulf us such as a dense old growth forest or a seemingly endless field of wheat." But there are also smaller more intimate environments, "such as our backyard... or those we may encounter when we turn over a rock or when traveling with a microscope into a drop of pond water... although not physically surrounding, are yet totally engaging." And just as they can be immense or intimate, the wonders of nature can be both ordinary and exotic and rare. Something as unique and extraordinary as a rushing waterfall can hold just as much importance and intrigue as a group of cattails blowing in the breeze. One adjusts and tailors one's frames of reference in order to gauge and understand the landscape.

It is difficult to explain exactly why the natural world evokes and creates certain reactions and sentiments. It may differ between individuals, but there still remains in all people the ability to admire and

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13 Carlson, xvii
16 Carlson, xx
17 Carlson, xx
18 Carlson, xv
appreciate nature and the ways in which it can influence one’s life. Many individuals hunger to incorporate nature and its processes into their daily life to bring a sense of peace and reconciliation to their existence. As Scottish-born American naturalist and early promoter of wilderness preservation, John Muir has written: “this natural beauty-hunger is made manifest in the little window-sill gardens of the poor, though perhaps only a geranium slip in a broken cup, as well as in the carefully tended rose and lily gardens of the rich, the thousands of spacious city parks and botanical gardens, and in our magnificent National Parks - the Yellowstone, Yosemite, Sequoia, etc.”19 It is this hunger for the incorporation of nature into everyday life that justifies the need for the creation of an architectural ecotone in order to provide architecture that links humanity to the forces and processes of the natural world.

Every individual views the world around them according to their own background, intentions and needs, their own cultural, social and psychological expectations.20 It is with these personal qualities that individuals gauge the natural world, however, as advanced by Patricia Johanson in her book, _Architecture as Landscape_, “because landscape is both unfocused and offers the possibility of immersion - because it is simultaneously large and small, sweeping and intimate - it comes close to being ‘all things to all people’. Landscape offers both the tangled web of myriad detail and expansive radiant space. It functions simultaneously as foreground, middle ground, and background - a ‘living museum’ of patterns, designs, and purposes that offers the possibility of dialogue and personal connections.”21 Johanson makes the point clearly that contemplation of nature constitutes a shared ground of human experience and provides the canvas upon which connections and relationships between individuals can exist.

The immersion of an individual within the natural world provides experiences that are unattainable in any other way. Personal ‘removal’ from the rigid structure of quotidian life and into the softened, organic ‘wild’ may at times simply be to ‘get away from it all’. In an essay discussing the philosophies of Merleau-Ponty, Professor Kenneth Liberman suggests that connections and rich experiences are offered by inhabiting nature. “Why do we require such a thing as ‘the wilderness experience’? It is to mitigate the totalization instituted by our own culture, to free ourselves so that we make visible our full being, a being that is fathomed not by appropriating the earth but by being appropriated by it... Climbers climb not to conquer mountains but to have the rocks speak to them. Why do backpackers hike, and how far must they keep travelling? They need to abide with the landscape until they recollect that their culture and ego do not matter so much in the face of all these reciprocal relatings.”22 By existing in close proximity to nature, life is simplified and therefore clarified; regular day to day tasks are focused and be-

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20 Johanson. 111
21 Johanson. 111
22 Liberman. 42
come more important. Inhabiting nature makes "visible the daily corporeal requirements of sleeping, eating, washing, and moving, and in turn makes the body a sounding board for nature."23

NATURE & DEMOCRACY/SOCIETY

The relationships that are created when connecting the natural world and human existence can be seen to have a positive effect on society. The incorporation of natural characteristics; trees, water, etc. into daily life improves the quality of that life by providing close connections between humans and the landscape. Frederick Law Olmsted was a strong believer that nature could provide the American people with the means to improve their lives and obtain greater joy in their existence. He expressed that nature could act for "the delight and service of man,"24 and that "the promise of parks for the recreation of ordinary citizens was an ideal for which America might hope."25 The incorporation of the natural world into daily life was something that Olmsted considered could improve the quality and enjoyment of life itself. For Olmsted, American democracy and the Republic itself could only be built when citizens had access to what he referred to as "nature's sweetness and light" - an idea he wrote about concerning the layout of suburban dwellings with incorporated nature in order to improve citizens' daily travel to and from work.26 His designs for parks and landscapes throughout North America, especially Central Park in New York (discussed in Part 3) created a place of constructed wilderness within the rigid, built forms of a city or suburbs. These designs act as oases within the urban fabric and allow a direct connection between the natural world and the architectural realm.

Olmsted adhered to the motto of his colleague and fellow Central Park designer, Calvert Vaux: "Nature first, second and third - architecture after a while."27 This demonstrates the important role that Olmsted believed nature should play within the daily lives of citizens and within the design process that generated spaces for those citizens. This idea of putting nature first (and second and third) before considering architecture is an interesting one when considering the concept of an architectural ecotone. The contemplation and understanding of nature within a site prior to the architectural process may provide the means to generate strong connections and relationships: relationships that are able to improve the quality of society as a whole, as Olmsted believed.

25 White & Kramer, 5
26 White & Kramer, 197
EXPERIENCING THE ENVIRONMENT: NATURE TOURISM

"Nature tourism is simply the temporary migration of people to what they understand to be a different and usually more 'pure' environment. It's going out to nature for its own sake..."28

Alexander Wilson
The Culture of Nature: North American Landscape from Disney to the Exxon Valdez

The following section examines nature tourism as the manifestation of the widespread human desire to venture into the 'wilderness' and the architectural implications presented by this idea. From the American national parks movement to camping and cottage practices in Canada, a myriad of social practices pertaining to 'ecstatic experiences of the landscape' attest to North Americans' desire to participate in and be moved by nature. North America is blessed with broad expanses of seemingly 'untouched' land that ranges over a variety of ecosystems. This 'untouched' land acts as an invitation for exploration and inhabitation and the development of nature related tourism is a testament to this.

THE PARK

The identification of a need for parks did not exist during the seventeenth and eighteenth centuries of North American history. Settlers at that time, "faced with the rigors of life in a harsh wilderness environment...did not view the great outdoors we now value so highly as an opportunity for recreation or aesthetic gratification, but rather as a serious challenge to their very survival."29 Their experience of the natural world was a close and intimate one; one that at times provided either life or death. As settlers began to push westwards across the continent however, the resources that had so attracted them to the 'New World' in the beginning and had seemed inexhaustible began to slowly diminish due to development, farming and hunting. During the mid-nineteenth century, people began to make their voices heard concerning the way in which the continent was slowly being consumed and the

28 Wilson
fact that something needed to be done. Explorers such as Jim Bridger, John C. Fremont and John Wesley Powell all wrote "eloquently about the breathtaking sights they had encountered in the Yellowstone Basin, the Yosemite Valley, the Grand Canyon of the Colorado, and elsewhere." Their reports helped to raise awareness of landscapes that many people had not yet experienced and allowed for the public to begin to understand that a project had to be undertaken in order to preserve the resources of the wilderness. Adding to these voices were those of Frederick Law Olmsted, John Muir and Theodore Roosevelt, which helped to attract the attention of people living in the East, whose interest was further enhanced by artists such as Albert Bierstadt and Thomas Moran and their depictions of the landscapes in bold colours on sweeping canvases.

With this garnered attention, actions began to progress as governing bodies acquired land with the intent of preserving its qualities so as to provide recreational areas for the American people. These parks would be remote or in the heart of urban centres in order to provide the common working families with the ability to experience wilderness at ease and without having to travel. Frederick Law Olmsted's appointment as Architect-in-Chief for the new Central Park in New York City in 1858 marked the beginning of the American park movement. Concerning Central Park, Olmsted wrote: "Provisions for the improvement of the ground, however, pointed to something more than mere exemption from urban conditions, namely, to the formation of an opposite class of conditions: conditions remedial of the influences of urban conditions."

The creation of the park allowed two classes of improvements to be planned for the purpose of improving the quality of daily life for urban-dwellers. One was directed at securing pure and wholesome air: the park was conceived as a lung for the city, the other improvement strove to provide a healing counterpoint to the surrounding streets, buildings, and houses. Olmsted believed that Central Park would provide new opportunities for the populace: "It is one great purpose of the Park to supply to the hundreds of thousands of tired workers, who have no opportunity to spend their summers in the country, a specimen of God's handiwork that shall be to them, inexpensively, what a month or two in the White Mountains or Adirondacks is, at great cost, to those in easier circumstances." Central Park introduced no new urban organization principles, but rather mimicked a naturalistic landscape in a way that created a wilderness oasis in the dense urban core of a city. This oasis allowed the general populace to have direct access to a space that allowed them to contemplate nature - something that Olmsted believed was important in for the functioning of the republic and for human happiness. In contrast to the centralized, urban park was the wilderness park: the 'National Park', an idea that began on March 1, 1872 when "Congress established Yellowstone Park - the world's first 'national park', more than two million acres located mostly in
the northwest corner of present-day Wyoming - to be preserved and managed by the federal government for the enjoyment and benefit of the people. The American park movement truly began to push forward, gain a foothold and develop once the need was realized for planning, coordination and balance both for the acquisition of new lands for park generation and the maintenance of existing parks.

Alongside the more well-known and historic American national park movement, Canada's national parks system developed in order to preserve and maintain wilderness areas for future generations. During the early 1880's, entrepreneurs and 'empire builders' attempted to push the Canadian Pacific Railway westward across the country. As they did so, they encountered vast areas of untouched, beautiful wilderness and unique natural features. One of these was a hot spring located in the Rockies in Bow Valley. Recognizing the beauty of the area and the potential commercial value, these explorers acted to preserve it for development under the control of the Canadian Pacific Railway. In 1885, the federal government designated a ten square mile area surrounding the hot spring as a reserve. In 1887, after two years of attracting many people to come and relax, and 'take the waters', the Department of the Interior designated the space as a national park and extended its boundaries to include an additional 250 square miles. Rocky Mountains Park, later known as Banff National Park was Canada's first national park and attracted many affluent tourists from the east, brought to the park by Canadian Pacific's expanding railway. Though the park was originally set aside to preserve the qualities of the landscape, Canada's early national parks were used as tools for profit and development in order to draw larger and larger crowds. This began to change with the National Parks Act of 1930. This act set out to actually preserve the wilderness and prevent development or resource extraction from those specific areas of the country. According to Parks Canada: "The Act ensured that no new parks could be established or any change made in the boundaries of existing parks except by an Act of Parliament. Its 'dedication clause' states that 'Parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment... and shall be maintained and made use of so as to leave them unimpaired for future generations'. Mineral exploration and development was prohibited and only limited use of green timber, essential for park management purposes, was allowed." With the enforcement of the National Parks Act of 1930, parks were able to exist without the detrimental touch of the human hand. The creation of a national parks system in Canada protected lands for the enjoyment of Canadians. These parks were made accessible by the expansion of the Canadian Pacific Railway, the construction of roads and the introduction of camping into society's experience of

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36 Landrum. 26
38 Burns. 1
39 Burns. 1
40 Parks Canada. The History of Canada's National Parks: Their Evolution and Contribution Towards Canadian Identity. 09 02 2009
The wilderness, as discussed in the next section.

'WILDERNESS' RECREATION

CAMPING

"We now no longer camp as for a night, but have settled down on earth and forgotten heaven."  
Henry David Thoreau

In Canada, camping originated with early European settlers who were taught to survive by the indigenous peoples they encountered, allowing explorers to push through the wilderness towards the west coast. In the nineteenth century, outdoor camping was reserved for the necessities of travel, living quarters for labourers and gathering places for tramps. Nearing the end of the century however, hunters and fishermen began establishing campsites in Canada to provide for recreational activities. As a result of increased cultural taste for wilderness and nature appreciation, the upper and middle classes began to view camping as a leisure and tourism activity. Comfort was a primary concern as people began to inhabit the wilderness in their leisure time: "Camping entailed not simply seeing nature, which one might do from a window overlooking Central Park, but putting one's body in its midst." The detachment from the comforts of everyday life provided a heightening of experience and emphasized the importance of basic tasks. In order to camp, people were required to 'build camp', something that demanded shelter, fire, food and other amenities, in essence creating comfort for themselves. What was once a rock-strewn wooded clearing could become the nucleus of a camper's existence as they formed a dwelling for themselves within nature. As Thoreau wrote in 1864:

"But the place which you have selected for your camp, though never so rough and grim, begins at once to have its attractions, and becomes a very centre of civilization to you: 'Home is home, be it never so homely.'"

Thanks to its evolution over the years, camping has grown into something that can accommodate all skill and comfort levels, providing sites with only a basic firepit or sites that are accessible by car, outfitted with showers and washrooms and electrical connections. There are 7,000 back-country sites and 19,000 car accessible sites scattered throughout Ontario's three hundred provincial parks. Bon Echo Provincial Park itself offers over five hundred campsites.

Camping provides a very simple, primal method to inhabit the natural environment, requiring the most basic of features to provide shelter and the ability to cook food. Camping allows a direct connection to

42 Kropp. 5
43 Kropp. 5
44 Kropp. 6
45 Thoreau. The Writings of Henry David Thoreau. 310
46 Ontario Ministry of Natural Resources (Ontario Parks). "Project Alternative Accommodations Report." 2018
the landscape - one that differs greatly from a simple 'walk in the park'. When one falls asleep at night with a clear starry sky over one's head amidst the sound of loons calling, or when one awakens to a sunrise over a lake and the sounds of bird calls, one is presented with a pure, simplified existence. With the full immersion into the environment and the withdrawal from the luxuries of everyday life, camping provides the opportunity to exist in an intimate connection with nature and at the same time begin to comprehend its immensity. It is the simplicity and connections provided by camping that generate the basis for an understanding of how architecture may be able to reconcile the gap between its own built form and the wilderness, entering the realm of the architectural ecotone.

THE COTTAGE

The cottage has long represented a place of retreat and relaxation - "in their isolation and simplicity such places have always been havens for personal renewal". Early cottages or summer houses were built on isolated sites, frequently utilizing material from the immediate vicinity in order to construct rustic, basic shelter. Traveling to a cottage meant time away from the density of urban or ever suburban life, and removal into a more peaceful setting. One's presence at a cottage implied their absence from somewhere else. A different lifestyle was provided at the cottage - one of relaxation, play and freedom from routine and schedules. The idea of the "cottage inspires sentiments that go well beyond structural or architectural definitions to become a representation of a state of mind."\textsuperscript{46}

Within the last 60 years, cottage country and the idea of 'cottage-ing' has altered dramatically. The number of cottage owners has increased drastically, altering the cottage landscape and the experience itself. The largest number of cottage owners in Canada live in Ontario. Cottages have become constructions of a second house - a 'home away from home'. And while a home located on a lake far away from the city may seem appealing, the massive development of cottage country has increased the density of those areas that had originally been lightly inhabited. In a 1965 edition of \textit{Landscape}, researcher Roy Wolfe argued that cottages and cottage country are at the heart of a paradox. The goal of cottage-ing is to seek a peaceful and relaxing environment that allows communion with nature and yet the rush of people to the areas that allow this relaxation recreate "many of the same pressures and landscapes they sought to escape."\textsuperscript{49} Seclusion and retreat has all but been lost, replaced by lakeshores dotted with expansive mansions. The modern cottage has simply become the transplantation of the suburban form into the landscape, ignoring archetypal characters and ignoring the potentialities for connections to nature.

