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Re-contextualizing the architectural learning experiences: the alternative perspective (Part V)

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RE-CONTEXTUALIZING THE ARCHITECTURAL LEARNING EXPERIENCE:

THE ALTERNATIVE PERSPECTIVE (PART V)

by

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ABSTRACT

Canadian Aboriginal students struggle to situate their cultural knowledge within a Eurocentric academy, in part because indigenous ways of knowing are informed by a philosophy that is characterized by 'interconnected' relationships rather than an isolated system of thought.

In accordance with this worldview, this report is shaped by a series of 'interdisciplinary' discussions with the intent to establish an ethical middle ground (or space) for architectural learning that does not exclude an Aboriginal worldview. Supported with a different set of hermeneutic principles the report addresses the need to preserve Indigenous knowledge systems thereby encouraging Architectural Education in Canada to facilitate and help re-contextualize Aboriginal traditions.

As a result, this thesis attempts to create an enduring intellectual space for future Aboriginal students where they are encouraged to "live the story of their created object" while forging renewed identity pieces in a shared cross-cultural context.

ACKNOWLEDGEMENTS

DEDICATIONS

For my grandparents, Kenneth Jacob and Dorothy Anne Wynne –

Together they instilled within me work ethic, willingness towards lifelong learning and more love than I could ever imagine and most importantly, the notion of 'responsibility towards community' with hope I could build a better tomorrow.

For my mother –
No amount of words could express the gratitude. Love you always!

- And -

For my fiancée and our twin boys, Pawaken Jacob and Tapwewin Sol –
Together they are the newest teachers in my life and all the more reason to build a better today.

~ My Totem is my Truth and My Truth is my Totem ~

Table of Contents

List of Figures

List of Tables

Abbreviations and Definitions

Aboriginal: is a political term generally used to describe the First Peoples of Canada, which include the First Nations, Metis and Inuit cultures. However, for the purpose of this report, the term Aboriginal has been used interchangeably with the terms Native American Indians and Indigenous.

Active Trust: the idea of an active trust emerges when institutions become reflexive and the propositions of the experts, in this case the instructors are open for critique and contestation. With such critical activity, trust in expert systems becomes not passive but active.

Artifact: is the material embodiment of human intentionality. Its emphasis on the characteristic of material embodiment means that, in almost all, if not all instances, artifacts are technological products informed by a systematic treatment of an art, craft, or technique.

Communal Logic: is hermeneutic knowledge and the latter is only possible when the knower is in the same world as and 'dwells among' the things and other human beings whose truth he/she seeks.

Continued Disconnections: also known as disconnected communities engages with the risk of cultural isolation in the academy where necessary steps towards acceptance and inclusion are necessary to overcome issues of inferiority exhibited towards indigenous knowledge (or ways of knowing).

Cultural Continuity: can be seen in the use of elements of traditional architecture which are copied, patterned, or emulated in the design of new buildings as well as renewed efforts to preserve and maintain traditional buildings.

Dialectic: is defined here as a discussion and reasoning by dialogue as a method of intellectual investigation aimed at exploring the ideas or ideals between two people who, even if they do not agree, share at least some meanings and principles of inference.

Didactic Method: is defined here as a teaching and learning method that follows a consistent mode of analysis that engages with the student's or instructor's mind.

Figured World: is defined as a parallel world in which positioned human agents (researchers) carry out a manageable range of meaningful acts aided by material and symbolic artifacts. Its significance lies in the context it provides for the formation of social identities and institutions. It also provides insight into profound sociality of human creativity, and especially into the role of imagination in producing and reproducing institutions.

Hermeneutic: as a singular refers to one particular method or strand of interpretation. Pluralized the term *hermeneutics* covers both the first order art and the second order theory of understanding and interpretation of linguistic and non-linguistic expressions.

Heterogeneity: expresses the juxtaposition of opposites – orthogonal and topographical, open and closed, authentic and synthetic, skin and frame – makes the object or artifact particular, an empathetic response to the needs and desires of a community.

Indigenous Knowledge: also known as Traditional Knowledge or Ecological Knowledge is described as the modification, adaptation and re-contextualizing of an indigenous worldview.

Immediacy: seeks to reconstruct the experience of the undifferentiated interior worldview, in which one is not a mere spectator, but to which they inseparably belong, in actual contact or direct personal relation.

Interdisciplinary Design: involves researchers, students, and teachers in the goals of connecting and integrating several academic schools of thought, professions, or technologies -- along with their specific perspectives -- in the pursuit of a common task. Interdisciplinary approaches typically focus on problems thought to be too complex or vast for adequate understanding with a single disciple. In a sense, interdisciplinary involves attacking a subject from various angles and methods, eventually cutting across disciplines and forming a new method for understanding the subject.

Material Culture: in terms of artifact development perceives the object or making of a thing is perceived as a repository of cultural values, where we find, fundamentally, that a different way of working with a material can evoke different meanings and interpretations.

Nature: in its broadest sense, is equivalent to the natural world, physical world or material world where all forms of life interact with the environment in which they exist with other life forms

Ontological Security: is a stable intellectual state derived from a sense of continuity in regard to an individual's experiences and serves to be reliant on the person's ability to give meaning to their lives.

Reciprocity: addresses derived circumstances, the conditions and context of a culture aimed to engage within the interconnectedness between nature and culture and culture and community; a moral obligation to give back.

Renewed Relationships: identify institutions and communities as having great potential to foster awareness and understanding between inter-cultural and cross-cultural groups.

Reflexivity: is defined in which agency, set free from the constraints of social structure, reflects on the rules and resources of such structure, reflects on the agency's social conditions of existence and to larger extent reflects on itself.

Spirit: informs a natural way of being.

Stylistic Variation: is the study of varieties of language whose properties position that language in context or relation to others. Stylistics also attempts to establish principles capable of explaining particular choices made by individuals and social groups in their use of language, such as the production and reception of meaning. In addition, stylistics is a distinctive term that may be used to determine the connections between form making supported by a critical discourse.

Through Situated Practices: is defined as a series of reflexive strategies informed by the structural boundaries of relationships, social contours, and roles that classify a society. As these boundaries change notions of exploitation and its relationships to self-interest are redefined or re-contextualized.

Tectonic: is a term derived from the Greek word *tekton* meaning carpenter or builder – signifies the fusion of technique with art, of construction with prose (or writing style). Tectonic suggests a preoccupation with materiality and a championing of craft that respects the trace of the hand and the expressive potential of construction.

Totemic: is defined as *marked by attention to* or *adhering strictly to a prescribed form* that relates to or involves the outward expression of a structure and its cultural significance; focuses on the arrangement of elements rather than content thereby endowing them with an iconic status linked to the primordial act of settlement.

Transformative Values: are those situated in a kind of continuum, ranging from aesthetic, spiritual and other similar values. It embodies an ecological awareness, an understanding or holism and it incorporates participatory procedures with community.

Transformation Design: has been described as a human-centered, interdisciplinary process that seeks to create desirable and sustainable changes in behavior and form – of individuals, systems and organizations – often for socially progressive ends. Its practitioners examine problems holistically rather than reductively to understand relationships as well as components to better frame the challenge. They then prototype small-scale systems – composed of objects, interactions and experiences – that support people and organizations in achievement of a desired change.

Vernacular: refers to the country or locality of a people's tradition. In terms of architecture, the term is used to categorize methods of construction that make use of locally available resources and traditions to address local needs. Vernacular architecture tends to evolve over time to reflect the environmental, cultural and historical context in which it exists.

Western Culture: refers to cultures of Western or European origin. It is used broadly to define a tradition of social norms, ethical values, religious beliefs, and political systems of thought.

Cree Etymology

Ki-wepa-ki-tini-ke-win: describes *the act of share something* and become larger in the process. It expands the person in its exercise. (Omushkegowuk Cree)

Na-waso-ni-ke-win: describes *the act of making a choice*. (Plains Cree)

O-shi-chi-kay-win: describes *the act of making* an object in connection to one's entire Being. (Omushkegowuk Cree)

Wa-pi-mi-sow*:* describes *the ability to see a reflection of oneself* either physically, mentally or premeditated. (Omushkegowuk Cree)

Chapter 1 - INTRODUCTION

The weaving of a reasoned argument focuses on process rather than a product of specification. When viewed in terms of a reflective practice, not only does it serve as an important activity in which the individual recaptures their experience to any learning process but also makes use of the advice, information and the experience offered up by others. Yet, what is just as important is the ability to make mutual adjustments between personal and participant evaluations.

John Rawls, On Reflective Equilibrium

1.0.0   Planning for the Inclusion of Aboriginal Culture in the Academy

In 2001, Jon Hawkes wrote *The Fourth Pillar of Sustainability: Culture's Essential Role in Public Planning* during which time he proposed the notion of an integrated framework informed by the following dimensions: environmental responsibility, economic health, social equity and cultural vitality. Core to the development of his paper Hawkes explored many avenues of social interest in which culture has the ability to influence patterns of human activity and thus, recommended a public planning process where governments and institutions would facilitate the development of a sustainable framework that does not exclude the role of any one culture. Thus creating an opening for potential dialogue and research interest where the role of culture can help establish a series of positive benchmarks in the built environment, where individuals of diverse cultural background may influence and shift social behavior.

Although the nature of this report does not deal specifically with public planning *per se*, it does lend insight into the notion of shared cultural perspectives where principles of difference require investigation if we are to plan for the vitality and inclusion of coordinated value[i] of Canadian Aboriginal cultures in the academy.   A means of achieving this is to explore, document, collaborate and self-reflect on the value of an indigenous 'way of knowing' and how this knowledge base is perceived in relation to a Canadian program of architecture, namely Ryerson University. Critically speaking, at present there is no course of study, curriculum development, or space for discussion within the context of a Canadian School of Architecture that is framed by an indigenous perspective, let alone articulated from an individual of indigenous identity that expresses the validity of an indigenous knowledge base and its many articulations. By articulations I am referring to the stories, ideas and cultural actions we as Indigenous people have and may chose to tell about ourselves.

This relates to architectural learning when one considers that today's contemporary schools of architecture are desperately seeking to establish a restored balance between the complexities of architectural praxis; namely those that are engaging with complex social systems and where the profession is not only being pressured from afar but also from within to respond in creative ways that go beyond traditional means of Western research and conventional practice. This suggests that now may be the time to consider an alterNATIVE perspective with which the indigenous student of design can help redefine and address this academic challenge.

When viewed as a pressing inadequacy, where the Canadian academy is not capable of bringing the indigenous person closer and into direct contact with something, someone or with an alternative way of learning closest to an indigenous worldview then, a greater obligation is placed upon that academy to uphold the ideal. If universities are a place for universal discussion and repositories of universal knowledge then, without trepidation the academy must remain open without scrutiny and judgment of the cultural knowledge future indigenous students and scholars will bring forward in the years to come.

It is for this reason the report is titled, ***Re-Contextualizing the Architectural Learning Experience: an AlterNATIVE Perspective (Part V)*** and serves to be the latest chapter in a larger body of design work that addresses the need to develop and deliver a space for intellectual dialogue that is both intuitive and counter-intuitive to an indigenous worldview.   As expressed by Smith and Schank Smith (2003), in *Perspectives on Diversity and Design*, "Architecture can never embrace the challenges of the future without the infusion of new ideas, technologies and especially diverse individuals and approaches. If we refuse, we are destining ourselves to be suspended in the past." In response to the observations offered by Smith and Schank Smith, the added strength of this report aims to establish a renewed precedence by linking sample perspectives such John Rawls' at the beginning of this chapter and that is, to take a self-reflective study approach while making use of the advice, information and experience offered by select research participants and making mutual adjustments along the way; all while seeding a personal pedagogy that continues to question and challenge the developing demands and expectations placed upon a Canadian school of architecture.

Before delving deeper into the report, it is important to iterate and address the true nature of this study that is to proactively speak toward the future; namely towards the future Indigenous/Aboriginal student of architecture because what is ultimately created is the opening of a third space; an ethical 'middle ground' that contributes to the development of a cross-cultural framework informed by a dialogical process between a diverse cast of researched actors.[ii] Not only does this report help set up a strategic positioning for his/her indigenous culture, but positions favorably a renewed future by calling on the people of Aboriginal or Indigenous cultures in the academy to be preservers of knowledge informed by the creation and recreation of designed stories. This re-crafting of their individual experience as Aboriginal instructors seeks to advance the Aboriginal condition within the academy.

Where Indigenous students struggle to situate their forms of knowledge within a Eurocentric academy, their traditional ways of knowing are informed by an epistemological philosophy that is characterized by 'interconnected' relationships as opposed to, an isolated systems approach. The report sets out to explore this premise, or set of hypotheses, through a series of semi-structured interviews; six (6) in total to best identify how instructors in the academy, both indigenous and non-indigenous have engaged in or shown a relationship to an indigenous way of knowing. These questions begin with:

(a) Does a Canadian School of Architecture, namely Ryerson University, show evidence of a widely interpretive stance towards an indigenous epistemology not preset in its existing curriculum? If so, who are the actors and educators and what is their view towards this cultural knowledge base?[iii]

(b) What would the ensuing research reveal and how could it be manifested, articulated, or reinterpreted as a form of architectural rhetoric, either in symbolic, linguistic or model formation?

(c) Moreover, how can the social, cultural and environmental values associated with an indigenous 'way of knowing' expand on the making of a contemporary architectural education or program of interest?

