

Architecture as Weaving:
How Can Architecture Contribute to the Learning of
Mi'kmaq Knowledge at Dalhousie University?

by

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CONTENTS

Abstract.....	iii
Acknowledgements.....	iv
List of Terms.....	v
Chapter 1: Introduction.....	1
Chapter 2: Embedded Knowledge in the Lands of Eastern Canada... 7	
Mi'kma'ki.....	7
Kouwakati: A Place Unearthed.....	13
The Ideological Landscape of Dalhousie University.....	15
Landscape Design for a Renewal of University Boulevard	18
Chapter 3: Resurgence.....	33
Learning and Education from a First Nations Perspective	33
Modes of Learning	53
A Classroom for Traditional Knowledge.....	66
Chapter 4: Architecture of Resurgence.....	72
Determination of Program Through Case Study.....	72
Learning Space as Woven Space.....	87
Chapter 5: Reflection.....	120
Bibliography.....	124

ABSTRACT

This architectural thesis proposes a Mi'kmaq Learning Centre on the Dalhousie University Campus in Halifax, Nova Scotia.

Indigenous-led and Indigenous minded content in the post secondary environment creates space for cultural continuity and inter-cultural dialogue. First Nations faculties and support spaces are increasingly being established in post-secondary institutions across Canada. These buildings must negotiate the continental: North American First Nations culture, as well as the regional: in the case of this thesis, the Mi'kmaq culture.

While the content and mode of First Nations and Mi'kmaq modes learning is hugely beneficial to all cultures, the architectural space for its application is often overlooked. This thesis project applies many methods of research and interpretation to interweave the ideas of Mi'kmaq land and First Nations learning, creating place for this pedagogy on Dalhousie University Campus.

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To Richard Kroecker, Sarah Bonnemasion and Patricia Doyle-Bedwell, thank you for the many thought provoking conversations and the guidance throughout this process. Without all of you this project would not have been possible.

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To Erin and to Mom and Dad, thank you for your unwavering support and love.

LIST OF TERMS

Words denoting cultural qualifiers are capitalized in this text out of courtesy. These words include: Aboriginal, Native, First Nations, Indigenous, Mi'kmaq, Mi'kmaw and Elder.

Words expressing concepts sacred in Mi'kmaq culture are capitalized out of courtesy. These words include but are not limited to: Traditional Knowledge, Circle, Talking Circle, Talking Feather, Six Directions, Netukulimk, the Seven Teachings and the Seven Gifts.

With respect to the different dialects and spellings of the Mi'kmaq language across the traditional districts, effort has been made to use the Smith/Francis Orthography. Other spellings may occur if included in a quotation. Even though I do not speak the language, I thought it important that the language be represented in this text. I apologize for any misinterpretations or erroneous contextualizations this may cause.

CHAPTER 1: INTRODUCTION

In the time before man, the Creator called a great meeting of the Animal People. In those days the Animal People could speak with one mind and they shared the earth and its riches without conflict. There was harmony and there was peace. No one knew what the purpose of the meeting was. Speculation was rampant as the animals gathered in a clearing at the foot of a great mountain. When they had all arrived and were settled, the Creator spoke.

I am going to send a strange new creature to live among you. The Creator said. He is to be called Man and he will be your brother.

This new creature will be born without fur or feathers on his body. He will walk on two legs and speak a strange language and he will need your help. You will be his teachers and you will show him how to live rightly in the world because he will not be like you. He will not be born knowing who and what he is. He will need to search for that, and you will be his guides.

Man will come into this world bearing a marvellous gift. He will have the ability to dream. And because of this ability to dream he will create many wonderful things. He will populate every corner of the world. But his inventions will take him away from you, keep him separate, and he will lose his way. So I am going to give Man a second marvellous gift. I am going to give him the gift of Knowledge and of Truth.

But I want him to have to search for it. Because if he found it too easily he would take it for granted. So I need your help. No one knows the world better than you, and I need to know where to hide this gift. Where to place it so Man must search long and hard for Knowledge and Truth. Some place where it will not be an

easy search.

The Animal People were surprised and honoured by the Creator's request. They were thrilled to hear of the arrival of a new creature, a new brother, and they were anxious to be his teachers and to help the Creator find a place to hide the gift of Knowledge and of Truth.

Give it to me, My Creator, said Buffalo, and I will put it on my hump and carry it to the very middle of the great plains and bury it there.

That is a very good idea, My Brother, the Creator said, but it is destined that he shall visit every place on earth and he would find it there too easily and take it for granted.

Then give it to me, said Otter, and I will carry it in my mouth and place it at the bottom of the deepest ocean.

Another good idea, the Creator said, but with his ability to dream, man will invent a wonderful machine that will take him even to the depths of the ocean and he will find it too easily and take it for granted.

Then I will take it, said Eagle, and I will carry it in my talons and place it on the very face of the moon.

No, said the Creator, that is an excellent idea too, but part of Man's destiny will see him reach even to the moon and he would find it there too easily and take it for granted.

One by one the Animal People came forward and offered suggestions on where the Creator could hide the gift of Knowledge and of Truth. One by one the suggestions were turned down. It began to look like they could never find a suitable place. Finally, a small voice called from the very back of their circle. All eyes turned to see a tiny mole, a tiny, half-blind mole asking to speak. Now, the mole was a very respected member of the Animal People. The mole lived within the

earth and so was always in contact with Mother Earth. Because of this the mole possessed great wisdom. And because he had lost the use of his eyes the mole had developed true spiritual insight. So despite his size the mole was respected as a great warrior.

I know where to hide it, Mole said, I know where to hide this great gift of Knowledge and of Truth.

Where then, My Brother? The Creator asked. Where should I hide this gift?

Put it inside them. Mole said with great dignity. Put it inside them. For then only the bravest and purest of heart will have the courage and the insight to look there.

And that is where the Creator placed the gift of Knowledge and of Truth. Inside us.¹

This tale is found within the novel *A Quality of Light* written by author Richard Wagamese. Its message is held within the traditional form of a First Nations legend. When read in isolation it brings to mind ideas of ancient time and morals. However, when read in a little more detail, when put in context with the rest of the novel and when musing on origins, the tale reveals more and more layers of complexity. For instance, by inserting aspects of the present and the future

1 Richard Wagamese, *A Quality of Light*, (Toronto: Doubleday Canada, 1997), 220 - 222.

(deep space and ocean exploration) time is not presented as linear but interconnected or circular. In the novel this tale is not being told by a First Nations elder but by a disaffected white-Canadian character to a First Nations character whose profession is a Christian pastor. These revelations raise the issues of stereotype and the complexity of identity. This tale also makes me wonder about its origins: is it an ancient legend passed down and adapted by the author? Or is it a tale created by Richard Wagamese specifically to fit the novel? Does this matter? This short legend conveyed in its simple, laconic prose is both immediately powerful and deeply intricate.

The complexity of the issues facing First Nations people tend to be invisible to the mainstream Canadian public as our cultural worlds and realities remain very separate. Many Canadians never actually experience a First Nations reserve community and their views of a diverse group of related but distinct cultures can be easily warped by the oversimplifications projected by popular culture, the media

and the government. This disconnect began to be unveiled to me when working on a Dalhousie University design-build project on the Saulteaux Nation reserve community of Kinistin, Saskatchewan. This community was economically depressed as I had been conditioned to expect but it was also full of warmth, kindness and humour. This place was also saturated with a richness of cultural and spiritual practice being actively preserved, adapted and continued. This unveiling continued over the years through conversation, reading and another project in the Mi'kmaq community of Potlotek, or Chapel Island, in the Canadian province of Nova Scotia.

This architectural thesis is a continuation of this journey of understanding. It negotiates issues of dialogue, identity and interpretation between the Canadian mainstream and Canadian First Nations culture focussing these issues through the lens of Learning and Education. The result is an architectural proposal for the learning of Mi'kmaq Knowledge on the campus of Dalhousie University in Halifax, Nova Scotia. However, it

is also a continuation of a personal journey exploring these same issues. How does one interpret? Understand? Empathize?



Rex Lumberjack, photographer, "Fancy Dancer".

CHAPTER 2: EMBEDDED KNOWLEDGE IN THE LANDS OF EASTERN CANADA

Mi'kma'ki

Contrary to its name New Scotland, or Nova Scotia, is an ancient place. It's ancestral name, *Mi'kma'ki* (land of the Mi'kmaq)², encompasses parts of Newfoundland, Cape Breton, Nova Scotia, Prince Edward Island, New Brunswick, the Gaspé Peninsula and Maine. This land cradles the lives and beliefs of the Mi'kmaq people and has done so for thousands of years.

As landscape architect James Corner explains, "the spatial interrelationships of cultural and natural patterns that constitute a particular landscape mean that places are interwoven as a densely contextual and cumulative weave. Every place is unique and special, nested within a particular *topos*, or "topography."³

2 Trudy Sable and Bernard Francis, *The Language of this Land, Mi'kma'ki* (Sydney, NS: Cape Breton University Press, 2012), 16.

3 James Corner, "Landscape and Representation," accessed December 1, 2013, http://sequoia.bot.uc.pt/link/files/corner_james_representation_and_landscape_1992_.pdf, 147.

When viewed from our contemporary urban lifestyle, the traditional Mi'kmaw understanding of the landscape was extraordinarily deep and multivalent. It involved the construction of detailed personal knowledge of ecology, terrain, weather patterns, habitats and landscape features but was also constructed of larger cultural, spiritual and mythological dimensions through place names, stories and legends based in the Mi'kmaq language.

This understanding was based not only in a hunter/gatherer subsistence but also in social systems such as a highly developed and egalitarian clan-based governance system.⁴ This complex relationship to the land is not a thing of the past but carries on in many ways both Traditional and contemporary.

A'tukwaqn: Language, Story, Land

the verb-like quality of Mi'kmaw... reflects the Mi'kmaw world view where the world is perceived primarily as flow or flux, movement as opposed to the Indo-European noun-centred

4 Marie Battiste, "Micmac Literacy and Cognitive Assimilation," in *Indian Education in Canada*, vol. 1, *The Legacy*, ed. Jean Barman et al. (Vancouver: University of British Columbia, 1986), 27.

languages which objectify the world; they turn the world into objects which can be analyzed... In the Mi'kmaw language, there is an inherent dynamism or movement that Mi'kmaw speakers themselves are always aware of, whereas in English, we tend to be more aware of nouns. We are a thing-oriented society rather than a movement oriented society.⁵

Mi'kmaw place-names are imagery-laden descriptors of specific places based in this language of fluid movement. As well as serving to map the landscape, place-names provide ecological and historical information. Many places are also associated with *a'tukwaqn*, translation: 'stories treasured up', which further enmesh the people with all life past, present and future. As anthropologist Anne Hornburg explains, "the landscape and the stories fertilized each other and together deeply engaged the Mi'kmaq world in which they inhabited... The stories about the landscape were loaded with emotions and bodily experience, and indeed evoked what Leland called a 'soul'. They became poetic maps of human lifeworlds."⁶

5 Sable and Francis, *The Language of this Land*, 30.

Not only is the content of place-names rich with many layers of meaning but their enactment through storytelling also mirrors the Mi'kmaw world view. The telling of single stories involves multi-sensory activation, improvisation, inventiveness and oratorical skill. The weaving of single stories into 'story-cycles' further extends this experience:

Within the framework of the traditionally long story-cycles, individual storytellers often transferred elements from one cycle into another... The structure was fluid, accommodating itself to the teller's will. All its elements could change their shapes, their content.

The Micmac language, the original medium for these stories, is equally fluid. Its use of verb phrases, with hundreds of prefixes and suffixes, means that there are very few fixed and rigid separate words in the language. "The full conjugation of one Micmac verb would fill quite a large volume," wrote Rand about a language he found "copious, flexible and expressive." In a very real sense, the speaker creates the vocabulary as he goes along, minting verb phrases to meet the needs of the moment, to give the very finest detailed shades of meaning. Words, in Micmac, are shape-changers as well, following the intent of the speaker.⁷

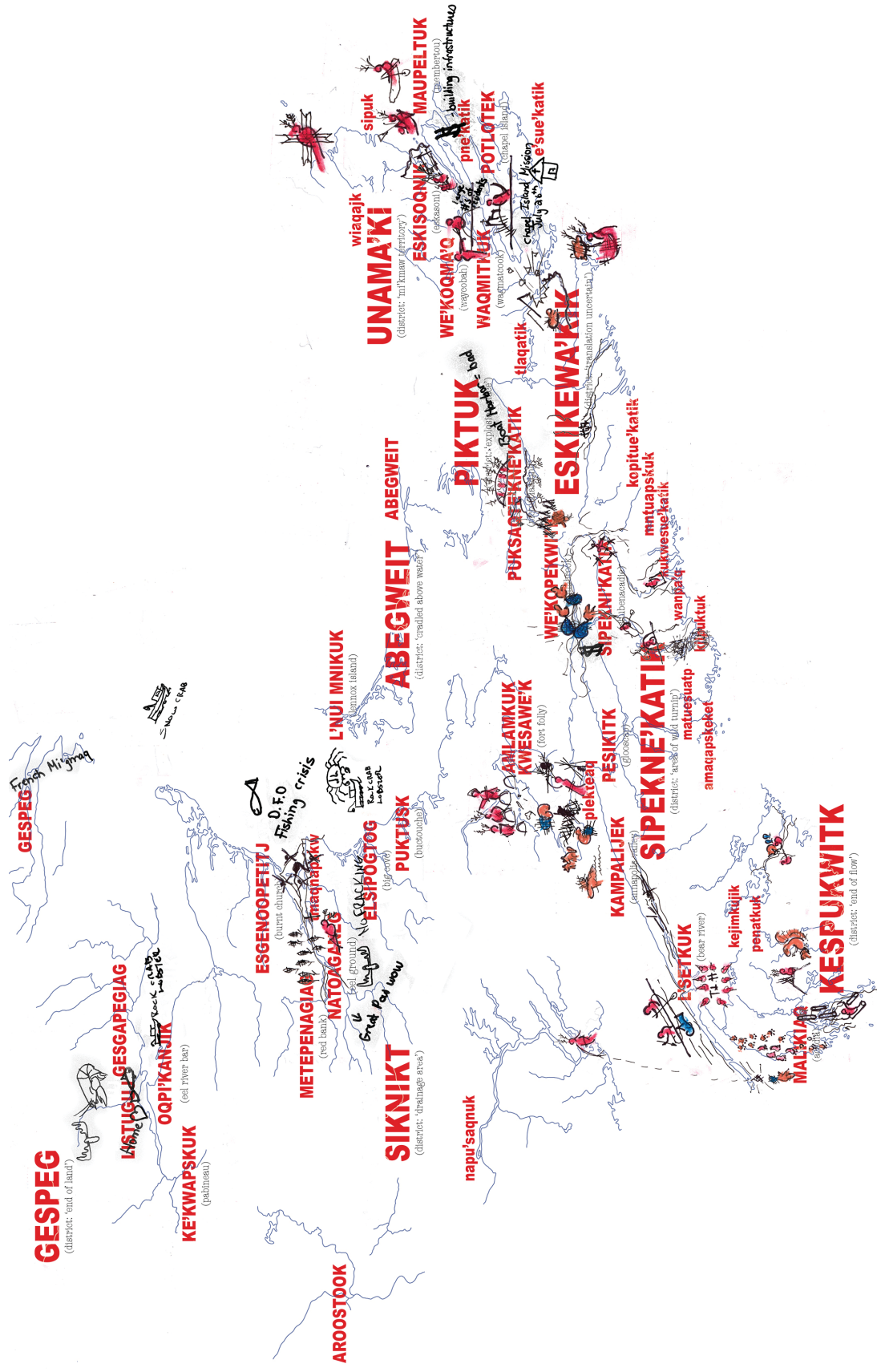
6 Anne Hornburg, *Mi'kmaq Landscapes: From Animism to Sacred Ecology* (Aldershot, England: Ashgate, 2008), 92.

Within this Traditional world view *Mi'kma'ki* is not simply land and space but is place and home (in Mi'kmaw: *wikuom*). The importance of this is well summarized by Trudy Sable and Bernie Francis:

The notion that narrative tradition is rich in place-names that are mnemonic devices providing a framework by which to remember relevant aspects of cultural knowledge, does not seem so different from European cultures, and this fact alone would not justify the claim that traditional Mi'kmaq held, and still have, a different world view. It is the power of the stories and the consequent significance of the place names to individuals within the cultural community that gives us a glimpse into what can be termed another world view. The Mi'kmaw culture, essentially, is inseparable from the land of Eastern Canada.⁸

7 Ruth Holmes Whitehead and Kathy Kaulbach, *Stories from the Six Worlds: Micmac Legends* (Halifax, N.S.: Nimbus Pub., 1988), 2.

8 Sable and Francis, *The Language of this Land*, 51.



Interpretive map of Mi'kma'ki; data from Sable and Francis, *The Language of this Land*.

Kouwakati: A Place Unearthed

...whatever space and time mean, place and occasion mean more, for space in the image of man is place, and time in the image of man is occasion... since place and occasion imply participation in what exists, lack of place - and thus occasion - will cause loss of identity, isolation and frustration.⁹

'Historic Halifax' is one moniker of the city of Halifax, Nova Scotia, Canada. Founded by the British in 1749 it is often associated with Scotland, Ireland and Britain by those west of the Maritimes. Cultural geographer James S. Duncan states, "landscape is our unwitting autobiography. It is this forgetting, this 'cultural amnesia,' which allows the landscape to act as such a powerful ideological tool. By becoming part of the everyday, the taken-for-granted, the objective, and the natural, the landscape masks the artifice and ideological nature of its form and content. Its history as a social construction is unexamined. It is, therefore, as unwittingly read as it is unwittingly written."¹⁰ Since the

9 Aldo van Eyck and Vincent Ligtelijn, *Aldo van Eyck, Works* (Basel: Birkhäuser Verlag, 1999), 89.

precarious early years of the 1750s the city of Halifax has built its own artifice of justification, romanticizing the colonial past and ignoring its indigenous roots.

We tend to forget or are simply unaware that Halifax was inhabited by the Mi'kmaw Chebucto Clan before they were decimated by war and disease brought by the English.¹¹ As Mi'kmaw writer Don (Byrd) Awalt has brought to light, the territory that the city of Halifax currently occupies has many Mi'kmaw place-names:

Kjepouktouk (halifax harbour) trans.
'the big harbour'

Kouwakati (halifax peninsula) trans.
'place of pines'

Wegwotikik (northwest arm) trans.
'comes to an end'

10 James S. Duncan, *The City as Text: The Politics of Landscape Interpretation in the Kandyen Kingdom* (Cambridge England: Cambridge University Press, 1990), 12.

11 Don (Byrd) Awalt, "The Mi'kmaq and Point Pleasant Park." Accessed December 1, 2013, http://www.pointpleasantpark.ca/site-ppp/competitionwebsite/ppp.isl.ca/media/documents/Historical_MikmaqandPPPAwalt2004.pdf, 9.

Amtouapsikan (exact location not known)
 'spirit lodge'

Amtoukati (point pleasant park) 'spirit
 place'

These place-names also relate to story and legend. They tell of the actions and burial places of mythical heroes and historic figures such as Amtou (scourge of the Mohawk), Wasok-gek (Glooscap's guide) and Abbe Louis Peter Thury (the warrior priest) among others.¹² Most inhabitants of this place have no knowledge of this narrative. These place-names, stories and histories present a completely different understanding of the landscape: a narrative of continual ancestral habitation, conflict, flourishing ecosystems and rich Indigenous mythology.

The Ideological Landscape of Dalhousie University

In his study of the disintegration of the monarchy in 1890s Kandy, Sri Lanka, James Duncan finds that "the monks, the nobles, and the peasants,

¹² Awalt, "The Mi'kmaq and Point Pleasant Park", 10.

whose cooperation had allowed the syncretism of the discourses, began, for varying reasons, to question the prevailing order, for they saw in the tension between the discourses, a space for contestation."¹³ The image that Dalhousie campus presents can be seen as part of the dominant cultural discourse of Halifax and mainstream Canada. The University is an institution that flouts its history, linking its pedagogy to medieval monastic European tradition¹⁴ and its architectural narrative to the ideal of the Jeffersonian campus layout. The ideas present in everything from historical narrative, the content being taught, the manicured landscape and the physical architecture imbue the entire university with a charged image, an image representing highly educated mainstream culture. Entering into this ideological landscape of the University can be an intimidating experience for anyone outside this narrow conception, let alone young students.

13 Duncan, *The City as Text*, 183.






14 Dalhousie University, "Tradition and History," http://www.dal.ca/academics/convocation/ceremonies/tradition_history.html.



WEGWOTIKIK
 'comes to an end'
 northwest arm

KOUWAKATI
 'place of pines'
 halifax peninsula

dalhousie university

-  First Nations Counselling Unit
 (social / support space, not to scale)
-  Mawio'mi 'celebration' (oct. 2 annually)
-  First Nations Related Research
-  First Nations Preparatory Programming
-  Dalhousie University Building

KJIPUKTUK
 'at the great harbour'
 halifax harbour

AMTOUAPSIKAN
 'spirit lodge'

chapel of
 st. aspinquid

AMTOUKATI
 'spirit place'
 point pleasant park

Halifax peninsula: a place of contestation. Data from Awalt, "The Mi'kmaq and Point Pleasant Park".

Landscape Design for a Renewal of University Boulevard

An alternative boulevard design is explored in this thesis as a way to interrupt the dominant image of the University campus and, by extension, the city. My interpretation of the Mi'kmaq concept of *Netukulimk* is used to form the content of this interruption and the process of weaving creates a landscape dialogue that is smooth and interlinked as opposed to aggressive and abrupt. Both *Netukulimk* and weaving can be understood as forms of growth and relate back to the dynamic nature of the land.

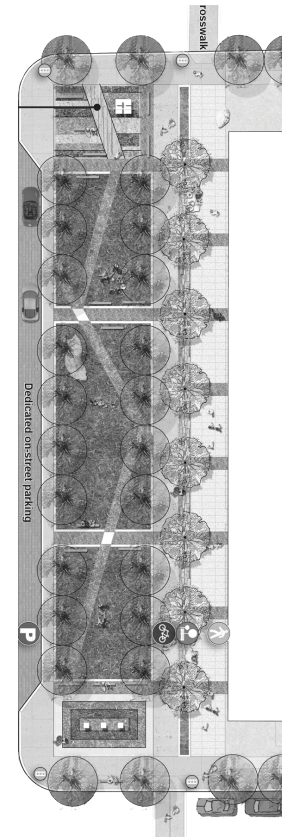
University Boulevard was intended to form the main axis of Dalhousie University. It is currently a series of poorly used plots of land surrounded by roads. The 2010 Dalhousie Campus Master Plan addresses this problem by proposing "a significant avenue lined with impressive buildings and landscape.. that combines east and west traffic in one street along the south edge of the corridor... increasing and enhancing the landscaped open space... and envisions a unique street furniture



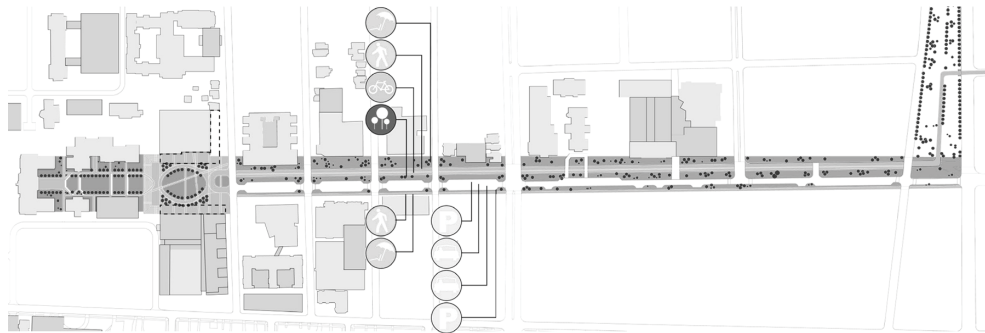
Aerial image of Dalhousie Boulevard; from *Google Maps*

and lighting system to give special character to the avenue.”¹⁵

Many of the functional intentions of this plan, such as the removal of the northern street, the widening of the boulevard and addition of an active transportation corridor are well conceived. However, the concepts for landscaping and social spaces proposed in the ‘Landscape and Open Space Guidelines’ result in a layout that is hardly different from the current problematic arrangement. This treatment results in a boulevard framework with limited biodiversity, limited programmatic diversity and therefore superficial meaning.