The program of this thesis seeks to critically reconsider dominant tendencies in contemporary cottage.
The report is currently being reviewed by the Ministry of Natural Resources and has not been released to the general public. "The results were based upon the opinions of specially selected respondents, thus the results are qualitative in nature. Caution therefore should be exercised when projecting the results to the population as a whole."}

**Practice**

and to provide thoughtful, integrated and human scaled dwellings within the landscape.

**OUTLOOK**

Bon Echo Provincial Park, Ontario, provides a topic of investigation for this thesis, and a site to experiment with design in the realm of both landscape and architecture, utilizing new camping and cottage models in response to changing social and cultural values. The park offers the opportunity for close connection and immersion within nature, the removal and refuge from daily routine and the landscape in which to construct integrated and detailed places for dwelling.

Over the last few years, overnight use in Ontario parks has slowly declined for a number of reasons. In order to create a strategy to address this, the Ontario Parks division of the Ministry of Natural Resources commissioned a research report in 2010.

The report was conducted to understand how to maintain park visitation from current users, encourage lapsed users to return and attract reluctant users and new Canadians. Older generations are no longer at ease with tenting and therefore desire more comfortable accommodations. New Canadians and reluctant users have never camped or stayed overnight in a park before due to unfamiliarity with the camping experience and an apprehension to invest in equipment. "Intimidation is a key factor in preventing a booking in a provincial park." Overall, there was an expressed desire for more comfortable accommodations that still allowed the nature experience available in Ontario Parks.

The report presented focus groups with a selection of eight roofed accommodation concepts in order to obtain reactions and determine how overnight use can be increased. These concepts were: Ontario Parks yurt, Parcs Quebec Huttopia Tent (tent with raised wooden floor), Parks Victoria Wilderness Retreat (wooden structure with fabric roof), tent trailer, rustic cabin, lodge (accommodates large number of individual groups), luxury cottage (modernized version of rustic cabin) and Recreational Vehicle.

Of all the concepts presented, the luxury cottage was the unanimous preference, seen as a 'house in the woods'. Though the cottage was depicted as the most expensive option for overnight users, the focus groups were of the same opinion that the price was justified for the following reasons: "won't get wet when sleeping, inclusion of comfortable beds, protection from rain and sun, ability to eat inside accommodation, more secure than a tent, more room than a tent, included amenities, privacy, indoor heat." Ontario Parks can view the luxury cottage as a viable option to increase overnight visitors by providing accommodation that will attract a varied demographic and improve park experience. "Thus, by providing accommodations that do not require the purchase/ownership of camping equipment, or ownership of minimal equipment, and that have conveniences and amenities that ensure the accommodations are worry-free and comfortable, they will be more likely to consider paid, overnight stays in Ontario parks. It requires less effort/work/preparation and

50 "Project Alternative Accommodations Report."

51 "Project Alternative Accommodations Report."
more time for enjoyment of their natural settings.\textsuperscript{52}

Recognition of Ontario Parks' need for roofed accommodation that provides visitors/inhabitants with a close connection to nature offers an opportunity for an architectural project to emerge that seeks to implement the explorations of the thesis research. The program of an Ontario Parks Retreat can be used as a tool to explore the primordial elements of architecture and landscape engagement, culminating in the design of several iterations of a small roofed accommodation for use by Ontario Parks overnight users.

\textsuperscript{52} "Project Alternative Accommodations Report."
ARCHETYPAL RELATIONSHIPS BETWEEN NATURE & ARCHITECTURE

The increasing popularity of recent movements like 'landscape urbanism' make evident that designers, policy makers and the public are interested in exploring the benefits of merging nature and architecture. The following sections examine works of architecture that exist intimately with their site and seek to understand and articulate the unique qualities of such works. The idea of an architectural ecotone can be found in many contemporary projects, especially those at a small scale. Firms such as Shim-Sutcliffe Architects, MacKay-Lyons Sweetapple Architects, Olson Kundig Architects, and numerous others thoughtfully design and craft their projects in order to bring them closer to the landscapes in which they exist. These works build on the earlier efforts of pioneers of modernist environmental architecture. The following section will therefore reference and examine early to mid-twentieth century examples of architectures that fuse with their landscapes, including works by Frank Lloyd Wright, Mies van der Rohe and Richard Neutra. Two Canadian examples - the work of Arthur Erickson and Clifford Wiens - will also be presented in order to provide an understanding of precedents in the Canadian context.

"Architecture should develop and extract latent qualities of the site to free imagination from preconceived notions/formulas. Sites seen as unique allow for buildings on those sites to also be seen as unique if they take advantage of the first."

David Leatherbarrow

An understanding of the strength of nature’s influence within human existence justifies a desire to thoughtfully design architecture that engages and is reciprocally engaged by the landscape - the architectural ecotone. Architecture such as this can create places within the landscape, as defined by Heidegger. He suggests that the placement of an object within the landscape creates certain relational values and causes that specific area to have a new 'presence'. This gives importance to the site and creates a place that is unique in existence.

53 Leatherbarrow 66
According to Richard Neutra, it is important to “interweave structure and terrain to bring human habitation into an intimate, stimulating rapport with the expressive processes and cycles of natural growth, and to vivify our everyday awareness of man's inextricable bond with the natural environment.”

The construction of the built form in relation to the natural form evokes and encourages richer spatial and experiential qualities of the architecture and the environment. We could even say that human lives are expanded in such relational constructions. For Neutra indeed, human life could be fine-tuned by works of architecture that were adjusted to natural processes, orientation, winds, etc.

Where architecture exists, natural elements such as trees, grasses, etc., provide reminders of the landscape that previously existed there at one time. Architects often incorporate these natural elements in their designs, frequently working alongside landscape architects. Partnerships such as those between Jean Nouvel and Patrick Blanc for Musée du quai Branly in Paris (2006), Mies van der Rohe and Alfred Caldwell for Lafayette Park in Detroit (1959-64) or Renzo Piano and Emilio Trabella for the Renzo Piano Building Workshop in Genoa (1989-1991) all effectively create strong nature-architecture connections as natural elements are inserted alongside the built form. Renzo Piano successfully parallels his architectural designs with the integration of organic, natural elements: trees, shrubs, greenscaping in order to link nature to the human-made. To Renzo Piano, the integration of nature within his architecture is of utmost
importance: “I propose, then, that the building will open up, play with the light, the view, the sun, the breezes, the wind; that it might have a less arrogant and more gentle interaction with nature.” Incorporation of natural elements is used as a tool to soften the extreme characteristics of the human-made elements and provide an appealing, contrasting quality to create a well-rounded, holistic design.

The amalgamation of built form and natural elements generates a mediation between the memory of the landscape and the architectural form. When the raw, uncontrolled quality of a natural element is juxtaposed against the structured, unyielding quality of the built form, experience is enhanced. The dweller is able to reconnect to ties with the natural world while living out fully his or her embrace of the technological, constructed one. The association of vegetation and landscape to the built form not only softens the harsh edges of a building but also enhances those edge qualities at the same time. The transition from the wilderness to civilization can occur in a very small space, as the simple planting of vegetation surrounding a building creates an immediate and abrupt relationship between architecture and natural forms.

Christian Norberg-Schulz expressed that “spaces possess a varying degree of extension and enclosure. Whereas landscapes are distinguished by a varied, but basically continuous extension, settlements are enclosed entities. Settlement and landscape therefore have a figure-ground relationship. In general, any enclosure becomes manifest as a ‘figure’ in relation to the extended ground of the landscape.” Every figure must be considered in relation to the ground or context against which it appears. In order for architecture to engage its setting, it must be made to draw attention to the area surrounding it as well to itself. Considering architecture during design and after inhabitation not as an autonomous entity, but rather within its context, allows for deeper meanings to be manifested. And most would agree that to appreciate architectural works’ full meanings, their relationships must be considered as much as the things themselves.

The landscape and the building within that landscape are defined not only by their own qualities and quantities, but by those of their surroundings. When those surroundings change, the site and the architecture change too. “Open may become closed; closed may become open; tall may become ordinary; striking contrasts may be obliterated. Views of the outside and views from the inside can contradict each other. Every window offers a new angle on the surroundings, and the site itself is sucked into the kaleidoscope.”

Certain members of the modernist movement believed in abolishing the boundaries between the inside and outside, creating a flowing architecture that was able to fuse in some way with its site. In opposition to the idea of site and building integration, another group of modernist idealists attempted to remove the building from its physical context and began to focus on buildings as solutions to technical and mechanis-
tic problems, leading to many buildings that appeared as sculptural forms at rest, or pure objects in a landscape.\(^6\) This \textit{tabula rasa} method of thinking was driven by the desire to create brand new ground for architecture that was autonomous for living.

Alexander Tzonis and Liane Lefaivre articulated the theory of critical regionalism in response to the modernist \textit{tabula rasa} ideal. Instead of removing a building from its site or context, critical regionalism sought to counter \textit{placelessness} by grounding architecture within its surroundings. Architectural critic and theorist, Kenneth Frampton wrote that "critical regionalism should adopt modern architecture, critically for its universal progressive qualities but at the same time value should be placed on the geographical context of a building. Emphasis should be placed on topography, climate, light; on tectonic form rather than scenography and should be on the sense of touch rather than visual sense."\(^6\) The theory of critical regionalism naturally is directly applicable to rural architecture, and many of the buildings Frampton refers to as illustrations of this theory were sited in rich natural settings. For Frampton, Tzonis and Lefaivre, architecture that embraced the rich multitude of sensory stimuli present within the natural world proffers more engaging and varied experience. David Leatherbarrow argues that: "Architecture should provide landscape related phenomena: material variation, temporal unfolding, recessive potential and an unlimited capacity for unexpected figuration."\(^6\) In other words, the qualities that exist in the landscape and that cause it to generate specific emotions and reactions should be transferrable to architectural design, devising a link from the landscape to the constructed realm - effectively generating the idea of the architectural ecotone.

Architects' and the public's enthusiasm to place built form in dialogue with the landscape demonstrates a need for a connection with nature and a need to attempt to control or understand nature. According to Norberg-Schulz, the built form is related to nature in three basic ways: "Firstly, man wants to make the natural structure more precise. That is, he wants to visualize his 'understanding' of nature, 'expressing' the existential foothold he has gained. To achieve this, he builds what he has seen. Where nature suggests 'centralized', he erects a Mal\(^\mathbb{A}\); where nature indicates a direction, he makes a path. Secondly, man has to complement the given situation, by adding what it is 'lacking'. Finally, he has to symbolize his understanding of nature (including himself). Symbolization implies that an experienced meaning in 'translated' into another medium. A natural character is for instance translated into a building whose properties somehow make the character manifest."\(^6\) Richard Neutra expressed that: "construction must fit in its site - it is a process or set of processes that reappropriate themselves to the living situations housed

\(^a\) Hal: Dagobert Frey, an Austrian art historian defines a Mal as "the resting mass (Das Hal-Motiv), exemplified by pyramids and obelisks. Such masses are often used to terminate a spatial succession."\(^a\)
When a work of architecture thoughtfully reacts to the qualities inherent in the landscape, it can be understood as an expression of place. An architect who succeeds in creating a work that inhabits the interval between landscape and architecture has, one might say, created a work that exists in the realm of an architectural ecotone. University of Alberta environmental philosopher Allen Carlson refers to design in connection with its site: "In each case the work candidly asks us to consider the fact of its existence, and thus our experience of the work rightly involves imaginative contemplation of the landscape without the work. And this contemplation is a central and proper part of our appreciation of the work; such appreciation is typically deepened and enriched by the realizations it initiates." Carlson suggests that such works improve, or in any case, reveal more fully, the landscape they exist within. Richard Serra explores this idea by anchoring his sculptural objects within the landscape in order to create intimate relationships between the two. In such works, the relationship between the construction and the site is reciprocal: the work and the site are intertwined and inextricably linked.

The pairing of the natural and the human-made presents the opportunity for enriched architectural experience and existential verification. Neutra insisted that a building should simply be a "geometrically simplified construction in a natural scene (it doesn't grow but is a reference to that which does)." Architecture can provide the link between human existence and the uncontrollable, at times incomprehensible qualities of nature. A dense grove of trees surrounding a small rural retreat should be able to produce similar reactions and appreciations as the small network of vines clinging to the masonry of the same building. The variety of scales presented by the landscape offers a rich and seemingly endless palette of experiences to gain and events to observe. The ever-changing qualities of the natural world allow a single space to never exist in the exact same manner as it had before. The incorporation of architecture into a space such as this creates an anchor amidst a constantly transitioning, altering background. French philosopher Gaston Bachelard wrote: "We do not have to be long in the woods to experience the rather anxious impression of 'going deeper and deeper' into a limitless world. Soon, if we do not know where we are going, we no longer know where we are."

As Wright's memorable works make clear, architecture can provide the reference point against which to gauge and locate oneself within the landscape. In a radiant natural setting, architecture can be truly appreciated in a holistic sense, not just visually, but by all the senses. The transition from visual contact with a work of architecture to the inhabitation of its spaces allows for all of the senses to gradually experience the work, forming an understanding of the construction and a relationship between the space and its inhabitant.

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64 Leatherbarrow, 80
65 Carlson, 199
66 Leatherbarrow, 89
Assessment of a precisely designed building within its site allows for a deeper understanding of that site and of the building. The ways in which the two complement and play off each other create unique circumstances and attributes.

Embracing the idea of an *architectural ecotone*, architecture can become the thoughtful gathering together of what already exists on a site in order to fully reveal the nature of a place and its surroundings. According to architect and theorist, Aaron Betsky, architecture should not be about making something new, but rather, "reforming what already exists and is given to you into a form that accepts and makes apparent the hand of human intervention."68

**PRECE Denn E N T S**

The following architectural examples seek to demonstrate an architecture that is intimately engaged with its site, providing a context within which the ideas of this thesis can be manifested.