Again, to signify this approach, the research process established an interdisciplinary design approach (or investigation) capable of drawing upon a variety of cultural interpretations with hopes of providing a list of key recommendations in response to the theoretical and immediate statements heard throughout the many course of discussions and interviews. Not only has this approach revealed a diverse cultural conditioning shared amongst cultured others, but also justifies how instructors with different cultural experiences exhibit a unique understanding of the value of an indigenous way of knowing. This begins, strategically, by questioning the perceptions of the instructor with a different set of hermeneutic principles (or set values).[iv] As we shall read, whether expressed as a type of embodied experience, a type of tacit wisdom, or an unspoken idea or a paradigmatic way of knowing, one starts to see and understand how an indigenous student struggles to establish a deeper and more intellectual sense of connection to others.

According to Donald Schön (1983), in *The Reflective Practitioner*, "such an approach is considered as a reflection-on-action and is the kind of reflection that occurs whilst a problem is being addressed. Namely it is about challenging our own assumptions. It is about thinking anew again with, perhaps, a restorative way about a problem we have encountered or continue to observe." In this case, Schön attempts to research, rethink and recommend the creation of an ideal scenario or learning situation that would allow future Aboriginal students of design to participate in ways familiar to their cultural know-how with hopes of enriching their individual architectural learning experiences and educational processes.

To further explore the significance of John Rawls' notion of reflective equilibrium, the underlying tenet of a reflective view towards social acceptance takes into consideration the influential role culture has to offer by 'collectively testing the various parts of our belief systems against other human beings'.[v] Thus ways in which some values support others are revealed; ways in which coherence amongst a wider set of cultural beliefs can be established while also being to revised, refined and possibly re-contextualized at different levels of understanding. It is then we discover that, as a reflective process, architectural design should

not be defined solely as a product of specification but also, as a means of communication capable of revealing specific modes of understanding in the context of cultured others.

Now having to address a more significant issue – *the demoralizing and historical effect residential school systems have had on indigenous peoples in the academy* - not because it engages with a long-standing strenuous relationship held between Canadian institutions and the indigenous peoples within them but rather, because it reminds us of the continued shortcoming indigenous peoples have to overcome and still do when concern over indigenous knowledge is persistently appropriated, articulated and reframed for the Western ideal. For far too long indigenous students in the academy (the site of struggle) have been socially entrenched without having to engage and grapple with the historical trauma imposed upon their peoples as a result of the residential school system. As a result, the indigenous person not only surrenders their individual identity but also, continues to surrender the authority of their cultural creativity along with any ontological style they might employ to rightfully position them self in the academy alongside others.[vi] Although this is NOT the central investigation of the study, it does, however, serve to remind us of the imposed conditions placed upon Canada's Aboriginal people.

When viewed as a conflicting dichotomy the indigenous scholar 'embodies a worldview' that is characterized by a series of 'interconnected' relationships, as opposed to an isolated systems approach typically associated with Eurocentric thought. In response to this division of minds, the most immediate and intuitive approach is to counteract this perception with a series of cross-cultural narratives weaved together in an effort to reconfigure and arrive at a renewed sense of social and cultural understanding between the researcher and all participants. Rationally, it is the instructor who serves to benefit the student first with their knowledge and, hopefully, vice-versa wherein intelligence is challenged, extended and reciprocated between all participants.

For one, the strength and value of both an interdisciplinary and cross-cultural design approach invites a larger and more critical discourse of cultural action to be established.[vii] Secondly, this approach overtly reveals the social, cultural and imaginative qualities of the individuals interviewed. That is to say, we get to see genuine cultural differences held between others thereby allowing the interviewer and interviewee to gainfully move forward in relation to one another. The interviews also revealed significant notions of giving and receiving knowledge, they provided an opportunity to gain insight into objects we, as individuals, create and continuously sub-create in the shared context or environment of others. The interviews also allowed for each participant to elaborate on the establishment of personal practices associated with material culture. They were able to develop of personal platforms and ideologies to use for instruction, as well as reveal how material informs an individual understanding of our place within the greater design process.

Furthermore, the interviews served as both didactic (educational) and dialogical creations where they are viewed as individual narratives. In total, the culmination of the six (6) interviews frame a good portion of the report resulting in a cultural framework (or cultural matrix) of discussion wherein two (2) opposing worldviews are set against each other in search for common understanding. Although the investigation did not start out this way, it actually revealed itself during the design process as it is essential to re-contextualize the traditions, customs and moral practices associated with an indigenous student of design. It is important to acknowledge that Aboriginal traditions are strong enough to move forward proactively instead of entrenching, inspirational and individual endeavors.

The result is a re-grounding of first principles associated with the act of making and understanding of architecture articulated in a cultural framework that explores: (a) *the emblematic issue of immediacy,* (b) *the societal risk of one's ontological security with creativity* and, (c) *the ethical act of cultural reciprocity.*

Again, when viewed as an individual narrative (which is a type of artifact unto its self) a process is revealed that best represents the term story-making in relation to decision-making which is a form of reflective conversation (Donald Schön, 1987). An understanding of Schön supports the key investigation taken throughout the report which aims to combine artifact development - *story-making and style-making an object into existence* - and design practice with research where the Indigenous student of architecture is permitted to "live the story of an object" while forging the creation of renewed identity pieces.

All discussions within the report, in some form or another, elaborate on the loss, marginalization and appropriation of cultural knowledge as well as, on a more positive note, the need for additional forms of cultural knowledge to enrich not only the practice of architecture but also ways to enrich one's preferred method of design study.

As Marco Polo, one of the key participants within the research study, states in 41^0 *to* 66^0*: Regional Responses to Sustainable Architecture in Canada,* "we are at a time where 'the role of culture' is helping to redefine our understanding of sustainability where an emerging body of scholarly work supports the perception that the time is ripe for an approach to sustainable architecture that reaches beyond technological considerations to address a variety of intangible but essential cultural values" (McMinn and Polo, 2005).

Despite the fact that education has been, and arguably still is, the best step forward to address the needs of indigenous peoples, the academy on its part continues to postulate the superiority of Western knowledge over non-Western knowledge systems (Augustine, 1998). And, although there are countless studies, literature reviews and university action plans that aim to address the inadequate performance of Indigenous students at ALL levels of education, there seem to be very few solutions that have the potential to overcome this critical condition. Though beyond its scope, this report will touch upon the reasons why, taking initial steps to address issues of space and place making are essential.

Finally, rather than concerning personal struggles, this report is about the recognition, rebuilding and re-contextualization of a culture's knowledge system, and the need to arrive at a renewed sense of architectural understanding between Western and Indigenous ways of knowing. The report's discussion and findings are expressed within a different set of hermeneutic principles and never exhibits the need to separate the mind from the body and the body from its hearth. This is where the strength, value and pulsating experience of the report gives rise to its esteemed title, *'Re-Contextualizing the Architectural Learning Experience: The AlterNATIVE Perspective (Part V)'* and the required need to 'structure the report' precisely as a Communication, Culture and Reflexive response. Historically speaking, indigenous architecture has always been informed by oral communication wherein the transmission of cultural knowledge and the values placed upon materials were revealed in the context a new learning situation.

In the end, all research questions and fact-finding discussions, with compelling and competing logics, must be counter-intuitive to both the indigenous and non-indigenous student of design if it is to be of qualitative value; moreover, questions and discussions in the context of this must be delivered with a critical consciousness that genuinely aims to restore a sense of balance between people and the type of knowledge they bring to the academy.

1.1.0   The Political Context that pre-Conditioned a Culture's Isolation in the Academy

The historical and political context imposed upon Canada's Indigenous peoples sets precedent for the condition of the culture's isolation in the academy that exists to this very day. As an undertone to the development of this study, it is imperative to raise the political consciousness of the reader and to bare all truisms as to why there may NOT be any previous architectural criticism offered by a person of indigenous identity.

The simple reason is, schools at one time were used as instruments (or tools) of oppression imposed upon Aboriginal people since the early 17th century, when European missionaries established schools for Aboriginal people on Reserves. Since Aboriginal children were seen as the segment of Aboriginal society that would be the most receptive to the imposed standards of Western civilization, assimilation through education became a primary concern of the Canadian Government (Cardinal, 1999). However, because attendance was poor, the schools were ineffective as tools of assimilation. In 1894 amendments were made to the Indian Act to allow for the forcible removal of Aboriginal children from their homes and communities, segregating them for years at a time in residential schools which existed from the 1890s to the 1980s (Ledoux, 2006). As children were removed from the influence of their home and forced to reject their traditional languages, spirituality and indigenous worldview the embodied culture of these children was gradually eliminated.

Thomas Moore before and after his entrance into the Regina Indian Residential School in Saskatchewan in 1874.
Library and Archives Canada / NL-022474

"Thou Shalt Not Tell Lies". Cree students attending the Anglican-run Lac La Ronge mission School in La Ronge. Lac La Ronge, SK. March 1945
Bud Glunz / National Film Board of Canada / PA-134110

Figure 1: Thomas Moore *before* and *after* Residential School

Figure 2: Cree students in Residential School, Saskatchewan

As residential schools were gradually phased out and the integration of Aboriginal children into the public school began, documents such as the Hawthorn report (1967) called for improvement in Aboriginal education. In 1972, the federal government accepted a policy of Indian control of Indian education, which gave First Nations the right to operate their own schools, however, one of the funding contribution requirements was (and still is) that First Nations must use provincial curricula, despite the fact that it is culturally biased and inadequate to meet the needs of Aboriginal students (Battiste, 1998).

This fact leads to the observation central to the course of this study: **How might the inadequacy of NOT being able to provide a culturally appropriate education in terms of place and space making be addressed in a Canadian School of Architecture today?**

As we have come to understand, Western architectural traditions have long-established modes of delivery. It is a credible profession which increasingly branches out into individual rational sciences, each with an isolated sense of order. As a result, the epistemological dichotomy (Western/Indigenous divide) forces Aboriginal students of architecture to justify their ways of knowing to and for the dominant culture while the academy enjoys fresh opportunities for cross-cultural enrichment (Turner, 2006).

Therefore the ensuing challenge for any Canadian school of architecture with Indigenous students is to provide an education that is meaningful and culturally relevant.   A meaningful and culturally relevant education for indigenous students of architecture requires fundamental changes to create space within the curriculum that is rooted in the teaching and learning activities of indigenous peoples. This curriculum must be in harmony with the life, experience and knowledge of an indigenous student or, if not, at the very least in supportive of it. It is only then that Indigenous students of architecture may find a renewed sense of place with a greater understanding of their identity and, hopefully, a rightful sense of belonging in a School of Architecture. Gone are the days when the practice and teaching of architecture was strictly promoted and believed to be an upper/middle class Caucasian profession.

Unfortunately while improvements that address indigenous learning styles and ways of knowing have been made at the elementary level, it is still the higher schools of thought, namely our universities that continue to be based on Eurocentric models of education. As a result, today's Indigenous student in any discipline of study – not just architecture - is caught at the extremities, between the margins of society, both inside and outside the dominance of Western modalities, always in tension and fully aware they are in prime position to renegotiate their personal senses, values, ethos and ontological traditions in relation to other cultures. More importantly, Canada's newest school of architecture in 35 years is the ideal setting to explore the moral and ethical issues associated with these sensibilities.

1.2.0   The Indigenous Paradigm

An "indigenous paradigm" deals with a culturally specific discourse based on indigenous peoples' premises, values, and worldview that puts forward cultural action and a political agenda while maintaining a critical stance towards Western systems of knowledge and its demoralizing historical implications on indigenous peoples. Whether we want to acknowledge, undermine or reject notions of an indigenous paradigm, many Western scholars, past and present, have ignored the indigenous paradigm and its value. This paradigm is not a common academic approach or considered place to begin in mainstream courses of study simply because Western models of carrying out research are often characterized by a Cartesian worldview.

As we now know much of the Western worldview is derived from Rene Descartes (1596-1650), the French philosopher and the father of scientism, whom distinguished between mind and matter, positing that the two were separate and fundamentally different. His Cartesian framework had a profound effect on Western thought. It assigned a higher value to mental over manual work. It also led to the belief that Nature worked according to mechanical laws and as such should be controlled and conquered. As result, the separation of man from Nature took place along with the separation of thinking from doing (Fowles, 1997).

Take, for example, the following table that positions the Western mindset against that of Indigenous North America.   The inherent differences bring into focus a division of thought in terms of economics, relationship to environment, philosophy and architecture. The more detailed the comparisons, the more obvious the differences become in almost every category; in many cases they are complete opposites and inform different epistemological stances.

European Civilization (Scientific Knowledge)	Native North America (Indigenous Knowledge)
Economics	
• Concept of the private property a basic value; includes resources, land, ability to buy and sell, and inheritance	• No private ownership of resources such as land, water, minerals, or plant life. No concept of selling land. No inheritance of land from generation-to-generation.
• Nature viewed as an economic resource.	• Nature viewed as 'being', where humans are seen as part of nature.
Relation to Environment	
• Living beyond nature's limits encouraged. Conquest of nature a celebrated value; alteration of nature desirable; exploit resources.	• Living with the natural ecosystem encouraged. Harmony with nature the norm; only take what is needed. No desire to change the landscape.
• Humans viewed as superior life form; Earth viewed as "dead".	• Humans are not superior. Entire world viewed as alive and connected: plants, animals, people, and rocks.
Religion and Philosophy	
• Futuristic/linear concept of time; de-emphasis of past. The dead are regarded as gone.	• Integration of past and present. The dead are regarded as guardian spirits.
• Time measured by machines and technology; schedules dictate when to do things.	• Time measured by awareness according to nature; time to do something is when the time is right.
Architecture	
• Construction materials transported from distant places. Construction designed to survive individual human life. Construction methods of European origin.	• Construction material usually gathered locally. Construction designed to eventually dissolve back into earth. Construction methods informed by a local understanding of place.
• Hard-edged forms: earth covered with concrete.	• Soft-forms: earth is not paved.