Boulevard landscaping plan; from IBI Group, *Dalhousie Masterplan*.



Landscape and open space guidelines; from IBI Group, *Dalhousie Masterplan*.

¹⁵ IBI Group, *Dalhousie University Campus Masterplan* (Dalhousie University, 2010), accessed March 1, 2014, <http://www.dal.ca/dept/facilities/campus-development/about-master-plan.html>. 9.

In creating a different strategy for University Boulevard the Mi'kmaq concept of *Netukulimk*, as described by Elder Albert Marshall, has been important:

The Mi'kmaq word for sustainability, in my humble opinion, is encompassed in that word *Netukulimk*. To bring back the essence or the spirit of what *Netukulimk* is, we first of all have to provide an opportunity for the younger generations to be able to reconnect as to where our source of life comes from. And of course this source of life comes from the forest. Our forest will bring us clean air, clean water and it will provide all the nourishments we need. You can take the gift that the Creator has given you without compromising the ecological integrity of the area in which this gift has been taken from. And to me, this is the essence of what that word implies, *Netukulimk*. You are recognizing that the substance that you need also is physical and spiritual just like I am. I am not a superior being. You cannot compromise the future generations of their abilities. Not just to sustain themselves but also to be able to appreciate and to maintain that connection to that source of life, which is our natural world.¹⁶

As Elder Albert states, *Netukulimk*, translates roughly into English as sustainability. However, I believe this Mi'kmaw conception of sustainability is much broader, more

16 "Netukulimk (UNIR)," Youtube, accessed March 6, 2014, <https://www.youtube.com/watch?v=wsNVewjgKxI>.

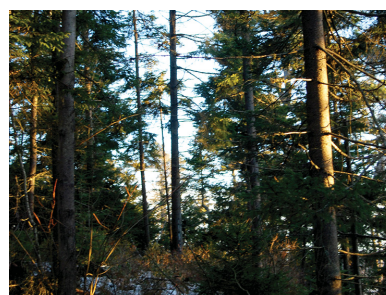
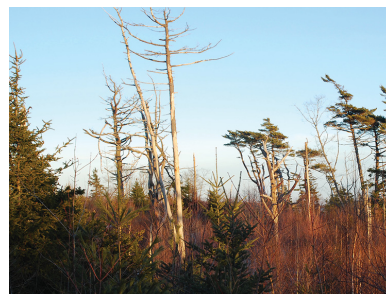
comprehensive and holistic than the limited, technocratic and superficial mainstream interpretation of what the word 'sustainability' tends to imply.

The alternative design for University Boulevard is my attempt to explore the concept of *Netukulimk*. To begin, University Boulevard is given back to the forest. Instead of conceiving nature as series of objects to be added, subtracted and placed onto 'open space', the forest (as a latent life-form inclusive of earth, plants and animals) is the given the opportunity to emerge. The growth of a diverse forest is opposed to the current campus motif of the manicured lawn, which has its own symbolism rooted in Western European Landscape tradition. Ideas of diversity and local ecosystems align with current thinking in the field of landscape architecture and are being used locally to rejuvenate the forests of Halifax's Point Pleasant Park.

Point Pleasant Park was originally an old growth Acadian forest stand. Upon British settlement it was deforested then designated a park in

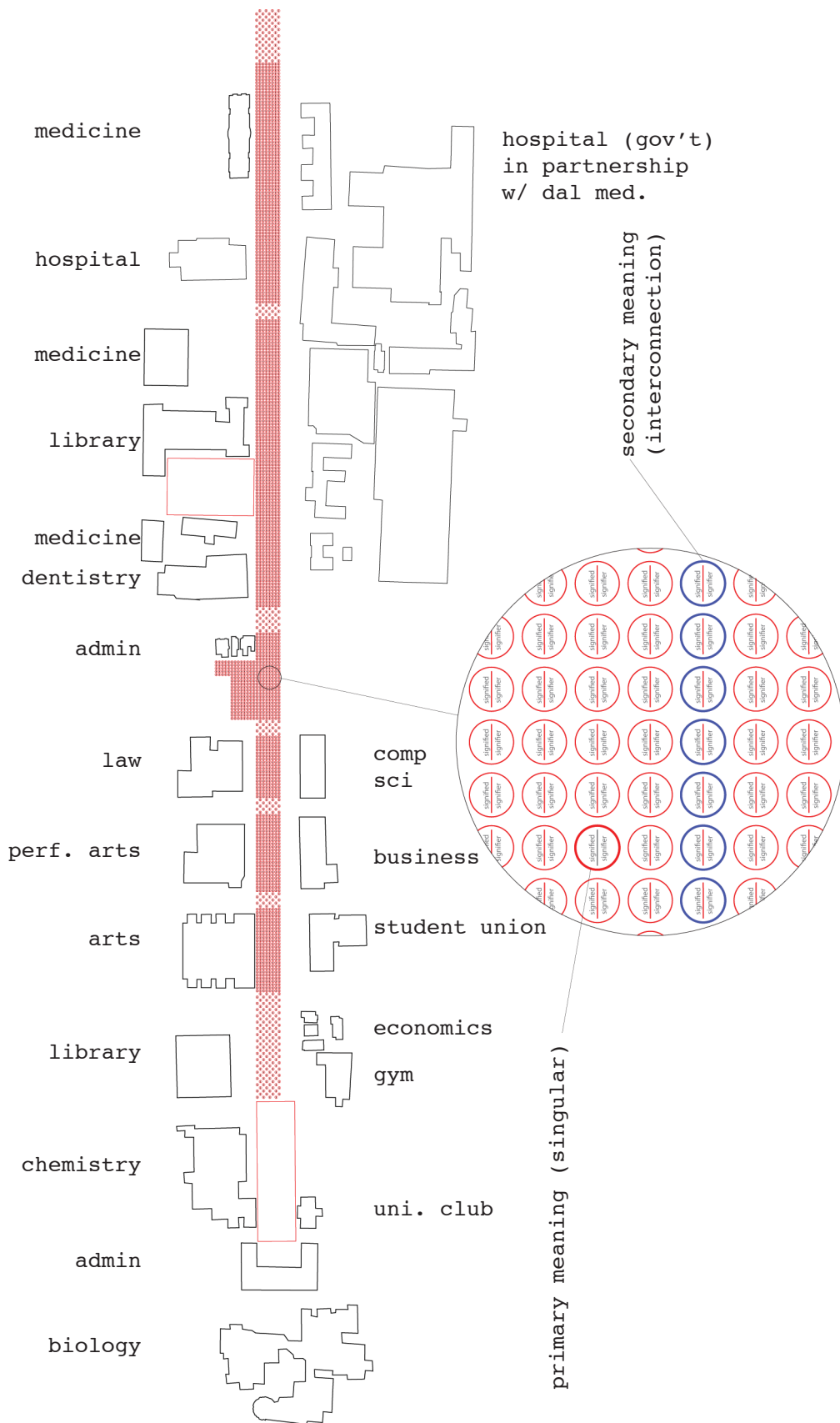
1866, after which a mostly monoculture spruce forest took root. The fragility of this ecosystem was demonstrated by the destruction of Hurricane Juan in 2003. A plan is now in place to guide the forest back to a mixed species diversity typical of this region. This type of forest management requires the cooperation of human and natural forces and aims to foster a landscape that will “be far more enduring, resilient and robust than the red spruce dominated forest of the past.”¹⁷

A similar strategy is proposed for University Boulevard. However, in recognition of the interconnection of human and natural worlds a more visible intervention of human elements (paths, bridges and pavilions) are conceived to be woven into this forest. In this way a rich field of meaning is created. A field of meaning that is inclusive of recreational and functional, forest ecosystem and urban ecosystem, plant, animal and human.

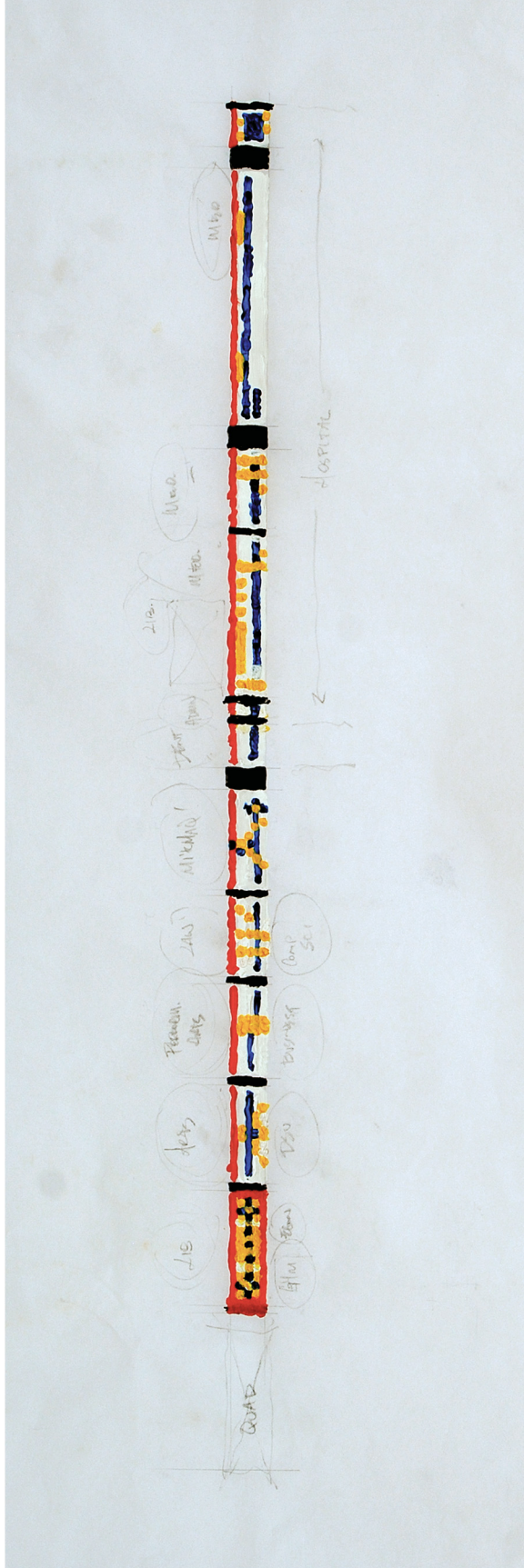


Conditions of forest re-growth at Point Pleasant Park

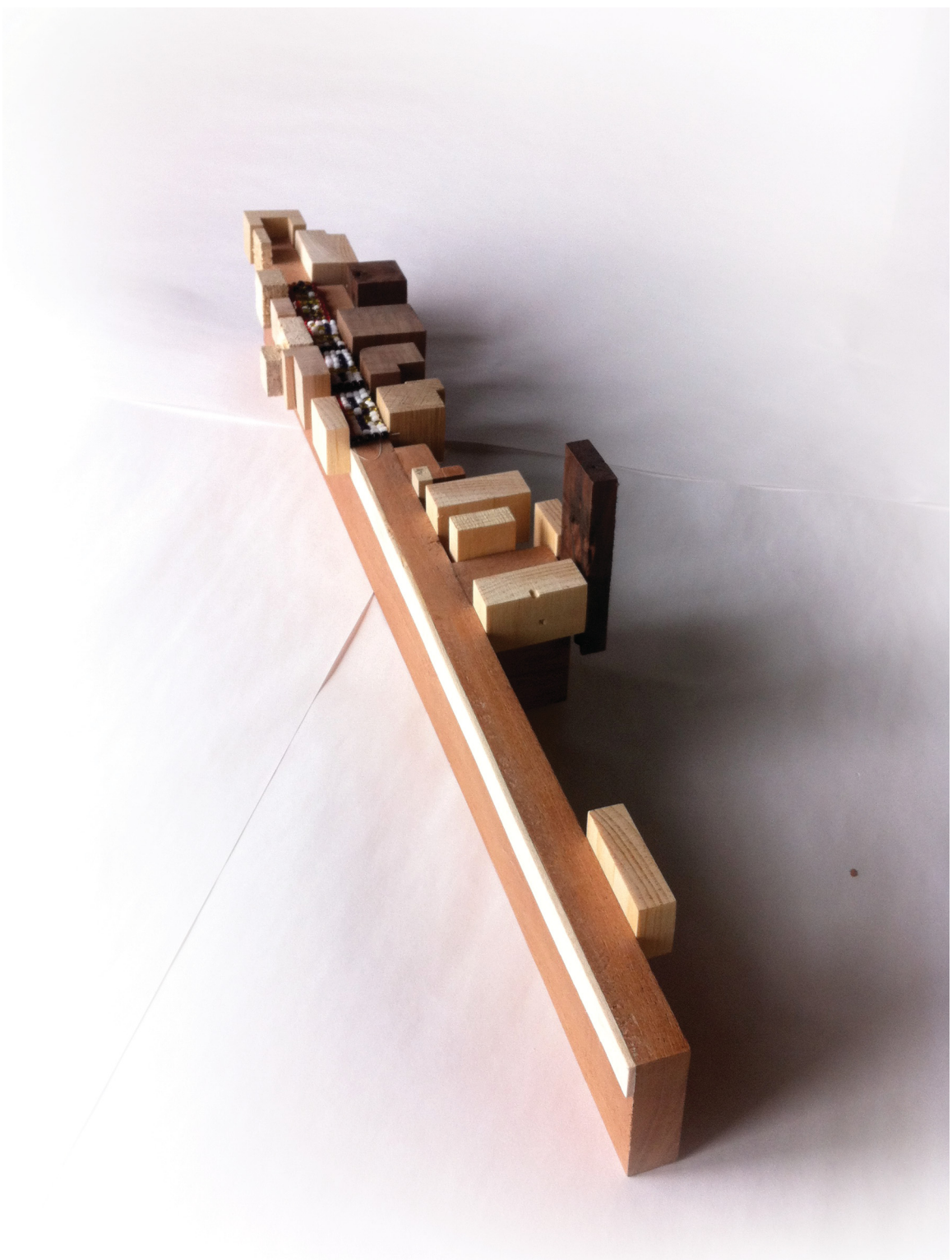
¹⁷ Ekistics Planning & Design and NIP Paysage, *Point Pleasant Park Comprehensive Plan*. (Form:media, 2008), accessed March 6, 2014, <http://www.pointpleasantpark.ca/en/home/planning/default.aspx>. 33.



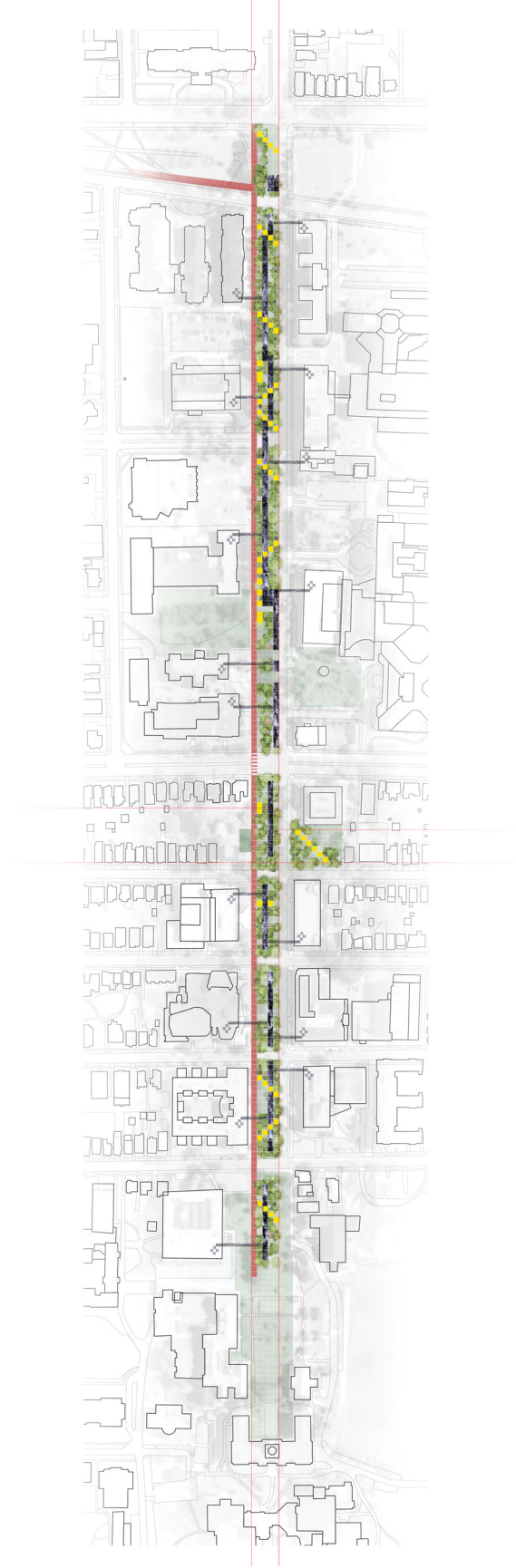
University Boulevard as a field of meaning.



Renewal of University Boulevard. Beading pattern used to design schematic landscape plan.



Model of University Boulevard and faculty buildings. Different types of wood correspond to different programs.



Renewal of University Boulevard shown at an early stage of growth.



Renewal of University Boulevard shown at later stage of growth.

The elements of this landscape (forest, water, bridge and pavilion) create the potential for many beneficial interrelationships.

Forest

Once established and if properly managed this small strip of forest can act as park space, medicine garden, local ecosystem, animal habitat, play space and a didactic landscape for students of all ages. This forest will grow through the plots of underused manicured lawns that currently oversaturate the campus. A healthier balance of this manicured space will result in more concentrated student and public use and therefore more urban vitality.

Water

Water, directed to avoid flooding can act as soft infrastructure (retention of runoff and campus grey water) which bolsters the forest habitat. Different water features such as streams, ponds and marshes can be used as spaces for applied scientific research at any level of scholarship (post-secondary, secondary or elementary).

Bridge

Bridges in this scheme have both a pragmatic and metaphorical dimension. In one sense they simply provide a means to cross the water features. Metaphorically, they provide a connection perpendicular to the orientation of the major axis of the boulevard. A problem with the architecture of the grand boulevard plan is that it results in university buildings that are independent objects and knowledge silos. The architecture of the bridge creates a gesture of connection between these hermetic faculty buildings formerly separated by the boulevard and the potential for spaces of interdisciplinary collaboration.

Paths and Pavilions

Pavilions create spaces of shelter from the elements, which can function as a brief reprieve from inclement weather or outdoor social spaces. Care has been taken to place this infrastructure on the desire lines of existing foot paths.



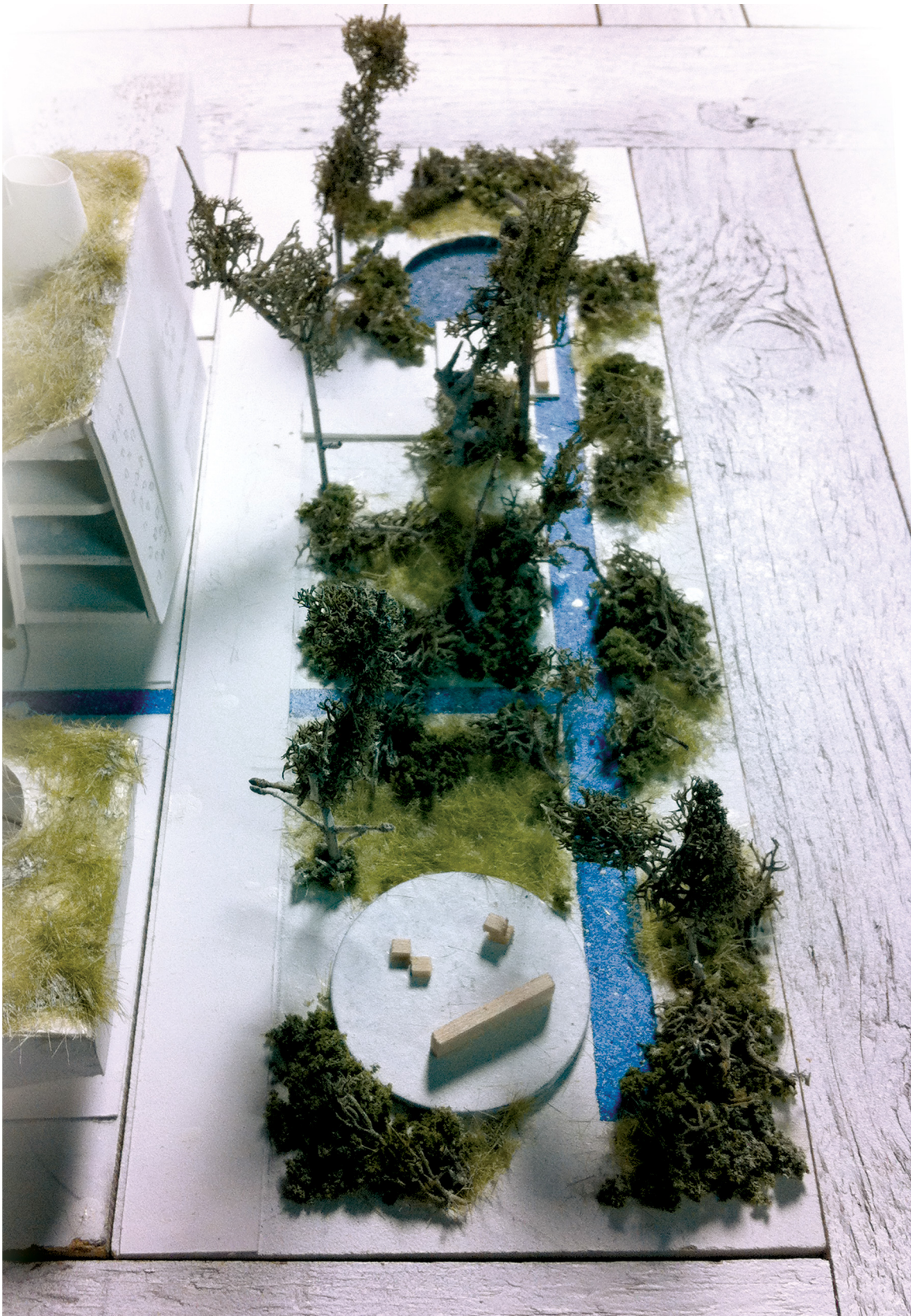
Beadwork informs the underlying patterns of the landscape master plan.



Model of boulevard plot. Large bridge between performance arts building and management building brings performance out into the campus landscape.



Model of boulevard plot in front of building site. Community infrastructure of a daycare playground enlivens the campus landscape.



Model of boulevard plot showing the combination of proposed elements: forest, water, paths and pavilions.

This University Boulevard renewal plan is an exercise in healing and growth, not a display of conflict. The interweaving of the proposed landscape into the existing landscape will reinvigorate each by juxtaposition. Underlying the weaving of land, learning space and urban infrastructure, the design concept and process subtly unearths a buried history of habitation and cultural identity. It can be read as reminder but it awaits celebration.



Hoop dancer; 2013
Dalhousie Mawio'mi.

CHAPTER 3: RESURGENCE

Learning and Education from a First Nations Perspective

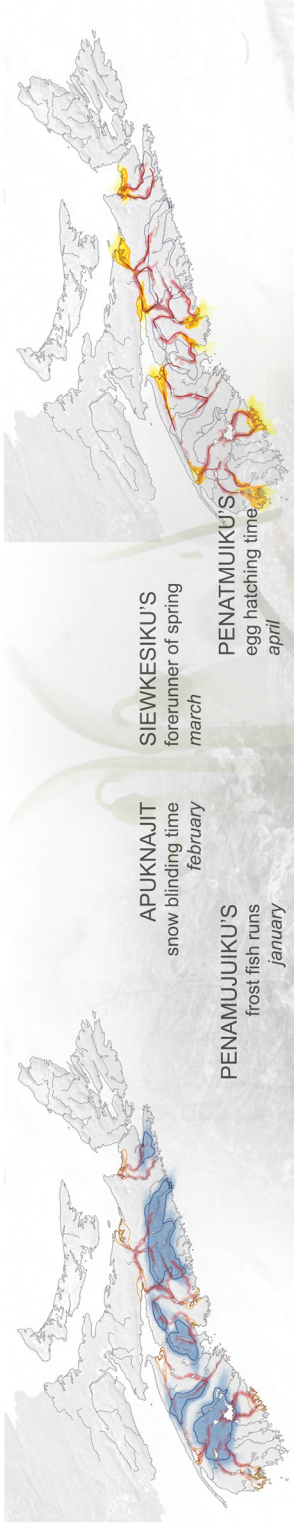
Traditional Knowledge

For thousands of years the First Nations of Canada passed their way of life, language and customs from generation to generation. These ontologies were uniquely adapted to each nations geography, history and culture. They continue to be adapted to the physical, economic and social conditions of the present day. These complex ontologies require an equally complex pedagogy which is referred to as Traditional Knowledge.