**FRANK LLOYD WRIGHT**

"Man's imagination is none too lively, but the task is not too great to harmonize his building masses with topography and typify his walls with the nature creation they consort with."69

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69 Gutheim, Frederick, ed., *Frank Lloyd Wright on Architecture: Selected Writings, 1894-1940*. New York: Dwell, Sloan and Pearce, 1941, 199
tween architecture and landscape—fusing the two and at the same time separating them. Wright’s designs for a house for the Kaufmann family, Fallingwater**, in rural southwestern Pennsylvania, stands out as an exemplar of organic architecture. The building fuses with the rocky outcroppings and perches over a waterfall that runs through the site, connecting closely to the landscape. The stone portions of the house blend directly into the rocks that they rise out of, blurring the point where site ends and building begins. Large cantilevered concrete balconies introduce horizontality into the densely wooded area, contrasting the verticality of the tree trunks. Steps and a low platform allow direct access from the house to the stream below, bringing the inhabitants into close contact with the site and incorporating the stream into the house. The large hearth inside is formed upon a section of exposed stone that juts up through the floor. Each of these qualities, amongst numerous others gives “the work a special relationship to that particular site, a relationship underscoring the importance of where it is.”** The specific relationships and interactions that exist between the house and its site provides a connection that enhances the experience of inhabiting the architecture. The literal and physical connections between the site’s rocks and the house itself represent a useful idea that allows for the creation of architecture within an **architectural ecotone.**

Fallingwater was an expensive and unique construction, and attracts much attention, but Wright also explored the affordable, repeatable, ‘organic house.’

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**Carlson. 281**
This research dominated Wright's work. One example is the unrealized cooperative homestead project in Detroit, designed in 1942. In the 1930s, a group of people from Detroit formed in order to develop a community of relatively inexpensive homes where they could live and farm. They approached Wright and he agreed to design the houses. At the time, Wright was experimenting with rammed-earth construction and he used this technique in the community housing plan. The design created berm houses that appeared to be partially buried beneath the ground - literally fusing them with their site. The bermed sides of the house were planted to create the sense that the landscape flowed up and over the homes, while at the same time insulating and protecting them. Floor to ceiling glass doors opened the interior to the exterior, allowing the site to flow into the homes. Abundant glazing along the top of the berm allowed plentiful daylight to flood the interiors, opening up the spaces. Due to the onset of the Second World War, construction on the rammed earth walls of the first house was halted and was never resumed.

Literal fusion between building and site creates a very intimate and direct connection between the inhabitant and nature. Inhabiting a space that is conceptually within the earth alters the perspective from inside to outside and vice versa.

Frank Lloyd Wright's Taliesin East in Spring Green, Wisconsin was started in 1911 and served as his summer home and studio where he worked and taught for

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72 Rael. 12
many years. It is situated on the brow of a hill where Wright had spent much of his childhood. He chose not to place the building at the summit in order to make it appear as though the architecture rose from the hill rather than sitting upon it. Wright described Taliesin:

It was unthinkable that any house should be put on that beloved hill. I knew well by now that no house should ever be put on a hill or on anything. It should be of the hill, belonging to it, so hill and house could live together each the happier for the other...There was a stone quarry on another hill a mile away, where the yellow sand-limestone, when uncovered, lay in strata like the out-cropping ledges in the facades of the hills. The look of it was what I wanted for such masses as would rise from the slopes...Finally it was not so easy to tell where pavements and walls left off and ground began...This native stone prepared the way for lighter plaster construction of the upper wood walls. Taliesin was to be a combination of stone and wood as they met in the aspect of the hills around about. The lines of the hills were the lines of the roofs...the plastered surfaces of the light wood-walls, set back into shade beneath broad eaves, were like the flat stretches of sand in the river below and the same in color, for that is where the material that
Wright's design allows for the fusion between the building and the landscape that it exists in, with each element physically connection to an aspect of its environment or acting as a reference to the natural surroundings. The formation of this close connection to its site places Taliesin East into the realm of an architectural ecotone, as it bridges the gap between the raw nature of the hill and the touch of the human hand in the building's construction. Materiality, massing and bold forms all create a strong relationship with the landscape.

Contrasting the modernist tabula rasa ideal wherein the site was wiped clean in order to develop solely human-oriented and efficient mechanistic structures, certain architects such as Richard Neutra, Mies van der Rohe, Rudolph Schindler and numerous others sought to blur the boundary between inside and outside, fusing site with architecture.

Mies van der Rohe's design for the Edith Farnsworth House in Plano, Illinois from 1945-50 demonstrates an ideal example of the modernist villa within the landscape. The house's seemingly simple layout and design generates a strong relationship between the architecture and the landscape and the inhabitant and the landscape through a number of elements. The pavilion sits above the site, resting on columns to protect the house from the flooding that frequently occurs in the valley and these structural columns exist outside the main volume, accentuating the impression of levitation above the site. The living vol-

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74 Neutra. 29
Part 3 | Archetypal Relationships between Nature & Architecture

Volume is enclosed within a glass box and according to Jean-Louis Cohen in his book, *Mies van der Rohe*: “The interpretation of the internal and external spaces is not controlled or limited by walls, and the confluence of the forest glades take place right in the interior of the glass volume.” The transparency of the house allows the surrounding nature to seem to flow into the interior space and in turn, the transparency extends and draws the interior out into nature. Mies’ palette of neutral colours and materials — white enameled steel and Travertine — allowed for a sharp contrast between the building and its colourful environment. In an interview with the BBC, Mies said that he did not know how colourful nature could be until he stayed in the Farnsworth House from morning until night. “We must take care to use neutral tones in interior spaces, because outside there are all sorts of colours.” This is a useful idea to incorporate into the design of components for retreats in Bon Echo Park as it allows the colours present in the surrounding landscape to provide accents and highlights within an interior architectural space. Mies wrote that: “Nature should also live its own life, we should not destroy it with the colors of our houses and interiors. But we should try to bring nature, houses and human beings together in a higher unity. When you see nature through the glass walls of the Farnsworth House, it gets a deeper meaning than outside. More is asked from nature, because it becomes a part of a larger whole.”

76 Cohen, 92
77 Cohen, 93
78 Cohen, 93

Farnsworth House
the importance of nature is paramount and when that nature is integrated with and viewed in association with architecture, the meanings of both become deeper and more meaningful. That is to say, that architecture existing within the realm of an architectural ecotone allows for stronger, more profound experiences and relationships.

Austrian emigré to California, Richard Neutra, believed that in order to enhance architectural experience and improved the quality of human life, architecture had to be integrally tied to the natural environment. His thoughtful designs for the Kaufmann Desert House and the Tremaine House merged the landscape with the buildings and "erased the boundary between indoors and outdoors by sweeping floors out as terraces and verandas while pulling the low soffits of boldly projected roofs back over the glass into the interior." 79

In 1946, Neutra was hired by Edgar Kaufmann - the same man who had commissioned Frank Lloyd Wright to design Fallingwater - to design a desert house in Palm Springs, California. 80 Rather than designing the Kaufmann house to grow out of the landscape, Neutra designed it as a pavilion for inhabiting and observing the surrounding desert landscape. Understanding this idea, Neutra wrote that the house:

is frankly an artifact, a construction

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transported in many shop-fabricated parts over long distance. Its lawns and shrubs are imports, just as are its aluminum and plate glass; but plate glass and aluminum, the water of the pool, all reflect the dynamic changes in the moods of the landscape. While not grown there or rooted there, the building nevertheless fuses with its setting, partakes in its events, emphasizes its character.  

Exterior covered walkways linking the garages to the rest of the house as well as broad, covered deck spaces helped to draw the interior spaces outward, blurring the boundary that divided inside from outside. This allowed the Kaufmanns to experience architectural space while at the same time enjoying the natural surroundings. A rooftop patio, or gloriette surrounded by wooden louvres maintains the illusion of enclosed, interior space while at the same time allowing desert breezes to blow through and views out over the landscape. Large expanses of glass from floor to ceiling fuse exterior with interior and seem to bring the views of the desert inside the house itself. In 1948, Neutra designed the Tremaine House in Santa Barbara, California. Where the Kaufmann House was seen as a pavilion upon the landscape, the Tremaine House seemed to “lie within its rolling and lushly planted garden of live oaks and succulents.” The house fused with its site through planted gardens that

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81 Hines. 201
82 Hines. 201
83 Hines. 205
integrated with the interior spaces and with cantilevered concrete slab roofs that extended out over the site. Numerous building elements extended from within the structure, bridging the gap between the built form and the surrounding landscape. According to Thomas S. Hines in his book, *Richard Neutra and the Search for Modern Architecture*, Neutra was skillful in designing walls that projected from his buildings and penetrated the landscape. "Neutra made these elements at the Kaufmann House read as dramatically visible screens. At the Tremaine House they achieved their impact in their subtle, almost furtive, extensions and disappearances into the hills and foliage." The solid, flagstone walls seemed to grow from the ground while the low one-story profile of the house - altered from its intended two-story - allowed the house to seem as though it belonged within its site. Neutra's method of drawing the roof planes outside over exterior patio spaces help to blend the outside and the inside, creating a smooth flow from natural to human made. Neutra understood the importance of bringing the outside in and the inside out in order to allow the flow of space and the interaction between inhabitant and nature. In *Mysteries and Realities of the Site*, Neutra wrote: "our house is small, but if we handle it properly, we can extend our living space right to the property lines." His design of spaces that are neither interior nor exterior expand the space of the building and lure inhabitants from the inside to the out or vice versa. The vast expanses of glass blur thresholds between

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84 Hines. 285
85 Rochon. 152
IN CANADA

"Context comprises not only the obvious matters of topography, orientation, climate and surrounding structures, but also the more elusive ones: the general character of the site and the quality of light. Over and above its peculiarities of shape, ground cover, climate and position, any natural site fits into a 'genre' of meadow, vale, forest, hillside, cliff face, lakeshore and so on. These general categories of site have to be recognized, understood and accepted before they can be enhanced by architectural addition."\(^{86}\)

Arthur Erickson

In the Canadian context, the work of Arthur Erickson exemplifies the dream of architecture that communes with its landscape. Erickson's life on the west coast of Canada brought him into close contact with awe-inspiring settings and his architecture was heavily influenced by these. In his book, *The Architecture of Arthur Erickson*, he wrote that "the dialogue between building and setting" was the "essence."\(^{87}\) Erickson's buildings all sit within their site in a conscious and engaging way, and his incorporation of nature within the design of his buildings, both rural and urban create a strong reference to the landscape.

Erickson's Smith House\(^{88}\) was built in West Vancouver, British Columbia in 1964 for an artist couple. The house sits straddling two rocky outcroppings on a

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site that is surrounded by dense forest and with views facing out to sea. The span of the main living space draws attention to the topographical changes over the site, encloses outdoor living spaces and preserves views. The materiality of bush-hammered concrete piers and salted, pressure treated wood references the exposed rock and abundant cedar trees within the site. Landscaping around the house is minimal, confined to mosses and concrete paving blocks, allowing the surrounding natural environment to act as the garden. The floor to ceiling windows blur the visual threshold, allowing views to flow through the house and bring the landscape inside. Erickson managed here to create a work of architecture that both merges and separates from the landscape. Its construction draws attention to the peculiarities of the site and it is these peculiarities that in turn give the house character and unique qualities.

Erickson's design of Robson Square and the Law Courts*® in Vancouver (1983) with landscape architect Cornelia Oberlander exhibits his ability to fuse natural elements with the built form, even within the dense urban context of a downtown core. Oberlander believed in "healing the city through nature and in turn healing its citizens."® Robson Square is covered in hundreds of trees, shrubs and ground coverings as well as numerous reflecting pools.® All of these organic elements serve to soften the rigid concrete, steel and glass of the buildings incorporated within the square.
Planting both on the inside and the outside of the Law Courts generates a link between the natural and the human made and creates a green oasis in the heart of Vancouver.

Another example of architecture’s engagement of the landscape in the Canadian context is that of Clifford Wiens. Wiens is a well-known Saskatchewan architect whose mechanical, artistic and farming background provided him with the means to develop well-rounded designs. The majority of his projects are located in the broad expanses of the Saskatchewan prairies and there he was able to create intimate connections between his architecture and the landscape. His architecture is often simple and it is with this simplicity that he is able to create such archetypal and fundamental connections between buildings and the landscape.

Wiens’ interest in architectures informed by their site is clearly illustrated by the John Nugent Studio (St. Mark’s Shop). This sculptor and candle maker’s workshop was constructed in 1960 in Lumsden, Saskatchewan. The small circular building embeds itself within the site, lowering inhabitants’ point of view to that of the exterior ground plane. Circular windows ringing the structure at ground level, flooding the interior with an abundance of natural light. As the walls meet the ground, they are constructed of stone that mimic the stones found within the site. The elegant, conical concrete roof flows smoothly from the ground plane and upwards, creating a transitional visual link.  

from the ground to the sky. By embedding a volume sunken into the ground, an inhabitant's perspective of the surrounding landscape is altered. What previously had existed at the height of a person's knees - shrubs, boulders, etc - could instead be at chest, or eye level when viewed from within an embedded architectural space. This creates an interesting dialogue between building and landscape and allows for views and perspectives to be altered and exposed, revealing unique qualities about a site that may have been hidden previously.

An example of how Weins most simply created strong architectural relationships to the landscape is The Silton Chapel. The Chapel was built in 1969 and sits in a wooded clearing outside the small Saskatchewan town of Silton. The chapel appears utterly at peace with its surroundings - according to the CBC reporter who composed a photo gallery of Wiens' work, the chapel "belongs out there." Massive wooden beams cross the structure and rest on concrete piers, supporting a pyramidal roof. The entire space is open to the exterior, allowing a flow through the landscape, into the chapel and back out into the landscape. The boundaries between 'inside' and 'outside' are diffused and a patron can feel as though they are both in and out at the same time. The simple structure accentuates the horizontality of the landscape and creates a link from the broad expanse of the earth to the broad expanse of the sky overhead. At The Silton Chapel, Wiens used very simple forms, reducing the construction to a sort of 'bare minimum,' though not as a cost saving device.
but rather to create a sacred place. This was a strategy to isolate and reveal the landscape in a basic but significant way. This principle of minimal building will be important to the project, which will be presented in Part 4 of this thesis.
Drawing from an understanding developed through the thesis research, an architectural proposition for a rural retreat on a site in Bon Echo Provincial Park will be developed and explained that exhibits the manifestation of architecture in the realm of an architectural ecotone. This project will present itself as a system to be utilized by the staff of Bon Echo Provincial Park as well as Parks Canada in general in order to design and construct nature dwellings within parks that will attract a wide variety of overnight users. These nature dwellings will be of a minimal nature and will allow park visitors to exist in close proximity to the landscape, providing them with a more intimate, elemental natural park experience.