Table 1: Table of Inherent Differences

It is quite evident the two civilizations are incompatible. They don't now and probably never will mix. They should be viewed as exact opposites of each other, or in each other's shadow. As one Indigenous Elder stated in Jerry Mander's (1991), *Absent of the Sacred*, "Indigenous people have always known about this schism and the inevitable conflict or ensuing paradigm that comes with it. We do not want to be like the dominant white society. To be assimilated with this society is absurdity."

"The difference between dominant Western and Indigenous epistemological and philosophical traditions and forms of literature expression have resulted in questionable ordering knowledge systems: Western scholars often treat indigenous ways of knowing as primitive, primordial, unsophisticated or in other ways inferior, simply because of their reluctance and, in some instances, total ignorance to want to grasp the totality of an indigenous worldview or Native American approach to life (Kailo, 1998)."

Moreover, a common task associated with an 'indigenous paradigm' attempts to decolonize indigenous minds by 're-centering' indigenous values and cultural practices and placing Indigenous peoples and their issues into dominant, mainstream discourses which, until now, have regulated Indigenous peoples to marginal positions in society (Kuokkanen, 2000). Fortunately though, recent studies are starting to reveal a positive change in perception and cultural stance towards the learning of an architectural education, which, in turn, may lead to the recalibration of a Canadian architectural institute and the educational practices it may come to deliver and for which it might advocate.

Case in point, as stated by Smith and Schank Smith (2003), "similar to a pendulum in motion, the paradigms governing architectural education swing with trends, movements of philosophy or approach. Within such change new concepts can be realized, since, the voids left by the pendulum's movement can be filled by the marginal. Here we define margin as a part of anything, for example a society or organization that is least integrated with its center, least often considered, least typical, or most vulnerable. The marginal represents people, ideas or things not included within the center. Those on the edge can be the most unpredictable but also more interesting. It is within this margin that a diversity of ideas exists. We believe that by 'creating an environment allowing a degree of play' it becomes more possible to successfully engage the marginal, encouraging diversity. This is not only the diversity of gender and ethnicity but also of approaches to design and basic tenets that can then be assimilated into and influence architectural education. The swings of the pendulum might reflect changes in culture, but in the case of a school of architecture this reflection may constitute the profession or the academic environment."

Quite possibly another reason to remain open to an indigenous paradigm is the need to raise questions of relevant research regarding the design of indigenous communities that allow for an indigenous way of knowing to contribute, help redefine and bridge both the critical and cultural discourse of architectural rhetoric.   Essentially, an indigenous perspective and its paradigmatic ways have the ability to offer a new set of ideological tools for analyzing non-Western cultures, which in itself may diminish the dangers of misinterpretation of indigenous cultural expressions and its ways of knowing.

Finally, the key objective of any indigenous paradigm has to do with the recognition and full acceptance of an alternative epistemology as being equal to Western systems of knowledge in the academy. As long as indigenous philosophies continue to be discounted as being non-worthy and anecdotal in comparison to Eurocentric epistemologies, Indigenous scholars and their research interests shall remain in the marginal position for years to come. For that reason, it is necessary that both Indigenous and non-Indigenous scholars and research participants throughout this report acknowledge that Indigenous epistemologies have an intrinsic value of their own (onto-logical) and that, as Jungen Kremer has noted, there is no need to attempt to shape indigenous epistemologies into Eurocentric categories, since "providing definitions of Indigenous science means allowing Western thinking to once again structure Indigenous being and knowing before it has unfolded its healing power (Kremer, 1963)". As one research participant eloquently put it, 'healing in the sense that it is capable of making infinite connections.'

Kremer also suggests that instead of demanding that Indigenous peoples give definitions satisfactory to the Western paradigm, it is time to ask minds conditioned in Eurocentric ways of knowing to explore the traditional, natural and inspirational realms of an Indigenous person's being in the world (Kuokkanen, 2000).

1.3.0   The Interplay between Aboriginal Art and Architectural Knowledge

For the indigenous person the act of envisioning and then engendering a work of art represents an important and powerful ritual. Their making of art is one of the central ways by which they maintain complete control over their identity. As well, making art serves as the essential medium for those seeking to acquire a better understanding of the indigenous culture. In terms of architectural practice, this means 'wanting' to gain a substantial foothold into the culture.

As with most indigenous artists the making of a select art piece tends to become a contentious process full of ideological tension that attempts to transform 'the act of visioning' into 'the act of making'. Although such an act of doing is not entirely specific to indigenous cultures alone it is still said to be a consummate mystery associated with all art making processes that, more often than not, provide a glimpse into the religious, political, philosophical and even, I dare say, the spiritual myth making experience of the artist.

According to Gerald McMaster (2005), the issue of reconstructing Aboriginal identity and its ensuing art pieces is a paradox. In order to take part in modern civilization most indigenous persons tend to root themselves in the soil of the past while at the same time, strive to find a balance between scientific, technical and political rationality. In the process of this struggle a dilemma is developed: the double bind of recognition and practice, both in and outside the mainstream and as they continue seeking recognition in the mainstream of arts they are also re-examining the other centers of activity. For many they are coming to realize that some of these old centers once considered marginal to others are the new cultural centers once again. These sites of interest, once considered socio-political imprisonments are Indian Reservations and to some contemporary architects and artist are perceived as sites of discovery full of potential.

As negligible as these mindfully constructed prisons might appear today, not to mention, the horrific third world living conditions many of Canada's Indigenous peoples continue to endure, these imposed Western boundaries on the mind called Indian Reservations will always provide the essential context required to re-inform, reshape and give renewed meaning to the creative process associated with Aboriginal people in Canada. For this simple reason, it is within the memory of their immediate family members and communities where all historical wisdom and ways of knowing the world are informed, through certain rituals and a way of constructing day-to-day practices. In other words, the Indian Reservation is an 'indigenous knowledge bank' tied to the natural environment.

In fact, according to Lee Roy Beach (1990) in *Image Theory: Decision Making in Personal and Organizational Contexts*, "Architects, regardless of culture, embark on a design project, 'with a store of knowledge about what has lead up to it, what is going on and why, and what his or her role is to be in the proceedings' and use this as a trigger and starting point for case-specific research (See Chapter 5).

Moreover, during the design process they draw on an image bank: a repository of stored images of buildings, places, events and experiences, including their own past work. Many architects will inevitably probe their memories for portions of their knowledge with similar features of another culture in order to recognize or identify aspects of their new situation. A portion of their knowledge will involve cultural images of what they believe to be true regarding the environment and other aspects of sustainability inserted into their design response. These cultural images will be important influences on how the architect re-frames the context of their new project or discovery. As well as, the knowledge that constitutes a frame is largely represented in the form of stories, however fragmentary, and that it is the quality that gives continuity and meaning to the events that occur in that specific frame."

Therefore, contemporary indigenous art, at its most vital, demonstrative and extreme aspect, explores new relationships to 'place' that follow design processes similar to those of architecture. Indigenous art and architecture evolve within the same field of inquiry: the essential use of space and one's relationship to it. Moreover, it sets in place an understanding for the true nature of 'textual' and 'contextual' forces that give rise to a sense of renewed place making, re-interpretation and understanding of any architecture that is of Native American, Aboriginal or Indigenous value.

As Jamake Highwater (1981), states in *The Primal Mind: Vision and Reality in America*, "though Indian art demonstrates the way in which primal mentality constructs a manifestation of place out of the ideal space, it is in Indian architecture that we best witness the intrinsic amalgamation of space and place, of place and nature, of man and nature. This symbiosis is fundamental to the kind of shelter they have created for themselves over the centuries. Their sense of balance between artificial and the so-called natural can clearly be seen in their architecture simply because it is informed by the knowledge of their peoples which, is revealed as a complete embodied relationship where the environment serves as the implacable catalyst."

The precision of this statement evokes a supportive and parallel understanding to that of McMaster's reconstruction of identity in the sense that an indigenous way of knowing is always in-tune with competing social, cultural and environmental forces imposed upon the individual. All the while, they continue to be informed by the validity of their Indigenous 'way of knowing', how it is used, and how relevance, ignorance and acceptance towards their cultural way of knowing is dealt with, something the research now believes is all too important to overlook and disregard as an alterNATIVE way of learning and researching architecture at the Master's level of study.

As we shall read later in the report, the cultural field of Canadian Aboriginal architecture can easily become 'a contested space' and a 'site of struggle' - one that is consistently being negotiated and even scrutinized by recent practicing non-Aboriginal architects, schools of architecture, governments and other disciplinary studies looking to not only gain a foothold into the culture but rather, gain access to a body of cultural knowledge that is not to be found in any school of thought. As a result, the fore mentioned site of

struggle - the Indian Reservation – will always be about uneven power relations both inside and outside the cultural condition and will remain so as long as Aboriginal people make their way 'in' and 'out' of the academy.

Yet, as Larry Abbott (2005) describes in an interview with Gerald McMaster, "many aboriginal artists will continuously fall into the gaps between these well-defined spaces. They will become lost both in transition and translation, somewhere in between tradition/contemporary, city life/reserve life, craft/technology, Christianity/Ceremony and so on. For these reasons alone when discussing Aboriginal art it is then important to think in terms of *survival* and *survivance*. The difference between these terms is significant. Survival is more *reactionary*, while survivance is more about the *condition of the peoples*."

Thus, it is the latter of these terms – *survivance* - that gives rise, opportunity and importance to the nature of this study and that is to create the intellectual conditions within the academy upon which future indigenous students of design can move forward.   In doing so, they shall be able to establish a renewed sense of their own and get to see the implications of 'that definition', whether it is described as a process of becoming modern, seen in the collaboration with others, reviving one's aboriginal or indigenous traditions, taking part in a universal civilization, or simply developing an individual sense of reflective design practice.

In previous self-administered reports this process has been described as practicing one's *Wapimisow*, a Cree derivation that means to see one's reflection either physically, mentally and even premeditated. Again, premeditated in the context of this report refers to controlled choices in the act of creating a cultured response closest to an Indigenous worldview as opposed to the way Western traditions have either prematurely acculturated indigenous peoples by making ill-informed presumptions of the belief systems that continue to inform the architecture we have and continue to create for ourselves.

In closing, the Aboriginal artist or architect shall always instinctively exercise more authority over their cultural identity by utilizing it as a point of inflection. Their artistic expressionism becomes less fixed and more fluid, dynamic, multi-dimensional and richly informed. It feeds the process of making a synthetic identity by today's standards, which in itself is the hybrid act of sifting, shifting and generating ideas based on social, cultural and political conditions of their community and place within that community. As a result, the contemporary Aboriginal artist will always evoke a traditional sense of time and place no matter where they are situated – simply to realize the person they have become -- because they have been marginally situated there for so long (McMaster, 2005).

Chapter Notes: Introduction

[i] According to Hawkes policies that aim to address cultural interests must arrive with established objectives, be able to fit in with structure and secure/provide adequate resources in order to create an environment conducive to human fulfillment.

[ii] The term 'middle ground' is synonymous with the term 'ethical space' and is informed when two societies, with different worldviews, are positioned to engage with each other. It is the space in between them that contributes to the development of a cultural framework from which this report aims to achieve.

[iii] In general, epistemology is the philosophy of knowledge. It asks simple questions we have long taken for granted: "What is knowledge?" What is indigenous knowledge? What is the difference between the two types of knowledge?" In short, it is a vital cultural debate to the issue of knowledge because it represents and may help fulfill the academic needs of Aboriginal people.

[iv] Hermeneutic is the philosophy of interpretation and where it is heading. The point to be taken throughout the report is that different ideas, experiences and human patterns are often dismissed given the nature of who is in control politically, ideologically or academically. For example, is it the instructor versed in Western traditions or is it the Aboriginal student versed in a setting foreign to an alternative worldview?

[v] The term 'reflective equilibrium' was coined by John Rawls as a method for arriving at the content of the principles of social justice. Rawls argues that human beings have a "sense of justice" which is both *a source of moral judgment* and *moral motivation.* If our judgments conflict in some way, we proceed by adjusting our various beliefs until they are in "equilibrium," which is to say that they are stable, not in conflict, and *provide consistent practical guidance.*

[vi] The notion of an ontological style – ontology: nature of being – emerges in the latter part of the report and is supported throughout with theoretical underpinnings associated with Heidegger and McMaster and select case study analysis that emphasize the role of reflexive strategies. Wherein reflective equilibrium is characterized by deep thought in relation to others (humans), reflexive strategies take account the role of the researcher and the type of self-created work being investigated for discussion or debate - an essential binary (or twofold) of sorts.

[vii] According to Hawkes the term 'cultural action' promotes the understanding and acceptance of values, beliefs, and meanings shifting and altering – it is culture at work.

Chapter 2 – SETTING THE STAGE

A culturally specific character or style cannot be consciously learned and added on the surface of design; it is the result of being profoundly subject to a specific pattern of culture and the creative synthesis which fuses conscious intentions and unconscious conditioning, memories, and experiences in a dialogue between the individual and the collective.