Traditional Knowledge in the Mi'kmaq Culture of Eastern Canada is deeply rooted in the land, the language and family relations. This knowledge is taught through many modes including behavioral modelling, learning by doing, detailed observation, active listening, questioning and reflection. These modes of learning are explained in more detail by Dalhousie Associate Professor of Law, Patricia Doyle-Bedwell:

Children participated in all aspects of society and we learned how to be a good Mi'kmaq people by modelling the behaviour of our elders. Children and adults maintained vital connection to their community through significant participation in ceremonies, feasts, funerals and other communal events. This did not alter due to the imposition of the Catholic faith as Mi'kmaq values still remain intact but sometimes invisible to the mainstream.¹⁸

18 Patricia E. Doyle-Bedwell, "Mi'kmaq Education and the Fiduciary Duty: The Guiding Hand of Cultural Genocide" (Master of Laws Thesis, Dalhousie University, 2002), 97.



SIEWKESIKU'S
forerunner of spring
march

APUKNAJIT
snow blinding time
february

PENAMUJUJIKU'S
frost fish runs
january

PENATMUJIKU'S
egg hatching time
april

winter settlement

summer settlement

KESIKEWIKU'S
winter month
december

ETQULJUJIKU'S
frog croaking time
may

KEPTEKEWIKU'S
frost time
november

NIPNIKU'S
leaf budding time
june

WIKEWIKU'S
animal fattening time
october

PESKEWIKU'S
animal fur thickening time
july

WIKUMKEWIKU'S
mate calling time
september

KISIKWEKEWIKU'S
ripening time
august



winter wikuom



summer wikuom

Traditional settlement patterns of Mi'kma'ki

Education: A Troubled History

First Nations culture and Traditional Knowledge was severely impacted when the government of Canada instituted compulsory residential school attendance in the Indian Act of 1884.¹⁹ In these settings Traditional Knowledge and indigenous language was routinely denigrated and strictly forbidden. The impact of this pedagogy on the individual is described by Chief John Tootoosis:

When an Indian comes out of these places it is like being p u t between two walls in a room and left hanging in the middle. On the one side are all the things he learned from his people and their way of life that was being wiped out, and on the other are the white man's ways which he could never fully understand since he had never had the right amount of education and could not be a part of it. There he is, hanging in the middle of the two cultures and he is not a white man and he is not an Indian. They washed away practically everything an Indian needed to help himself, to think the way a human person should in order to survive.²⁰

19 "Residential Schools," Canadian Encyclopedia, accessed November 26, 2013, <http://www.thecanadianencyclopedia.com/articles/residential-schools>.

20 Jean Barman, Yvonne M. Herbert and Don McCaskill, "The Legacy of the Past," in *Indian education in Canada*, vol. 1, *The Challenge*, ed. Jean Barman et al. (Vancouver: University of British Columbia, 1986) 11.

Generations of this assimilationist education severely impacted Indigenous cultures, languages and knowledge across Canada. The Canadian educational system not only created the oppressive physical and curricular structures of the residential schools but also shaped the mainstream view of First Nations people through either disregard or stereotypical, simplified representations of these cultures²¹. However, while the eradication of Indigenous culture was being attempted, language and traditions was kept alive on reserves. In this context of conflict and assimilation the values and modes of Traditional Knowledge also continued, invisible and unspoken.

According to Jean Barman, "the concerted effort by the dominant society to assimilate Canada's Indians through education has failed. Control over the education of Indian children is now passing back to Indians themselves. Just as control has historically been a means to an end, so today it is the critical means making possible the

21 Marie Battiste, "Micmac Literacy and Cognitive Assimilation," 40.

revitalization and resurgence of Indian culture in Canada into the twenty-first century."²²

Resurgence

A glimpse into the changes of educational sovereignty can be seen in two events that took place in 1970, one physical, the other political. The physical appropriation of the Blue Quills Residential School in Northern Alberta was an action that sparked a movement for concrete change. However as Dianne Perrson argues, this seemingly radical action was "in reality the logical and almost inevitable consequence of decades of opposition of a policy of assimilation on Indian students, individuals who had since become adults in the locality."²³ The takeover of Blue Quills Residential School was followed by the negotiation and approval of the Indian Education Act which began to cede official control

22 Jean Barman, Yvonne M. Herbert and Don McCaskill, "The Legacy of the Past," 17.

23 Diane Perrson, "The Changing Experience of Indian Residential Schooling: Blue Quills, 1931-1970," in *Indian Education in Canada*, vol. 1, *The Legacy*, ed. Jean Barman et al. (Vancouver: University of British Columbia, 1986), 167.

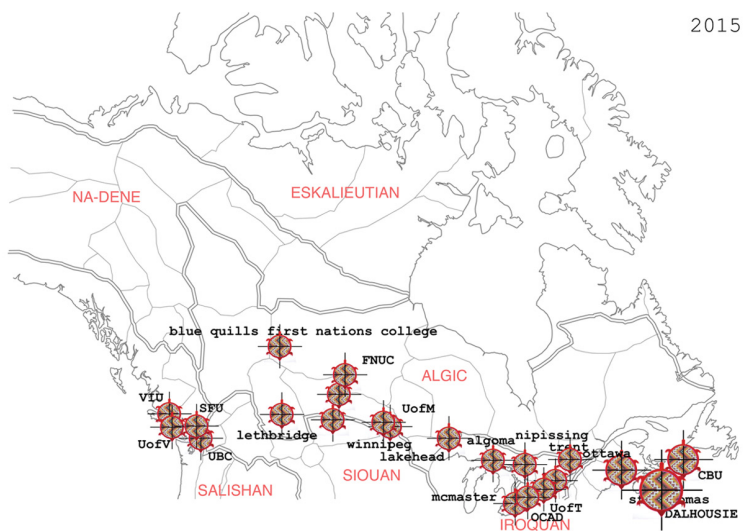
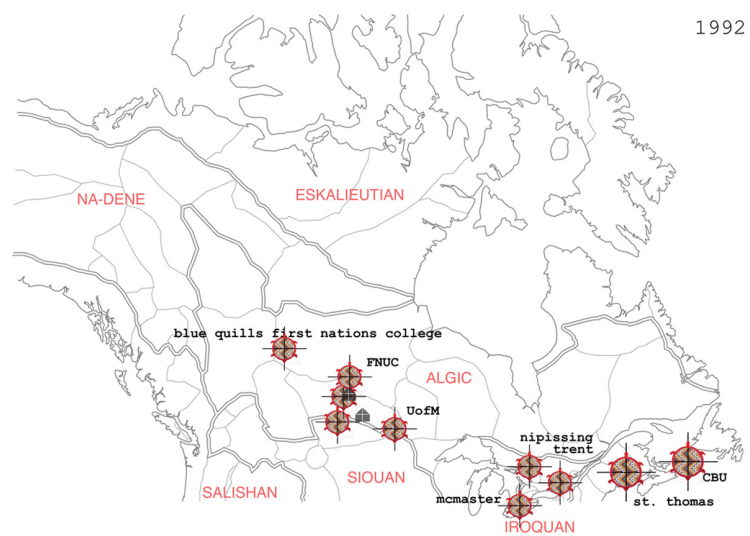
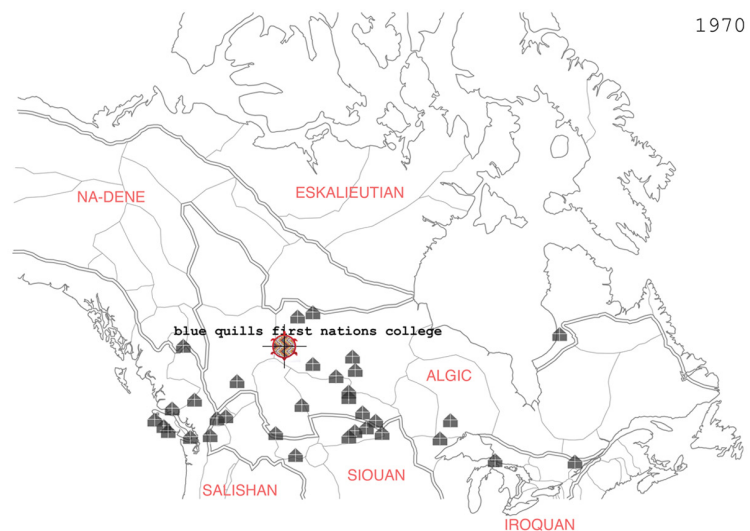
of formal education to First Nations communities. Currently, Blue Quills is still in operation as a fully Indigenous-led and Indigenous-minded post-secondary institution.

These developments did not escape the attention of the Mi'kmaq people. Mi'kmawey School in Potlotek (Chapel Island) was the first bilingual, bicultural school in Nova Scotia and has been in operation since 1981.²⁴ April 22, 1999 saw the provincial and federal proclamation of the Mi'kmaq Education Act as law. Now known as Mi'kmaw Kina'matnewey, this school board provides support for jurisdiction, development and management of 11 independent First Nations schools. In the 1980's Cape Breton University (CBU) in partnership with local elders initiated the Mi'kmaq Studies Department and Integrative Sciences. These programs successfully achieved increased enrollment and graduation of First Nations students

24 Marie Battiste, "Mi'kmaq Linguistic Integrity: A Case Study of Mi'kmawey School," in *Indian Education in Canada*, vol. 2, ed. Jean Barman et al. (Vancouver: University of British Columbia, 1987), 107.

while challenging the existence of a dichotomy existing between Traditional Indigenous knowledge and mainstream knowledge.

While the transmission of Indigenous culture through the many modes of Traditional Knowledge had continued more or less *informally* through the generations, action and policy since 1970 has allowed the movement for sovereign Indigenous-led education to weave its way into the *formal* educational systems of Canada that had previously worked towards the repression and ultimately the eradication of Traditional Knowledge.



Residential schools and First Nations university programs across Canada. Data from Canadian-universities.net.

Pedagogy

Every generation of Aboriginal parents has had to reinvent 'education' for its children. Every generation of Aboriginal peoples has had to struggle with the painful contradictions inherent in humankind's earthly situation. Aboriginal peoples have had to learn to be flexible and patient in their approach. In my generation, 'Indian education' has become a particularly adaptable site for site for confronting the formal contradictions besetting Aboriginal consciousness in Canada.²⁵

First Nations education as a *formal* mode of teaching and learning within the Canadian education system has been emerging now for over 40 years and continues to be shaped and redefined. The important point however, is that it is being shaped and defined by First Nations people themselves. Frameworks of this knowledge have been emerging continentally representing broader Pan-American Indigenous ideas alongside more specific frameworks that represent the cultural ideas and practices of individual First Nations. Dr. Eber Hampton's *Pattern of the Six Directions* is one example of a Pan-

25 Marie Battiste, "Introduction," in *First Nations Education in Canada: The Circle Unfolds*, ed. Marie Battiste and Jean Barman (Vancouver: University of British Columbia, 1995), vii.

American framework while Albert and Murdena Marshall's Two-Eyed Seeing and Seven Teachings are examples of Mi'kmaq specific frameworks.

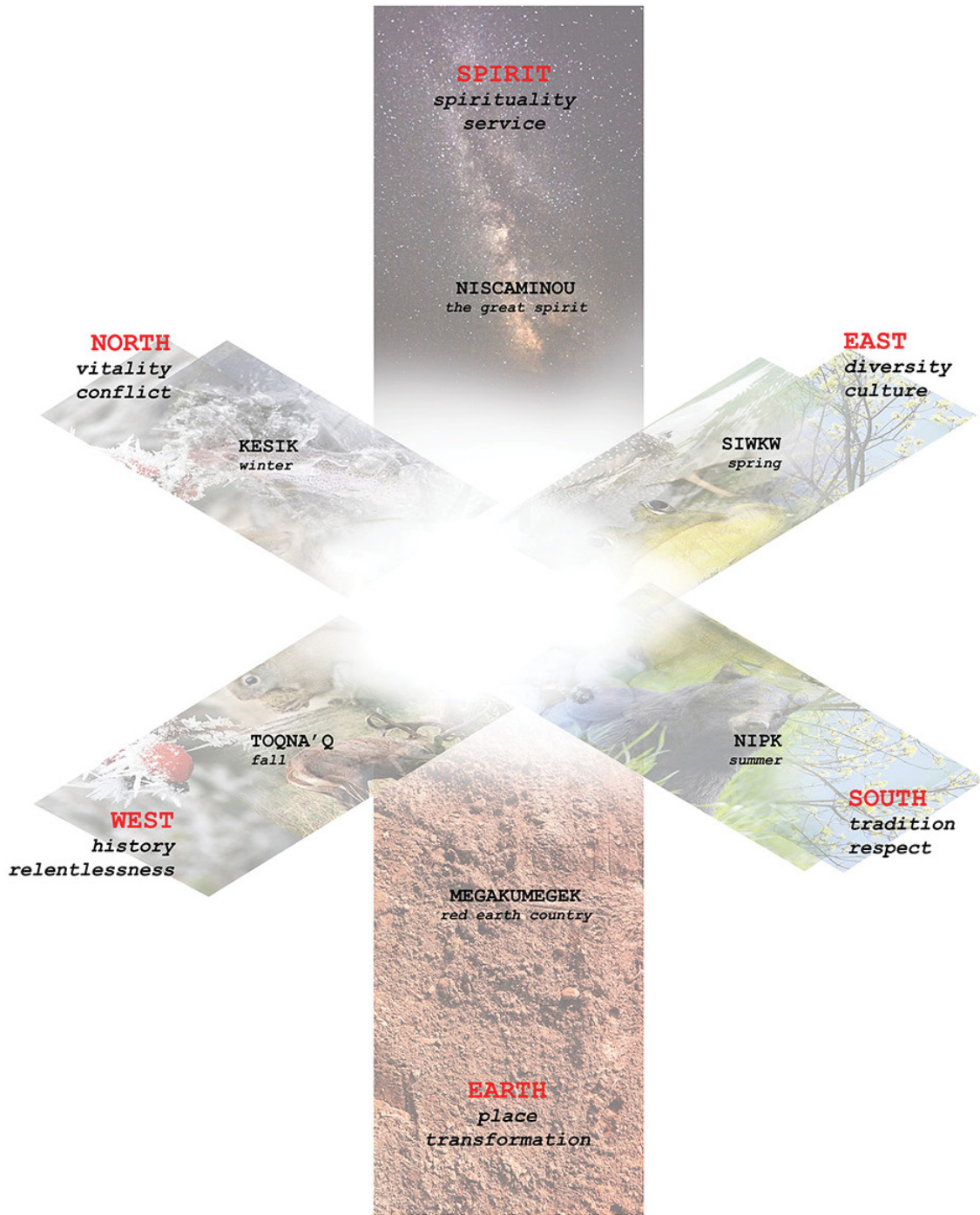
Dr. Eber Hampton in 'First Nations Education in Canada: The Circle Unfolds' provides a flexible set of themes to outline "an articulated approach to Indian education."²⁶ Dr. Hampton's essay, "Redefinition of Indian Education", outlines the Pattern of the Six Directions and joins each direction with a series of standards or pedagogic themes. In the following quote, Dr. Hampton describes the Pattern:

[The Six Direction Pattern] graphically states the relationships, which should be understood as dynamic and overlapping. The four directions (or winds) are commonly associated with the four seasons as well as with dawn, midday, sunset and night so that seasonal and temporal as well as spatial concepts are evoked. The pattern is further complicated by my historical understanding of east as the time of origin, south as the flowering of traditional culture and methods of education, west as the period of European invasion, and north as the continuing conquest and subjugation of Indian nations. The remaining two directions, heaven

26 Eber Hampton, "Towards a Redefinition of Indian Education," in *First Nations Education in Canada: The Circle Unfolds*, ed. Marie Battiste and Jean Barman (Vancouver: University of British Columbia, 1995), 11.

(spirit) and earth, evoke meaning associated with the great mystery - the ultimate source - and mother earth, the sustainer and source of rebirth. The cosmology I describe is syncretistic because I have had teachers from different cultures. My understanding of these things is necessarily limited by my own experiences and abilities and I ask the reader to be cautious in interpreting this writing, taking only what you can find out for yourself.²⁷

27 Eber Hampton, "Towards a Redefinition of Indian Education," 19.



The Six Direction Pattern of First Nations education.

Mi'kmaq Elders Murdena and Albert Marshall, from the Mi'kmaq community of Eskasoni, Nova Scotia, have been prolific in bringing to light learning concepts and teachings that are rooted in the Mi'kmaq culture of eastern Canada. In collaboration with other Elders and faculty such as Professor Cheryl Bartlett, the Marshalls have been instrumental in weaving these knowledges into local education institutions. One of these concepts, being applied at the Cape Breton University (CBU), is the philosophy of *Etuaptmumk* or Two-Eyed Seeing:

Etuaptmumk is the Mi'kmaw word for Two-Eyed Seeing. We often explain Etuaptmumk - Two-Eyed Seeing - by saying it refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing ... and learning to use both these eyes together, for the benefit of all.

Elder Albert [Marshall] indicates that Etuaptmumk - Two-Eyed Seeing is the gift of multiple perspective treasured by many Aboriginal peoples. We believe it is the requisite Guiding Principle for the new consciousness needed to enable Integrative Science work, as well as other integrative or transcultural or transdisciplinary or collaborative work.²⁸

The teaching of the 'Mi'kmaq Seven Stages of Life' and the 'Seven Gifts' illustrated by Murdena Marshall connect different stages of life to different gifts or virtues gained as a person through guidance and life experience. Also referred to as 'Lifelong Learning' this Traditional Mi'kmaq Teaching intersects with contemporary mainstream ideas about learning.²⁹

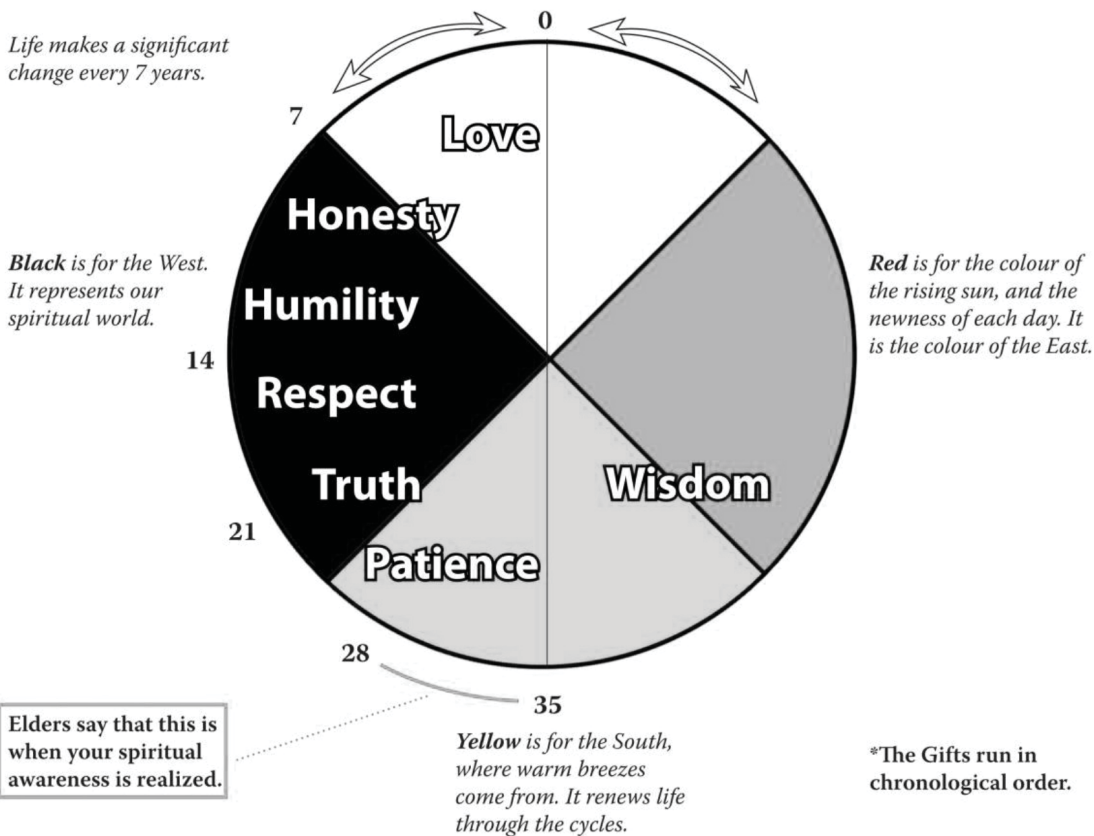
28 "Two-Eyed Seeing," Institute for Integrative Science and Health, accessed September 6, 2013, <http://www.integrativescience.ca/Principles/TwoEyedSeeing/>.

29 Herman Hertzberger, *Space and Learning* (Rotterdam: 010 Publishers 2008), 236.

Love of the Creator – Spiritual
 Love of a Mother – Physical
 Both are Unconditional

White is the colour reserved for Elders but they share it with children under the age of 7. It is also the colour for the North.

If all of the Gifts are visible in a person, that person is an Elder.



Elders believe that we can go back to age 7. This is the only time that the circle reverses in life. *Apaji-mijua'ji'juen.*

Apaji (preverb) – repeat, go back, again. Mijua'ji'j (root word) – child under 7. uen (inflection) – in the process of, to be, state of being.

Diagram of Mi'kmaq Teachings: the Seven Stages of Life and the Seven Gifts; from Austen, *A Proposed Service to Enhance Mi'kmaw Post-secondary Education (PSE) and Employment Training*, 19.

These concepts are only a few examples of the many teachings being brought to light now that Indigenous Knowledge is making a place for itself in the formal education systems of Canada.

Intersection

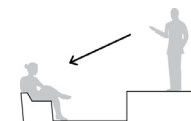
“As at the present time, the gulf in history, lay broadly between those who believed that education is a matter of training the intellect only, of learning from books, and of discipline imposed from without, and those who believe it to be an inner force, a growth from within, that the germ of development lies in the soul and that, given the right conditions, it must develop... It concerns not the intellect alone, but the whole man, his feelings, his creative powers, his imagination and his soul.³⁰

This quote by teacher and author Elizabeth Lawrence outlines the two general discourses of learning in the context of Europe and North America, which I will refer to as the ‘mainstream’ point of view for the Canadian context of this thesis. The first discourse, which pedagogue Paulo Friere refers to as the ‘banking concept of education’, sees knowledge as “a

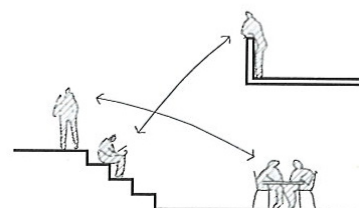
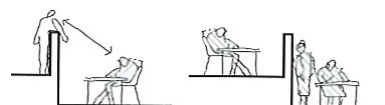
30 Elizabeth Lawrence, *The Origins and Growth of Modern Education* (Harmondsworth, England: Penguin Books Inc, 1970), 11.

gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing.”³¹ For the purposes of this thesis I will refer to this broad concept as ‘passive learning’. Passive learning generally depends on learning modes of a purely mental nature such as reading, memorization and a hierarchical and binary relationship between teacher and learner.

The second discourse, which I will refer to as ‘active learning’, has its own history and diverse theory. Some notable figures of this discourse include Friedrich Froebel, Madame Montessori and Jean Piaget to name a few. The process and mechanics of human learning is still a topic of intense debate, but generally active learning embraces many more modes of learning than the passive tradition and accepts that learning is not only a mental phenomenon. Active learning not only expands the field of where and how learning can take place but



Binary relationship of passive learning



Variety of relationships of active learning, from Hertzberger, *Space and Learning*, 83.