In order to truly develop an architectural ecotone, and in turn create a place for dwelling, an understanding of the site and context for construction must be gained — the genius loci must be teased out. With this in mind, the project description begins with an in-depth site analysis of Bon Echo 525 so as to present an understanding of the context wherein the project will be developed. The important role that the natural world plays within human existence, the unique qualities presented by architecture-nature relationships and an understanding of the social and cultural context of 'nature dwelling' will all contribute to the design process of these dwellings.

Once the character or spirit of the site is understood, a generalized 'kit of parts' or set of design-guiding components will be elaborated in order to exhibit investigatory elemental assemblies that physically manifest the ideas discovered in this thesis research. The project will then propose methods in which these assemblies may be applied to the design and construction of individual retreats that exist within the realm of an architectural ecotone.

**THE SITE: BON ECHO PROVINCIAL PARK**

"When 12 o’clock comes the sun glints from the long line of its top lengthening down its face and as the sun westerly moves, the lights grow longer, down to the base, and broad shadows dissect it into many rocks, each lichened and mossed with velvet, brown and gold and on which the little cedars cling sweetly, with silent submission, stunted growth, but sure foundation and the sun makes features and faces out of
the fractures of frost and time and the Indian has painted the base. We sat till the afternoon brought colour into the sunlight and the lake mirrored its lighted fractures and its shadowed ridges and the water was as deep as the rock turned downward, and the birds crossed the sky below its mirrored outline and the lake northward was floating its distant shores so like shadowy gossamer a little breeze might wreck them. In the stillness a good ear could hear the loons calling from its head, five miles away.  

R.J. Drummond

Description of an afternoon on Mazinaw Lake, Bon Echo Park, 1895

One of the largest parks in Eastern Ontario, Bon Echo Provincial Park is located 80 kilometres north of Lake Ontario, midway between Toronto and Ottawa. It currently covers over 66 square kilometres of the Canadian shield, “a great expanse of exposed bedrock, water and coniferous forest”. Attracting over 200,000 visitors per year, the park offers numerous outdoor activities including camping, hiking, boating, fishing, swimming, wildlife viewing and natural heritage education. The park’s highlight is Mazinaw Rock - a 107 metre high cliff of pink granite stretching 1.5 kilometres, rising directly out of Mazinaw Lake - one of the deepest lakes in the province. Bon Echo Park thus represents one of Canada’s iconic landscapes: the Canadian shield. This thesis explores the act of in-

92 Campbell, John. The Mazinaw Experience: Bon Echo and Beyond. Toronto: Natural Heritage Books. 2006. 51
94 Campbell. 123
habiting the Canadian shield in an intimate way. This provides an interesting context in which to explore the idea of the architectural ecotone as ‘dwelling’ is heightened within the picturesque landscape and monumental environment of Bon Echo Park.

HISTORY:

Bon Echo Provincial Park's history provides a rich backdrop against which the act of dwelling within the landscape can be set. The area was first inhabited by Algonkian tribes who believed that Mazinaw Rock possessed spiritual influence, leaving a large number of pictographs on its surface. Settlers were attracted to the area in the 1850's by the abundance of white pine, a coveted resource in the lumber trade.

In the late nineteenth century, the shores of Mazinaw Lake were a popular camping destination. In 1900, a young Cleveland dentist named Weston Price built the Bon Echo Inn for like-minded natural enthusiasts. In 1910, Price sold the Inn to Flora MacDonald Denison and her husband, Howard, who had been previous visitors. The couple transformed the Bon Echo Inn into a haven for those interested in the arts, attracting guests such as members of the Group of Seven, Yousef Karsh and W.O. Mitchell. Frank Lloyd Wright himself has a tie to the site and Inn: the Denisons requested plans for the expansion of Bon Echo from him, but these were in the end too expensive to implement. In September of 1936, the Inn was destroyed by fire and in 1959, the Denisons' son, Merrill donated the land along the lake to the provincial government for the purpose of developing a park. Bon Echo Provincial Park officially opened in 1965 and has continued acquiring land and growing since then. The project that culminates this thesis, and which is presented in Part 4 builds on the question of making Bon Echo Provincial Park's stories accessible to more visitors. The three nature dwellings developed in this thesis proposition seek to provide a connection to the landscape and allow the opportunity for inhabitants to acknowledge and explore the park. Presented at the end of Part 4, the A.Y. Jackson retreat is conceived for painting and explores opposition and contrast. The W.O. Mitchell retreat is conceived for writing and examines fusion and extension. Finally, the Algonkian retreat is conceived for wandering; its architecture explores the idea of flow, extension and the embrace of the landscape.

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95 Campbell, 2
96 Campbell, xi
97 Campbell, 82
98 Campbell, 88
99 Campbell, xiii
100 Campbell, 91
101 Ontario Ministry of Natural Resources
102 Campbell, 102
PARK FACILITIES:

Bon Echo Provincial Park provides many facilities to enhance and add comfort to experiencing the park. 169,000 campers visit each year, inhabiting the 528 campsites located throughout the park. The majority of the sites are located in the campground along Mazinaw Lake and the campground called Hardwood Hills, both providing car access and the recent addition of electrical connection. These sites are provided with nearby shower, washroom and laundry facilities. A number of sites in the more remote northwestern area of the park, along Joeperry, Abes and Essens Lakes, are hike or canoe-in only, providing more of a wilderness experience away from the crowded shores of Mazinaw. Along with the tent campsites, there is roofed accommodation in the form of six yurts - large scaled more permanent tent structures providing deck space, electric heat and accommodating up to six people.

However, the highlight of Bon Echo 'camping' is perhaps the Cabin on the Hill, a rustic log cabin that was originally constructed as a schoolhouse at the shore of the lake in 1935 and transported to the top of a hill overlooking Upper Mazinaw Lake in 1959. The cabin provides sleeping for six as well as electric lighting, a stove, refrigerator and microwave, running water and toilet and a wood stove for heat. Even though cabin rental is the most expensive option for overnight accommodation in the park, it is fully booked.
for the entire season. Clearly, Bon Echo Park is a popular destination for 'non-tenters.' Based on this as well as the findings of the Ontario Parks research report discussed in Part 3, there seems to be a need for another kind of shelter at Bon Echo Park. This thesis proposition explores built shelters for Bon Echo that will provide an affordable, inhabitable and integrated space that allows close connection and interaction with the rich landscape of the park. These permanent constructions will appeal to a broad dynamic of people visiting the park and will offer the opportunity for overnight accommodation for those uncomfortable with tenting. This will attract new users, making the rich natural experience of Bon Echo Park accessible to all.

Bon Echo Provincial Park offers a vast array of potential sites for the exploration of the architectural ecotone. For the purpose of this project, it was important to select a site that offers numerous varying qualities and conditions: access to water, varied vegetation, characteristics of the Canadian Shield (exposed rock for example), existing human intervention, etc. Based on these requirements, a site was chosen that provides the opportunity and inspiration for numerous reactionary and integrated building-landscape designs.

The site, Bon Echo 525 is an existing campsite located on Joeperry Lake in the northwestern portion of Bon Echo Park. Joeperry Lake offers a number of campsites, and they are more isolated offer more of the 'wilderness experience' than the denser, more popular campsites located along Mazinaw Lake. The isolated, wild qualities of the site proffer it as a type of picturesque landscape, allowing for intimate and elemental connections with nature.

Though the majority of the campsites along Joeperry Lake are canoe-in only, there does exist a large track that links most of them, providing land as well as water access for visitors and construction purposes.

Following a careful analysis of Bon Echo 525, the site will be able to be utilized as a tool and vehicle to manifest the findings and explorations of this thesis. The qualities of the site render it as a standard example of the landscape within Bon Echo Provincial
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: SHAPING AN ARCHITECTURAL ECOPOLIS
Park, allowing these building-landscape explorations to exist as an inspirational instrument to be applied to other sites as well as other parks.

SITE ANALYSIS:

A site should provide specific cues and conditions that are unique to that certain place. These cues can inform the design process, creating a strong connection between architecture and landscape. Christian Norberg-Schulz relates these cues to the concept of *genius loci*, or 'spirit of place'.' He argues that the spirit of a place varies constantly between situations, locations and over the course of time. It is this spirit that allows every site, landscape, and plot of land to possess unique characteristic qualities and essential essences. For Norberg-Schulz, it is these qualities and this essential essence that architecture must uncover and tease out. Building on this idea, David Leatherbarrow writes that "no building rests in and of itself; each participates in its surroundings and is enmeshed in a milieu that is not of its own making but exists prior to construction."

In their book, *Site Planning*, urban planners Kevin Lynch and Gary Hack suggest that, once understood, the *genius loci* of the site "guides the design." A design that emerges from a thoughtful analysis of a site offers the opportunity to bring out latent spatial and experiential qualities. The resulting creation provides a meaningful place wherein relationships between architecture, inhabitants and environment are all developed and heightened.

In order to truly understand and reveal the *genius loci* of a specific site, a thorough analysis of the site conditions, physical characteristics and of the dynamics and forces working within and upon the site, are required. The following examinations of campsite 525 on Joeperry Lake in Bon Echo Provincial Park aim to uncover latent qualities of the site that may assist in the generation of site-specific constructions, and more specifically, of small landscape retreats. The goal of these constructions, in turn, is to transform a nodescript area of land into a place, and indeed, to illustrate fusion and bridging between land and built-form. In sum, these retreats are intended to inhabit the realm of the *architectural ecotone*.}

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95 Weiss, B.
SITE ICONS:

So as to simply and graphically represent the conditions that each site examination is analyzing, a series of pictographic icons has been generated. These icons allow immediate understanding of the generalized conditions explored in each analysis image through a quick glance.

In the elemental assemblies portion of this project, these icons will be utilized to graphically represent which site conditions each construction is influenced by and responding to.

Site Icons represent the following:

**Aerology:**
- the qualities of the air existing within an area

**Light:**
- the quality and orientation of light as it affects the site

**Cognition:**
- the sensual experience and interpretation of an area through sight, smell, sound, etc.

**Topography:**
- the geographical qualities of the site

**Occupation:**
- the human intervention or presence existing within a site

**Vegetation:**
- the organic matter within a site

**Hydrology:**
- the processes, effects and location of water in the site
The adjacent image depicts the locations and orientations of the following thirteen photomontages of the site.

These montages seek to provide some understanding of the basic layout, qualities and conditions that exist within the small space occupied by Bon Echo 525. In order to truly understand and experience a site, one must first inhabit and exist within it, however as this is not possible, these images assist with the understanding of general spatial and material qualities.
PART 4 | BON ECHO 525: THE PROJECT

THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: WRAPPING AN ARCHITECTURAL SURFACE

45
PART 4 | BON ECHO 525: THE PROJECT

THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CRAFTING AN ARCHITECTURAL ECHOTONE
This diagram represents the path of the sun throughout the course of the year. Each path is measured on the 21st of each month. The summer solstice represents the point during the year at which the sun is at its highest in the sky. The winter solstice represents the time when the sun is closest to the horizon.

This information is useful for numerous design decisions such as the orientation of massing or the placement of windows.
This diagram represents the views of the sunset from April to August and from October to February. The views are framed through openings created by the trees on the site.

This information is helpful to keep in mind when planning massing orientation or the placement of windows to acknowledge specific views.
The wind rose diagram represents the directionality and strength of dominant wind patterns throughout the year. This information is useful for the planning of wind screens and the orientation of operable glazing to allow for passive cooling and better air circulation.
This diagram demonstrates the topographical qualities of the site. Each contour line represents a 500 mm vertical interval.

This information is useful for the design of bridging elements, embedded volumes, etc.
This diagram represents the site coverage when flood conditions are high. This information is useful for the placement of volumes in relation to the water, the design of raised elements, etc.
This diagram represents the general water flow following a heavy rainfall. The slope over the site as well as the abundance of exposed bedrock creates a series of small streams during heavy storms, and it is useful to understand where these travel.

This information is useful for the placement of volumes, the design of raised elements, etc.
This diagram represents the solid and permeable areas of the site. The Canadian Shield landscape consists of exposed rock which lends a unique quality to this site when contrasted against the sandy soil. The hard and soft ground materials offer the opportunity for designs that connect to a variation of foundations.
This diagram represents the foliage cover over the site, comparing coniferous and deciduous trees as well as open space.

This information is useful for understanding how light and shade will affect a building, how to place design elements in relation to the trees, etc.
VIEW CORRIDORS

This diagram represents the major openings through the trees that frame certain views from the site. This information is useful when planning the placement of volumes to maintain or take advantage of views, and the placement of windows to frame views.
This diagram represents the human occupancy of the site as it exists as a campground. The diagram compares areas that are appropriate for sleeping (flat ground to allow for tent set up), swimming (comfortable and easy access directly into the water) and cooking (areas open to the sky to allow for campfire smoke to drift away).

This information is useful as a way to understand how people instinctually utilize the site and to provide a reference to the conditions that existed on the site before an architectural intervention.
FLOW: CIRCULATION TO & THROUGH SITE

This diagram represents the circulation through the site. Numerous paths connect between Bon Echo 525 and other campsites as well as the main road back to Mazinaw Lake. The coloured circles represent the point where each path leaves the density of the forest into the less densely wooded site area. The large circle represents the area where the site can be directly accessed from a boat.

The numerous paths marked within the site show the circulation routes people take when they pass through or camp within the site.
**DESIGN-GUIDING COMPONENTS: 'KIT OF PARTS'**

The design and manifestation of integrated dwellings within the picturesque landscape warrants a building system that allows for ease and efficiency of construction as well as the simplified transportation of that building system to its proposed site. Along with the necessity of improved and more accessible and efficient construction, it can be said that in order to understand and compare a number of various design explorations of a nature retreat that exists in the realm of an architectural ecotone, it is important to introduce a relatively common physical and compositional language. This design system, selection of design-guiding components, or 'kit of parts' will form that common language and allow for the design and construction of various site-specific compositions that can be later abstracted, conceptualized and then amalgamated in order to construct nature dwellings for Bon Echo Provincial Park. ‘Kit of parts’ usually denotes prefabrication methods and therefore the challenge will be to reconcile prefabrication with site specific tuning. According to architect Dr. A.S. Howe, whose studies explores the designs of modular and deployable architecture: “‘Kit of parts’ theory refers to the study and application of object-oriented building techniques, where building components are pre-designed / pre-engineered / pre-fabricated for inclusion in joint-based (linear element), panel-based (planar element), module-based (solid element), and deployable (time element) construction systems.”