Juhani Pallasmaa, Tradition and Modernity

2.0.0   The Research Context

Ryerson University is an institution located in Toronto, Canada. The university, within which the study participants are located consists of (5) five different faculties: the Faculty of Arts; the Faculty of Communication and Design; the Faculty of Community Services; the Faculty of Engineering, Architecture and Science; and the Ted Rogers School of Management. The study chose to focus on those faculties with Aboriginal instructors present for the following reason:

Given the limited number of tenured Aboriginal faculty members present at Ryerson University it was necessary to establish an equal ratio among interviewees based on cultural representation. As such, three (3) Aboriginal instructors to three (3) non-Aboriginal instructors inform the ensuing framework of discussion.   In doing so, a critical need is addressed and that is to bring forward the opportunity to collaborate with a diverse cast of Aboriginal instructors with hopes of establishing a broader discourse of interdisciplinary research.

2.1.0 Methodology

As stated by Linda Groat (2002), in a strict sense, all research involves interpretation and it is the notion of interpretation that supports and brings forward the notion of hermeneutic knowledge whether or not it is classified as instrumental and experiential knowledge gathered from an audience of interdisciplinary participants.

In the context of this report, an Indigenous way of knowing and its shared articulations - *stories, ideas and cultural actions* - serve as a collection of cultural wisdom and knowledge that speak to a collective sense of identities and the role these identities are capable of playing in the built and unbuilt environment; moreover, these areas of shared knowledge serve to establish a series of links between others and therefore become capable of re-contextualizing the making of a contemporary indigenous architectural education.

Such a process requires searching for evidence, collecting and organizing that evidence, evaluating, reconstructing and then presenting all research findings in the form of a comprehensive cultural matrix (or framework) geared towards a renewed understanding for future indigenous students with an interest in architectural education; moreover, to support these findings with theoretical underpinnings (case studies) that provide the basis of an argument and bring to the forefront a variation on indigenous knowledge systems and their contextual uses.

2.2.0   Triangulation through Corroboration

The purpose of corroboration is not to confirm whether people's perceptions are accurate or true reflections of a situation but rather, to ensure that the research findings accurately reflect people's perceptions whatever they may be. The purpose of corroboration is to help researchers increase their understanding of the probability that their findings will be seen as credible or worthy of consideration by others (Stainback & Stainback, 1992).

One process involved in corroboration is triangulation. Stainback & Stainback also identified corroboration as a type of triangulation that involves the convergence of multiple data sources in which multiple researchers are involved in a single investigation; moreover, investigator triangulation is researcher-participant based and serves as an ideal means of establishing a course of dialogue that allows for self-reflexivity to occur (reflexive in the sense that the researcher's action are part of the discovered product).

2.3.0   Use of Semi-structured Interviews

The semi-structured interview is the most adequate tool to capture how a person thinks within the scope of a particular subject. Its combination of faith in what the subject says with the skepticism about what she/he is saying as well as about the underlying meaning, encourages the interviewer to go on questioning the subject (interviewee) in order to confirm the hypothesis about his/her beliefs (Honey 1987).

While the original audio recordings and transcribed scripts from interview-to-interview guarantee uniformity, each semi-structured interview is slightly different as it provides the opportunity to pose a new question particular to the previous response.

The use of semi-structured interviews also serves as an ideal approach to test and support other types of research material. The interviewee can comment on the meaning of stories, symbols, theories or quotes. For that reason, the structure allows the interviewee to disregard ambiguous material, or material with a different meaning than the proposed one being discussed, thereby allowing for transcribed interview material to be highlighted based on certain questions being asked and providing the ideal scenario to structure a variety of responses into a focused and unified discussion, which may not be permitted with a rigid question-and-answer format.

Another advantage to the semi-structured interview is that it can incorporate different material to support the issue of discussion or investigation: from drawn objects, abstract material exercises, metaphors, stories and even myths that may inform or support the topic of interest.

The only disadvantage to semi-structured interviews is it is a time-consuming method. Not only does it require more time to collect the data but also to analyze the transcripts. On the other hand, it is the type of research material that effectively allows for a reflective process and facilitates learning for the researcher who must go over the material again and again. One interview informs the other and serves as the ideal template for corroboration.

2.4.0   Use of Case Study Methodology

According to Rolf Johansson (2000) in *Case Study Methodology in Architectural Research*, the case study is expected to capture the complexity of a single scenario, and the methodology which enables this to be done has developed within the social sciences. To make the definition more clearly applicable to architectural research, the case study serves as an empirical inquiry that investigates a phenomenon or the experiential qualities of a setting in relation to a specific real-life context (Groat and Wiley 2002).

Supporting the perception, if the purpose of this study is to be positioned in a school of architecture that prides itself on being a place that produces designers of capable of critical thinking, then its ensuing studies should be expressed from a diverse set of observations, experiences and verbal expressions. In terms of an indigenous way of knowing the case study then becomes most valuable when each study serves a specific purpose within the overall scope of the inquiry, that is, to reveal a set of cultural patterns, reflexive strategies or ecological relationships from study to study.

Again, as stated by Groat and Wiley (2002), "there is no quick and easy formula for making the choice between single- and multiple-case studies, or about the number of cases necessary for a multiple-case design. But two principles are most paramount:

1. The nature of the theoretical questions, or research questions, involved; and
2. The role of replication in testing or confirming the study's outcomes which may even involve having to utilize some of the researcher's own creative past and present activities.

Moreover, the use of any case study methodology should be supported by multiple data collection methods yet, must be cautious of the multiple methods associated with each diverse tradition that is being incorporated into the study. Namely, where does the idea of a Western model of criticism meet an Indigenous model of criticism? How does it look? How does it relate? How is it structured?"

As indicated in Section 2.2: Triangulation through corroboration serves as an ideal starting point. The central aim is to establish multiple reference points (ideas or themes of interest) that locate the exact positioning of one's take on an indigenous way of knowing in relation to another person's understanding of this knowledge base. When these themes of interest are further revealed, reconnected and supported with additional modes of inquiry, for example, through the use of case studies and artifact development pieces, a higher level of strategy and communicative design response is created. As a result, there is more to be gained by initiating an alterNATIVE design approach wherein higher levels of intellectual merit are discovered and the ensuing research methodology is far removed from conventional linear-analytical approaches.

2.5.0   Prelude to Design Strategy: the Interview

Research participants (interviewees) were informed that each documented discussion would last approximately 30 minutes and that the interview would be recorded and transcribed for later analysis. Transcriptions would be available to the participants to correct all omissions with opportunity to amend their thoughts at a later date. Each interview was approximately 30-40 minutes in length. Key information was extracted and used to support research premises.

In all, six (6) Ryerson Faculty members agreed to participate in the study. Given that full details had been provided about the nature of the research study and that principles for conducting graduate level interview-based research would be followed, all interviews occurred in the spirit of collegiality and active trust.

Once the interviews were transcribed a formal analysis was performed. Each transcript was addressed independently to seek out themes of interest and to identify, if at all present, cross-cultural understandings.

Responses to all six (6) interviews focused on the epistemological nature of knowledge associated with an Indigenous 'way of knowing'.

After an initial review of the transcribed data all research finding were structured in preparation for logical debate about different 'ways of knowing' to support a focused study. Extracted themes of interest grew dialectically to support one another across the interdisciplinary landscape.

2.6.0   Design Strategy: Interdisciplinary Research

In order to establish a cultural framework informed by critical discussion it was essential to combine certain mental orientations in view of the knowledge offered by a collective body of research participants. As stated by T.S. Eliot (1919), "this not only implies a change in external stylistic features, but, above all, allows for the transformation in mental factors making way for a renewed understanding of culture."

From this perspective, we begin to view a built environment - such as the academy - as a social representation of different and competing ethical values, or material embodiments informed by a series of competing logics that make up a desired research product. In this sense, logic, according to Hajer (1995), 'is defined as a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities'. There are patterns of human activities and social responses to be gained.

In developing an interdisciplinary design strategy what is created is the challenge of providing the advanced student of architecture with the essential competencies needed to cultivate the capacity for critical judgment; moreover, to thoughtfully connect cultural politics to social responsibility and expand the students' individual sense of agency while operating in a complex and dynamic environments (Giroux, 2001). All of which provides the student with the opportunity for the intellectual growth required to deliberate, resist, and cultivate a range of capacities that enable them to move beyond the everyday understanding of architecture they might already know without insisting on a fixed set of meanings or approaches to architecture.

Chapter 3: COMMUNICATION IS DESIGN

Shared knowledge seems to have two fundamental aspects. The first is the relationship between humans. The second is the relationship of those humans to a specific place. There is then a third aspect, which is how you join together in some way the previous two which may have very different assumptions or belief systems but exist in continuation of citizens and their recognition towards one another.

John Ralston Saul, On Equilibrium

3.0.0   Indigenous Knowledge and its Ways of Knowing (Re-contextualized)

At present across the Canadian academic landscape there is a renaissance taking place where a large number of indigenous students and faculty members are making well informed, intelligent and controlled choices about the validity and vitality of their cultural knowledge base. It is important to understand how these students and faculty are addressing what it means to be an Indigenous writer, artist or researcher through cultural standards with protocol that goes against the grain of Western academic traditions. Within this renaissance, a reconstruction of Aboriginal identities has been occurring that not only raises cultural awareness but also brings to the forefront a renewed ontological positioning of Aboriginal people and their place in the academy.

With this understanding it is then fair to say, as knowledge transforms and makes the journey from the mind of one person into the collective consciousness, what should also be occurring is the establishment of an 'active trust' amongst all Others. According to Beck, Giddens and Lash (1994) in *Reflexive Modernization*, the idea of an active trust emerges when institutions become more reflexive through the propositions offered up by the experts, in this case, when the instructors are open for critique informed by ethical discussion. Where such critical activity exists there must also be reciprocity in the expert systems involved. The investment of this two-way communication strategy must not only remain open to the issue of acceptance with respect to another person's knowledge base (or way of learning) but also, must strive to maintain and facilitate sound relational tools to overcome any differences encountered.

According to Karsten Harries (1997) in *The Ethical Function of Architecture*, "When those who view and experience ideas around the making of shared space many will still not understand the secondary meaning of its language and this is a problem; a problem in which particular forms, details and material knowledge of that space are meaningful only to those who understand the cultural and functional reasoning behind them. Ultimately, we can only fully understand a shared space by being a part of the community that builds it with utilization of a shared value system." The essence of Harries' reasoning becomes evitable when architectural firms attempt to gain a foothold into the worldview of indigenous cultures simply because it provides them with richer opportunities to expand their design-based architectural practice; not to mention, process and production not present in a Canadian School of Architectural learning.

3.1.0   Framing the Ecological Mindset: The Cultural Matrix

When indigenous ways of knowing are explored in terms of architectural research what a committee of research participants has offered up are a set of ideals supported with ecological information only to reveal patterns of cultural thought. Also revealed throughout the course of these discussions is a type of embodied social threshold, cognizant of both instrumental and existential knowledge, and in some instances, a rationale for the use of both types. This is where the theoretical writings of Ulrich Beck and Juhanni Pallasmaa become supportive to the overall research study.

With social theorist Ulrich Beck (1994), a contributing writer to *Reflexive Modernization*, we come to understand social settings like the academy offer research opportunities to explore notions of reflexivity. Beck positions reflexivity as a comprehensive critical theory beyond modernism and post-modernism where he suggests, "reflexivity is the potential development of a third space, a fully different and more-open minded scenario amongst many actors."

Coupled with the theoretical writings of Juhani Pallasmaa *in The Thinking Hand* (2009), we come to understand there are essentially two types of knowledge that must co-exist in the architect's work and should also co-exist in architectural education – instrumental and existential knowledge. Pallasmaa further expresses this understanding in *The Eyes of the Skin* (2006) where he states with a holistic mindset; "the construction of a traditional culture is guided by the body the same way that a bird shapes its nest – by movement. With indigenous architectures they seem to be born of the muscular and haptic senses more than the eye and that there are aspects of indigenous construction that proceed very much unconsciously, perhaps tacitly, or even implied without having to be stated with or without intellectually formulated goals. In succession, there is a lot for us to learn in these traditions." Implying movement within the context of Indigenous architectures is a display of cultural action, a give and take with materiality and the sharing of knowledges.
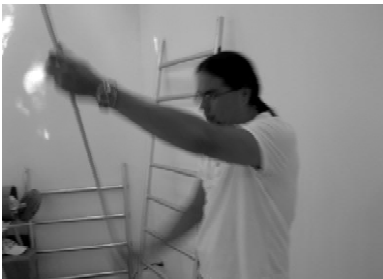
Figure 3: 2008 Venice Biennale: Installation – *guided by the body*

Figure 4: 2008 Venice Biennale: Installation – *the haptic sense*

Figure 5: 2008 Venice Biennale: *In collaboration with John McMinn*

The advantage of framing the ideas, information and awareness offered up by the interview participants in terms of reflexive logic, cognizant of both instrumental and existential knowledge, is that it brings to the forefront a unique set of cultural circumstances informed by one's personal understanding amongst people, place and objects. Also, it very much becomes a sense making experience for all those involved in the research process, thereby, seeding the necessary backdrop to explore the relationship held between a place and the making of a series of ecological objects; moreover, setting up a required transparent forum of discussion between ecological minds in order to establish a necessary critical mass.