³¹ Paulo Friere, *Pedagogy of the Oppressed* (New York: Continuum International Publishing Group, 2005), 72.

also embraces the innate curiosity of humanity that drives adaptation, discovery and invention. The following quote by Eleanor Duckworth, a former student of Jean Piaget, illustrates the fundamental ideas of Piaget's learning theory as well as underscoring the tension between the passive and active models:

As far as education is concerned, the chief outcome of [Piaget's] theory of intellectual development is a plea that children be allowed to do their own learning. Piaget is not saying that intellectual development proceeds at its own pace no matter what you try to do. He is saying that, what schools usually try to do is ineffectual. You cannot further understanding in a child simply by talking to him. Good pedagogy must involve presenting the child with situations in which he himself experiments in the broadest sense of that term - trying things out, to see what happens, manipulating things, manipulating symbols, posing questions and seeking his own answers, reconciling what he finds at one time with what he finds at another, and comparing his findings with those of other children.³²

Historically universities, to a greater or lesser degree, have tried to integrate both models. Currently, due to many factors including the growing

32 Eleanor Duckworth, "Piaget Rediscovered" *Journal of Research in Science Teaching* 2 (1964) 172-173.

dominance of internet and web-based tools, the rise of the knowledge economy and the changing nature of scholarship, active learning in the University is growing.³³ Jeremy Rifkin describes this shift in education in his book *The Third Industrial Revolution*: "A new generation of educators is beginning to deconstruct the classroom learning processes... and reconstitute the educational experience... The dominant, top-down approach to teaching, the aim of which is to create a competitive, autonomous being, is beginning to give way to a distributed and collaborative educational experience with an eye to instilling a sense of the social nature of knowledge."³⁴

Dalhousie University is following this trend with program adjustments such as co-operative work programs and interdisciplinary courses as well as spatial changes such as the creation of 'learning hubs'³⁵.

33 Jos Boys, *Towards Creative Learning Spaces* (New York: Routledge, 2011), 3.

34 Jeremy Rifkin, *The Third Industrial Revolution* (New York: Palgrave Macmillan, 2011), 243.

35 IBI Group, *Dalhousie University Campus Masterplan*, 21.

It is in the tradition of active learning where many similarities between European and First Nations education can be seen. This creates opportunity for Universities to develop programming and space with First Nations people that not only allows for Aboriginal cultural continuity and inter-cultural dialogue but also understands contemporary and ancient Aboriginal traditions as a means to expand and diversify the learning experience of all students, faculty and the broader urban community.

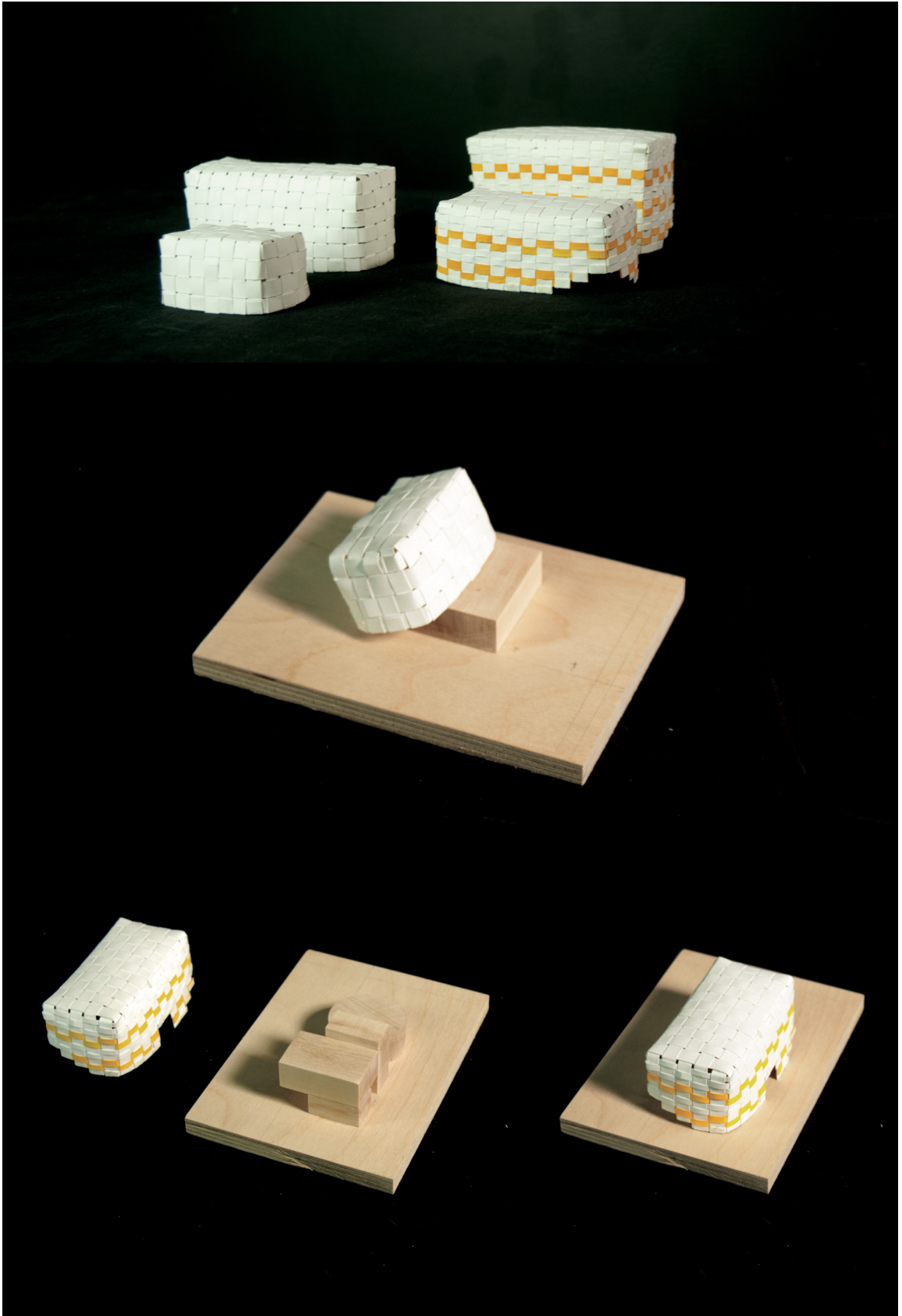
Modes of Learning

...drawing by hand and working with models puts the designer in a haptic contact with the object, or space. In our imagination, the object is simultaneously held in the hand and inside the head, and the imagined and projected physical image is modelled by our embodied imagination. We are inside and outside of the conceived object at the same time. Creative work calls for a bodily and mental identification, empathy and compassion.³⁶

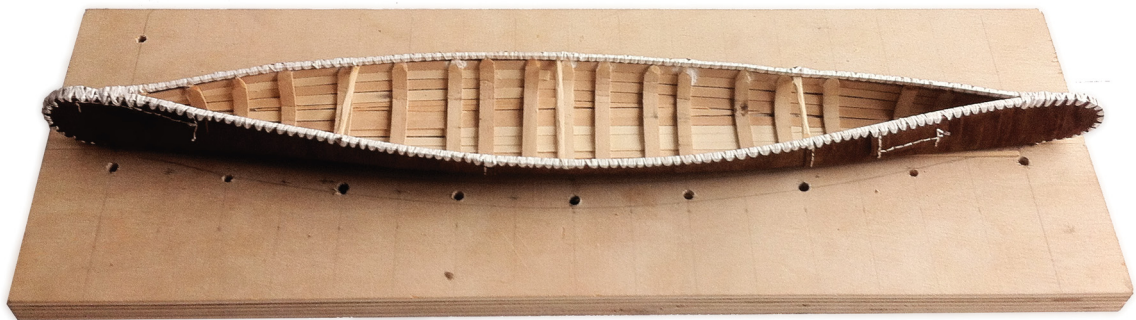
The practice of architecture is based in and therefore well-suited to an

36 Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Chichester: Wiley-Academy, 2005) 14.

understanding of the active tradition of learning. Manipulation of the physical world through drawing, modelling and other forms of experimentation in order to draw conclusions and solve problems is encouraged. In order to explore the Mi'kmaq ideas, experiential modes of learning, or learning by doing, has been undertaken. The Mi'kmaq traditions of beadwork, basket making and the birch bark canoe were explored as a mode of research and as a design tool. These crafts can all be conceptualized as processes of weaving as opposed to processes of assembly which in part led to the metaphor of weaving present in the architectural design work. Although I only scratched the surface of the meanings and skills of these crafts I learned many lessons about the Mi'kmaq culture its unique understanding of craftsmanship. These explorations also revealed many interconnections of self, history, material, land and spirit present in their processes. Some of these lessons become consciously manifest in the design work, some may be inherent on a subconscious level and others I hope to explore in later work over my lifetime.



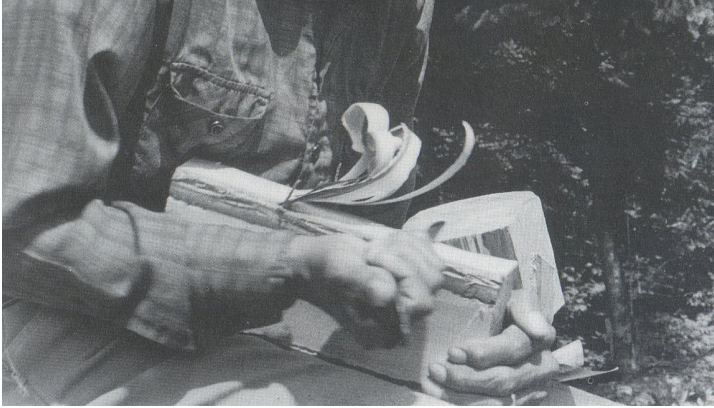
Weaving studies.



Model of Mi'kmaq style birch bark canoe, scale 1" = 1'-0".

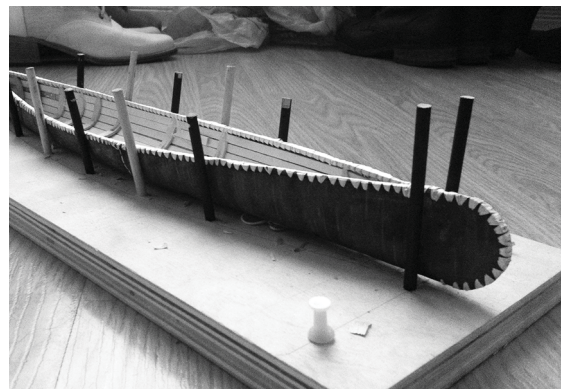
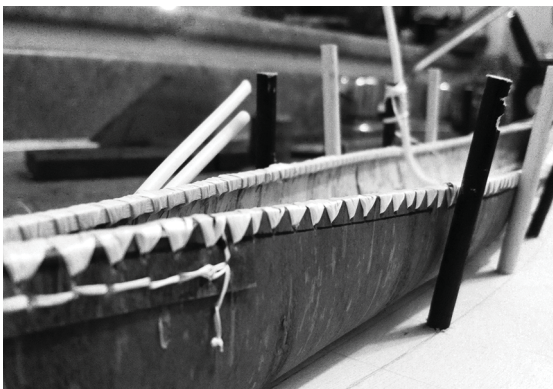
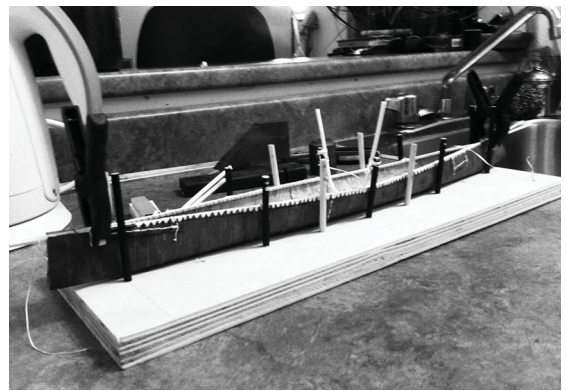
Thinking Upside Down

The investigation of traditional Mi'kmaq craft has been an important tool of interpretation throughout this study. In many cases I found that the processes, skills or methods within these crafts have been the complete opposite of my assumptions. I will give two brief examples: the construction of a birch bark canoe and the use of a crooked knife. Thinking in terms of European boat building I was surprised to find that the process of making a birch bark canoe is the opposite of what I had assumed. Instead of the process being keel then ribs (bones) then planking (skin). The process of the canoe begins with the birch bark (skin) and gunnel as formwork and the ribs (bones) then stuffed into the skin creating a taught structure. The crooked knife is a one handed wood shaving and splitting tool that is drawn towards the user as opposed to away from him. It allows for more control and is therefore safer than a motion of pushing the tool away from the user.



Use of a crooked knife.
From Bunny McBride, *Our
Lives in Our Hands*, 39.

In some instances this complete reversal of assumption, which I will refer to as *thinking upside down*, generated important conceptual leaps during the design process. I do not believe that *thinking upside down* can be situated directly in any of the pedagogies described in this thesis. However, as a strategy that allowed me to reach outside of my own assumptions and perspective it may be loosely related to Two-Eyed Seeing. The basic concept for the renewal of University Boulevard came from this method of thinking. Ignoring the current landscape of the boulevard allowed for an understanding of the place as a latent Acadian forest waiting to be allowed the freedom to reemerge. *Thinking upside down* was not necessarily a conscious strategy but in retrospect was used many times to move the design forward.



Process of crafting a model birch bark canoe.

Basket weaving and canoe making are but two of the many unique modes of learning that the Mi'kmaq culture uses to impart knowledge. The following descriptions provide more specific examples of this pedagogy that the architecture of a Mi'kmaq learning space should accommodate:

Circle

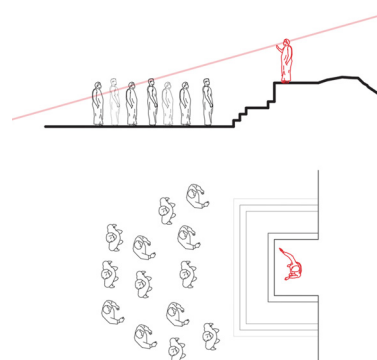
The Talking Circle is an ancient Indigenous practice that is still in use. It has also been utilized successfully in the Canadian Justice, Health Care and Education systems. The method of the traditional Talking Circle is described by Mi'kmaw Elder Isabelle Knockwood:

Those seated in the Circle commit themselves to staying to the end... The person who has a problem or an issue to discuss holds the Talking Stick and relates everything pertaining to it especially everything they have done to solve it. After they are through, they pass the stick to the person on their left, following the sun's direction. The next person, Negem, states everything they know about the problem without repeating anything that was already said. They tell what they or others have done in similar situations. They neither agree nor disagree with what others have said.

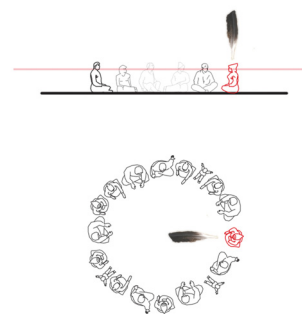
The Talking stick goes around until it returns to the person with the problem or issue, who then

acknowledges everyone present and what they have said. Sometimes the solution or answer comes as soon as everyone has spoken. Maybe the person has already thought it out, or it may come as an inspiration on the long trek back home. Or else, it could appear in the form of a vision or a dream. Dreams were a very important part of problem-solving with the First People of the land.³⁷

Circle is a powerful tool for learning, engagement and self-reflection. As Madeline Jean Graveline, in her doctoral thesis "Circle as Pedagogy" states: "even with adaptation to difference in cultural composition of the group and in the context, the Circle itself, if it is vital, will produce its own healing and message that is appropriate for its time, place and membership."³⁸ Architecturally, the Learning Circle requires a single floor plane. This allows for an equality between all participants. A circular space would help to frame the setting of this practice as well as providing a subtle representation of the values underlying the Talking Circle.



Democracy at Pnyx Hill,
ancient Athens.



Talking Circle as
traditional decision
making.

37 Madeline Jean Graveline, "Circle as Pedagogy: Aboriginal Tradition Enacted in a University Classroom" (PhD diss., Dalhousie University, 1996), 177.

38 Ibid., 172.

Story Telling

"Story telling was and is a traditional Mi'kmaw form of learning and communicating knowledge, as is true in many indigenous cultures throughout the world."³⁹ Visual connection to a functioning local ecosystem as well as open shelving for the display of student craft and traditional objects may help to act as cues for the improvisation inherent in this form knowledge. A circular space would also imply a way to gather and listen that a rectangular space would not.

Dance

Dance brings joy, laughter, life and movement into the classroom. Dance is one of the most visible symbols of the First Nations presence on Dalhousie Campus. For the past 4 years on Treaty Day in October, the First Nations Student Union and the local Mi'kmaq community hold a Pow Wow or Mawio'mi (celebration). It is a joyous and vibrant occasion that fills the Quad and University Boulevard with the pulse of



Illustrated story of the talking feather.

³⁹ Sable and Francis, *The Language of this Land*, 54.

drums, the sound of song and the movement and colour of dance. Trudy Sable and Bernie Francis describe Mi'kmaq dance as a multi-dimensional communication tool: dance is kinesthetic, multi-sensory, reflective, contextual, interactive and communal. It reaffirms values and transmits knowledge while also allowing for spontaneity and individual interpretation⁴⁰. When seen in this way, dance has an obvious place in the classroom. Spatial requirements would be acoustic diffusion for drumming and singing as well as the allowance of an open floor for movement.

Making

Experiential learning is an important mode of teaching which can be put into practice through craft. The amount of embodied knowledge and skill in Traditional Mi'kmaq craft and processes of making is impressive. This mode of teaching and learning, the processes of making, as well as the physical crafted objects themselves begin to allow for an appreciation of the



Mi'kmaq dancers from
the 2013 Dalhousie
Mawio'mi.

40 Sable and Francis, *Language of this Land*, 78-79.

holistic nature of landscape, ecosystem and culture. In Bunny McBride's book, *Our Lives in Our Hands*, Ruby Tenas Schillinger describes how she learned the craft of Mi'kmaq basket making:

We [kids] helped her [mother] with anything she had to do. When she went in the woods, so did we. We helped with the work horse or with the buck saw. I was about ten when I first went with her into the woods... nobody really taught me... You weren't supposed to bother [adults] when they were working... I just watched my mother... picked up leftover wood she threw away and tried to make some little basket exactly like her. Mine looked real funny. It was way after I was married that I made my own basket to sell.⁴¹

In order to allow for making in the classroom, space would be needed for group work around tables, secure storage for tools as well as connection to a functioning local ecosystem. Outdoor space would allow for first hand demonstration while expanding the range of possible activities (for example leather preparation and other processes not suited to the indoors).

Ceremony

One important ceremonial practice



Mi'kmaq basketmaker, Harold Lafford. From McBride, *Our Lives in Our Hands*, cover.

⁴¹ Bunny McBride, *Our Lives in Our Hands*. (Halifax, NS: Nimbus, 1990), 49.

is smudging. In Roberta D. Clark's thesis, *Ketmite'tmnej, Remember Who You Are: The Educational Histories of Three Generations of Mi'kmaq Women*, Abegweit Education Director Barbara explains the practice and meaning of smudging:

...even today when we have ceremonies we have to have a smudge bowl going around and be sure everyone is in a clear state of mind. Smudging is the burning of medicines such as sweet grass, sage, tobacco or cedar... It is a cleansing period..." (pg. 124) "We do smudging and say prayers; its part of our healing. In order to get back to our traditional ways, our connection to the Creator and our connection to the spirit world, you have to be clean... your mind, your body and your spirit... they have to be connected and the only way they are going to be connected is if you keep them clean.⁴²

Smudging is important for Traditional practices but it can be easily ignored in conventional architecture. This is apparent at the Dalhousie Native Counseling House where smudging cannot be performed inside for fear of setting off the fire alarm. This seemingly small problem is indicative of larger spatial and cultural disconnects but

42 Roberta D. Clark, "Ketmite'tmnej, Remember Who You Are: The Educational Histories of Three Generations of Mi'kmaq Women" (Master of Education Thesis, University of Prince Edward Island. 2001), 128.

with communication and forethought can be overcome.

Passive Learning

Conventional modes of learning also have their place in this classroom. For guest speakers, lectures and public presentations a projection screen and mediation of natural light should be provided for.

A Classroom for Traditional Knowledge

The holistic perspective promoted by use of the Medicine Wheel permits one to see the entire educational process as a complex, integrated whole: psychological, spiritual, emotional, and physical are all part of the human consciousness, and are inseparable. Using Traditional methods, "one would never think of, nor attempt to practice healing [and learning] in any one of these areas separate from the others (Connors. 1994: 2).⁴³

Dalhousie president Dr. Richard Florizone has stated his wish to welcome and support aboriginal students while preserving and celebrating Mi'kmaq culture.⁴⁴ The university has recently

43 Madeline Jean Graveline, "Circle as Pedagogy," 164.

initiated curriculum development research towards a Minor in Aboriginal Studies. However, what has not been addressed is the role architectural space could play in contributing to the welcoming, supporting, teaching and celebrating of aboriginal students and Mi'kmaq culture at Dalhousie University.

This is an issue that also relates more broadly to the interconnections of learning and built space. In her book *Towards Creative Learning Spaces*, Academic Jos Boys describes the problem:

A better and more creative understanding of the relationships between built space and its occupation is of importance to both educational and architectural theories, where intersections across these disciplines remain poorly conceptualized... This means recognizing and engaging with the multitude of contested arguments over basic issues such as the status of knowledge, the value of learning, who has access to learning and where it occurs... [Within this discussion] architectural design does have a recognizable and meaningful place.⁴⁵

Conventional space geared towards

44 Dalhousie University, "This Is Our Way," <http://www.dal.ca/news/2013/10/04/-this-is-our-way---sharing-culture-at-dal-s-annual-pow-wow.html>

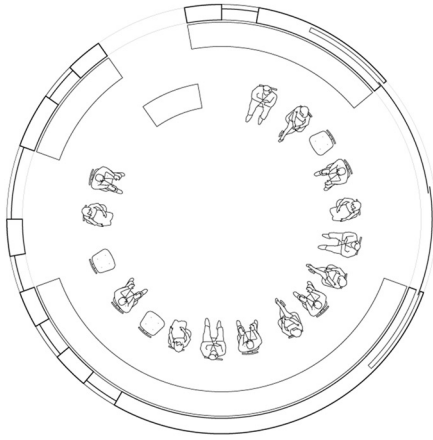
45 Jos Boys, *Creative Learning Spaces*, 12.

passive learning imposed on the teachings of First Nations education is a prime example of this disconnect between use and space. An understanding of these modes of learning demonstrates some of these conflicts but also creates rich potential for architectural design.

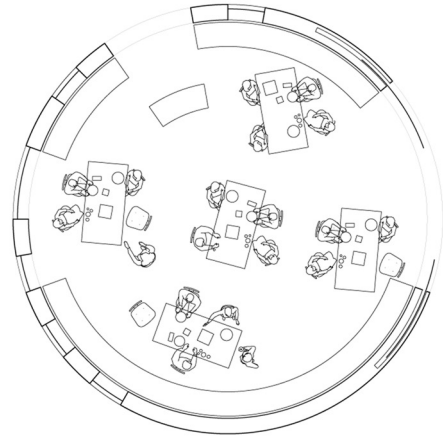
The following classroom design is an attempt to accommodate and enhance the variety of teaching and learning modes.

The roundness of the space provides a non-hierarchical counter-form to the typical classrooms found elsewhere on campus. This simple statement posits a different identity of space on campus but it is also drawn from and meant to enhance the practices of First Nations learning. Flexibility allows for the diverse and active practice of this pedagogy. Moveable, foldable furniture can be cleared away into cabinetry and storage space allowing for quickly switching uses. Generous openings allow for interconnections with the space outside the classroom. A vertical gesture of spirit is created as sun and sky are let into the room

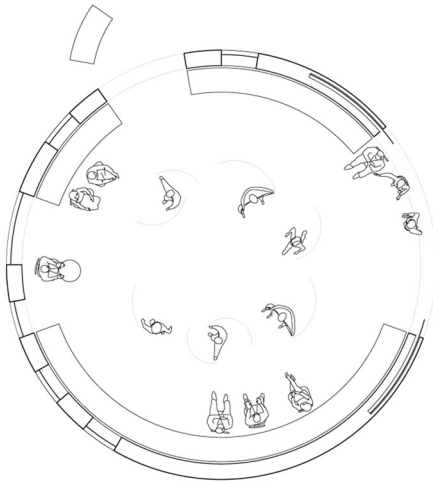
while ceremonial smoke is let out through a zenithal opening. The form and experiential qualities of this space interweave the dimensions of home, community and spirit.