Leaning on this definition of a ‘kit’, the architectural proposition that follows develops a ‘kit of parts’ system that can be assembled and arranged in an unlimited number of ways, allowing for highly site-specific resolutions. The system also incorporates a palette of ‘raw materials’ of predetermined dimensions, including mild carbon sheet steel, steel H-sections, steel cable, construction lumber and rammed earth. The seemingly contradictory question of how a kit of parts can properly address the issue of site specificity is of course central here. This ‘kit of parts’ will provide predetermined set of available fundamental components that serve as preliminary, design-guiding pieces. Parks Canada staff will choose a specific site, develop a thorough analysis of its systems and characteristics and then design an appropriate dwelling within that site, drawing from the library of components presented by the ‘kit’. Required components for each design will be collected from a central location and transported to the chosen site for construction. The simple fabrication and modularity of this ‘kit of parts’ allows for transportation of the construction components to remote sites. Due to their relative ease of construction, these dwellings can be realized by a team of Parks Canada staff properly trained in the site analysis process and in the ‘Bon Echo kit of parts’ system. Staff will be able to design, develop and build inhabitable, welcoming nature retreats upon almost any site. The result will be a greater number of overnight shelters.

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in Bon Echo Park at an affordable price tag, and more importantly, greater access to the Park for non-tenting users. The 'kit of parts' system for landscape retreats at Bon Echo Park thus participates in a project of democratization of nature-leisure in Ontario.

THE 'BON ECHO KIT OF PARTS' SYSTEM:

This series of design-guiding components, or 'kit of parts' will be utilized in order to form various architectural compositions that react to and engage with the picturesque landscape. According to David Leatherbarrow, the word 'composition' is used to describe something that "makes use of a stock of pre-existing forms". In the specific case of this project, these 'pre-existing forms' are presented as a selection of design-guiding components. Though the concept of a 'kit of parts' when paired with the exploration of site-specific architecture and building-landscape integration may be seen as counter-intuitive, the simplicity and minimal nature of these components allows for manipulation, alteration and arrangement into forms that can truly react to and engage the landscape.

Abstractly, the concept of a 'kit of parts' can be applied to the construction materials and methods defining primitive and indigenous architecture. No access to manufacturing and processing equipment prevents specialized building systems, and so, the raw materials extracted from the landscape - rock, wood, dirt, etc. - provide a rudimentary 'kit of parts' that is altered and combined in order to form elemental shelters and dwellings. Utilizing resources that are readily available in the environment as building supplies prompts intuitive, fundamental and reactionary constructions that are able to mediate dwelling within the landscape. It is possible to also view the modern construction process as one that somewhat employs an idea of a 'kit' of components. Bricks and blocks come in pre-determined sizes, lumber is processed and cut into specific dimensions and steel structure, though customizable, is manufactured into certain measurements. All of these factors are taken into account during the design of architecture and though these components offer unlimited possibilities, they nevertheless guide the design process in some way. Therefore, when referring to a 'kit of parts' in reference to this project as it explores the realm of an architectural ecotone, it may be useful to consider this 'kit' as a series of design-guiding components that can be manipulated and altered, added to and subtracted from in order to generate site-specific architecture.

A relatively contemporary example of the 'kit of parts' method as a tool to explore architecture that is able to engage its site is that of sistema moduli by Finnish architects Kristian Gullischen and Juhani Pallasmaa (1968). The two architects designed a modular system of structural columns and beams that connected to wall, floor and roof panels in order to attempt to assist with the shortage of vacation houses in Finland. The wall and roof panels acted as insulation as well as structure and were able to be replaced by

93 Leatherbarrow. 169
window or lattice panels, allowing for an ever-changing array of design possibilities. Simple materials of wood, glass and steel promoted ease of construction and visual connections to the organic qualities of the surrounding landscape. Between 1969 and 1973, over sixty vacation houses were constructed within the Finnish landscape, and though these houses were able to be built in just two days, the design was not profitable and the project was abandoned. Pallasmaa and Gullischen's sistema moduli permitted the creation of easily buildable dwellings that reacted to their sites in powerful ways, and thus, in spite of their modularity and prefabrication, the sistema moduli here serves as a valuable model for this thesis.

THE ARCHITECTURAL LIMEN

"The door is the limit, the boundary, the frontier that distinguishes and opposes two worlds - and at the same time the paradoxical place where those worlds communicate." Mircea Eliade

The act of creating architecture, from early shelter to vast contemporary buildings is an act of differentiation, and one that performs a schism between the 'outside' and 'inside' realms. This schism creates a definitive and very powerful division point between the landscape and human-made spaces. In essence, the

95 Pallasmaa & Gullischen
96 Pallasmaa & Gullischen
foundation, threshold and wall are the fundamental manifestations of this division point. It is these three architectural limen elements that provide a visually and spatially comprehensible rupture between the worlds of 'out' and 'in'.

Architecture placed in natural sites causes this division to be even more dramatically felt as the stark transition from the landscape to the human-made is experienced. Construction existing in the realm of the architectural ecotone can attempt to accentuate or soften this division in order to create an interaction between the natural and the built form.

The nature dwelling is first and foremost a boundary. Heidegger wrote: “A boundary is not that at which something stops, but, as the Greeks recognized, the boundary is that, from which something begins its presencing. The boundaries of a built space are known as floor, wall and ceiling.”

The following 'kit of parts' seeks to thoughtfully manifest these fundamental architectural boundaries. The 'kit' will allow for the construction of transitional elements that link nature to architecture and outside to inside. These fundamental transitions are in turn assembled together, forming whole retreats, as illustrated later on in this Part.

The foundation and walls of a building constitute its primary boundaries; they both connect and separate the construction and its site. The 'kit of parts' seeks to provide components, systems and materials that allow the construction of a retreat's connection to the ground and division from the outside to begin the process of integrating dwelling and landscape.

The foundation, walls and thresholds of a building represent the fundamental divisions between the site and the building. Through intelligent and informed use of the 'kit of parts', the built form is able to enter the realm of the architectural ecotone - merging construction and landscape to form experientially unique spaces and transitions.

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98 Norberg-Schulz, 13

99 Unwin, 12

INDIVIDUAL ELEMENTS: 
THE 'KIT'

The 'kit of parts' or design-guiding components that will be made available to Parks Canada staff will allow for customizable, manipulable and straightforward construction strategies. Pre-designed modular elements along with pre-determined 'raw materials' shall form this library of components, providing designers and installers with the basis upon which to format nature dwellings and the freedom to customize them. Elemental materials such as steel, wood, glass and earth form a palette that acknowledges the touch of the human hand while at the same time references and connects to the raw, natural qualities of the landscape.
The wall system is composed of prefabricated, modular panels that are designed to allow for ease of connection and assembly. Each panel provides structure as well as insulation and its simple fabrication permits ease of customization on site using basic available tools.

The panel consists of a wooden 2X4 frame, surrounding a sheet of 3 1/2" rigid insulation foam. This frame is sandwiched between two sheets of OSB or oriented strand board. In order to protect from air and moisture, the exterior side of the 2X4 frame is covered in two layers of building paper before the exterior OSB sheet is attached. The OSB provides the surface, both interior and exterior upon which the finishing materials can be applied. A channel between the OSB sheets along the top and bottom of each panel allows for the attachment of a continuous 2X4 member to connect individual panels together, forming a wall.

Each panel is 900 mm wide, with three different height options so as to allow for integration with various window components. The FULL WALL is 2700 mm high. The 2/3 WALL is 1800 mm high and the 1/3 WALL is 900 mm high.
The window system is composed of prefabricated, modular glazing panels. Each panel adds structural stability while allowing transparency between inside and outside. The window panels are designed to be integrated with the wall panels.

Each window panel consists of a mild carbon steel frame housing a double-pane window with channels running along the top and bottom to allow for 2X4 connection to adjacent panels.

As with the wall panels, each window panel is 900 mm wide, with the similar three different height options so as to allow for integration with the wall panels. The FULL WINDOW is 2700 mm high. The 2/3 WINDOW is 1800 mm high and the 1/3 WINDOW is 900 mm high. These three options for both wall and window allow for numerous variations and layouts of solid and transparent planes.
The door system is composed of prefabricated, modular panels that are designed to be integrated with the wall panels. The panels are available as single or double with a solid door, or as a single glass door. Each door operates on an off-centre pivot.
The railing system is composed of prefabricated, modular railing panels. Each panel can be integrated with the decking system in order to provide a safety barrier.

Each railing panel consists of a mild carbon steel frame enclosing wide steel mesh. These individual panels can be bolted to the decking panels and to adjacent railing panels.
The floor and roof panels are fabricated similarly to the wall panels and are offered in 900 or 2700 mm lengths. The panels are connected to one another with the attachment of 2X4 members within built in channels.
The wood deck system is composed of prefabricated panels that are designed to allow for ease of connection, assembly, and on-site customization.

The panel consists of a braced wooden frame supporting a series of unfinished white pine boards. This material references the white pine trees that are found throughout Bon Echo Park. The panels are connected to wooden members that are easily customized on site to allow for precise and thoughtful decking construction.

Each panel is 900 mm square, providing a simple module that is easily connected and utilized.
The steel deck system is composed of prefabricated panels that are designed to allow for ease of connection and assembly.

The panel consists of a braced mild carbon steel frame supporting a steel grate. This grate allows for transparency between the deck surface and the ground beneath. The panels are connected to wooden members that are easily customized on site to allow for precise and thoughtful decking construction.

Each panel is 900 mm square, providing a simple module that is easily connected and utilized.
The louver system can be used both horizontally as well as vertically. It is composed of prefabricated panels that are designed to allow for ease of connection, assembly, and on-site customization.

The panel consists of an unfinished white pine frame enclosing a series of 9 vertically oriented narrow pine slats. These serve to provide shade or privacy depending on their orientation of installation. The panels are connected to one another to create a continuous louvered surface.

Each panel is 900 mm square, providing a simple module that is easily connected and utilized.
The stair system is composed of steel stringers that support wood or steel treads. Each module covers a horizontal and vertical distance of 900 mm. The modules can fit into one another to create longer staircases.
The connection pieces are directly fastenable to the wood or steel posts. The connectors provide connection from a wood post to a wooden beam, from a steel column to a wooden beam, from a steel column to a floor structure, from a steel column to a footing and from a wood post to a footing.
'RAW' MATERIALS

Along with the pre-fabricated elements, the 'kit' will include a pre-determined set of elementary materials whose minimal and accessible nature allows for on-site manipulation and fabrication.

Wood:

Lumber is available in pre-determined dimensions, making it a useful 'raw' addition to the 'kit of parts'. For the purposes of this project, unfinished white pine will be used as it is a wood found abundantly within Bon Echo Park. As wood is a simple, elemental construction material, it require very basic tools in order to manipulate and customize it on-site. This allows for a heightened freedom of design as elements can be altered in order to adapt more effectively to site conditions.

The following white pine lumber dimensions will be available with the 'kit of parts':
2X4 X8'
4X4 X8'
1X2 X10'
1X4 X10'

These elements can be altered on site in order to provide structure, connectors, finishes or any other type of desired construction.

Steel:

Though steel is not as simple to manipulate as wood, it still has the ability to be altered with relatively simple tools and techniques. Mild carbon steel is an elemental material that presents a quality of the touch of the human hand while at the same time exhibiting a rough and raw quality that references the characteristics of nature.

The following mild carbon steel elements will be available with the 'kit of parts':
4X4" X8' wide flange steel beam
1/8" thick steel sheets in the following dimensions:
900X900mm
900X1800mm
900X2700mm
1/8" thick flat bar in 10' lengths in the following widths:
60mm
120mm
Steel cable

These elements can be altered on site in order to provide structure, finishes or any possible type of desired construction.

As well as mild carbon steel, rolls of lead roofing will be available with the 'kit' as an option for an on-site manipulable material.

Site Materials:

Drawing on inspiration from primitive architectures that obtain construction materials directly from their sites, the 'kit of parts' will include resources found within the picturesque landscape of the proposed
building sites. Elements such as boulders, loose rocks, fallen trees, water, etc. can all be incorporated into the design process and integrated with the 'kit'.

**Rammed Earth**

Acting as the human-made form of sedimentary rock, rammed earth offers a site-specific method of constructing solid, stone or concrete-like walls. The use of rammed earth has existed for hundreds of years, and can be traced back to use in Chinese culture in 1900-2600 BCE. Frank Lloyd Wright experimented with the use of rammed earth to form retaining walls and berms for his designs of the Cooperative Homesteads project in Detroit.

Including the materials and tools to form rammed earth constructions within the 'kit of parts' will provide an on-site method of constructing foundations, ground surfaces, walls, etc. The use of materials directly from the site provides a strong connection to the landscape and visually links the architecture with the ground it becomes a part of.

Other:

The various elements forming the library of the 'kit of parts' are able to be manipulated and utilized for a number of purposes - finishes, enclosures, structure, etc. Along with these components, a selection of other materials are available:

- Interior/exterior rated paints:
  - Pantone®413 Grey
  - Pantone®White

**TOOLS**

The 'kit' system is designed to be simple to install, and requires certain tools in order to facilitate this installation and customization. Construction frequently occurs on remote sites and in order to accommodate this, numerous tools and machines have been developed. These innovative tools allow for the construction of dwellings within the picturesque landscape - in remote sites - and provide Parks Canada staff with the ability to construct and manipulate the 'kit of parts'.

Though many potential sites may be supplied with power, there exist a number that have no access to electricity (Bon Echo 525 for example) and therefore it is important to provide this to workers as they construct retreats. Small, portable electrical supply trailers can be brought to site and set up to provide electricity when it is required. By providing a source of power when it is otherwise unavailable, the design and construction of the park dwellings are not restricted.

The following is a list of tools/machinery that will be made available in order to facilitate the installation and customization of the 'kit of parts':

- Cordless drill
- Cordless circular saw
Prazi® Beam Cutter Model PR-7000
Portable metal bender
Bolt cutters
Welding tools
Assorted wrenches
Assorted hardware
ELEMENTAL ASSEMBLIES: ISOLATED LANDSCAPE-BUILDING STRATEGIES

Through the combining, composition and expansion of the preliminary, design-guiding components, or 'kit of parts', this section aims to thoughtfully generate and demonstrate a series of specific, isolated landscape-building strategies, or elemental assemblies that each respond to elemental conditions of nature dwellings in the picturesque landscape. More specifically, the following section delineates the elemental assemblies that a team of Parks Canada staff would be able to use as inspiration and as a guide when looking to design and construct permanent nature retreats on sites in Bon Echo Park. This series of elemental assemblies will emerge from the analysis of the site. Analysis of a site provides an understanding and exposure to certain specific conditions and characteristics - special unique qualities or spirit: the genius loci - which can be addressed and integrated with various design details and methods. Each design method or elemental assembly that follows is quite specific to a particular site - Bon Echo 525 - and a particular program - small rural retreat. These assemblies act merely as an example and tool in order to demonstrate concepts and ideas that allow certain site conditions to be reconciled and addressed with architectural design. As the goal of this design process is to produce architecture that exists in the realm of an architectural ecotone - constructions that mediate the relationship and integration between land and built construction - the assemblies must be conceived so as to create poignant transitions and integration.