3.1.1   The Instrumental - Experiential Knowledge Debate

An interview with Juhani Pallasmaa conducted by Scott Wall was recently published in the Journal of Architectural Education (2009). In this interview Pallasmaa states, "Instrumental knowledge is something that can be taught, like mathematics and much of western sciences, because there is always a right and wrong response or answer in that category. Existential knowledge, which I consider more important to artistic endeavor, is based on a spontaneous grasp of the essences of the world and life. In any education existential knowledge is much more difficult to train. That can be learned from life experience and imitation, or rather, unconscious imitation, and that is why it is the personal contact that is so important in any field of artistic education. This sense of immediacy allows you to momentarily internalize another person's way of existing and how you somehow also internalize a collection of embodied reactions."

In support of this view, this thesis records the insight provided by six (6) research participants who understand that design is just as much a communication and education strategy, likely to be dismissed when the sensory realm of touch has been compromised, either purposely removed or ill forgotten. As a result, these missed design opportunities impoverish relationships among peoples as well as their relationship to the immediate environment.

As stated in Section 1.2, whether we want to undermine or reject notions of an indigenous paradigm, many Western scholars - past and present - have ignored the value of indigenous traditions simply because it is not a common academic practice or approach in any course of study. As it is now understood, Western models of architectural research can be characterized as a type of instrumental knowledge that can only be justified with repeatable, measurable scientific facts. Anything that goes against Western logic is more or less considered a paradigm, such that it represents an opportunity to investigate the worldview held by others by means of intellectual inquiry and investigation on a particular subject.

In contrast to the Western modality, an indigenous worldview offers up an alternative system of thought by which the premises, values, linguistics (along with approach held by the indigenous person) exhibits a clear social, political and ecological agenda that aims to challenge the Western doctrine of architectural knowledge and its decisive implications; implications we are now witnessing as a handful of architectural schools across Canada are beginning to recalibrate the way they approach and teach design within a holistic mindset. In other words, it is possible to view a complete recalibration of eco-logical understanding held between others, ecological in the sense there is shared awareness of the attributes that inform stewardship to place, and stewardship to people with shared management of where these attributes meet.

If anything, the research puts in place an important body of cultural knowledge where future indigenous students of design and architecture feel entitled to not only live and share the story of their ecological artifacts or sub-created objects but also feel comfortable with the fact their architectural worldview is informed by a series of embodied relationships that carry significant intellectual, social, cultural, political and educational value.

As one Cree mentor conceded with confidence, "When we take from the natural world and sub-create we say *O-shi-chi-kay-win*. This means 'to make use of what is already there' whether it is an individual object or a collection of objects and personal ideas combined. The point is, they are all interconnected in some form or another and the secondary act of sub-creating with each element must involve one's entire being which, inexplicitly, involves your spirit as well, no matter where that sub-creation takes place."[i]
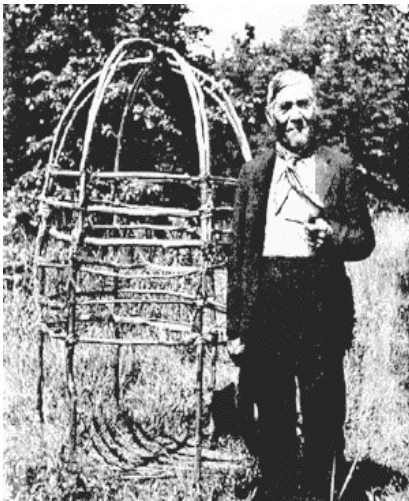
Figure 6: Shaman and his *dwelling.*
Courtesy of Nabokov and Easton, 1989

Figure 7: Venice Biennale: Gravity and Airflow
Artifact Installation, 2008

With this cultural understanding we are able to further understand the purpose of corroboration and that is not to confirm whether people's perceptions are accurate but rather to confirm and provide a reasoned argument that supports the set hypotheses explored throughout the research study. Before examining the set interviews it is necessary to frame the corroboration. For this reason, it is imperative that the six (6) semi-structured interviews be analyzed within a discursive cultural matrix through which the participants, first, narrated their collective insight into the questions being proposed throughout the interview and, second, these insights be gauged alongside others with hopes at arriving and contributing towards a collective criticism offered between all research participants involved.

Again, in the context of this report each dialogue informs a collective set of discussions in which two (2) or more individuals (researcher and the interviewee) explored ideas and opinions between certain events, situations and objects that aimed to advance ecological reasoning and relationships held between

cultured others. By doing so, what has resulted is the creation of a cultural framework that exhibits an active two-way process of fitting data into the frame (mental model) and fitting a frame around the data.

In fact, according to Klein, Moon and Hoffman (2006), in *Making Sense of Sense-making*, "Neither frame nor data come first; data evoke frames and frames select and connect data. Fundamentally, a frame is an active perspective that both describes and perceptually changes a given situation. But a frame - while certainly subjective and often biasing - is of critical use to the designer because it offers a larger way of viewing the world and situations that occur in it. Like a point of view, a frame too will change, but will change over the long-term rather than the short term and common to all methods of synthesis is a "sense of getting it out" in order to identify and forge connections. This is an attempt to make obvious the sense-making conditions where emphasis is placed on finding relationships and patterns between elements, and forcing an external view of things."

3.2.0   The Cultural Matrix

The advantage of utilizing a cultural matrix is that it opens up the engagement process of criticism, investigation and intercultural debate that frames Sections 3.2.0 to 3.2.2 accordingly – The Interdisciplinary Interviews (Table 2).

	Themes of Interest		
	Sense Making as an Ontological Experience	Immediacy	Cultural Reciprocity
Interviewee 1			
Interviewee 2			
Interviewee 3			
Interviewee 4			
Interviewee 5			
Interviewee 6			

Table 2: The Cultural Matrix

A second advantage to utilizing a cultural matrix is that it formalizes the interdisciplinary design process taken and brings forward the ability to demonstrate how cross-cultural perspectives exhibit power and knowledge relationships in the academy; moreover, the cultural matrix becomes an important methodology and documentation tool for future indigenous students to consider and potentially reframe their experience.

A third advantage of the cultural matrix is that it accounts for cultural diversity and the interaction held between each interviewee. This highlights the fact that a shared experience better informs the series of sub-themed interests around an Indigenous way of knowing. These sub-themed interests are 1) Sense-making as an Ontological Experience, 2) The Emblematic Issue of Immediacy and 3) The Value of Cultural Reciprocity; all of which have been expressed to some degree or another by all research participants.

In addition, the cultural matrix affords the opportunity to position select case studies that have involved indigenous communities and further allow for an explanation of artifacts developed throughout the research process. Through the physical making of these forms an embodied experience is appreciated and provides a thorough understanding for the social and cultural values placed upon materiality and, in some instances, engages with the metaphysical – ideas of abstraction, philosophical, theoretical and the spiritual.

As Farmer (1996) expresses, designers who looked at the work of anthropologists concerning traditional buildings of the developing world, did not intend to understand architecture in terms of energy efficiency or precise climatic conditions but also, aimed to understand the holistic nature of traditional buildings in which physical, spiritual and environmental needs were integrated within the greater context of social groups and settings. The interviews went as such, putting forward a reflexive: reflective binary.

3.2.1 Ontological Oscillation is a Sense Making Process

Gerald McMaster, one of Canada's foremost writers and curators on Contemporary Aboriginal art once said, "There is an issue when one attempts to reconstruct their Aboriginal identity and it poses a type of paradox. In order to take part in modern civilization most Aboriginal artists will tend to root themselves in the soil of the past while in the process they try to locate some type of balance between scientific, technical and political rationality. And while many of these individuals may live, work or study in urban settings they will continue to revisit a type of reservation life to find inspiration and establish a style often associated with traditional forms of expression. This oscillation between reservation life / urban life / reservation life can be described as a type of survival while at the same time address the issue of cultural survivance. The difference between these two terms is significant. Survival has more to do with the individual response to greater social forces being experienced in urban settings while survivance has more to do with the cultural condition associated with their peoples."

Again, what we hear and see in the commentary provided by McMaster is the notion of reflexivity. As mentioned earlier, social theorist Ulrich Beck (1994), in *Reflexive Modernization* describes reflexivity as the intermingling of continuity and discontinuity, somewhere along the edge of a cultural threshold. McMaster, in similar view, associates this muddling of identity when and where the Aboriginal artist instinctively responds to a given situation by purposefully blurring the boundaries of their known existence. As a result, the artist carries out a series of premeditated gestures to best identify and recalibrate 'what is' and 'what is not' available to them in relation to others. It's also a delicate worldview held by the Aboriginal person to make better sense of an ambiguous situation – by creating and recreating a type of situational awareness in an effort to understand connections between people, places and shared events. It also fuels the necessity to recreate a type of primordial experience in order to situate their culture within their own principles of interest.

As we shall read further, what becomes most valuable to the Aboriginal research participant is that they are able to identify patterns and trajectories in their immediate situation while still being able to drive forward with a set of cultural values (and worldview) in the context of academic others. From this point forward, their ecological and intellectual value-based system becomes informative to the overall study.

Therefore, it is only appropriate that the first set of interviews begin with the issue of sense making as both a storey-making process and a way to establish a type of ontological reasoning. By this I mean, each interviewee instinctively exercised authority over their cultural knowing by first, utilizing it as a navigational point of entry and second, by allowing them self to establish and re-establish a type of favorable positioning (with justification) to move forward upon and frame their individual research, study or preferred teaching method in the academy.

The interviewees also bring into focus the logic and earlier observations offered up by McMaster, as well as invite significant theoretical underpinnings associated with Heidegger's explanation on the *Ontology of Art.* Heidegger (1971), in *Poetry, Language and Thought* describes artwork is a thing that, when it works, performs at least three ontological functions. It manifests, articulates or reconfigures the style of a culture from within the world of that culture.

Here Heidegger is alluding to the creation of a style and the way that everyday practices are coordinated. Style, in a very general sense serves as the basis upon which old practices are conserved and new practices are developed. A style opens a disclosive space – *a middle span or bridge* – that is capable of revealing someone else's world and does so in a threefold manner: (i) by coordinating actions; (ii) by determining how things and people matter; and (iii) by being part of what is transferred from situation to situation. These three functions of style determine the way an object (or artifact) is manifested and describes one's ability to make sense of an ambiguous situation. More exactly, it speaks directly to a sense making process by creating situational awareness and involves a motivated, continuous effort to understand cross-cultural connections and relationships.

Heidegger (1971) would go on to state, "once we see are able to see how a style governs how anything can show up as anything, we can see that the style of a culture does not only govern the youngest members of a community but also its eldest and more life experienced members as well. The older and more experienced members of these cultures are shaped by it and they in turn give meaning to objects used to express their identity and sometimes employ objects and people as 'cultural action' objects to express this understanding in relation to their immediate surroundings."

Critically speaking, the style of a culture determines what makes sense for him/her to do and what is worth doing. As we shall read in the first two (2) interviews there are plenty of theoretical underpinnings associated with indigenous ways of knowing in relation to art, storytelling and architectural sense-making but what is of real value is the manifestation of a worldview offered by two individuals looking in and looking out of their cultural landscape.

Interview 1

Lila Pine is a Ryerson University instructor in the Faculty of Communication and Design. She is of Mi'kmaq heritage and teaches in The School of Image Arts. She is Aboriginal and shares her understanding of an indigenous way of knowing not as a single experience but rather one that is informed by shared by many experiences amongst others. What is unique about Lila's interview is that she speaks to her mixed identity as a type of hybrid individualism and as a journey towards ontological security then closes in on the emblematic issue of immediacy as both a social and material embodied experience with the making of something, thus creating a type of much needed situational awareness.

> **KC:** The questions I would to like ask, "How do you bring an indigenous 'way of knowing' to your practice? How do you share it? What are some of the struggles you had with the university when introducing the subject matter? And, how it has been traced and embraced?
>
> **LP:** It is difficult to bring indigenous knowledge to the university because we cannot simply say that all indigenous knowledge or ways of knowing are the identical but I do think there is kind of an underlining tenant that have similarities, or at least certain ways of being in the world we share which contributes to our way of knowing that are the same. For one thing, indigenous knowledge is more about process. So when we think about 'ways of knowing' the emphasis has to be on the 'ways'. To try and teach indigenous knowledge in a Eurocentric framework is impossible simply because you cannot teach the knowledge outside of the way you know and as long as our knowledge is separated from the language then it is very, very difficult to bring that way of knowing into the way we teach.

Perhaps Edward T. Hall (1966) summarized it best In *The Hidden Dimension* when he identifies Franz Boas, as the first anthropologist to emphasize the relationship between language and culture. Boas did this in the most simple and obvious way, by analyzing the lexicon of two languages, revealing the distinctions made by people of different cultures. Lexical analyses are usually associated with studies of the so-called "exotic" cultures of the world.[ii]

Remaining in the context of Hall's summary, it was Benjamin Whorf, who went beyond Boas to suggest, 'every language plays a prominent part in actually molding the perceptual world of the people who use it.'[iii] In addition to Whorf there was Edward Sapir, who was Whorf's teacher and mentor and was also an anthropologist trained by Boas, who contributed seminally to general linguistic theory, Amerindian linguistics, and Indo-European linguistics speaks with suggestive force about the relationship of humans to the so-called objective world. Sapir claims, 'It's quite an illusion that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The fact of the matter is that the 'real world' – a reconfigured one - is to a large extent built upon the language of the group.