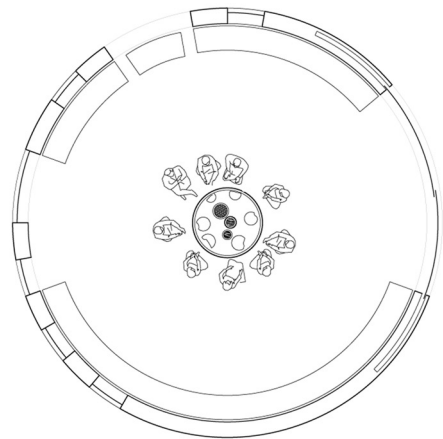
Classroom floor plan arranged for Circle.



Classroom floor plan arranged for making.



Classroom floor plan arranged for dance.



Classroom floor plan arranged for ceremony.

Classroom for Traditional Knowledge. Floor plan series describing flexibility of use.



Classroom for Traditional Knowledge, section preselective.

CHAPTER 4: ARCHITECTURE OF RESURGENCE

Determination of Program Through Case Study

In the decades since the inception of Blue Quills First Nations College, First Nations faculties, programming and student support spaces have sprung up in post-secondary institutions across Canada. In most cases these programs have to make do with existing buildings and space designed for passive learning. However, some post secondary institutions have commissioned purpose built architecture for First Nations education and support. These unique architectural spaces constitute an emerging building type on Canadian university campuses.

The 3 Dimensions of 'Type'

In order to investigate the programmatic aspects of these buildings I have studied a series of purpose-built First Nations Learning Centres across Canada focusing on intended architectural program. The First Nations University of Canada Building

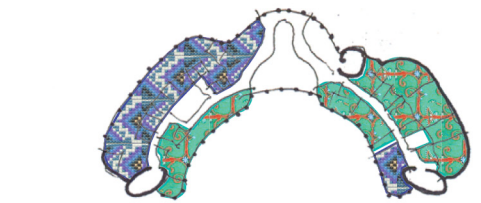
(FNUC) houses an entirely independent university focused on Aboriginal learning that is also physically separate from the neighboring University of Regina. The Enweying Building at the University of Trent houses First Nations programming but also provides classrooms for other faculties as well as residences and a cafeteria for the wider university community. The Gathering Place at Victoria Island University (VIU), the Eagle's Lodge at the University of Manitoba (UofM) and the Longhouse at the University of British Columbia (UBC) provide buildings programmed mainly as support and social spaces.



ground floor

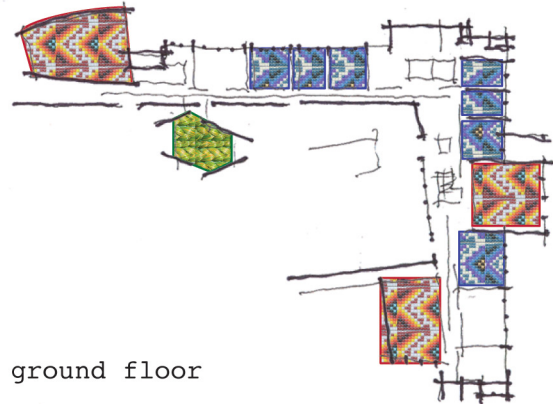


mezzanine floor

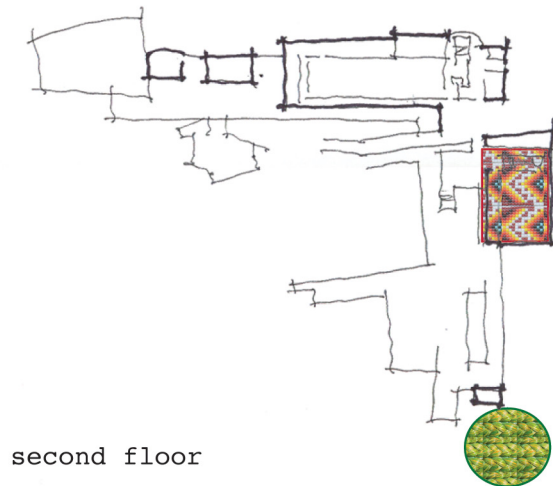


upper floors

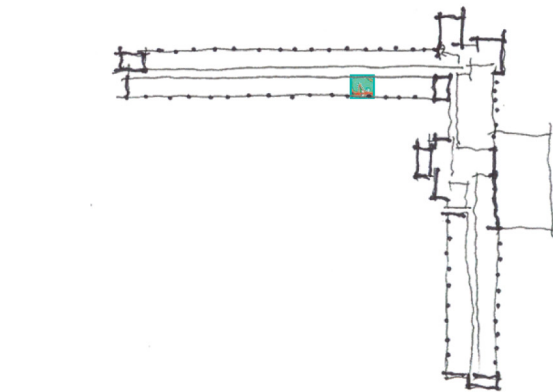
Regina Campus Building - First Nations University of Canada



ground floor



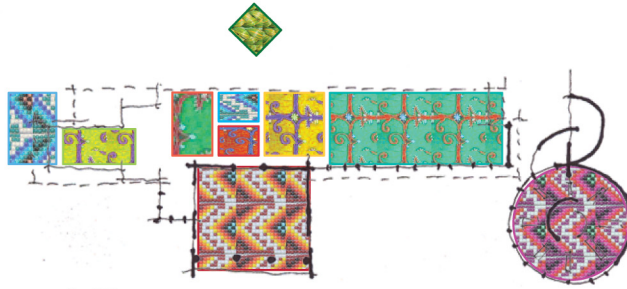
second floor



upper floor

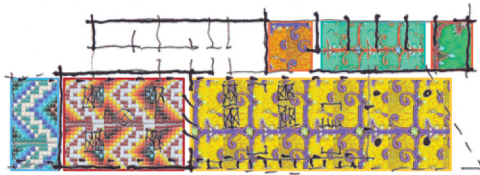
Enweying Building - Trent University

Building type program case studies.



ground floor

First Nations House of Learning - University of British Columbia



ground floor

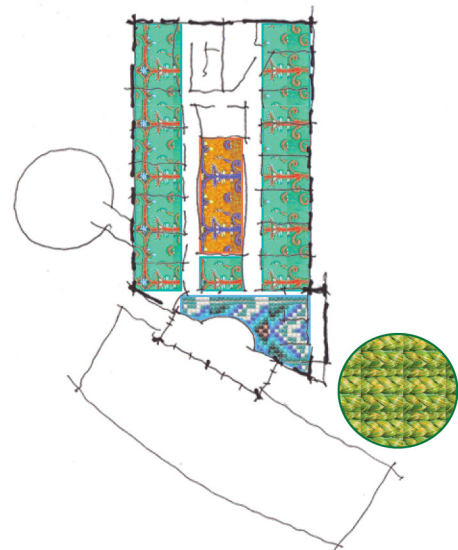


ground floor

The Gathering Place - Vancouver Island University








































ground floor



upper floor

'Migizii Agamik' Bald Eagle Lodge - University of Manitoba

Building type program case studies.

	fnuc bldg	trent university	u of m eagle's lodge	viu gathering place	ubc fn house of learning
sacred space					
social space					
kitchen					
computer lab					
daycare					
elder's residence					
admin					
auditorium					
library					
classroom					
workshop					

Comparative program matrix.

When comparing the programmatic functions of each building some findings emerge:

1. place for making: all but the Enweying building have specific space for craft, art or learning physical skills

2. place for oration: all but the Eagle's Lodge and the FNUC have space for formal speaking, public or educational lecture

3. place for support: all have accessible offices for counsellors, faculty and administrative support.

4. place for elders: all but Enweying make place for elders in residence. The Longhouse at UBC includes a separate elders lounge.

5. place for ceremony: with the exception of the VIU all buildings create dedicated spaces for ceremony; enclosed built space as well as open-air landscape space.

Other programmatic elements such as library, daycare, computer lab and kitchen may perhaps be based on specific

campus needs, or local community requirements.

If these program elements are grouped, the patterns of *home* (social space - living room, kitchen, elder in residence), community (auditorium, support - office, counsel, classroom) and spirit (ceremonial space) emerge. I will refer to these three patterns as 'dimensions' for the word's ability to convey both metaphysical aspect as well as physical extent.

Expanding the 3 Dimensions

Home, community and spirit are not meant to be read as prescriptive statements. As with all cultural interpretation, these dimensions are an attempt to understand and interpret ideas with a recognition of my own cultural (mainstream) knowledge. They are meant to be read as experiential and spatial metaphor with the potential to flex, overlap and take on many forms.

These dimensions have not emerged solely from the study of floor plans. The preceding case study exercise has sharpened and bolstered some of my



Home: Dalhousie Native
Counseling House



Community: Mission time
at Potlotek



Spirit: nested
ceremonial space, FNUC

subjective interpretations that are based on a wide variety of research and experience.

These other forms of research include literature such as interviews conducted by Eber Hampton in 'The Redefinition of Indian Education', the account of the collaborative design process of the UBC Longhouse as well as conversations with Dalhousie Professor Richard Kroeker, Professor Patricia Doyle-Bedwell, counselor Sara Swanson, curriculum developer Lisa Robinson. Also important are the experiences of time spent on the reserve communities of Kinistin, Saskatchewan, and Potlotek, Nova Scotia, and the social and spatial experiences of the First Nations University of Canada, the Mi'kmaq Child Development Centre as well as the Native Counseling House at Dalhousie University. It is my assertion that home, community and spirit add new meaning to comparable learning spaces in the post-secondary education institution.

'Home' is social space, kitchen space and support space including

place for elders in residence. These spaces create an intimate and welcoming atmosphere for students - many who are far from their communities - to relax, socialize, share and access administrative and social support. The Native Education Counseling House provides this function at Dalhousie University. Occupying the upper story of a residential house on campus, it is a small but intimate space that is adorned with pictures and quotes of elders, hosts Dalhousie Native Association Meetings as well as small social events, craft workshops and casual conversation. Eber Hampton discusses a similar feeling created at the Harvard American Indian Program Lounge:

In spite of its drab, dingy appearance, the air seems a little freer in there, laughter comes more easily, and Native people can feel at home with each other. 'It serves as a home base away from home. It allows Indians to communicate with each other relatively free from interruption, from the Anglo world. Sort of a place of nurturing.'⁴⁶

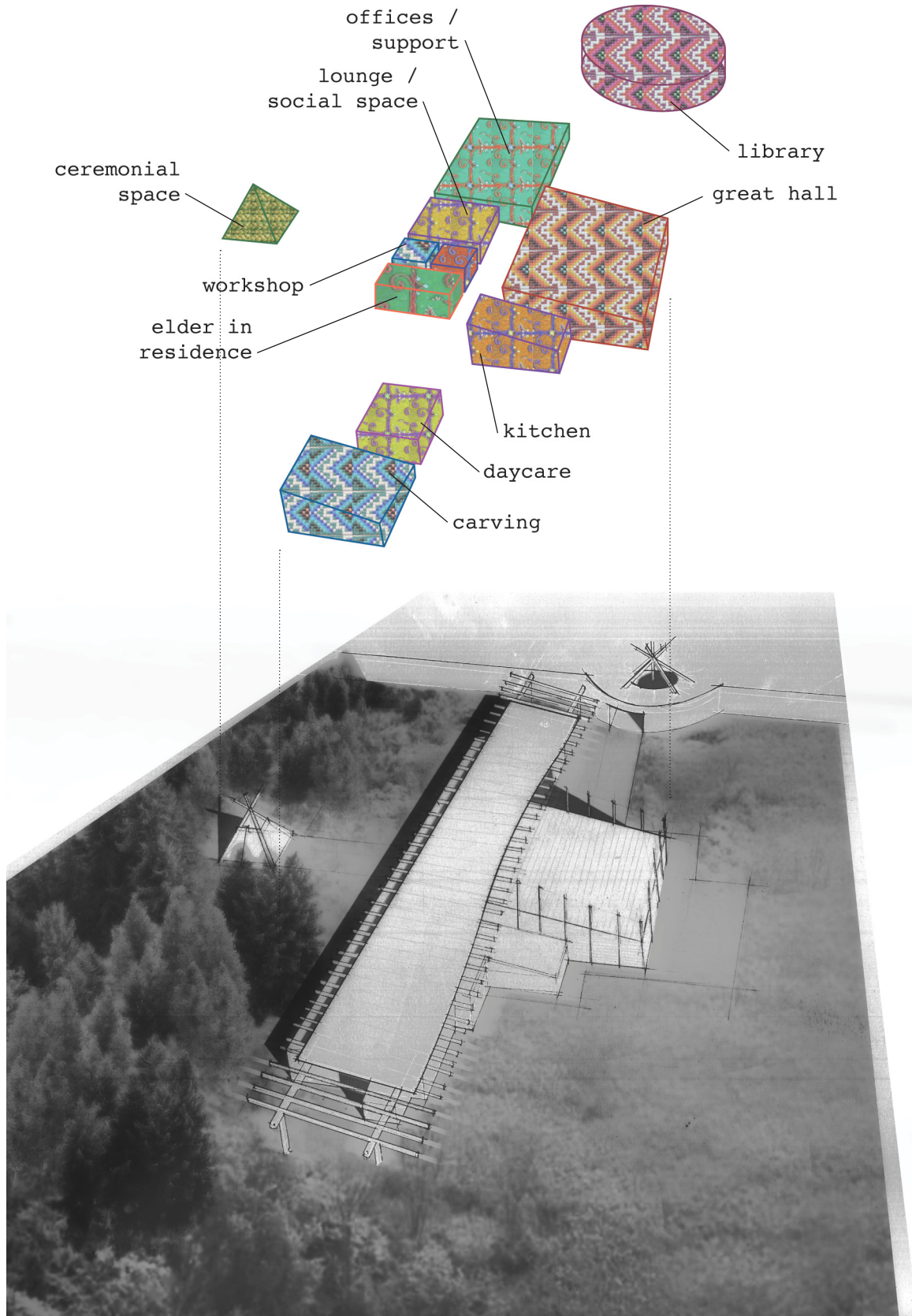
'Home' in this sense creates a place that is a heart of First Nations culture

⁴⁶ Eber Hampton, "Towards a Redefinition of Indian Education," 40.

on campus.

'Community' is space for oration, making, research and care. The auditorium is not only a space for formal lectures but also functions as a community stage for oration: a place for voicing aboriginal issues. Spaces for making and teaching are group based and also foster community. A local example is the The Mi'kmaq Child Development Centre, an Indigenous-run daycare in Halifax, which feels like a miniature town with open topped rooms that acoustically connect with a street-like central corridor. Marina Lommerse describes how through a collaborative design process a sense of community was created in the architecture of the UBC Longhouse:

the cultural group drove the project from beginning to end, resulting in a building that suits their functional and spiritual needs... the Longhouse is a tool for the community – enabling them to move forward... the process of consultation about and discussion of the Longhouse forms part of the redefinition of identity, as First Nations people decided what their building would convey."⁴⁷



Case Study in detail: UBC House of Learning. Perspective drawing/collage and volumes of programming.

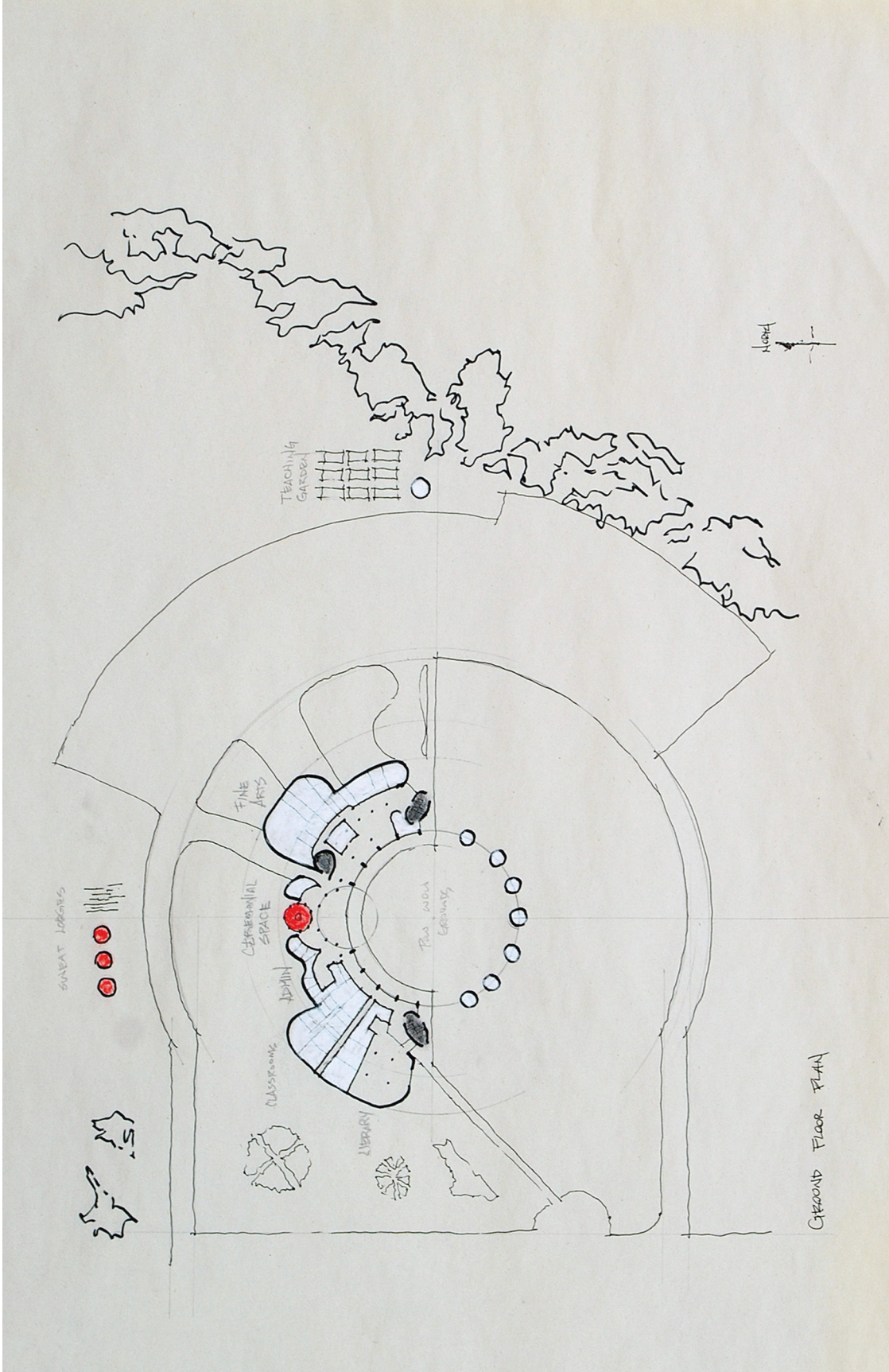
The ideal of 'community' in the educational environment reflects the traditional Mi'kmaq worldview that knowledge is not a thing to be consumed or stored away but a verb to be communally created and shared under the correct guidance of elders and teachers⁴⁸.

'Spirit' is space for ceremony and tradition. This is perhaps the most unique aspect of this building type when compared to the conventional post secondary building. In my opinion the First Nations University of Canada provides a successful example of creating spaces infused with this spirit. The entire landscape around the building is used as a potential site for the building of ceremonial structures. An intimately scaled and vented room is also created inside the

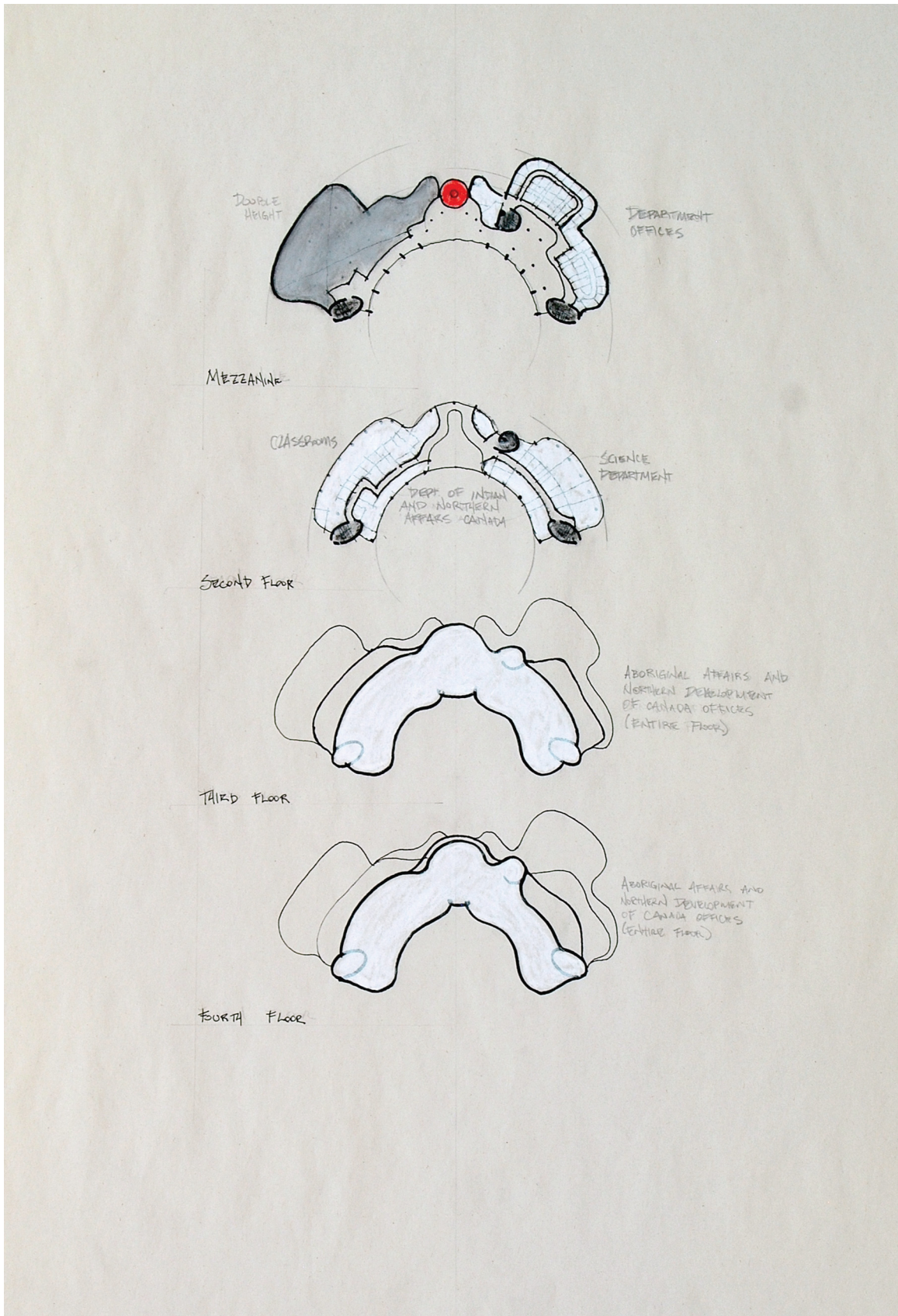
47 Marina Lommerse, "Facilitating Cultural Transformation: Redefining Indigenous Identity through Architecture," accessed December 1 2013. http://www.academia.edu/198402/Facilitating_Cultural_Transformation_Redefining_Indigenous_Identity_through_Architecture, 21.

48 Annamarie Hatcher, Cheryl Bartlett, Albert Marshall and Murdena Marshall, "Two-Eyed Seeing in the Classroom Environment," *Canadian Journal of Science, Mathematics and Technology Education* 9:3 (2009): 146.

building for ceremonial use. As a space for cultural continuity, teaching and learning, place for spirit is very important.



Case Study in detail: First Nations University of Canada; ground floor plan, landscaping and outbuildings.



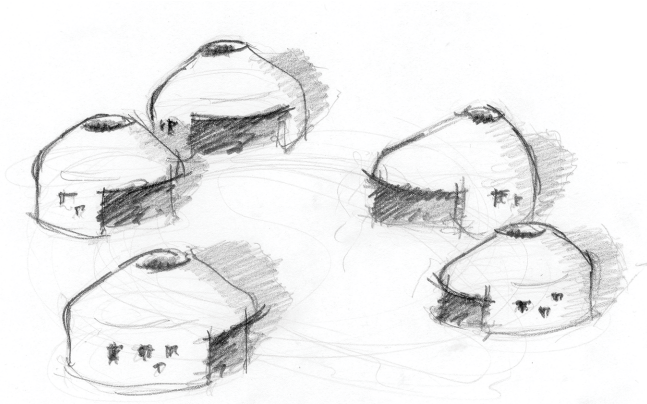
Case Study in detail: First Nations University of Canada; floor plans.