The following examples of elemental assemblies are in no way an exhaustive list of the countless possible reactionary designs that attempt to reconcile and integrate architecture and the landscape. They merely seek to inspire and initiate the thought process guiding the creation and manifestation of architecture that pursues existence within the realm of an architectural ecotone.
ASSOCIATION ICONS:

So as to simply and graphically represent the assembly categories that each elemental assembly represents, a series of pictographic icons has been generated. These icons allow immediate understanding of the generalized categories expressed through each individualized architectural system presented in the following section. These assembly icons will be graphically combined with the previously discussed site icons in order to demonstrate which site conditions inform the reactionary designs of the following elemental assemblies.

Assembly Icons represent the following:

Massing:
The way in which the mass of the building interacts with its site.

Fabrication:
The way in which the general assembly of the building interacts with the site.

Finish:
The way in which the materiality of the building interacts with the site.
The fusion volume demonstrates a massing strategy that embeds a building within the landscape, literally and visually fusing them together. The submerged volume exhibits a lower profile which helps to make it seem as though the dwelling is growing from the site.

Installers should analyze the ground surface of the site and determine where the deepest soil areas are located. They can then excavate these areas in order to embed the building. Areas of both rock and soil force the form of the dwelling to maneuver its way into comfort, creating interesting and unique formal responses to the site. Installers can use the excavated soil from the site and the formwork materials provided in the 'kit of parts' to construct foundation walls of rammed earth. These walls provide a material reference to the geography of the site and allow for extensive use of 'local materials', preventing the need for off-site resources. Installers can connect the wall panels directly to the rammed earth walls using the provided connection system. This direct link from earth to built material offers a literal connection between architecture and the landscape.

The interior, sunken form of the dwelling generates interesting interior to exterior relationships. Natural elements that exist at knee height when outside, appear at chest height when within the lowered building. This interior to exterior relationship offers new perspectives of the site that may not have been available previously. Installers should determine the depth of the volume firstly, according to soil depth, and secondly, according the heights of elements surrounding the immediate building site. The interior should be low enough that tall grasses appear at eye level from inside, or the volume should be oriented on a slope so that one side is embedded and the other allows for direct access out into the landscape.
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CRAFTING AN ARCHITECTURAL ECOSPHERE
The exposure volume demonstrates a massing strategy that raises the main volume of the building vertically above the ground plane. This creates an interesting dialogue between the architecture and the site as the building rests lightly on pilotis. This method of introducing a structure into the site creates a minimal impact upon the ground, sheltering and protecting the natural qualities of the earth beneath. The lifted volume creates an exterior room, providing shade during warm weather, shelter during sudden weather changes and allows continuous flow through the site. The building is visually linked directly to the ground but at the same time appears removed and distant.

Elevation above the ground plane provides inhabitants with a new perspective of the landscape that may previously have been unavailable. This changes the experience of the site and the introduction of the built form into the environment delivers a new experiential quality. As the rectilinear form of the volume is perched over the landscape, attention is drawn to the topographical changes, enhancing them visually and highlighting subtle changes that may have been previously unnoticed.

This assembly is based around a post system that connects the structural floor panels to the ground. The steel post connections available in the 'kit' are intended to be placed at intervals of 3 panel-widths, or 2700mm, allowing space beneath for inhabitation. Where soil conditions permit, the posts are driven into the ground, and when placed on rock, they connect to steel anchors drilled into the rock.

Designers/installers should determine and choose the volume's height from the ground based on a number of different factors. For example, the volume floor can be level with the lowest tree branches to allow inhabitation of the 'canopy', the floor can be at the same height as a raised topographical element to provide bridge linking, the floor can be level with the tops of shrubs to provide a subtle but powerful disconnection from the ground, and numerous other options. Naturally, installers would need to be careful to create resonances while raising the shelter floor, so that the outdoor room created beneath frames the landscape in memorable ways. One way which this can be accomplished is by creating a 'compressed' space beneath where it is uncomfortable for a visitor to stand fully, forcing them to sit. This would cause the views of the surrounding landscape to appear much more vast and grand as they open up from beneath the building.
The separation volume demonstrates a massing strategy that creates two separate smaller buildings connected overhead by one continuous roof. This strategy creates an outdoor space that seems as though it is neither inside nor outside, but rather somewhere between. The separation of the volumes allows for existing circulation routes within a site to pass ‘through’ the building, providing an interesting social dynamic as other visitors pass through the dwelling on their way to another site. Through a site analysis, installers should be aware of existing pathways through the site and construct the separation volume framing these paths. This provides a reference to the social dynamic of the site as well as a reminder that the touch of the human hand is always present.

The space between the two smaller buildings can be used to frame the ground between them, or the view beyond them. Installers should construct the separation volume to frame interesting rock outcrops to be used as outdoor seating, to frame specific views along pathways or outwards to the water, to straddle a small ravine or streambed or for numerous other purposes.

The roof connecting the two volumes allows for dry passage from one building to the other on rainy days or allows for the ability to sit ‘outside’ and enjoy those rainy days without getting wet.
A horizontal roof plane provides a reference or datum against which to gauge the topographical changes surrounding the building. The horizontality creates a strong visual cue that allows one to orient themselves and examine how the ground plane shifts beneath their feet.

The horizontal roof is designed to act as a living roof, so that in the summer, grasses and other low-lying native vegetation are able to grow on its surface. It also provides a large surface to catch falling leaves and needles, adding a saturation of colour to the building as the seasons progress. This collection of vegetation on the roof also mimics the ground surface, visually linking the two and subconsciously fusing them together.

Designers/installers can utilize this assembly as the roof of the building itself or as the roof over an outdoor space (as shown in the example). The roof panels in the 'kit' can be connected and supported from the ground using the lumber or the steel that is provided. In order to accentuate the ground-roof connection, installers should construct the exterior roof relatively low to the ground, to provide a definite relationship between the horizontal surfaces. The compressed space beneath the roof will also create interesting moments as a visitor crosses the 'threshold' from low overhead space into a higher interior space or the limitless height of the sky above.

Installers should construct a roof system such as this close to the trees in order for the roof to act as a leaf and pine needle collector. The proximity to the tree trunks will also create a visual link between the vertical roof supports and the forest beyond, visually blurring the two.
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: WRAPPING AN ARCHITECTURAL SCULPTURE
When constructed properly and efficiently, a flat roof is able to support heavy loads, which should be taken advantage of in terms of design strategies that enhance the experience of the site. During the winter, snow will be allowed to build up on the flat roof, along with the ground below it. This gradual buildup of snow allows one to be conscious of the passing of time as snow accumulates and melts. It also creates a visual link between the ground and the roof; the snow on the roof references the abundance of snow on the ground, visually linking the two and creating the illusion that they are closer to each other.

When the snow has accumulated to a high level upon the roof system, the horizontal opening between the low roof and the ground that leads into the dwelling will appear as though it is a gap between two snowbanks. This makes the prospect of returning to the warmth of the building after a day snowshoeing even more appealing.
When a building is raised above the ground or located in an area where the ground slopes away from it, the majority of the view is located below eye level from within the structure. In order to highlight this view, workers can install the 1/3 window panels solely at floor level, drawing the inhabitants' attention to the ground outside, replacing the typical horizon level vista with one that is more intimate and apparent. Hiding the horizon view from within the building will make this view more privileged. Exiting the dwelling or lying or sitting on the interior floor of the retreat will allow this privileged view to appear.

The low windows frame the ground surface, keeping track of time change as shadows move across the ground, monitoring seasonal change as leaves and needles fall and providing the opportunity to witness local wildlife passing through the site.

Installers should install low windows on the sides of the dwelling that face existing circulation paths (both human and animal), on the side that is close to the water to allow for reflected sunlight to bounce into the building, on the side that faces a steep drop in grade in order to accentuate it, or on the side facing a stream to allow the sound of the running water to enter the dwelling. There are many other factors that would influence the need for low, framing windows, all of which would become apparent during a thoughtful analysis of the site.
The elevated walkway or bridge can be used to span the space between two different landforms or connects separate raised building elements. The walkway constitutes a continuous, horizontal element that accentuates and draws attention to changes in grade when placed in reference to the topographical change in the site. The elevated bridge can therefore be used in situations when designers and installers wish to exaggerate the experience of a slope. The end of the walkway connects directly to the ground, creating a continuous flow from the natural surface of the site to the built form of the bridge. The strong horizontal element of the walkway provides a continuous, level datum and acts as a form of horizon for personal orientation against which the vertical change in grade is accentuated. The vertical personal removal from the ground plane offers an alternate perspective of the site.

The walkway itself consists of mild carbon steel grates to walk upon and a wide steel mesh railing panel system to provide a clear view of the ground both directly beneath the visitor's feet and to the sides. This helps to heighten awareness of the topographical change and intensify the sense of removal from the ground. The walkway is designed to be supported upon rough cut, unfinished vertical white pine posts that reference the verticality of the white pines within the site. The raised walkway or bridge also allows the ground plane beneath it to be kept unobstructed, permitting continuous flow beneath the structure.

Designers should utilize this elemental assembly on sites with topographical variation. This element can be oriented so as to bridge over small ravines, link two elevated building volumes, bridge between a raised section of the site and an elevated construction, provide a walkway through the tree branches, bridge over water, and numerous other options. Installers can utilize the modular deck panels to construct walkway segments connected with lumber selected from the 'kit of parts'. On-site alterations and adjustments can be made using the available tools once the designer/installer has decided upon the location and height of the walkway. The bridge supports can be adjusted on-site and can provide connections to the exposed bedrock or into the more permeable soil. When deciding on bridge heights, it is important to keep in mind any circulation paths that may exist within the site in order to maintain their existence and not obstruct them.
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CARVING AN ARCHITECTURAL SCULPTURE
The topographical datum or rammed earth wall can be used to create a connection between two elevated surfaces, to bridge between the topography and a building, to create landscaping wall elements within the site, to create level seating areas, etc. Acting in a similar manner to the elevated walkway, the construction of the wall creates a continuous, level element that acts as a datum against which the topographical change can be referenced and highlighted. Unlike the elevated walkway, which keeps the ground plane clear for circulation and views, the datum wall is an element that interrupts views and walking paths.

As one walks along the length of the wall, descending with the topography, their peripheral or lateral view becomes focused forwards. The wall rises beside them as they descend, accentuating the slope of the site.

Earth excavated from the site is used to construct the wall element. This provides a direct material link between the constructed form and the landscape and gives the datum wall a tactile, raw quality.

Installers can utilize the formwork materials provided by the 'kit of parts' to construct the wall, deciding upon location and measurements on-site.
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CRAFTING AN ARCHITECTURAL ECOTONE
TRUNK ALLOWANCE

The site is saturated with trees, both coniferous and deciduous. Trees are an element of the natural world that add a certain mystical quality to an environment. In order to respect the site and its forest, any interventions, architectural or otherwise should cause minimal damage and require minimal deforestation. Decks provide large horizontal expanses that allow for a level surface while covering much of the ground plane. Rather than removing a tree that may impede the expansion of a deck surface, designers/installers may utilize the modular decking panels to 'embrace' the tree trunk, creating a direct and intimate dialogue between the natural and the built forms. The act of wrapping a deck surface around a tree trunk draws attention to it, highlighting the tree as an important element and drawing it in to become a part of the building itself - appearing as a structural element or providing a vertical support from which to suspend a clothesline or hammock.
PART 4 | BOH ECHO 525: THE PROJECT

THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: SHAPE AN ARCHITECTURAL FUTURE
The temperature change from summer to winter as well as the progressive change of the angle of the sun between seasons requires a device that provides cooling shade during the hot summer months and allows warming sunlight during the cold winter months. Utilizing naturally occurring vegetation on the site incorporated with a building element allows for the seasonal conditions.

Vertical steel grates, similar to the 'kit' walkway railings provide a climbing surface upon which vines can grow. These vines spread from the ground surrounding the building and climb up the vertical grates. During the summer, the leaves that develop provide shade for the adjacent areas and during the winter, as the leaves die and fall to the ground, the sunlight is allowed through the grates and into the building.

Installers can connect the vine screens to the railing panels or directly to the deck panels themselves. Workers should place the vine screens on western and southern exposures so as to provide a shading surface between the dwelling and the sun. The screens should be installed in locations that do not obstruct desired views, or the screens should be installed so that the views can be controlled. Altering between vertical screens and openings allows glimpses out into the landscape as a visitor walks along the length of a deck. The screens can also be installed in order to provide a barrier from the wind if so desired.
An integral part of the camping or landscape dwelling experience is that of sitting around a campfire. It is common for the firepit to exist merely as a group of logs arranged around a pile of rocks on rudimentary campsites. However, for the purpose of designing a true dwelling within the landscape, a more constructed and fused firepit can act as an anchor within the site.

By excavating a pit and compacting the earth to create seating and an area to build a fire, the firepit is literally and visually fused with the site. Embedding the fire within the ground lowers it out of the path of the wind, allowing the fire to burn stronger and provide more warmth for those around it. As inhabitants sit within this depression in the site, their perspective of their surrounding is altered and they are provided with some shelter from the wind as well.

When deciding the location of the firepit, installers should look for permeable areas of ground with little exposed bedrock to allow them to dig into the earth. They should also keep in mind the relationships that will be created between the firepit and the dwelling — visual links, ease of access, passage of smoke, heat and smells, etc.

The constructed firepit creates a focal point within the landscape and an embedded gathering place where inhabitants can assemble and congregate.
In order to visually diffuse the barrier between inside and outside, finishing materials should be extended from the interior of the dwelling to the exterior. This technique was employed by Richard Neutra to create a continuous flow from the landscape outside to the interior comfort of a building.

Installers should place separated finishing materials in ways that provide a visual link between them. When using wood to floor the interior of the retreat building, the boards should be oriented so as to line up with the boards of the wooden decking panels on the outside. If the interior ceiling is painted a certain colour, the ceiling of the roof covering the exterior patio should be painted the same colour so that the surface appears as one continuous plane. This method of continuous materiality allows for a more subtle transition from the purely natural to the purely constructed.
The selection of the interior finish of the dwelling can be used as a tool to accentuate the landscape. The interior can be clad with a neutrally-coloured material such as weathered white pine, or painted with a neutral colour supplied in the 'kit of parts'. This neutral interior can accentuate and highlight the colours and qualities of the landscape outside of the building.