How this relates to Lila's interview is of similar discourse to the theoretical research conducted by Edward Sapir wherein, Lila identifies that one of many threads of discussion being planted in the academy by persons of indigenous or aboriginal origin is to sub-create a collective vision, one informed by a renewed wisdom and language expressed through individual lenses, stories or experiences. The result is a larger body of collaborative lenses to choose from; reflexive stories informed by the indigenous experience at the forefront which is a much needed body of cultural knowledge that can be viewed as a socio-cultural movement. In essence, cultural movement informed by a different set of values that have long been establish in relation to the language, morals and behavioral practices shared amongst indigenous others. Take for instance the following passage.

> **LP:** There are teaching formations at the eastern doorway of the Anishinaabeg Nation. One of them shows three paths almost in the shape of an eagle feather. On one side, the path goes up and around a semi-circle to the top. The same thing happens on the other side. The path in the middle stops. It is said that the path on the left is the (red) indigenous path and the one on the right is the (white) non-indigenous path. Sometime in the future they will come together. The path in the middle is the mixed blood path. If you take it you die, perhaps because it has no tradition or 'ways of being' in the world. As a mixed blood, this is an interesting story for me. Sometimes I think of the mixed blood person as a hybrid. As a hybrid can I choose the red path? I think so.

Here we listen to Lila identify herself with the notion of being a hybrid artist/person. At first she eloquently frames her individuality as a splitting dualism of her being, her culture and of her place in the world and interesting enough, exercises more control over this choice of whom she can and will become; 'control' and 'choice' being Lila's critical self-positioning. As a metaphysical existence Lila identifies the mind as more powerful than the body in that it is more than a physical entity but an attentive motivation to understand both cross-cultural and intergenerational relationships.

According to Kakuzo Okakura (1989) in The *Book of Tea*, the body is not a mere physical entity; it is enriched by both memory and our ability to dream connect the past with the future and who we may become. Moreover, our capacity of memory would be impossible without our body. The world is reflected in the body, and the body is projected onto the world. We remember through our bodies and its entirety – bones, blood, vessels, and skin and as much through our nervous system and most prevalently, with the capacity of our brain.

It is then fair to say, Lila exhibits the belief that together we are not only living in a hybridized world with each other but we have become hybridized people each with an individual sense of style within our own ethnicity – our bodily senses and mental experiences inform our being in the world therefore we are fused together as a collective in more ways than we allow ourselves to believe or imagine.

KC: On the idea of being a hybrid person, whom I understand has the potential of rediscovering new meaning where you might use new media or technology as a possible extension of oneself, would you say there an element of abstraction inside there also? Abstract in the sense that we are capable of crossing boundaries with symbolism, language, and whatever artifact or object we may use to identify ourselves. For me it's that level of abstraction that I think a lot of Aboriginal students are doing, they may not know it or look at it from that perspective but what it does is it allows for level playing field for everyone to move forward on.

LP: Gregory Ulmer, a new media theorist, coined the term electracy, which he states; electracy is digital media to what literacy is to print. He speaks of electracy as a culture, a digital culture, which he compares to oral and literate cultures. He claims oral people experience thought as spirit outside the body and so they organize themselves in collective tribes. Literate people, on the other hand, experience thought in their head, with their ego so they organize themselves as individuals in nation-states. People that identify with electracy experience thought as image and organize themselves in some as yet to be determined hybrid way. Ulmer's attempt to break out of a Eurocentric framework from the inside backfires because he gets caught up in a linear misunderstanding of time. Oral traditions are holistic. Like with many Aboriginal worldviews, to experience thought – a process of thinking - as spirit is the same as experiencing thought as one self. To separate self from spirit would be to die.

And yet his point about electracy as an image apparatus that contains both orality and literacy is interesting. Mi'kmaq people practiced image based writing in the form of hieroglyphs way before contact with Europeans. They already had a culture that embraced orality, literacy and imagery. So when I go back to the notion of hybridity and the work that I do in new media I see a connection. My work is about networking, making connections through experience design, a type of embodied interactivity, which to me relates very much to an Aboriginal way of knowing. It may sound totally ridiculous but I see in Ulmer's electracy the possibility of a future were those paths on the Eagle feather finally merge.

Gregory Ulmer (2003) writes in *From Literacy to Electracy* that, what literacy is to the analytical mind, electracy is to the affective body: a prosthesis – an artificial extension - that may enhance and augment the natural or organic human potential. Electracy as a logic proposes to design atmospheres into affective group intelligence. As a result, literacy and electracy in collaboration produce a civilization left-brain, right-brain integration. If literacy focused on universally valid methodologies of knowledge (sciences), electracy focuses on the individual state of mind within which knowing takes place (arts). Since 1989 when Ulmer first introduced the concept of Electracy it has been regarded as among the "most prominent" contemporary designations for what Walter J. Ong once described as a "Secondary Orality" that will eventually supplant print literacy.

In Walter Ong's (1991) *Orality & Literacy*, he analyses the changes that shift from the primordial oral culture to the culture of the written (and eventually the printed) word has caused on human consciousness, memory and understanding of space. He argues that sight-dominance has yielded to hearing-dominance, and where situational thinking has been replaced by abstract thinking and it is this fundamental change in perception, one's ontological positioning and repositioning and understanding of the world that seems irreversible to the writer: 'though words are grounded in oral speech, writing tyrannically locks them into a visual field forever.

In terms of relating the ideologies exhibited by both Ulmer and Ong to an indigenous way of knowing it is imperative, as Gerald McMaster states, indigenous people root themselves in the soil of the past because much of their personhood and instinctive awareness is associated with the reconstruction of an undifferentiated worldview, in which they are not mere spectators but to which they inseparately belong. Precisely speaking, where the making of an artifact or object exhibits an existential understanding that arises from the very encountering of the world and their being in that part of the world – which is neither conceptualized nor intellectualized but rather, where the object is lived and emerges from everyday experience and locates fulfillment in one's stylistic impression and expression.

How this relates and fulfills the interview conducted with Lila in terms of place making, time specific and of an individual undifferentiated worldview is that, not only does the ontological sway experienced by most Aboriginal or Indigenous people feed the process of making a synthetic identity, which in itself is the hybrid act of sifting and generating ideas based on social, cultural and political conditions of individual settings but also, as McMaster (2005) states adamantly, empowers contemporary Aboriginal artists with the ability to always evoke a traditional sense of time and place no matter where they are situated, whether they choose to utilize their mind, spirit or hands as their immediate tool or fashion some other extensive tool to do so. Only to overcome the splitting dualism to realize who they have become as a result of purposefully being placed in the margins of society looking in for so long.

Interview 2

Dr. June Komisar is a Ryerson University instructor in the Department of Architectural Science. Her research interests include Architectural theory and history, Eighteenth-century Brazilian architecture and Creativity and the Design Process. She is non-Aboriginal and offers plenty of perspective in terms of art being an intuitive exploration that offers experience in terms of immediacy by engaging hands on with the making of something. June was initially trained as a sculptor. As Edward T. Hall (1969), states in *The Hidden Dimension*, the sculptor must stand near enough to their object to be able to judge forms by a sense of touch. June's interview went as such:

> **KC:** With this study I am using material culture and aspects of art, artifact and architecture to frame a series of collaborative discussions about an indigenous way of knowing. How I plan to do this is to explore Ryerson's Architectural Faculty as to: How they might identify with this way of knowing? How they elaborated on it? How they may have brought thus type of knowing to their class instruction? And so forth.

> **JK:** In terms of what I bring to the classroom, I think of ways of knowing in two (2) different ways:

> First, in studio I bring my experience as a designer and that is unfortunately intuitive. I say unfortunately because it's not the preferred way of working in the architecture profession. I work in an extremely intuitive way and it's a challenge to try and transmit to students why something doesn't work and why something does work. Therefore I have to always translate from the intuitive gut feeling of why this works and this doesn't work, into sort of rationalizing and codifying a way for them to understand why something works and something doesn't work. So taking something completely intuitive from an artist point of view, I started out as an artist before I became a designer.

> Secondly, in the classroom when I teach history and theory it's a different ball game entirely because I have a responsibility to teach a cannon that is extremely codified. I don't even have to worry about the intuitive aspects of anything. I don't "need" to talk about the motivation behind the design either, I can just talk about the results and the accepted theory. The only difference between the way I teach and the way architecture history and theory are usually taught is that I bring a non-western bent to it. I introduce vernacular, and African, Asian, South, Central and North American elements.

> **KC:** It's interesting the way you started simply because you began from an artist's perspective, elaborated on intuitiveness and concluded towards a difference -- a non-western bent. Would you identify this as being part of an indigenous ways of knowing?

> **JK:** In art, the background I originally came from, I think you gain this way of knowing a little bit, this intuitiveness. I am guessing this is similar to one aspect of an indigenous way of knowing, but I really don't have the experience to know that. So I am hypothesizing that because you are working hands-on with a final material, not building a model, therefore you understand the potential of the form, the material and the site. This

is in contrast to architecture school, where presently you have this disconnect that started during the Renaissance where you draw an object (or idea) then hand it off to someone to build the final design. As a result, that is where the disconnection occurs and so they don't have this way of knowing because they are not working in a primal, personal or immediate way with the materials. That's my gut feeling where the disconnection occurs.

And now we have these owner-builders and design-build people now who are perhaps going back to that way of knowing because they are actually building and designing hands on. It's a small movement but maybe that is more of what we need to put in the classroom situation and provide for them that immediate way of knowing. You can't understand the material unless you work with it and I am willing to bet that all these people that are going back to a type of indigenous way of knowing are working with the material, hand-on, at least to get to know the possibilities of the material.

In this excerpt, June associates 'the idea' of an indigenous way of knowing to a type of primordial or intuitiveness understanding. Intuition, as defined in the Oxford English Dictionary is the apparent ability to acquire knowledge without inference or the use of reason. Considering the word 'intuition' comes from the Latin word 'intueri', which is often roughly translated as meaning 'to look inside' or 'to contemplate' supports the sense making abilities associated with Indigenous people and that is, the construction in traditional cultures is guided mainly by the hand with the instinctive ability to simply follow the tacit wisdom of the body – the ability to follow its natural flow and muscular movements in a more disciplined way.

With this understanding June approaches architectural studio as an artist with the observation students tend to overlook their intuitiveness by entirely bypassing the instinctive qualities one can gain by working with material in a natural state. In this way she attributes the material knowledge gained can only enhance the student's ability to develop a trust for their natural abilities and to invite in other dimensions of cultural knowledge other than your typical Western response.

Considering architecture has historically been delivered from one mode of thought – Eurocentric, which is extremely codified – June tries to bring a non-western bent to the curriculum for the students benefit. Again, away to achieve this is to establish a feel for the material and to try and understand the artifactual response in process. The artifactual response implies the ability to be self-cognitive of their behavior and to observe, listen and live out the entire process thereby affording them added design sensibility of their body, not only as the builder but also as a measuring device who can bring an element of culture to be shared amongst others. Without this understanding the disconnection shall always be present between those teaching architecture and those wanting to learn architecture on their own.

Supporting June's notion of disconnectedness, Juhani Pallasmaa (2005), states in *The Eyes of the Skin*, "there is an element of ontological distancing and forgotten understanding where our bodies and movements are in constant interaction with the environment; where the world and the self inform and redefine each other constantly" highlights the fact students in today's schools of architecture tend to

simply draw without having a full understanding of the material and the embodied qualities that are afforded through the embodied experiential process. Unfortunately many students not only distant themselves even further from the immediacy that could be gained as they aspire to be architects but prematurely fail to recognize the value of this design strategy.

> **KC:** In terms of seeing some indigenous cultures making a shift now with materiality and how they are expressing themselves in terms of being a type of hybrid. What's your take on that? And how do you see the manifestation or potential being expressed within schools of architecture?

> **JK:** Good question. To think that any architectural style is pure at this point is completely naïve. Simply because we are living in a very hybridized culture that is borrowing from everything and not just architecture, but everything. Everything is mixed, borrowed and richer for it. Also, by exploring materials in a very hands-on way where, we may or may not know of a traditional way of building, we are in fact inventing it from scratch. Unfortunately you just can't take that type of experience and have people show how they do it because it becomes even more robust. So, I think that a hands-on investigation, in the field and learning from a master is the kind of experience you can't get in a classroom.

Here June acknowledges that we live in a hybridized world where: everything is borrowed from other cultures, everything is mixed and everything is richer for it yet we also have to understand where these hidden meanings come from and must understand the required processes to get there. Again, this speaks to the notion of patterned lifestyles, dimensions of material understanding within a specific cultural mindset that reinforces one of Heidegger's notion of the threefold; namely style is transferred from situation to situation.

A way for future indigenous students of design to overcome this understanding is to work hands on with the material in a very traditional way so the student moves towards a shared meaning with the materialized object.   Heidegger calls this shared meaning 'inter-subjectivity' – arriving from common meaning. As he puts it: "Common meaning is the basis of community. Inter-subjective meanings give people a common language to talk about the social reality and common understanding of certain norms, values and cultural practices."

By encouraging future indigenous students to work in artifact mode would be to their advantage, not only would they develop their cognitive skills for a material but also, further fuel a renewed relationship, understanding and interest in all building materials at their disposal. June claims, "This is the kind of knowledge that is missing in the studio; you can't book read this stuff, you have to develop more than intuitive feeling for it but also allow for a real communal feeling to be explored." Communal in the sense there is a give and take that is to be appreciated and necessary for growth.