Learning Space as Woven Space

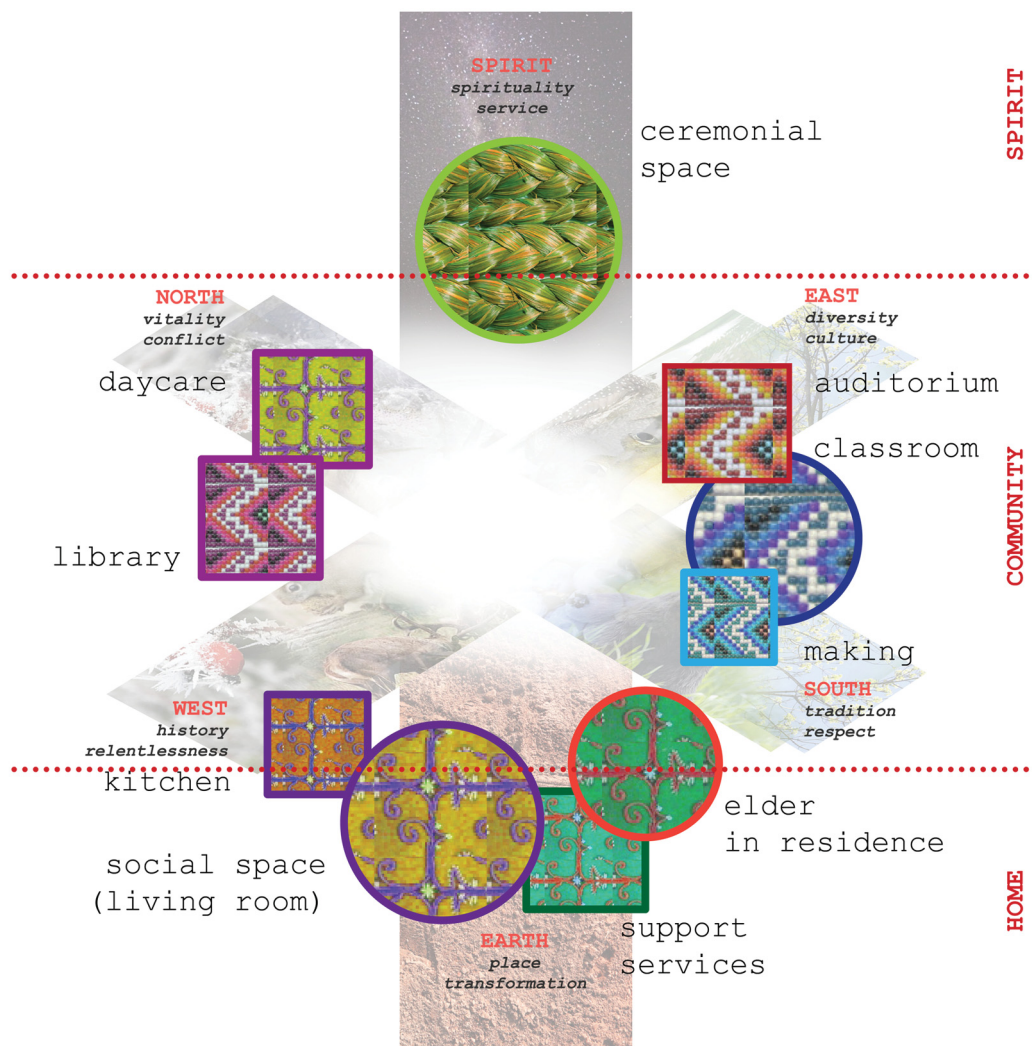
Program

The building program assembled for this study resembles a place that is less of a traditional school and more like a town or community. The only program element removed from the case study findings in the previous section is the library. Dalhousie University has a central library and other small branches throughout the campus. Another reason a library was not included is the complexity of creating a library for a historically oral culture. Rather than gloss over this issue it is left as fertile ground for further study. Nevertheless, the assembled building program contains many of the ideas of Traditional Knowledge while at the same time allowing for contemporary use. For example, creating place for Elders in residence is a very important aspect of this pedagogy and the provision of a daycare helps to provide a service sorely needed in the city of Halifax. Brought together under one roof, these two programs are a direct demonstration of the intergenerational ideas of Lifelong Learning. The role

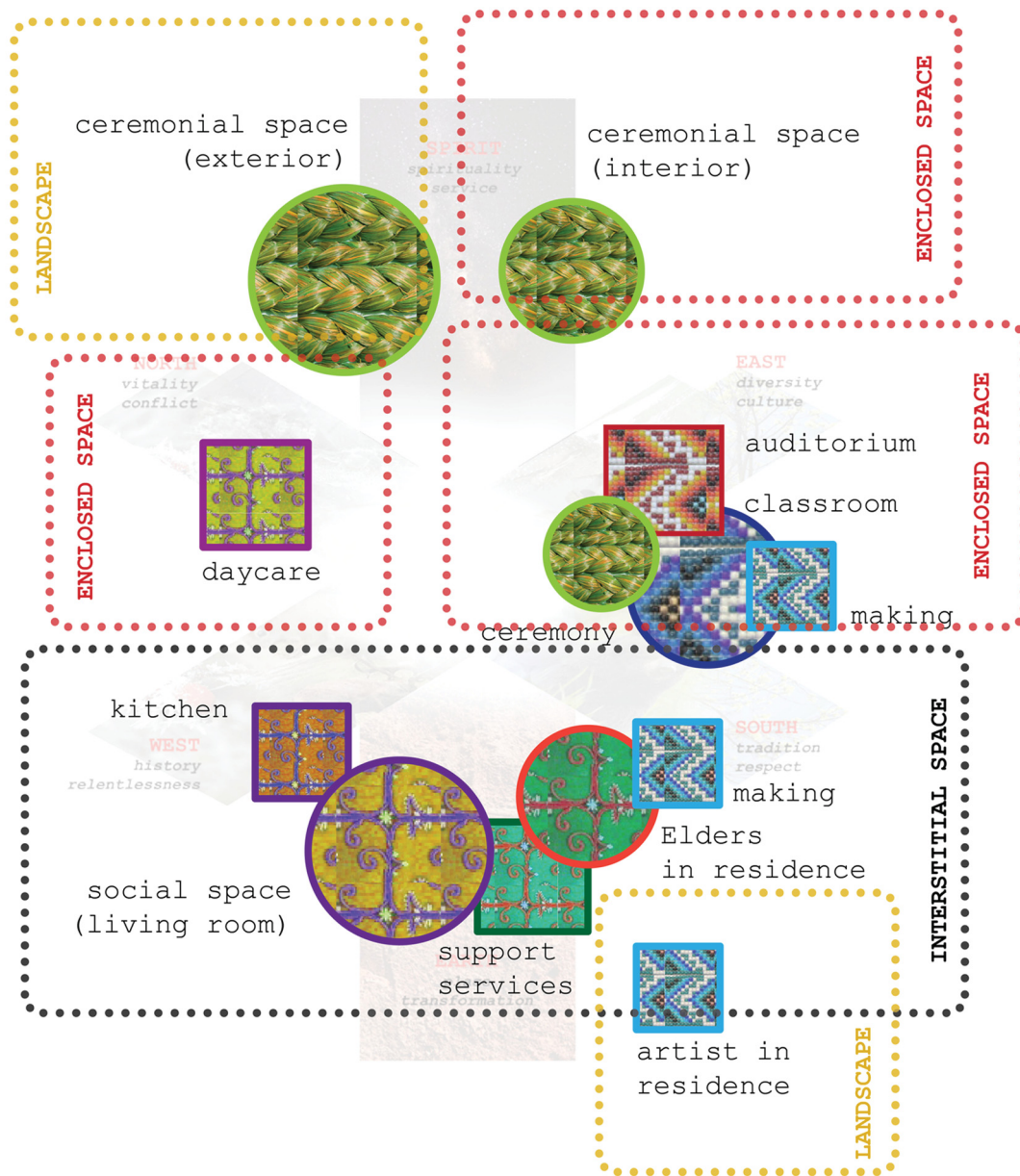
of the architectural design is not only to accommodate but also celebrate this programmatic diversity so that a feeling of interconnection and vibrancy can be felt by all inhabitants.



Gathering classrooms to
create a multitude of
spaces.



Program findings from case study exercise combined with the Pattern of the Six Directions.

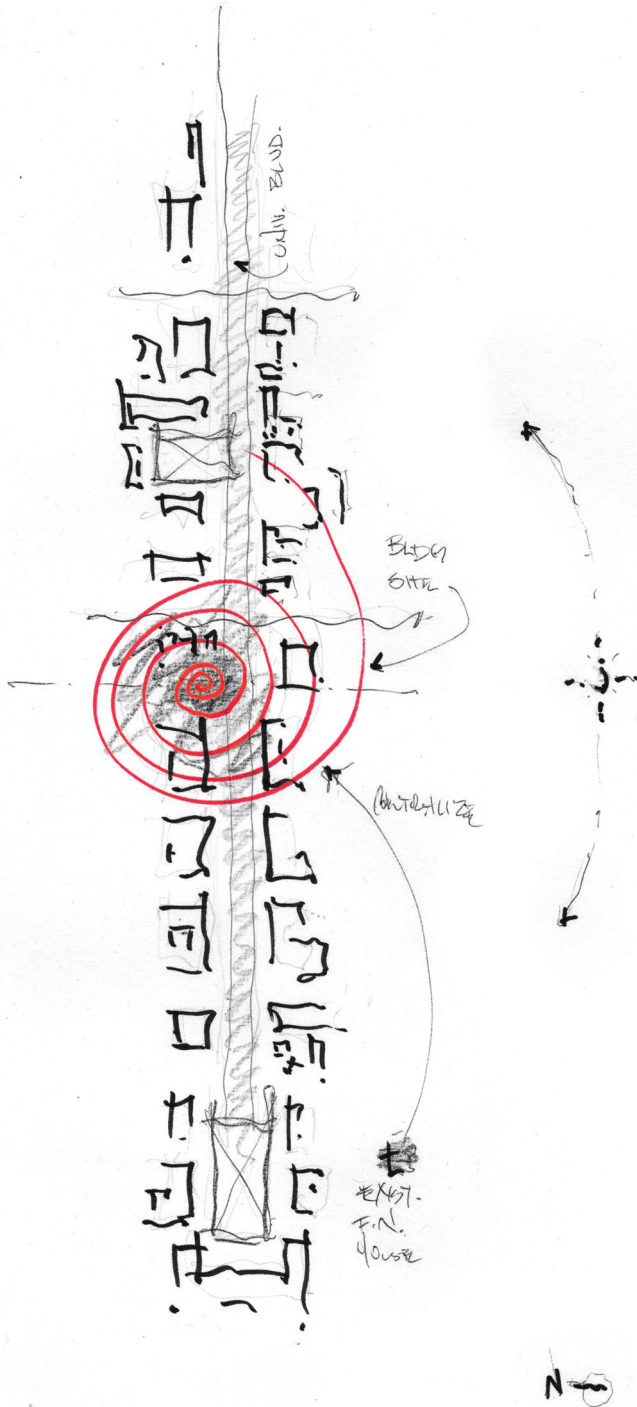


Building program assembled and grouped into categories of architectural space.

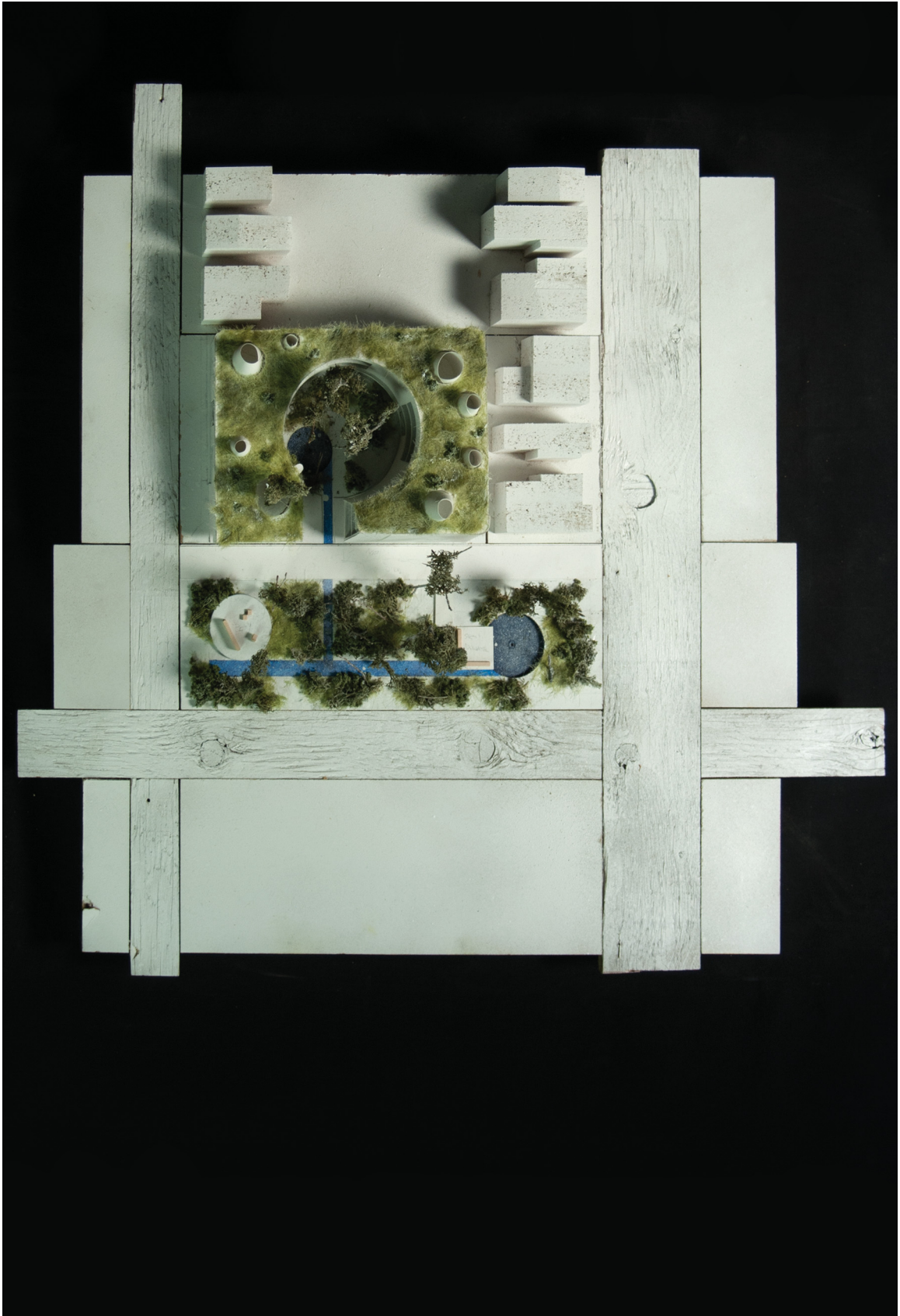
Land and Building

The building site of the Mi'kmaq Learning Centre proposed for this thesis is at a central location on the university campus to allow for a gathering of learners. In the spirit of lifelong learning, 'learners' for the purposes of this thesis are more broadly defined not only as tuition-paying students but also their parents, faculty, children and local residents and the broader urban community which is reflected in the building program.

The current Native Counselling House on campus is situated at the far west end of the campus making it difficult to access and somewhat invisible to students unless intentionally sought out. As Dalhousie is a linear campus, a centrality of location allows for a visibility and ease of access for all.

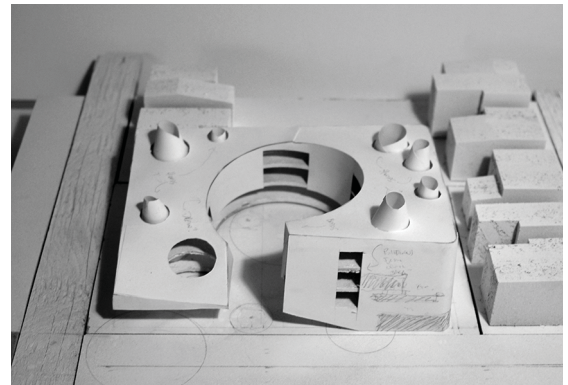


Gathering at a central location on campus.



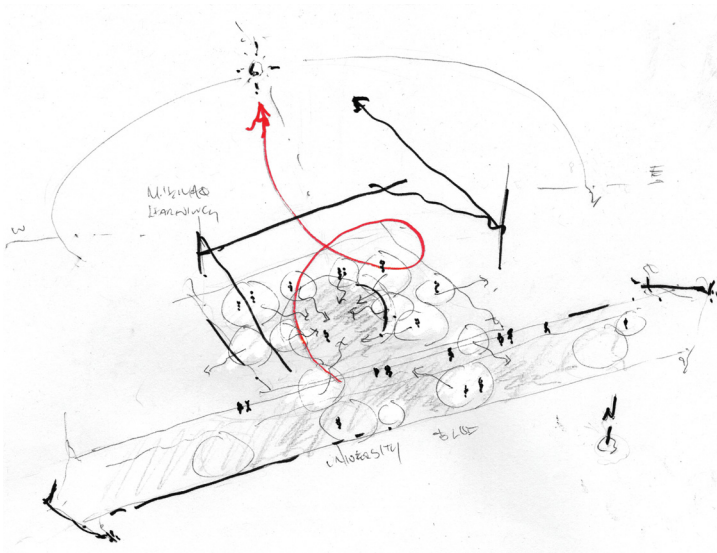
Massing model showing site context.

The land is the initial pattern for this architecture. The site gently slopes downward to University Boulevard and is home to a handful of mature deciduous trees. The massing of the building is located on the footprints of former houses and a former parking lot while preserving these old but healthy trees. A series of models was used to explore strategies to mediate the conditions of the land, sun, water, air, vegetation, residential context, campus context and sufficient space for the intended programming. Another important factor for the massing studies was to create a gesture of welcoming and gathering. In the spirit of community, active learning and intercultural dialogue, a building is required that engages the campus and its students, enticing them into an exploration of the building, its students, faculty and ideas.



Massing models exploring land, enclosure and gathering.

The most successful massing study was created by allowing the extent of the building to mediate between the orthogonal lines of the city block and the circular geometry of a vegetated central space. The ends of the form lift in invitation while entire mass spirals from the land up towards the sky.



Diagramming the interconnections of land, place-making and form.



Persepective Drawing.

***Re-interpreting Craft for Alternative
Campus Architecture***

The Mi'kmaq craft traditions of the birch bark canoe, beadwork and weaving were explored as a method of learning, as a basis for thinking about the process of weaving as metaphor and also happened to be a way to spend time with students at the Native Counseling House. The beauty of these works also drew me towards a more literal manifestation of Mi'kmaq craft in this architectural study.

Most buildings on Dalhousie campus are clad in stone which creates a monolithic and somber tone. Modern stone clad buildings in this region utilize the rain-screen principle in order to limit water infiltration and the damage that it causes. This means that these buildings mask the fact that they are actually constructed of thin layers. In contrast to this construction trickery, Mi'kmaq basket weaving techniques were explored to create a rain screen facade that is understandably thin and vibrantly textured. "Basketmakers developed several decorative projecting patterns



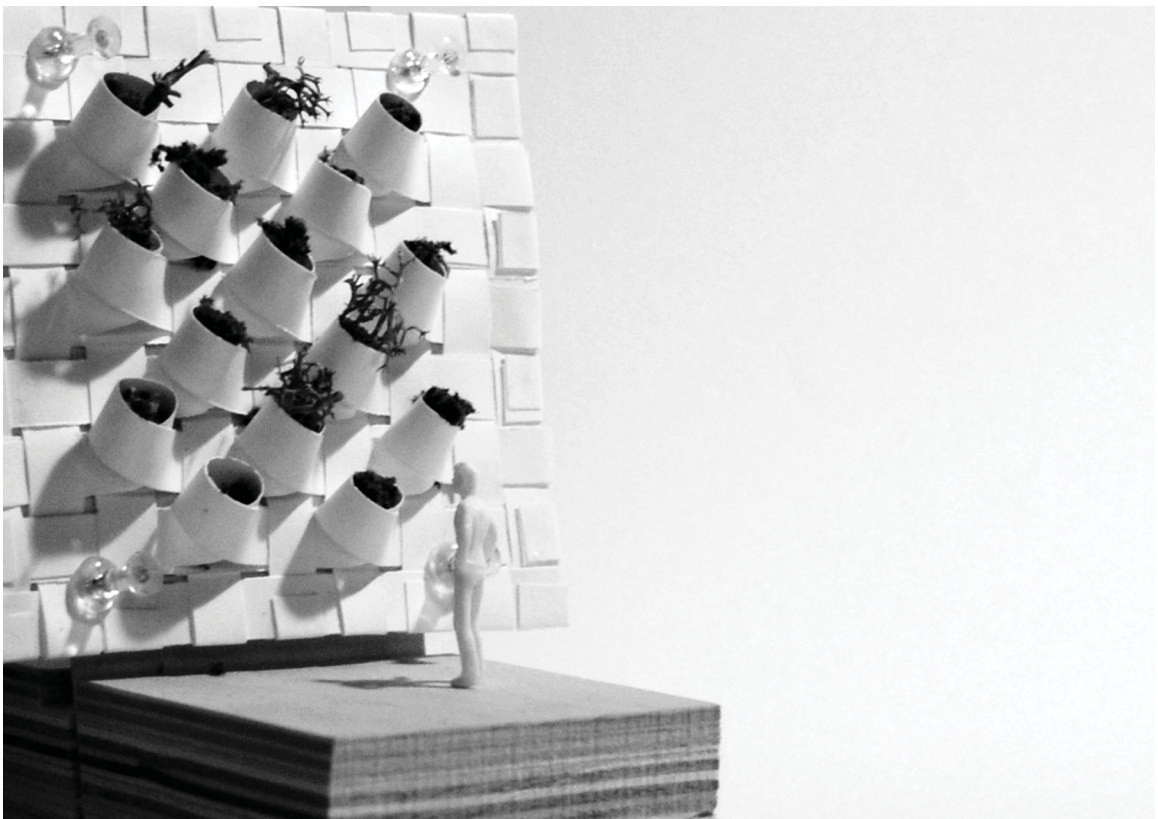
White ash and sweetgrass sewing basket by Caroline Gold displaying numerous decorative weaving techniques. From *Ornamentum*, "Mi'kmaq Basketry".

by folding and twisting a second splint-weaver into the surface weave of the basket. Three patterns were the most popular –jiki'ji' or periwinkle or curls, porcupine quill, and the standard diamond... Today, the Mi'kmaq word jiki'ji' is used to refer to all decorative surface-weaves."⁴⁹ These decorative weaves have been reinterpreted to carry out various functions such as shading sunlight and supporting plant life.