This was a technique employed by Mies van der Rohe in such projects as the Farnsworth House. The greens of the leaves, oranges of the pine needles, blue of the sky and water can seem more vibrant when juxtaposed against a neutral tone.

Installers should decide upon neutral interior finishes when the dwelling is used to frame specific vibrant views, when the volume of the building is raised up into the green of the tree canopy or when the volume is embedded in the earth, in close proximity to the colourful ground cover.
The placement of the window panels within the dwelling can be utilized to frame and control specific desired views. By placing the window panels oriented horizontally, vertically, low to the floor, or high against the ceiling, the designer can force and control views from the inside to the outside and vice versa.

Installers should place window panels where they can frame circulation paths, sunrises or sunsets, interesting topography, ground vegetation, water, views through the trees, etc.
The exterior walls of the retreat can be clad in mild carbon steel, an affordable and durable material that provides aesthetic appeal as well as effective protection from the elements. The steel is untreated, providing it with the ability to alter over time, transforming from a dark, industrial element to a rusted, weathered material. The raw quality of the steel mimics the harsh, hardened characteristics of the site’s exposed bedrock while the patina that the steel develops over time allows it to fuse with and blend into the deep orange needles that litter the ground. The steel finish allows the building to alter over time, creating a record of time passing while becoming more engaged with the site as it ages.

Installers can utilize the three different sized steel panels available with the 'kit of parts' in order to cover each of the three different sized wall panels. The steel cladding will give the dwelling a sense of weight, which will effectively anchor it within the site. When installers construct a shelter directly attached to the bedrock or in close proximity, the steel cladding will offer a direct visual link to the ground and cause the building to appear as though it is growing from the site. When installers use the steel cladding for a site that lacks exposed rock, the visual weight of the steel will contrast with the lighter qualities of the vegetation.
THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CRAFTING AN ARCHITECTURAL ECONOMY
The exterior walls of the retreat are clad in rough cut, unfinished white pine boards of varying widths. The wood used is an acknowledgement of and reference to the numerous white pine trees located on the site and throughout the entire park. The locality of the material creates a definite and specific relationship to the site and the local landscape. When oriented horizontally, the individual boards create an overall pattern that subtly contrasts the verticality of the surrounding tree trunks and accentuates the change in topography within which the building rests.

Installers can use the available lumber in the ‘kit of parts’ to clad completed retreat buildings. The on-site tools can be used to customize the wood and cut it into varying lengths and widths depending on the desired finish. The pieces can be fastened directly to the wall panels using available fasteners, offering an efficient and effective cladding system that helps the retreat to exist in dialogue with its surroundings. Installers should keep in mind that this system should be applied when the dwelling is being constructed in a heavily forested area, so as to generate the relationship between the building’s exterior and the trees. When a retreat is being constructed in an open area, this cladding system may not be as effective.
The engagement of architecture and landscape: Crafting an architectural lexicon.
Similar to the previous assembly, the exterior walls of the retreat are clad in rough cut, unfinished white pine boards of varying widths as an acknowledgement of and reference to the numerous white pine trees located on the site and throughout the entire park. Orienting the boards vertically creates an overall pattern that subtly mimics and draws attention to the verticality of the surrounding tree trunks.

Installers can use the available lumber in the 'kit of parts' to clad completed retreat buildings. The on-site tools can be used to customize the wood and cut it into varying lengths and widths depending on the desired finish. The pieces can be fastened directly to the wall panels using available fasteners, offering an efficient and effective cladding system that helps the retreat to exist in dialogue with its surroundings. Installers should keep in mind that this system should be applied when the dwelling is being constructed in a heavily forested area, so as to generate the relationship between the building's exterior and the trees.
The exterior walls of the retreat can be constructed of rammed earth using soil excavated from the site itself. The rammed earth creates a type of constructed bedrock that fuses with the site in both a literal and a visual sense.

Installers can utilize formwork available in the 'kit of parts' to construct rammed earth walls. The materiality provides a direct link to the site and adds a heaviness to the structure. Rammed earth should be utilized when installers want to fuse the walls of the dwelling with uneven surfaces such as bedrock. The material provides a connection between the rough, organic form of the site and the rectilinear forms of the panels in the 'kit'.
This section seeks to comprehend the various specific, isolated landscape-building relationships that were developed in the explorations of the elemental assemblies. These ideas will be used to propose ways in which the assemblies can be amalgamated and adapted to multiple conditions, to create a series of three small retreats within Bon Echo 525. This project aims to provide three examples of how the investigations of the environmental assemblies can be used by Parks Canada Staff to design entire dwellings that engage and are reciprocally engaged by their site. Each assembly acts as an example of a method by which the 'kit of parts' can be used to address site qualities and conditions. In order to design inhabitable dwellings, these methods can be abstracted, generalized or conceptualized so that they can be combined with one another in order to form a holistic, integrated architectural space. The amalgamation of concepts developed in the elemental assemblies will allow for the design of an architecture that exists within the realm of an architectural ecotone, providing inhabitable, intimate places for dwelling within the landscape.

In order to generate each of these three designs so that they can be compared, a set of 'scientific controls' or rules should be developed, providing a common program and set of requirements. These 'controls' will keep the building to a minimal nature while providing the freedom for experimentation.

"If architecture is, as I believe it to be, not a statement, but a response, the response is not only to those human needs for shelter, but to strong locational needs as well. Too often we thing that the site exists merely to enhance a building, but we can learn from the ancient Greeks or any of the villages of the Mediterranean that a site can be made more beautiful by the buildings placed on it."  

Arthur Erickson
ENCLOSURE (ROOF) — Link from building to sky and shelter from the elements

APPROX. 30 m² INTERIOR SPACE — Manipulation of common area variable allows for easier comparison between conceptual explorations

PHYSICAL THRESHOLD (DOOR) — Door provides a definitive point at which the landscape and built form are divided

TRANSITIONAL SPACE (DECK) — Transitional zone filters between the building and the landscape

CONNECTION TO GROUND — Connection from the ground to building demonstrates direct relationship to the landscape

VISUAL THRESHOLD (WINDOW) — Window provides a visual link to/from interior to exterior and vice versa
INTERIOR FIRE (STOVE) PROVIDES INTERIOR HEAT AND COOKING SURFACE

SLEEPING AREA (4 PEOPLE) CONFIGURATION OF SLEEPING AREA TO ALLOW FOUR ADULTS TO SLEEP COMFORTABLY

FIREWOOD STORAGE STORAGE PROTECTS FIREWOOD PROVIDED BY THE PARK

EXTERIOR FIRE (PIT) DESIGNATED EXTERIOR FIRE PIT FOR OUTDOOR COOKING, BONFIRES, ETC

WATER COLLECTION & STORAGE COLLECTION AND STORAGE OF RAINWATER TO PROVIDE NON-POTABLE WATER FOR CABIN USE
THE THREE DWELLINGS

The three retreats described here take their names from persons who visited the Bon Echo Inn or dwelled in the region in the past. The commemorative naming of the retreats expresses this proposition's larger aim of creating places for deeper connection with the Bon Echo region, its land, social memory, and cultural history. The commemorative naming underscores that the retreats aim to proffer a shared experience of the landscape with persons who have enjoyed and understood - and perhaps even been transformed by - this landscape previously, as well as with persons of the present, and visitors of the future. Through architectures that heighten the dwellers' relationship to the land and environment, these retreats are also intentionally commemorative of a very common and primordial leisure activity in Ontario: that of tent camping.
The A.Y. Jackson retreat is conceived to provide the inspirational experience that could be desired by an artist and focuses on the ground plane and horizon line as fundamental geometries. The main volume of the retreat is elevated above the landscape, exposing and protecting the terrain beneath the building. The lifting of the volume above the ground plane offers the inhabitant a unique experience of the site as they view it from a perspective unattainable from the ground.

The elevation of the building mass creates an outdoor room beneath that can offer shelter from the rain for passing hikers, or shade on a hot day for swimmers.

The exterior of the retreat is clad with horizon-tally oriented pine boards to accentuate the datum created by the floor of the dwelling and the walkway.

Visitors can access the dwelling from a short stairway adjacent to the building or along a steel walkway that proceeds through the trees. This walkway acts as a datum that further enhances the topography of the site as one progresses from the ground, along the steel grates and into the dwelling. The ground will seem to drop away beneath one's feet and the trees will seem lower as one passes through the pine boughs and into the retreat.

The interior of the dwelling is equipped with a wood burning stove, counter and storage space as well as a sink that provides running water from the rain collector. A series of simple plywood cubes act as further storage, seating or extra sleeping space as they can be moved, stacked and arranged in various configurations. A small volume containing a sleeping area for four people protrudes from the side of the main structure. Operable windows are placed at bed height to allow inhabitants to watch the moonlight on the lake, observe squirrels in the nearby trees or be cooled by the air on a rainy night.

A small steel deck hangs out over the exposed rock and offers a glimpse down through the grates to the ground below, further accentuating the elevation from the site.

There is a firepit on the North side of the dwelling, providing an anchor within the site. Its construction of rammed earth fuses with the bedrock beneath. It is located such that prevailing winds can blow the smoke away from the dwelling. Window panels measuring one third the length of the standard window in the 'kit of parts' are placed along the floor of the retreat to frame a view of the firepit from the interior.

The A.Y. Jackson retreat seeks to expose and contrast the qualities of the site by imposing a level datum overhead. This datum creates new spaces and adds importance to otherwise nondescript areas, altering the site and enhancing its latent qualities.
In order to be perched over the landscape and anchored to the rock, the volume is first placed on an expanse of exposed bedrock.
To take advantage of the most sunlight throughout the year, the volume is rotated 5° to orient itself with the sunset of the equinox.
To maintain the view of the sunset and the view down Joeperry Lake, the volume is shifted slightly to the South to bring it fully into the clearing and out of line with the trees.
To link the elevated volume to the ground, a walkway is placed that connects to a grade level with the floor of the volume. The beginning of the walkway is placed along an existing circulation path through the site.
OVERALL SITE PLAN WITH SATELLITE IMAGE
AXONOMETRIC FROM SOUTHWEST
ISOLATED FROM CONTEXT

1. Rammed earth firepit
2. Rain collector & water storage
3. Glazed door panel providing access to steel deck
4. Stove, sink & storage unit
5. Movable furniture cube modules
6. Sleeping envelope
7. Double width steel door panel
8. Firewood storage
9. Stairway to ground
10. Topographical link walkway
WEST ELEVATION FROM LAKE
INTERIOR WITH LOW WINDOWS FRAMING FIREPIT
The W.O. Mitchell Retreat is conceived to provide the contemplative experience perhaps desired by a writer, and explores the architecture of embedded-ness. The dwelling seeks to physically and visually fuse with the site in order to alter a visitor's perception of the site and the architecture from both the interior and the exterior of the building.

The volume is embedded 900mm into the ground, utilizing soil from the excavation to construct rammed earth foundation walls and flooring. The bedrock is left exposed in portions of the interior to create a stone floor that provides a tactile connection to the site. Upon descent into the interior, the ground appears at waist height through the horizontal windows and provides an altered perspective of the surrounding site.

The majority of the retreat's exterior is clad in mild carbon steel sheets to mimic the qualities of the rock they are propped upon, giving the appearance of fusion of the two materials. The steel adds a temporal quality as it oxidizes over time.

The interior of the dwelling is equipped with a wood-burning fireplace built directly on exposed bedrock, as well as with a counter and storage space and a sink. The sleeping area is raised up within the dwelling and allows for sleepers to look outside along the ground's surface as they lay in bed, watching for wildlife as the sun disappears.

The wall panel at the South end of the dwelling pivots upwards by turning a hand crank built into the wall. This opens the entire building to the outside, blurring the boundary between exterior and interior and creating a continuous flow through the building. The interior space merges with the outdoor embedded firepit and allows for interaction between those sitting around the fire and those sitting inside.

A large table mounted on heavy cylinders can be rolled from the interior to the exterior when the wall is opened. This allows for dining inside during colder nights or outside on balmy summer evenings.

Manipulation of the building's elements creates an intimate connection between the architecture and the inhabitant and provides the ability for a visitor to alter their environment and connect with the landscape.

The W.O. Mitchell retreat seeks to provide an experience of fusion with the landscape, offering direct and tactile connections with the ground itself. Inhabitants within the sunken dwelling can feel as though they are a part of the landscape. The strong experience of "groundedness" in this retreat and associated experience of air temperature, smells and humidity levels, could be said to refer to and exaggerate the connection to the ground of simple tent camping.
To allow the building to be embedded into the ground, the volume is first placed in an area clear of trees.
To take advantage of the sunsets framed by the trees from April to August, the volume is rotated 25°.
To allow for excavation, the volume is shifted slightly to the North, away from the exposed bedrock.
The topography and existing circulation paths determine the location of the entrance stairs.
Embedded stairway to front door
Firewood storage
Embedded rammed earth foundation
Elevated sleeping area
Rain collector & water storage
Sink & storage unit
Fireplace & stove on exposed rock
Rolling table for indoor & outdoor use
Operable wall to merge indoor & outdoor space
Firepit
Embedded seating
VIEW APPROACHING FROM LAKE
**INTERIOR VIEW:**
Exposed rock floor.
Closed south wall &
Rolling table inside

**INTERIOR VIEW:**
Open south wall linking interior
to exterior &
Rolling table pushed outside
The Algonkian retreat is conceived to embrace the landscape and provide an anchor in the site for an inhabitant who seeks to explore the Park. The retreat architecturally explores the idea of passage through the land. The massing of the dwelling is split into two volumes - a living volume and a sleeping volume - flanking either side of an existing beaten walking path through the site. The roof structure also wraps around two tree trunks adjacent to the building to create minimal impact in the site and to embrace the vegetation. The separation of the volumes creates an outdoor room between them that frames the landscape and allows for hikers to pass through the dwelling.

The majority of the dwelling is clad in vertically oriented pine boards to mimic the verticality of the surrounding trees and to visually accentuate the height of the building.

The interior of the living volume is equipped with a wood burning stove, counter and storage space and a sink. The sleeping volume is equipped with two double beds, a closet space and a wood-burning stove for heat.

The East wall of the living volume and the West wall of the sleeping volume are both operable. The panels can be pushed along steel tracks to completely open the two dwellings to one another. This creates a large room that bridges from inside to outside to inside again and blurs the boundaries between the built and the natural. A rotating table inside the living volume can be pivoted so that it protrudes into the passage between the two masses. Inhabitants can eat their meals in a space that is neither inside nor outside and can stop passing hikers to invite them for a meal.