Again, in support of this discussion, Pallasmaa (2005) claims, "It is evident that the architecture of traditional cultures is again connected with the tacit wisdom of the body, instead of being visually and conceptually dominated. Construction in traditional cultures is guided by the body; in the same way that a bird shapes its nest by movements of its body. Indigenous clay and mud architectures in various parts of the world seem to be born of the muscular and haptic senses more than the eye. We are now able to identify the transition of indigenous construction from the haptic realm into the control of vision as a loss of plasticity and intimacy, and of the sense of total fusion characteristic in the settings of indigenous cultures."

In closing, with June's interview it is fair to say one's sense of architectural reality is strengthened by a constant interaction with materiality and since the making of any architecture is essentially an extension of our being. Therefore, it is recommended that all indigenous students of design should fully embrace their cultural identity and knowledge while also, be willing to challenge the perceptions held by Western scholars as it could only direct our collective attention to wider horizons throughout Canadian Schools of Architecture.

Summary: Matrix Analysis

	Themes of Interest		
	Ontological Oscillation is a Sense-Making Process	**Immediacy**	**Cultural Reciprocity**
Lila Pine	It is about networking, making connections through experience design, a type of embodied interactivity, which relates very much to an Aboriginal way of knowing.	As long as our knowledge is separated from indigenous language then it is very, very difficult to bring that way of knowing into the way we teach and learn.	There are underlining tenants that have similarities, or at least certain ways of being in the world we share which contributes to our way of knowing that are the same. The lexicon of language being one of them.
Dr. June Komisar	The intuitiveness of a designer is similar to one aspect of an indigenous way of knowing where you understand the potential of the form, the material, the site and one's body. It's a small movement but maybe that is more of what we need to put in the classroom situation.	In architecture school you have this disconnect. A situation where the student is not working in a primal, personal or immediate way with the materials. Therefore I bring my experience as a designer and that is unfortunately intuitive.	We are living in a very hybridized culture that is borrowing from everything and not just architecture, but everything. Everything is mixed, borrowed and richer for it. We may or may not know of a traditional way of building but we are in fact inventing it from scratch.

Table 3: Interviewee Summary Matrix: Lila Pine and June Komisar

With Lila we understand there will be challenge when indigenous scholars attempt to situate an indigenous way of knowing in the academy, reason being, unless the knowledge is delivered in the context of indigenous languages there will be lack of unity and continuity across the academic landscape. What indigenous languages are capable of doing are propels the individual to make deeper intellectual connections through a type of embodied experience where the body serves as the ultimate vessel to fuel the creativity of the individual in an attempt to identify similarities between the Indigenous and the Western mind. Without this understanding, or created awareness the academic world, architecture will remain monochromatic, especially if it is to be delivered solely from a lone cultural paradigm -- the Western construct.

June speaks directly to a disconnection that is prevalent in today's school of architecture where students are unwilling to work with material and their bodies as both primal and personnel mediums. As a result, the existential knowledge a student can develop under their own self discipline or personal agency can only address the disconnection we are not only witnessing but 'feeling' today. An alternative way to address this may be to borrow from other cultures that exemplify alternative ways of knowing; namely through the observation of indigenous cultures that have been making small but significant movements with the environment informed by a greater ethical concern and action based consciousness that continues to exhibit a greater sense of harmony and balance with natural materials made available. This type of interactivity tends to inform interconnected relationships held between individuals and others.

3.2.2 Emblematic Issue: Immediacy

In general, the term immediacy gives rise to a sense of urgency. When urgency is viewed in terms of cultural survival, that is to say, when and where a person of distinct culture may be about to lose hold or witness transformation of the moral values associated with their cultural knowing, life and its day-to-day customs are suddenly reconfigured in response to the dominant social forces experienced firsthand.

Therefore immediacy as an emblematic issue serves not strictly as a relational tool but, rather, becomes a central concern in the reconstructing of self-identity and its cultural norms and values (Giddens, 1991).

For the purpose of this section the emblematic issue of immediacy frames the second set of formal discussions. Again, the purpose of the cultural matrix is to explore and balance a diverse set of cultural responses associated with Western and Indigenous systems of thought. In effect, when two things such as competing logic systems exhibit the potential to bring forward a renewed sense of understanding held between different cultures, what is revealed is more than a difference of opinion. This renewal may express a sense of relationship building informed by an ethical understanding towards each other – resulting in a *middle* or *third ground*.

In the process of exploring the Western-Indigenous dichotomy it is anticipated that lines of intercultural communication may serve to compliment one another where the intent is to investigate how people, namely professors from different cultural backgrounds and disciplines of study, communicate and share their knowledge base. Further exploring how they might identify with an etymology of design, namely, the origin of words that may have been action orientated or environmentally responsive across the dimension of culture.

As John Ralston Saul (2001), states in *On Equilibrium*, "Fundamentally, shared knowledge seems to have two aspects: the first is about the relationship humans hold towards each other and, the second, deals with the relationship those humans have to a given place. Yet, there also a third aspect, this deals explicitly with the cultural dimensional of a person, that is, how you join together in some way shared knowledges that may be informed by very different assumptions or belief systems but exist in continuation of citizens and their recognition towards one another. But even common sense gets distorted if it isn't used in tandem with the other essential human qualities."[iv] This is the third aspect of Saul's description in *On Equilibrium* this study aims to investigate.

Interview 3

Dr. Joanne DiNova is a Ryerson University instructor in the Faculty of Communication and Design and is of Aboriginal heritage (Anishinaabe Métis). She describes a characteristic associated with an indigenous way of knowing that deals with Immediacy and is dialectically worthy of critical investigation and further discussion. The interview also engages with the etymology of design where language and symbolism continue to be the sole mechanisms through which indigenous peoples situate themselves in relation to others.

It is understood linguistics plays a vital role in articulating an object of discussion by way of our Being and in relation to our imaginative qualities. As we shall read, what is afforded with Joanne's discussion is not only an opportunity to explore some of the perceived shortcomings associated with an indigenous realm of thought but also, how Western thinkers at one time were able to think purely in the abstract without any connection to reality and how this disconnect is one of the major differences in the way Indigenous and Western cultures express themselves. The interview went as such:

> **KC:** One of the challenges I am experiencing is how we connect with materiality discovering that indigenous cultures have undergone a shift from oral based societies to one that is written.
>
> **JD:** That is interesting. That is Walter Ong, is it not?
>
> **KC:** Yes, a lot of indigenous students throughout a variety of disciplines have encountered and discovered this notion as well. One that goes from hearing to sight dominance, a shift from being an oral based society to one that is now written and now informed by English speech, which was essentially a shift from sound to visual space.
>
> **JD:** In relation to my own research, I did not focus on indigenous thought and literature at first. When I started getting fascinated by Native literature, I found that, in general, it was not understood in the critical mainstream. It was usually read against an oral/literate binary, as the product of a less advanced culture that was only recently shifting from orality to literacy. Oral cultures, the thinking went, had just recently acquired writing, so they were not as cognitively advanced. So the literature was mapped against a linear-progressive model of language, which I totally reject. I looked at two different worldviews, the Aboriginal worldview and the Western worldview. Then I pulled them apart – in reality, they are not entirely separate – and did a comparison and contrast thing, and then brought them together in the end, a kind of dialectic.
>
> In general, the dialectic is rooted in the ordinary practice of a dialogue between two people who hold two different ideas or ideals and wish to persuade each other. The presumption is that even if they do not agree in total they at least share some meanings and principles of inference (conjecture), something that is first reveled in Joanne's discussion.

KC: When you frame it in terms of a binary and how we have traditionally expressed ourselves through artifact and story, what are the strengths that you see with indigenous ways of knowing?

JD: Quite simply, I would say the strength is in the infinite connections indigenous ways of knowing make to everything and everyone else and the potential these ways hold for finding a way out of the multiple massive problems that seem to be facing our world.

The richness in the latter perception - one that speaks of transformation from a primordial oral culture to written word - has caused a significant shift in understanding towards human consciousness, memory and ensuing environmental relationships. Therefore, Joanne further provides an understanding of the dialectic as a binary where one is afforded the opportunity and ability to reinforce their cultural beliefs provided there is a mode of shared translation to inform the communication design process taken. Should this be achieved, an opportunity is afforded to re-contextualize an Indigenous 'way of knowing' while providing an effective means to draw parallels to a Western worldview.

KC: Tell me more about your experience when you brought an indigenous way of knowing to the academy? How did the structure of the university take to that? How did they embrace it?

JD: It was definitely challenging and a real struggle, and having to assert that this knowledge was worthy of critical attention. Also, there was a growth period for myself personally because I came in wanting to study Shakespeare. In regards to Aboriginal literature, there tends to be a contest over the scholarly territory or something, a real struggle over who really has the right to speak authoritatively on matters of Aboriginal literature. Will it be the people whose literature it is? Or the people whose academy it is? It's really hard to stay in that battle for a long time.

Joanne expresses a common experience among many Aboriginal students and scholars and that is, the uneasy relationship with indigenous forms of knowledge because they have been assigned the task of representing their communities (and often other indigenous communities) in the intellectual world of dominant cultures.

In support of Joanne's analysis, Dale Turner (2006) in *This is Not a Peace Pipe: Towards a Critical Indigenous Philosophy*, frames the indigenous paradigm correctly when he states, "European-educated Aboriginal intellects have the ability to deal with the uneasiness that is generated and can be alleviated, although never entirely dissolved, provided they maintain strong ties to their communities. And as long as Kymlicka's constraint requires indigenous people to explain themselves within the discourse of the dominant culture, there will be a need for specially educated indigenous people to generate the required explanations. It must also be remembered that the need for Aboriginal scholars to explain themselves to the dominant culture arises primarily for political reasons and only secondarily from a desire to attain some kind of rich cross-cultural understanding of indigenous philosophies and its worldview." Kymlicka's

theory can be interpreted in a way that at least it makes room for Aboriginal peoples to speak for themselves instead of being spoken for by the dominant culture.[v]

> **KC:** What kind of medium message or symbol can you identify with throughout your research…what did you use to help you with the narration?

> **JD:** With my thesis, *Spiraling Webs of Relation*, it was Dream Catchers – the real ones made of willow and sinew – where everything is connected. Only it's not static. It's something that continuously moves and is multi-dimensional. It lives and breathes and it's such a complex symbol. That kind of model – living, breathing, multi-dimensional interconnectedness – is what informs Aboriginal literature and the indigenous way of knowing.

> With the Western way of looking at thought, everything is seen as linear and evolving. So Western thought is seen as up here (motion of hands above head) and it has evolved from what are considered more primitive forms of thought. But Western thought had something like the spiraling web. You can see it with words such as a 'spell' and 'spiel.' The words have the same root. To put a spell on someone is to spin a spiel. You story something into existence, same with the words "spirit," and "respiration," and "inspiration." The spiritual is buried in the English language as well. If you go far enough back, it's there. It's something that was lost. Some variation of the indigenous way of knowing is in every culture. When Western thought lost it, though, Western thinkers were able to think purely in the abstract, without any connection to reality which can be very powerful, and a very dangerous, thing to do.

> **KC:** That is a very interesting comment that they lost the abstract. When you look at indigenous cultures and how we maintained it, how a complete generation may have lost the language, do you think that is the strength we have right now?

> **JD:** In terms of Ong and the notion of evolution towards the abstract, I think we were hugely abstract thinkers already, and quite comfortable with the abstract, because the abstract and the spiritual go together, maybe they are the same thing, and for traditional indigenous thought, there wasn't a division between the abstract and the material. I think that was and still is the big difference.

> Even though we have something embedded in us – this way of knowing – it's in every culture. I think the Aboriginal way of knowing – always finding connections to everything – will try to find some relation to contemporary Western thinking. There can't be an absolute split between Aboriginal and Western ways. Somehow we have to find a way to relate with this way of knowing, even if it is imposed.

Key to this interview with Joanne is the notion indigenous people are able 'to move freely and quite comfortably in the direction of the abstract' since much of their traditional customs are informed by a type of secular thought. She attributes this to be a significant strength with the way Indigenous students come to understand their place in the world and now more recently, across academic settings. As a result, indigenous students will often express themselves in terms of a type of creation story, words of mysticism, perhaps even with simple artifacts that allow them to combine material exploration with metaphorical construct (or sub-creation) of their own.

In doing so, the making of a story, either written or orally transmitted, is a binary experience, consisting of two separate elements that are juxtaposed in positioning; one being oral transmission the other being stories 'mapped' against a liner progressive model of communication. From this perspective it becomes evident that the knowledge associated with the making of an object or artifact is connected with the tacit wisdom of the body. The term tacit being understood or implied without being openly stated, not spoken and, perhaps, even seen as 'an unspoken idea'. Joanne had expressed this as a perceptual shortcoming in that indigenous cultures *were seen* as a not as cognitively advanced in terms of mind, reasoning, learning, intelligence and perception.

As a future consideration, Canadian schools of architecture should facilitate a set of first principles for the Aboriginal student to embrace. Therefore, allowing these students of design to enter the academy where there is renewed sense of connectivity between culture and place which, in turn, would allow them as individuals to determine their own sense of immediacy and cultural stance when confronted with the Western-Indigenous paradigm. As understood with Joanne, many Indigenous students are starting to understand they are not entirely divided by systems of thought but different in the way these systems are articulated. Especially when it comes to making of an object or artifact since they are inherently living the creation of that object and having to come to terms with what this experience means as they gain new insight. When viewed as a much-valued strength, immediacy as a relational tool provides the ability to recreate in the context of a new situation thereby allowing the indigenous student to stay intact as a complete being - *in mind and in spirit* - and not have to entirely disconnect themselves from their way of knowing and being in the world. Positively speaking, it is in everyone's innate ability to story and re-story something into existence, something we shall hear from our next interviewee.