49 Ornamantum, "Mi'kmaq Basketry". Accessed March 26, 2014. <http://ornamantum.ca/article/mikmaq-basketry/>.



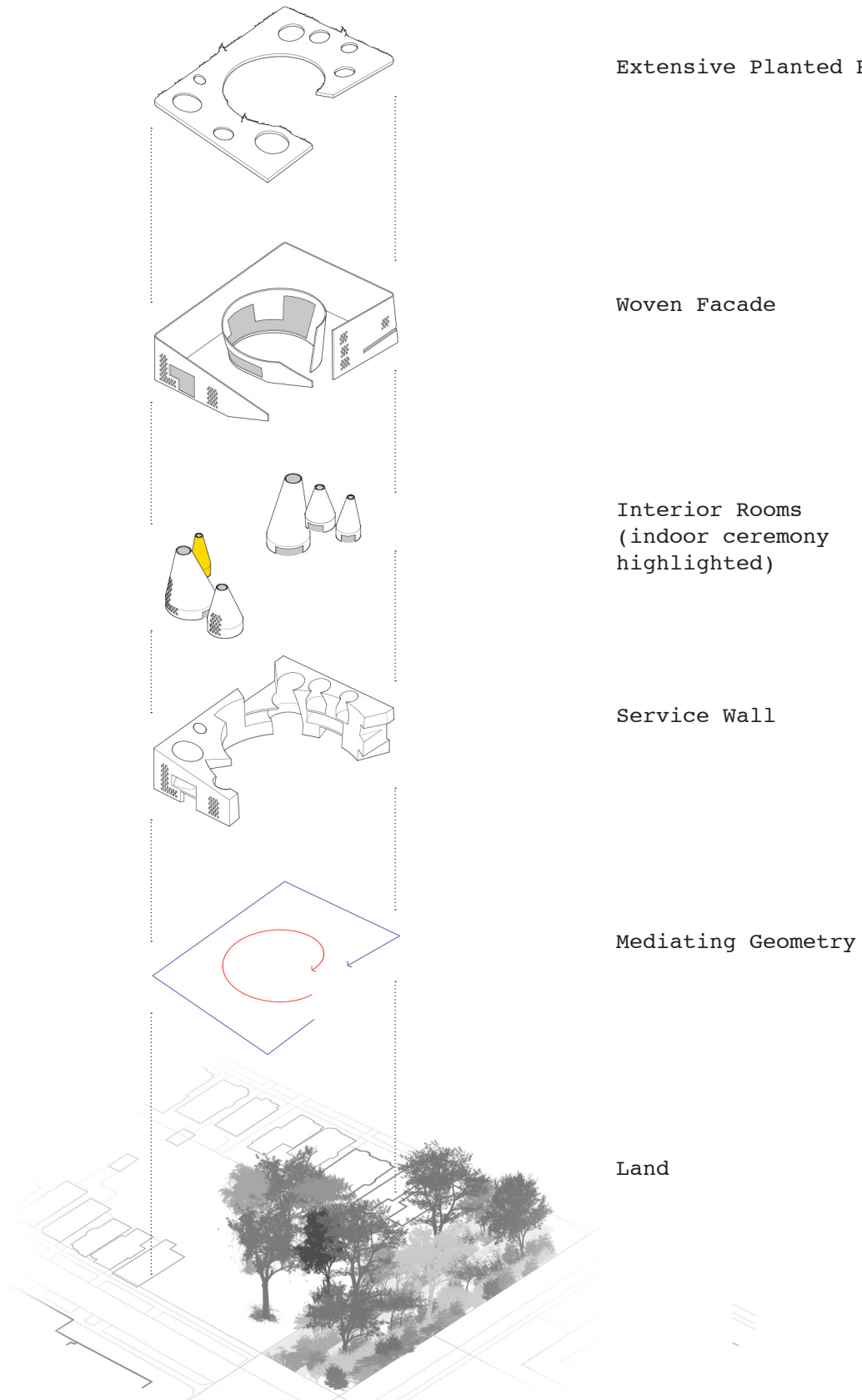
Jikiji'j (decorative weave) to shade direct sunlight.



Jikiji'j (decorative weave) to support planted wall.

The woven facade makes up the entirety of the exterior wall cladding and tectonically reads as two separate woven sheets wrapping the exterior of the building. These sheets fold in at large glazed openings, project into decorative weaves where required and they end as a parapet wall sheltering an extensive planted roof.

The significance of this system is multivalent. The thinness of the facade reveals the contemporary rain-screen building assembly. The texture and decorative weaving creates a whimsy and haptic interest to the passerby. The symbolism of a woven building represents the presence of Mi'kmaq identity on campus and in a less obvious way, a reminder of Mi'kmaq history of place.



Extensive Planted Roof

Woven Facade

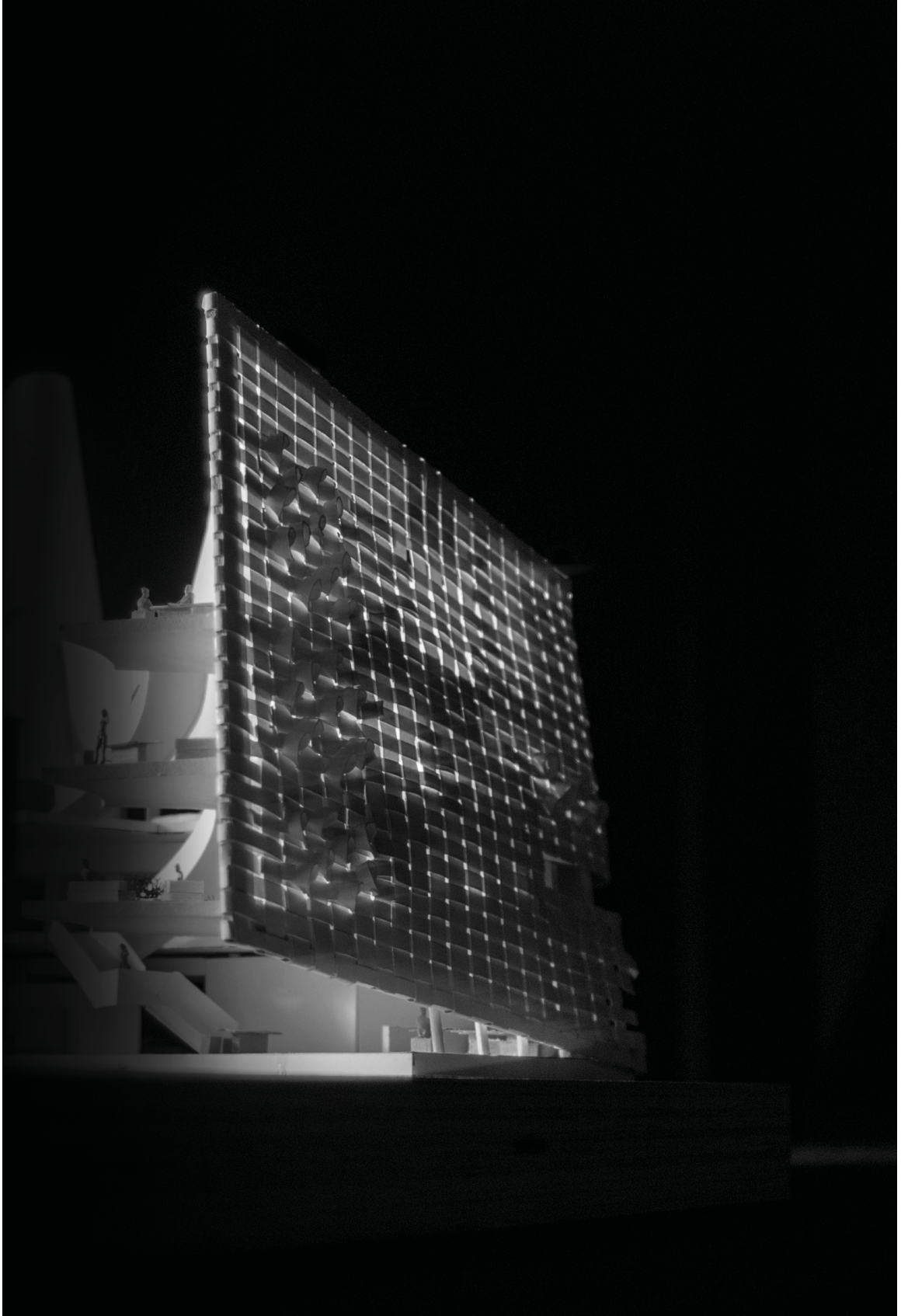
Interior Rooms
(indoor ceremony highlighted)

Service Wall

Mediating Geometry

Land

Major building elements, exploded axonometric.



Light emitted through woven facade at night.

Spatial Experience

The site strategy and building massing must successfully interweave with the diverse building program while creating the spatial conditions apt for these modes of learning. The work of Aldo Van Eyck is helpful in thinking about this situation. Van Eyck articulated many contemporary ideas of learning space in the form of the Amsterdam Orphanage built in 1960:

Extreme flexibility... would have led to false neutrality, like a glove that suits no hand because it fits all. This is a worrying reality that many flexophiles will prefer to disagree with! But a troublesome one none the less. The plan attempts to reconcile the positive qualities of a centralized scheme with those of a decentralized one, while avoiding the pitfalls that cling to both: the concentrated institutional building that says: 'get into my bulk and up those steps and through that big door there', with children heaped up close and around a well-oiled service machinery, as opposed to the loose knit additive sprawl of the false alternative to which contemporary planning adheres... The plan attempts to provide a built framework - to set the stage - for the dual phenomenon of the individual and the collective without resorting to arbitrary accentuation of either one at expense of the other⁵⁰

This tightrope walk between different

50 Aldo van Eyck and Vincent Ligtelijn, *Aldo Van Eyck: Works*, 88.

uses and different spatial conditions now aligns with contemporary thinking on the design of learning space. As Jos Boys points out, many current assumptions of learning space need to be looked at critically:

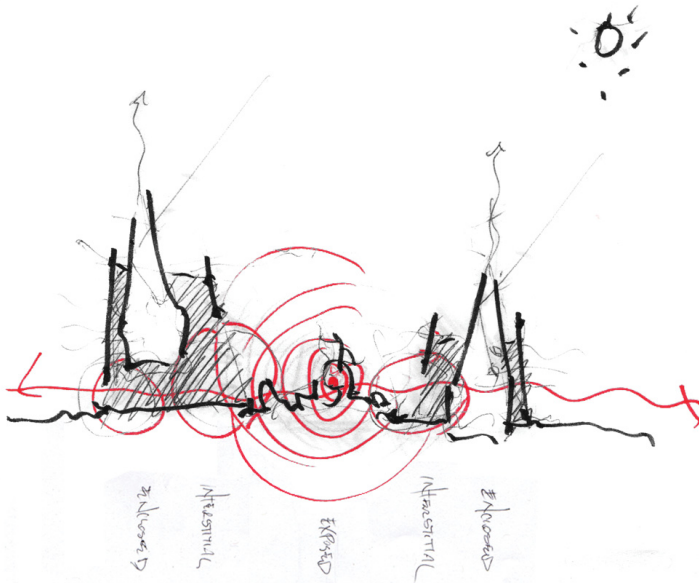
...there are several intersecting myths embedded in much current [educational] work that urgently need careful unravelling. These myths are:

- Formal and informal learning are binary opposites
- Informal learning is good because it is social, personalized and integrates physical and virtual environments.
- Formal learning is bad because it is a one way transmission of factual knowledge from teacher to learner.
- Teaching and learning in post-compulsory education needs improving
- It can be improved through the development of both physical and virtual innovative and flexible learning spaces.
- The new generation of students will be 'digital natives' who will demand a different kind of education.
- 'Good' education enables the ability to think critically and solve complex problems, preparing learners for the 'knowledge economy'.

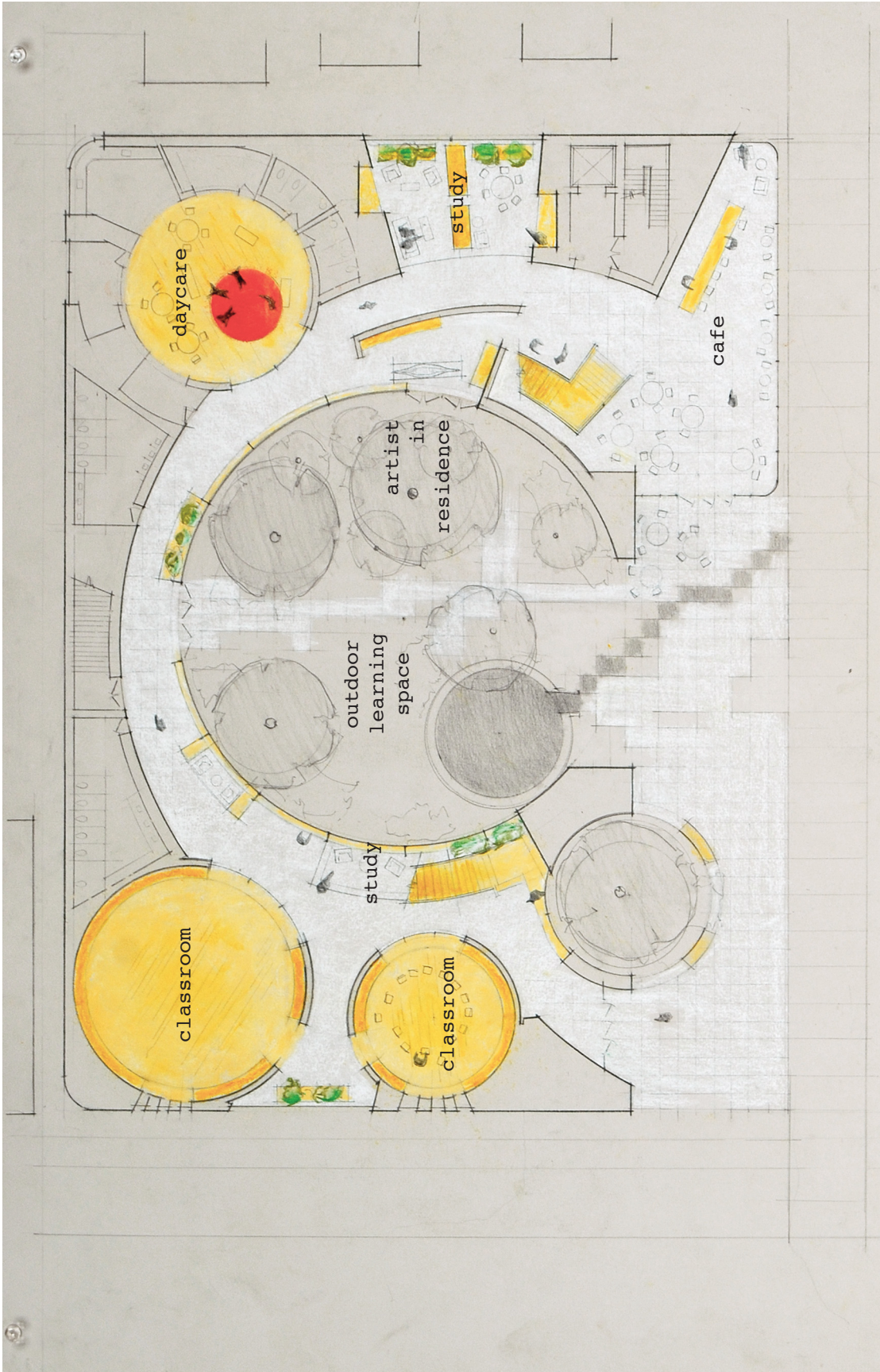
I call these myths, not because they are 'wrong' but because they have become the 'common sense' we think *with* rather than *about*, and thus can all too easily become a substitute for critical analysis.⁵¹

51 Jos Boys, *Creative Learning Spaces*, 3.

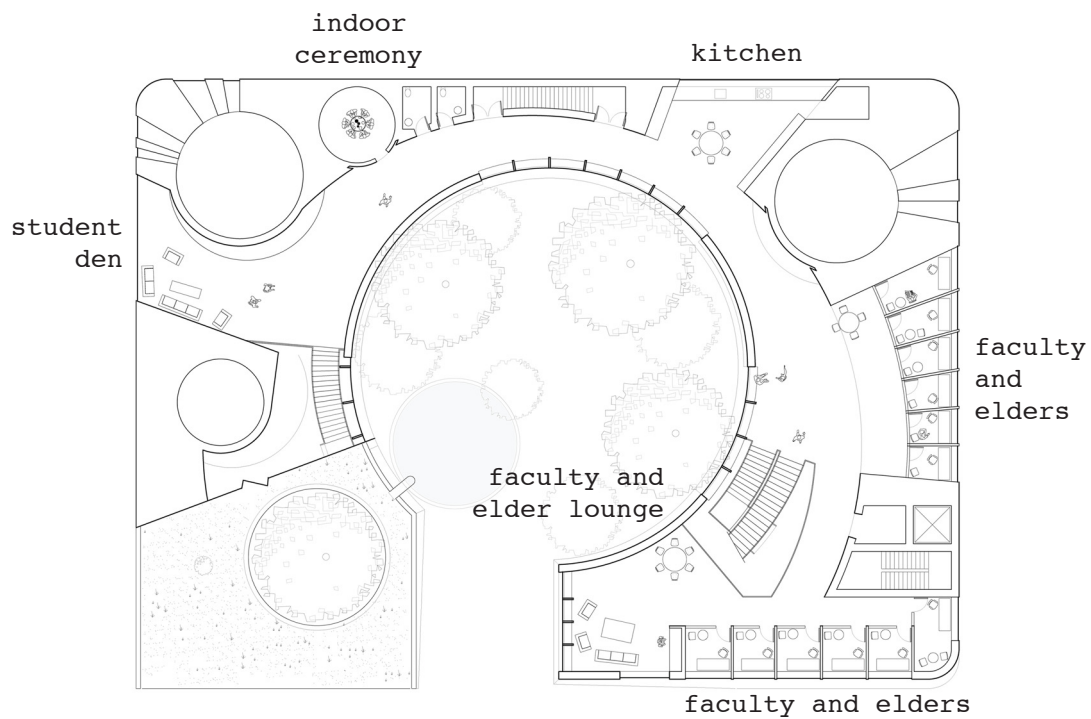
In response to Aldo Van Eyck, Jos Boys and the diversity of learning and programming required for this pedagogy, a variety of spatial conditions is designed with the ability to flexibly accommodate many activities. In the tradition of Van Eyck's Amsterdam Orphanage, a design is attempted that is neither completely ambiguous nor completely deterministic.



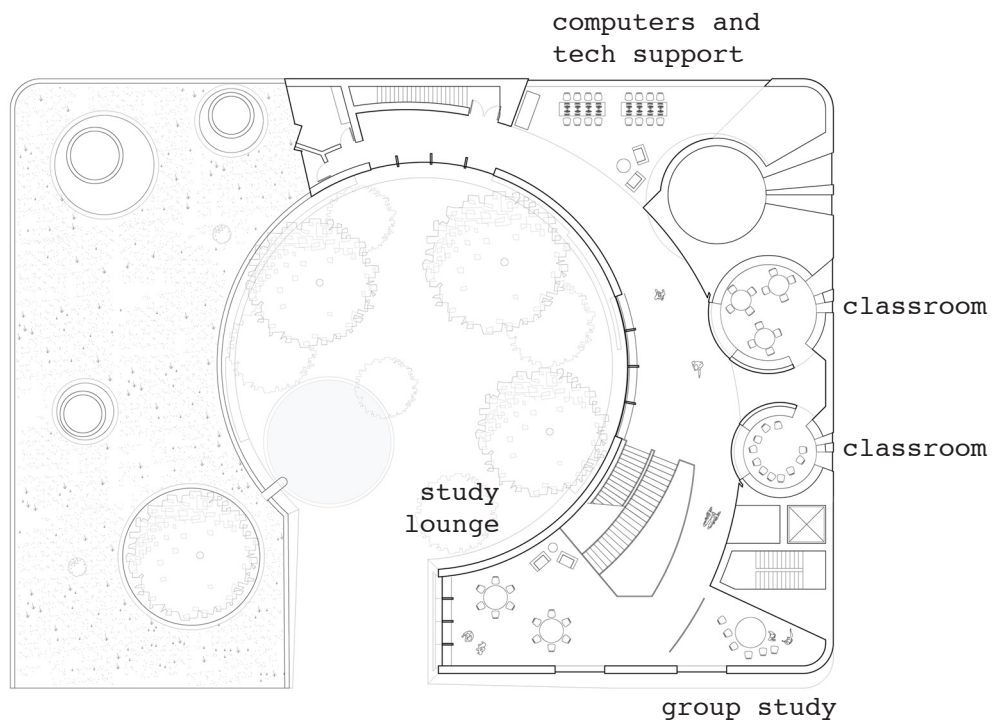
Diagramming variety of spatial conditions in section.



Ground floor plan, not to scale.

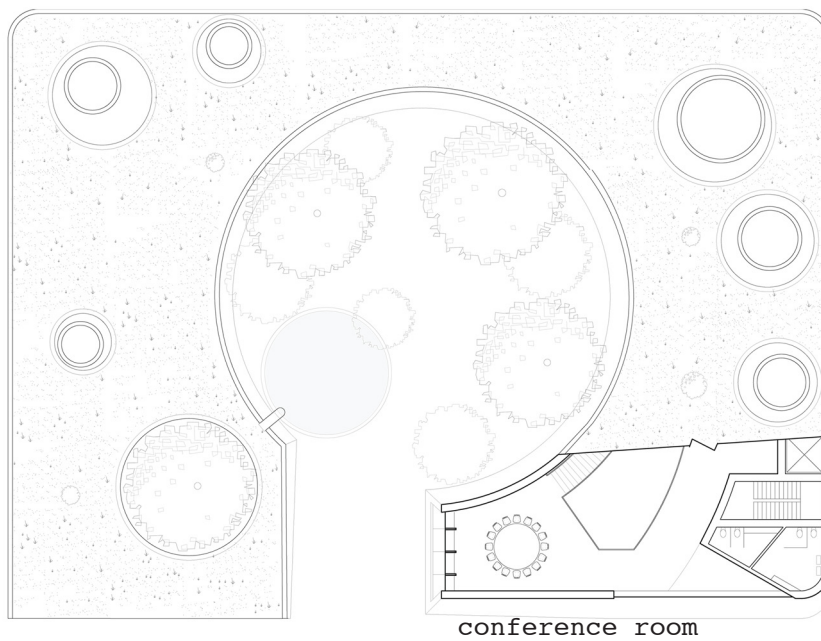


Second Floor Plan



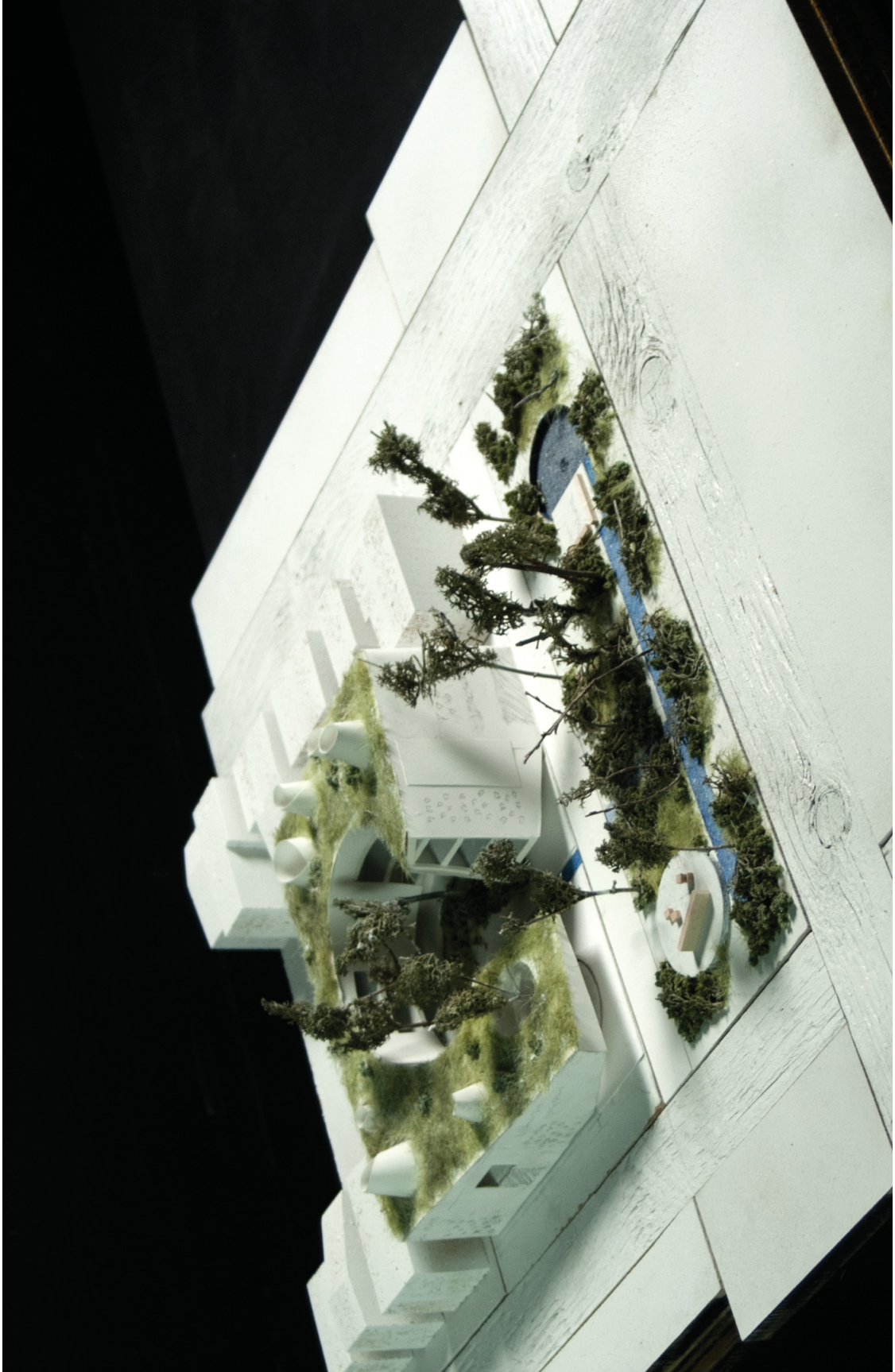
Third Floor Plan

Building floor plans, scale 1:500.