Doors within the panels allow for ease of access to the inside when the operable walls are closed.

Large floor to ceiling windows on the West side of the living volume frame a view out over the site toward the lake. A glass door allows access onto the outdoor wooden deck that wraps around an existing tree trunk.

The firepit is constructed of rammed earth directly on the bedrock on the South end of the dwelling. A folded steel panel wraps a portion of the firepit to shield it from the wind and create a more intimate experience for those enjoying the fire.

Offering to the dweller the ability to open the dwelling up and invite nature and wilderness walkers inside, the Algonkian retreat seeks to provide an embracing experience of the landscape as shared ground. The retreat provides an anchor within the site from which to reference the landscape and set out to experience its unique and transformative qualities.
To allow for the separation of the building's volumes, the mass is placed in an area clear of trees.
The volume is shifted to the Southwest in order to connect the building to the rock.
An existing circulation path through the site determines where the volume is split and shifted apart.
To maintain 2 existing trees in close proximity to the building, 2 panels of the roof are removed, wrapping the roof plane around the trunks.
OVERALL SITE PLAN WITH SATELLITE IMAGE
AXONOMETRIC FROM SOUTHWEST
ISOLATED FROM CONTEXT

1. Opening in deck for tree trunk
2. Sliding wall panel for living volume
3. Sliding wall panel for sleeping volume
4. Opening in roof for tree trunk
5. Rotating table for interior & exterior use
6. Closet
7. Rain collector & water storage
8. Sleeping area
9. Constructed fireplace
10. Steel wind shield panel

THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CARVING AN ARCHITECTURAL LEGACY
SECTIOIl (CUT NORTH-SOUTH)
INTERIOR VIEW:
Closed wall panels,
Rotating table &
Movable furniture cubes

INTERIOR VIEW:
Open wall panels creating indoor/
outdoor room &
Rotating table bridging to exterior
CONCLUSION

The work of architecture that participates in reconciling humans to their world, that assists them in understanding their place in the world, and that encourages their sense of awe about this world, is worth building. The 'kit of parts' aimed at building architectural ecotones, or constructions of mediation between natural and constructed realms, responds to a persistent desire of humans to dwell in their environment more fully. In a refuge in the landscape, the city dweller finds respite from noise and crowdedness and the suburban dweller, from consumerist landscapes. The landscapes provided by the seemingly untouched wilderness offer the opportunity for a more intimate and experiential existence. These landscapes offer the potential for connection to something that is part of a greater whole. The thoughtful creation of dwelling places within an environment such as this can generate an architecture that exists somewhere between the natural and the built form - the realm of the architectural ecotone. Inhabiting spaces of an architectural ecotone can generate powerful connections to nature and can provide fundamental and primal existence within its realm. This quality of wilderness inhabitation should be accessible to all of society in order to allow for a shared experience of the true wonders of the landscape. This project points to a method for building meaningful nature dwellings thoughtfully and affordably, so that the intimate nature experience does not have to be reserved for those willing to pitch a tent in the woods. Conceiving of an architecture that responds to its site and engages the landscape requires careful, significant design and execution. When this is successful, the experience of architectural space and the space that surrounds that architecture is heightened and intensified. A holistic, landscape engaging design process allows for architecture to enhance and be reciprocally enhanced by its site.
The word 'site' in reference to architecture generally refers to the physical and legally measured boundary of a parcel of land. In the context of this thesis however, 'site' denotes a greater, more encompassing field, one that is likened to the array of forces that act upon and within the area, ranging through a variety of scales. A site exists in a context that is larger than itself, as the landscape is akin to a continuous topographical canvas, "whether it is visually fragmented by intrusive elements or site barriers or is proprietarily parceled by man-made 'lines' such as property lines, easements, and rights-of-way." In her book entitled Site, Space, and Structure, author Kim W. Todd argues: "The challenge to the designer is to allow the land to continue, regardless of those barriers, and to be perceived and used in a smooth-flowing manner by means of subtle transitions between different areas of the site." These subtle transitions allow for a design to become part of a greater whole, incorporating architecture into the vast continuous canvas of the landscape. By doing so, the natural and the built form are able to interact and engage, bringing design into the realm of the architectural ecotone.

The picturesque landscape is replete with potential sites into which a work of architecture can be placed. But can architecture in fact enhance the landscape and reveal it, such that it becomes a place? Heidegger presents the example of the bridge - "a 'building' which visualizes, symbolizes and gathers, and makes the environment become a unified whole" - to argue that building can be an act of reconciliation and revelation. Heidegger explains his idea: "The bridge swings over the stream with ease and power. It does not just connect banks that are already there, the banks emerge as banks only as the bridge crosses the stream. The bridge designedly causes them to lie across from each other. One side is set off against the other by the..."
bridge. Nor do the banks stretch along the stream as indifferent border strips of the dry land. With the banks, the bridge brings to the stream the one and the other expanse of the landscape lying behind them. It brings stream and bank and land into each other’s neighbourhood. The bridge gathers the earth as landscape around the stream. For the German philosopher, the landscape receives its value because of the bridge. What was simply a stream previously has become an entity or a place because of the importance it has developed with the introduction of the bridge. The bridge has generated spatial, relational values - across, opposite, over, under - that allow that specific section of the stream to enforce a presence and exist in a way unique to any other section of that stream. The notion that the purpose of building is “to make a site become a place, that is, to uncover the meanings potentially present in the given environment” orients the following chapters.

Christian Norberg-Schultz builds in Heidegger’s idea of dwelling in his writings on genius loci. For him as for Heidegger, architecture’s manifestation within a site alters the landscape and transforms it from merely an expanse on the earth to a unique place endowed with meaning. Norberg-Schultz writes: “Man dwells when he can orientate himself within and identify himself with an environment, or, in short, when he experiences the environment as meaningful. Dwelling therefore implies something more than ‘shelter’. It implies that spaces where life occurs are places, in the true sense of the word. A place is a space which has a distinct character. Since ancient times, the genius loci, or ‘spirit of place’, has been recognized as the concrete reality man has to face and come to terms with in his daily life. Architecture means to visualize the genius loci, and the task of the architect is to create meaningful places, whereby he helps man to dwell.”

Norberg-Schultz argues that spirit of a place varies constantly between situations, locations and over the course of time. It is this spirit that allows every site, landscape, and plot of land to possess unique characteristics and qualities. These characteristics and qualities attract, intrigue and provide a sense of wonder. He refers to this spirit as the genius loci, a Roman concept. According to ancient Roman tradition and belief, every ‘independent’ being possessed a guardian spirit; their genius. The spirit gave life to people and places, influenced their essence or character and accompanied them from birth to the grave.
The *genius* therefore "denotes what a thing *is* or what it *wants to be*'103, to use an expression of Louis Kahn. *Loci* is defined as a "particular position, point, or place where something occurs or is situated."104

The *genius loci* is the essential essence of a specific place, buried deep within it; it does not simply manifest itself upon initial perception or investigation. The *genius loci* is the local character of a place, something that traditional societies learned to understand and recognize in order to align their lives with it, and to survive in a way that allowed a close relationship with the immediacy of their surroundings.

In their book, *Site Planning*, urban planners Kevin Lynch and Gary Hack thoughtfully articulate that places are not simply mathematically definable, but that they are defined by time and human experience as well. Lynch suggests that, once understood, the *genius loci* of the site "guides the design. It does not dictate the design, however, nor is there any unique solution latent in the site, waiting to be uncovered. The plan develops from the creative effort of the designer himself, but it must respond to the site and not disregard it. Often the designer will be working with the grain of the locality, treating it delicately, emphasizing its strong points and teasing out its potentialities. Sometimes he will dramatically cut across it or oppose its nature. This too can succeed only if the site is thoroughly understood."105

As explained, place-making and uncovering the *genius loci* of a site can initiate the transformation of a nondescript site into something much more defined, recognizable and meaningful. A design that emerges from a thoughtful analysis of a site offers the opportunity to bring out latent spatial and experiential qualities. The resulting creation provides a meaningful place wherein relationships between architecture, inhabitants and environment are all developed and heightened. Guided by such an outlook, the human intervention upon the land becomes an integral part of an elaborate network that exists within the site.

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**ELABORATION ON RICHARD SERRA: TILTED ARC**

Richard Serra's sculptures are architectural in nature and provide an excellent illustration of the seemingly symbiotic relationship that can be created between a structure and its environment once that environment is truly understood. Serra's sculpture, *Tilted Arc*, was constructed in New York's Federal Plaza in 1981 and received strong opposition from numerous sources. In reaction to a widespread desire to have the sculpture moved, Serra said: "I don't make works that can be relocated or site adjusted. I make works that deal with the environmental components of given places. The scale, size, and location of my site-specific works are determined by the topography of the
site. My works become part of and are built into the structure of the site...to remove Tilted Arc, therefore, would be to destroy it." Site specific works of art fuse with their environments and become inseparable from them. "The sites of such works become places as vivid as the works themselves - they become concertized, identifiable, specific locales and therefore the appearance of that place becomes a part of the content of the work" so that "the works are not only inseparable from their sites - they are not really definable at all apart from them." Serra clearly makes a point that directly applies to certain works of architecture and the way in which they interact and integrate with their sites.

### BON ECHO PROVINCIAL PARK HISTORY

Bon Echo Provincial Park's history is rich. The area that the park is contained within was inhabited by the Algonkian tribes who were drawn to the area for its resources and the spiritual influence they believed Mazinaw Rock possessed. Other than early contact with French fur traders around 1670, the region was unnoticed until the 1850's. The area's thick pine forests attracted the lumber industry, bringing with it free land grants and the construction of colonization...
roads providing access to the area. Farmers settled in the region, providing supplies to the loggers and other settlers. However, as the last of the forests were harvested, industry retreated, leaving farmers stranded—something that was worsened by fires that destroyed the thin soil, terminating agriculture in the area.110

In the late nineteenth century, the shores of Mazinaw Lake were a popular camping destination. Weston Price, a young dentist working in Cleveland who frequented the area decided to purchase a tract of land along the lake to build lodgings for like-minded natural enthusiasts.111 Working with a Cleveland architect and local labourers, Price built the Bon Echo Inn—a simply designed building constructed from remnant pines left from logging activities—at the narrowest point on the lake, and upon completion it began to attract many visitors. Following a decade of successful operation, the Prices sold the Inn in 1910 to Flora MacDonald Denison and her husband, Howard, who had been previous visitors.112 The couple transformed the Bon Echo Inn into a haven for those interested in the arts, attracting guests such as members of the Group of Seven, Yousef Karsh and W.O. Mitchell.113 "Frank Lloyd Wright suggested plans for the expansion of Bon Echo, but these proved to be too expensive for the Denisons."114 When the Denisons died, ownership passed to their son, Merrill, who was trained as an architect and is now recognized as having been a leading Canadian playwright and author. In September of 1936, the Inn and surrounding buildings were destroyed by fire after being struck by lightning. No longer able to be used as a resort, Merrill Denison continued to live on site but rented the rest of the area as a boys' camp.115 Denison recognized how important the area was and understood how many people were interested in visiting, and in 1959, he donated his land along the lake to the provincial government for the purpose of developing a park.116 Bon Echo Provincial Park officially opened in 1965 and has continued acquiring land and growing since then.117

Art has long played an important role in the existence of Bon Echo Provincial Park. Beginning with Algonkian tribes, who created 295 pictographs located along the water level of Mazinaw Rock.118 This is the largest collection of early rock drawings in Ontario, and scholars from numerous organizations including the Smithsonian Institute and the early Royal Ontario Museum have studied it.119 The drawings depict numerous records of Algonkian religious beliefs, ancestral teachings and history.120 The area of pictographs was designated a National Historical Site of Canada in 1982 in hopes that it could be protected.121

Flora MacDonald Denison, owner of the Bon Echo Inn, promoted the inn as a centre for visitors interested in painting, theatre and the arts. MacDonald Denison was

110 Campbell, xii
111 Campbell. 82
112 Campbell. 88
113 Campbell. xii
114 Campbell. 91
115 Campbell. 99
116 Ontario Ministry of Natural Resources.
117 Campbell. 102
118 Campbell. 12
119 Ontario Ministry of Natural Resources
120 Roach, Lisa. Natural Heritage Education Coordinator: Bon Echo Provincial Park

189 THE ENGAGEMENT OF ARCHITECTURE AND LANDSCAPE: CRAFTING AN ARCHITECTURAL ECONOMY
a great admirer of the work of Walt Whitman, founding 'The Whitman Club' at Bon Echo in his honour, (although Whitman had never visited Bon Echo). In the summer of 1920, a verse from Whitman's 'Song of Myself' from his book *Leaves of Grass* was dedicated as Old Walt and carved into the face of Mazinaw Rock.

Merrill Denison became owner of the Inn after his mother's death, attracting members of the Group of Seven to Bon Echo after meeting them years earlier in Toronto. Frank Johnston, Arthur Lismer, A.Y. Jackson, Frank Carmichael and A.J. Casson all travelled to Bon Echo Inn to paint Mazinaw rock. Carmichael, Jackson and Johnston also did some commercial work to help promote the Inn, including a series of black and white oil sketches. All of these pieces are on display at the McMichael Canadian Art Collection, the National Gallery of Canada, the Art Gallery of Ontario, and the Agnes Etherington Art Centre.

The majestic landscape of Bon Echo Provincial Park has long attracted and influenced artists who have immersed themselves into the natural environment offered there. The park presents itself as a prime location within which to investigate how architecture - an inhabitable manifestation of art - can engage its environment. Bon Echo Park continues to encourage the arts, as the volunteer group, Friends of Bon Echo Provincial Park express: 'Mazinaw Lake and Bon Echo Provincial Park have drawn artists to its shores for hundreds of years. Continuing the example of the aboriginal peoples, the Group of Seven and the many who still come to appreciate and create, the Friends provide numerous venues for artists to showcase their work.'


Gutheim, Frederick, ed. Frank Lloyd Wright on Architecture: Selected Writings, 1894-1940. New York: Duell, Sloan and Pearce, 1941.


IMAGE SOURCES

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PART 1

p. 01

PART 2

p. 08

p. 11
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p. 13

PART 3

p. 15

p. 16

p. 21

p. 22
APPENDICES

p.188


p.189

2 Bon Echo Inn: <http://lennox-addington.on.ca/e-history/virtual_exhibits/7_a_new_century/cloyne_tourism_established.html>


p.190

4 'Old Walt': <http://en.wikipedia.org/wiki/File:Bon_Echo_-_Old_Walt.png>

p.191

5 Group of Seven art: <http://groupofsevenart.com/Bon-Echo>