Fourth Floor Plan

Building floor plans, scale 1:500.

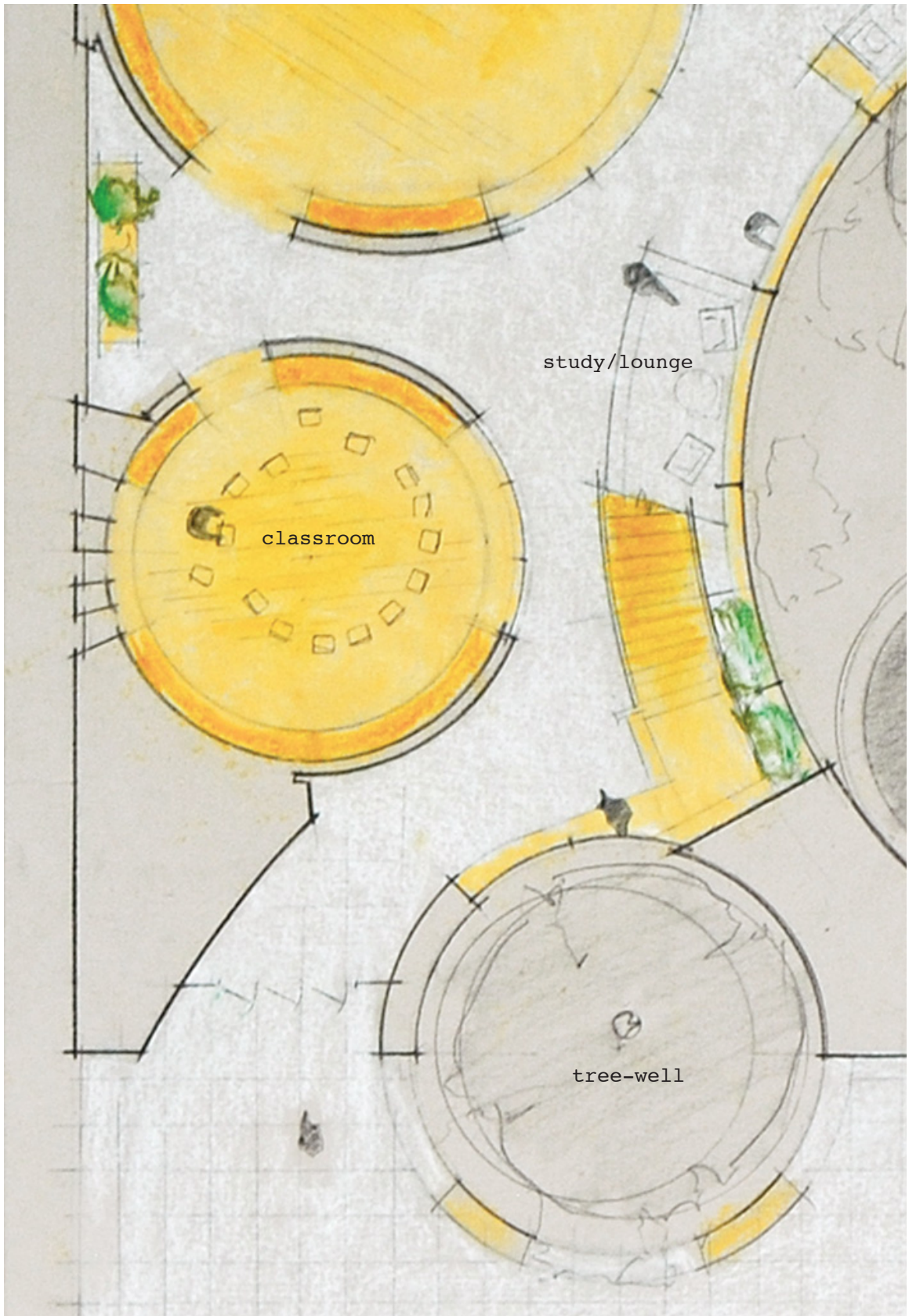


Model of land and building; scale 1:250.

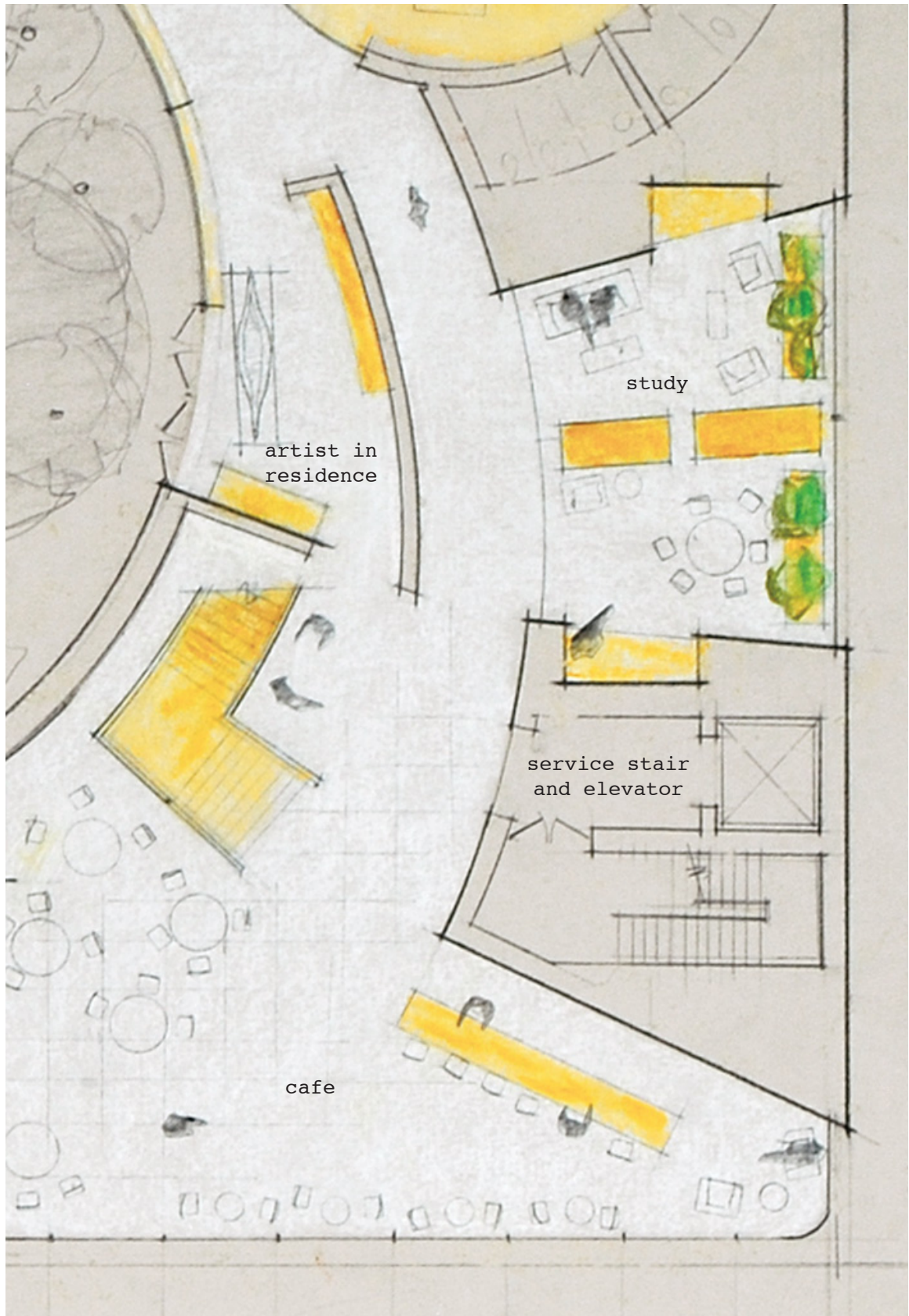
The building is composed so that once inside the inhabitant is continually exploring a generous corridor. This corridor is always in touch with the open forested space on one side and a monolithic service wall on the other. Wherever possible this service wall is removed and the resultant negative space creates many differently scaled and surprising spatial conditions. The feeling might be compared to that of a fish moving with a current, having many opportunities to rest in pockets or eddies along the way. In these pockets dwell the activities associated with *community*: lounges, study spaces, offices and kitchen. In contrast to the interstitial spaces of the *community* programming, the spaces of *home* (classrooms, daycare, artist in residence and ceremony) are the enclosed, interior spaces described in Chapter 3. Circular in plan and conical in section, these interiors are dappled with a grid of small windows and pierced by a zenithal light. Although similar in nature each conical *home* varies in height and diameter to allow for different class sizes, social groupings and experiences throughout

the building. Place for *Spirit* straddles the two extremes of this framework. Similar to the site at the FNUC, the central forested space could be used to build ceremonial structures to demonstrate and practice rituals. The most intimate of the conical rooms provides place inside the building for ceremony and ritual.

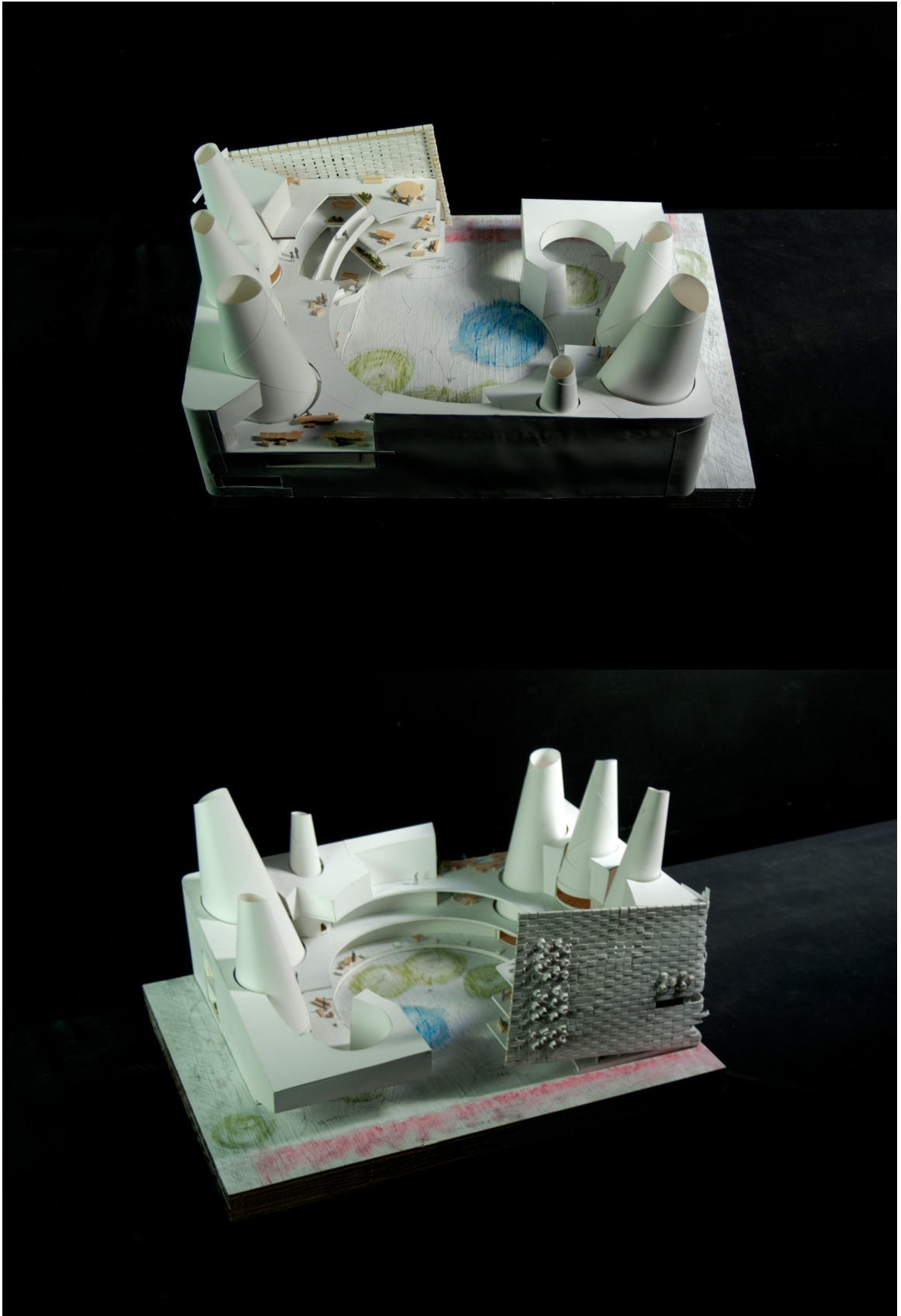
This architecture interweaves land and learning, inside and outside, solid and void, light and shadow, forest and city, formal and informal, group and individual, noisy and silent. A successful weave would be one in which space becomes place, time becomes occasion and user becomes inhabitant.



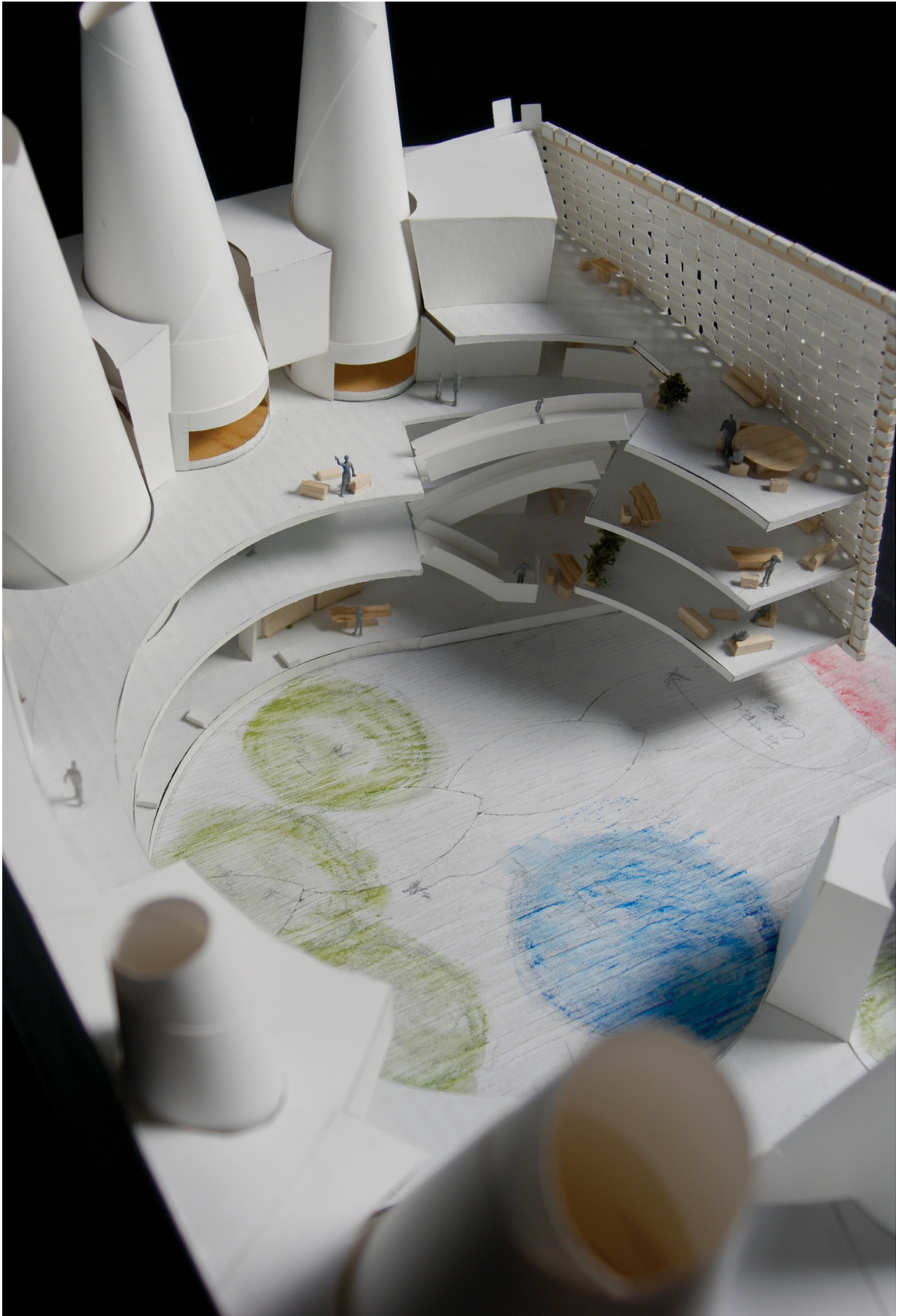
Classroom and interstitial spaces. Partial ground floor plan, not to scale.



Interstitial spaces. Partial floor plan, not to scale.



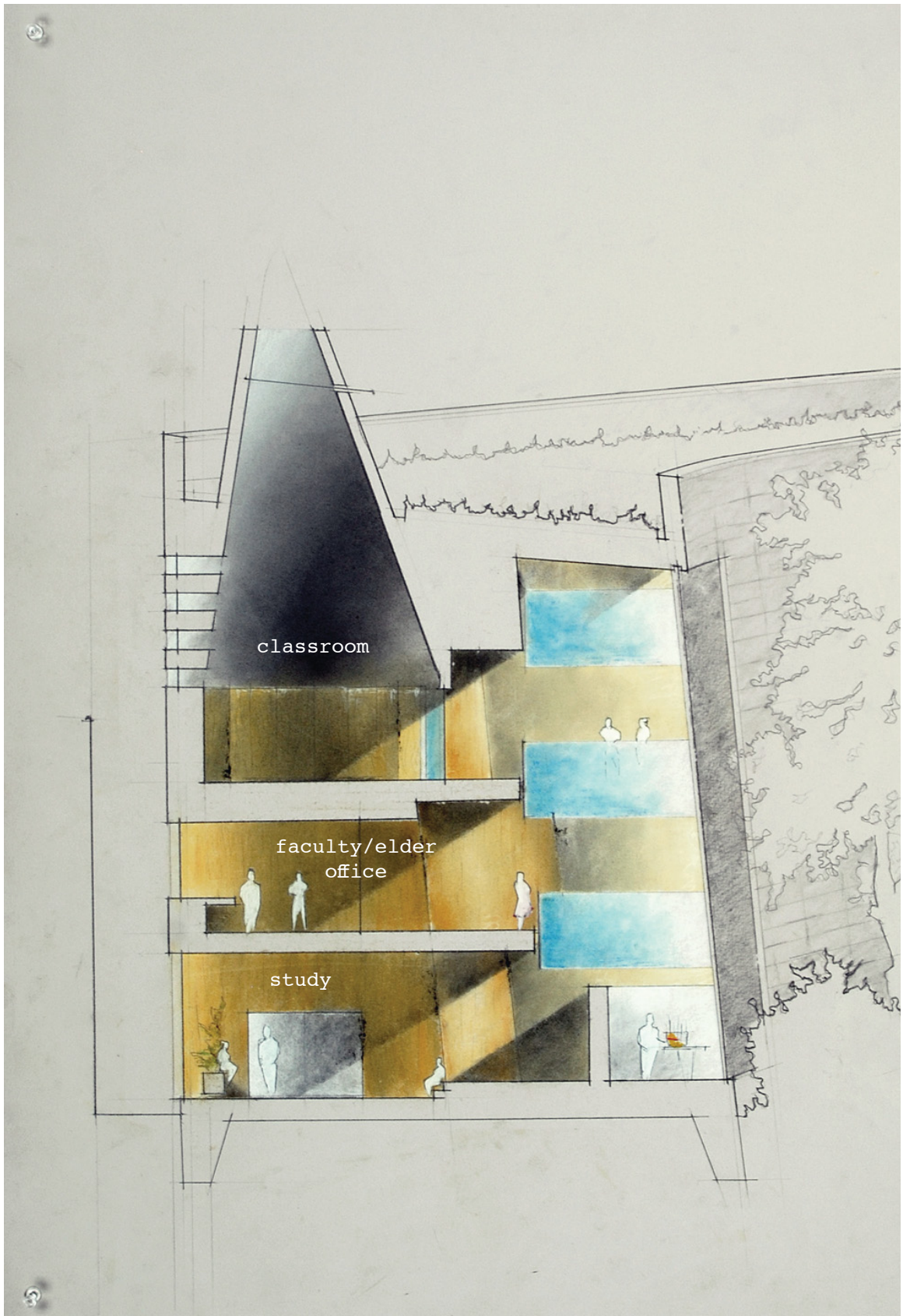
Partial building model exploring interior spaces. Scale 1:100.



Partial building model. Scale 1:100.



Partial building model. Scale 1:100.



Partial building section. not to scale.



Building section, not to scale.

CHAPTER 5: REFLECTION

First Nations Education will continue to gain strength in the post secondary learning institution. It celebrates the history, knowledge and challenges of First Nations culture rightly creating place for this identity on Canadian university campuses. Teachings like Etuaptmumk, (Two-Eyed Seeing) based on sharing, also begin to reveal the contradictory and destructive practices of the dominant culture and thereby create space for discussion and ultimately change. When understood historically and prospectively, the following statement by Jean Barman holds much power, "curricular reform is cultural change"⁵².

The research and design in this thesis aims to contribute to this important conversation. The language, legends and craft of Mi'kma'ki revealed to me a new way

52 Jean Barman, Yvonne M. Herbert and Don McCaskill, "The Challenge of Indian Education." In *Indian Education in Canada*, vol. 2, *The Challenge*, ed. Jean Barman et al. (Vancouver: University of British Columbia, 1987), 13.

of understanding the land of Eastern Canada. The case studies, as a national programmatic discussion between First Nations teachers and communities, institutions and architects, created a basis for the organization of this learning space. Advisors and friends continually supplied inspiration and confidence. The architectural form draws upon these different dialogues conceiving of a place to be comfortably appropriated as well as challenging and inspirational. In essence, an architecture that interweaves place, occasion and inhabitant.

As Architectural Historian Peter Buchanan remarks, “[t]he rebirth of culture is among the greatest and most exciting projects of our age, a collaborative enterprise that will take time and the contributions of many. But contrary to what many say... the great, inspiring, and even spiritual, narratives are already there to be used as a foundation.”⁵³

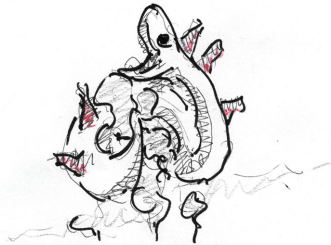
However, in order for these narratives to become "great, inspiring, and even spiritual"⁵⁴ in a work of architecture they must be respectfully approached and thoughtfully interpreted. While architects constantly interpret site, program, technology and client groups, frequently there is no acknowledgment of competing or coexisting sociocultural identities. Earnestly attempting to understand these different cultural layers is increasingly important if the idea of equality is to be taken seriously. This simple idea applies to any scale; international to local. The dialogue between First Nations cultures and mainstream culture through Canadian post secondary institutions is one example of this earnest collaboration.

Reflection involves heeding the advice of the tiny, half-blind mole

53 Buchanan, Peter. "The Big Rethink: Farewell to Modernism - and Modernity Too", *Architectural Review*. Last Modified January 30, 2012. <http://www.architectural-review.com/the-big-rethink-farewell-to-modernism-and-modernity-too/8625733>. article.

54 Buchanan, Peter. "The Big Rethink: Farewell to Modernism - and Modernity Too", *Architectural Review*.

and looking inside ones self. One of the most important things I've come to appreciate over this last year is the act of listening with the heart as well as the mind. Being receptive in this way fosters empathy, thoughtfulness and reflection. In my opinion, truly listening forms the strongest foundation for earnest and respectful interpretation.



Conceptual sketch.

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