As we read in the previous interviews this only seeds a greater ontological awareness and because of this, Indigenous students are more flexible in multi-dimensional directions and are better capable of making individual connections between the abstract and the factual by moving in and out of the their cultural domain while making imperative architectural connections along the way.

In closing, this interview with Joanne was essential in that it was able to draw some parallels to the writings of Walter Ong (2002), in *Orality and Literacy* where he analyzes the transition from 'hearing-dominance' to one that has yielded to 'sight-dominance' and its impact on human consciousness as a fundamental difference, more importantly, where situational thinking has been replaced by abstract thinking.[vi] Yet there is something to be gained from this dualism and, that is, by making use of constructed metaphors and how they coincide with the thinking of indigenous societies. In doing so, there are ways to frame cultural similarities so they allow for a playful analysis and discussion to be performed where an allegory (or metaphor) is really a figurative statement informed by a kind of worldly understanding that allows for cultural thought patterns to be compared, measured or related to one other, therefore, allowing for everyone to grasp a common thread of interest and understanding where they see fit.

Interview 4

Seeking to balance the indigenous perspective offered up by Joanne the following interview with Marco Polo, an Associate Professor in Ryerson University's Department of Architectural Science was conducted. His research interests include Criticism: Contemporary Canadian Architecture, History: Canadian Architecture since 1945, Regionalism in Canadian Architecture and the Cultural Dimensions of Sustainability. He is non-Aboriginal and describes in great detail the essential role narrative techniques have played in establishing first principles of architectural representation and its ordering systems.

In terms of Immediacy, narrative techniques allow for the development of a social and cultural construct which can be interpreted as a form of cultural continuity that allow for living cultures to maintain traditions, adapt to change and to invent and reinvent in the context of changed locations while adhering to their histories and traditions. Marco's interview gets to the core of architectural structuralism, both in a linguistic and meditated sense while shedding light on the affordances an indigenous way of knowing has to offer but in a more paradigmatic way.

> **KC:** What is your understanding of The Primitive Hut and how do you use this theoretical piece as a narrative, which is in fact a type of artifact, throughout your course of research and teachings? Moreover, what other themes of interest do you draw upon from architectural history?
>
> **MP**: The Primitive Hut is a fundamental paradigm in architectural theory. It's about taking architecture back to first principles. Many theorists have talked about it in those terms, each with a slightly different stance but it's the same story just told in a different context. Essentially the Primitive Hut is a different thing to different people so it depends on the story you want to tell. The question then becomes, which primitive hut do you go back to? What is the cultural lens you are going to use?
>
> I can tell you some of the different lenses people have used to tell that story in the West. Fundamentally it's about origin myths - the origins of architecture – again, where different theorist have spun it different ways to tell different stories.
>
> We are also a story telling culture (in the West). The difference is we formalized our stories to such an extent that we now treat them to be true, when in fact, they are still just stories with elements of truth, along with a lot of embellishment and conjecture. Also, there is a lot of filling in the gaps so there is a lot of spinning the story to suit a particular outcome.

MP: For instance, the Primitive Hut of Laugier, which speaks to the Arcadian origins of a classical tradition, and the Primitive Hut of Viollet-le-Duc, which speculates about a pre-cultural pragmatism, operate in totally different contexts and have different agendas. They each tell a different story that emphasizes a different meaning. So for me, teaching architectural history and theory is interesting because they are based on the stories people and cultures concoct for themselves and there are a lot of different ways to interpret those stories. In the end, of which there really isn't one, the story is never told the same way twice. It simply spirals continuously.

Figure 8: M.A Laugier, allegorical engraving by Charles Eisen, 1755 of the Vitruvian primitive hut.
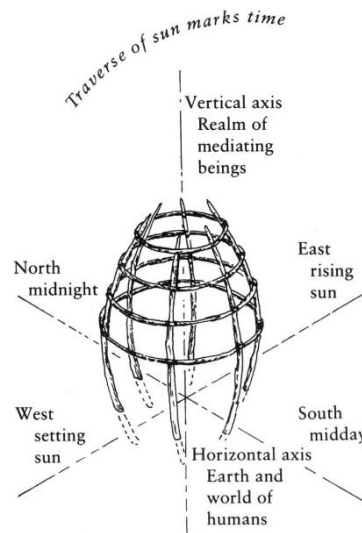
Figure 9: Indigenous 'Conjuring Lodge'. At the centre of the world, the axis mundi. Courtesy of Nabokov and Easton, 1989

According to J.V. Wertsch (1991), in *The Voices of the Mind: A Socio-cultural Approach to Mediated Action,* "A narrative is a story that tells a sequence of events that is both significant to the narrator and their audience. When looked at within the framework of socio-cultural theory, we understand there is an interlinking between the individual and their environment and as these individuals are telling their stories, of which they are not isolated or independent of their context, they are very much connected with the making of something abstract." Which, inadvertently, is a quality associated with the development of a narrative in unison with the making of an object or artifact of architectural representation. Together the narrative and the artifact serve as complimentary form makers that give shape to first, a personal connection then, second, a shared story put into existence.

As William Moen (2006), in *Learning from Artifacts* states, "Simply put, as we make our way through life, we have continuous experiences and dialogic interactions with the world cultures we surround ourselves with and of these are woven together as a seamless web."

As expressed by Marco, the process of narrating is a natural way of recounting experience, which can also be practical solution to addressing fundamental problems in life and allows for the creation of reasonable order with the unknown. Very often, the concept of narrating, or the narrative is used in connection with how to represent a quantitative research study. Others have claimed that the narrative approach is not a method but rather, an established or reconfigured frame of reference in a research process wherein the narratives also serve as artifactual pieces and can be seen as producers and transmitters of a constructed reality.

Also, with Marco the etymology of design is reinforced and is supported with the re-making of something, in this case, the re-telling of a story, which can be distinguishable by 'recreating objects of inquiry within a certain context'. As a result, he allows for the recreation of 'a set of first principles' and nowhere is this more evident than with Laugier's story of 'Origins of Dwelling in the Primitive Hut' (Figure 8).

Marco states that the origin of dwelling associated with Laugier's continues to give us enduring starting point for the recreation and mediation of the Primitive Hut at any time and place in history. It became the primary vehicle for a philosophy on architectural discourse and origins or architectural veracity in any writing thereafter when, in actual fact, the Primitive Hut is a piece of architecture conjecture, which theorists use as a way to discuss their theories that allow them to express their knowledge of human speech, community and culture, perhaps, even serving as an essential structural frame that allows for architectural form and reasoning. Through these narratives architecture becomes embedded with memory of primary human symbols, especially of the fire, of the hearth and of the basic shelter (Firth, 2004). This type of philosophy on architectural reasoning can be seen and understood in the 'conjuring lodge' wherein the shaman enters, he is at the center of the world, the place where he can make immediate contact between two figured worlds: the horizontal world of humans, and the vertical world of mythological beings (Figure 9, Nabakov, 1989).

How this further relates to the indigenous architectural paradigm can be seen in making of place with the Versatile Tipi, which serves as a quintessential cultural lens for the interview conducted with Marco. Associated with the American Plains Indians the Versatile Tipi is the epitome of Laugier's Primitive Hut. It was purely responsive to the immediate climate by making the most of natural buildings materials at hand. The evolution of this particular dwelling was informed by social organization, movement between places, patterns of food gathering, management of home, and the history of a culture's adaptive lifestyle by continuously establishing an extended sense of community. To understand the factors that form Indigenous architecture, one must look for what the environment and culture made possible, not evitable (Nabakov, 1989).

Figure 10: Transporting shelter by way of travois

Figure 11: Extended functions of travois (utilitarian)

Figure 12: Seasonal use: shade and ventilation
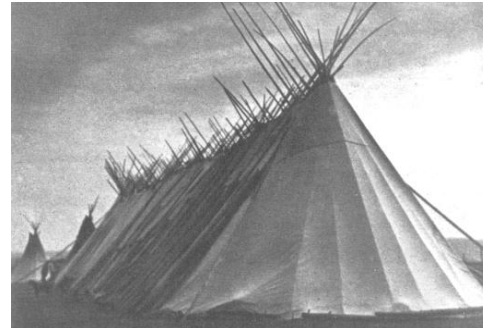
Figure 13: Sha-ba-taw-on: means to bring together (communal purposes)

Figures 10 -13: The Versatile Plains Tipi, courtesy of Nabakov and Easton, 1989

Again, as mentioned in Section 1.3 and in accordance to the adaptive sustainable attributes associated with the Plains Indian Tipi, Jamake Highwater (1981), states in *The Primal Mind: Vision and Reality in Indian America* wrote, "The balance between the artificial and the so-called natural can clearly be seen in the architecture of Indigenous peoples. The relationship they continue to have between nature and their imagination is of paramount importance in understanding this culture; for the environment and its forces serve as implacable catalysts in the kind of shelter they create for themselves." With the Versatile Tipi we see quite clearly there was never any reason for the Indigenous Mind to place the perceived notion of a higher ordering system as a way to relate to the world, a cultural response we are now witnessing with much of today's Canadian Regional Architecture.

> **KC**: Moving forward. Aside from borrowing from other pieces of architectural history and its first principles, what have you utilized to narrate your story, a type of metaphor?
>
> **MP**: That's interesting. First of all, what I understand is that when stories come together, where certain themes could co-exist and other themes couldn't coexist, there is a dimension of thought we enter and we do it unconsciously.

This is a very interesting and critical comment provided by Marco. First, it involves the idea and ability for a person to develop a deeper mental construct with the way stories can come together, which, coincidentally, is derived from Noam Chomsky's theory of how the mind generates language. Chomsky (1968), in *Language and Mind* holds that the mind has the innate ability to organize the world and to frame this understanding with structured language. From these "deep structures" Chomsky generated a set of algorithms (logic) from which sentences are constructed which, in turn, supports Marco's comment about the weaving of stories, where certain themes of interest (axioms on which an abstractly defined structure) could exist and couldn't co-exist, namely different planes of existence. Such a theory has also been used to explain the generation of architectural ordering systems and again, is precisely the foundation upon which all Primitive Hut theories have flourished. The reasoning is that architectural forms and form making processes must be generated from innate orientations within the mind, very much the way in which human language is oriented from the body – observation through movement.

> **MP:** For instance, where there might be a model or framework a person can work from. Let's say, for example, a practitioner such as a psychologist, who we know is also a type of social actor who listens to another person's story. In some instances they also work in a larger context - with a community – where he or she will go over their material over and over but they are not going at it in the same way. What they reveal or withdraw from the individual(s) is the retelling of a story but they keep hearing and telling it at a different level. The first story is everything. It's true to an extent that it controls a person's life completely. The next level is that you start to see it as something else, you can still feel it but it doesn't govern your behavior to learn how to cope and, later at another level it becomes something else. Expressed as a metaphor, again, the ideal would be a spiral, by going deeper and more focused in thinking. The story doesn't change, but the individual's perspective and their role in the story changes radically. A lot of this stuff is complex so when we talk about a spiral I find that very interesting.

> **KC**: So what happens at the deepest or highest point of the mind, the so-called end point?

> **MP**: In a true analytical tradition you just approach it. There is no end point. The spiral is a paradigmatic symbol in many traditions and for good reason. It represents both the procession and cyclical nature of human experience and it is never the same twice, which again is much like the telling and re-telling of stories.[vii]

> The thing you have to consider is that you are dealing with a different degree of cultural continuity. So in a way, when you say are going back to an indigenous way of knowing it sounds to me you are going back to that notion of cultural continuity. The stories of the tipi told today may to a certain extent be the same ones told a thousand years ago, but in some instances they are not, they are placed in a different context, as a result, because change is so rapid there is real of tension in terms of the temporal, this whole notion of time.

What is interesting about the last comment provided by Marco is that it lends itself to the work of Geoffrey Broadbent (1973), in *Design in Architecture* and the mental orientations of "structure", which adapts Chomsky's theory of deep structure in a different way. Broadbent cites four mental orientations of "structures":

1. The conceived building as a container of and for human activities that includes conversation;
2. As a modifier of climate able to make partial or minor adjustments for adaptation (in this instance, the Primitive Hut or Versatile Tipi);
3. As cultural symbol (or metaphor); and
4. As a consumer of resources and the need to acquire.

The perceived perception exhibited by Broadbent implies that "deep structures", whether informed by theory or adaptations of old archetypes offers a basis by which built forms throughout history could be assessed in a way that transcends the bounds of any particular culture which, logically, compliments the closing comments provided by Marco, all stories are artifacts which may be narrated within a different cultural context, as a result, undergo significant interpretation in terms of the temporal, denoting time and quite possibly, pretense (imitation).

As with the previous interview, Marco identifies the spiral as a paradigmatic symbol in the sense it is one of the major metaphors used to describe nature and architectural ordering systems. In terms of being categorized as an emblematic issue, Immediacy in this sense is expressed as a mediation tool to form a connecting link between natural points of change. What is more interesting is how Marco expresses the spiral as a procession towards the unknown or across the unknown, perhaps, even in an 'inward projection' towards a person's individual hearth (or genius loci) – which is fundamental to an indigenous worldview and the oral based narrative structures they continuously create for themselves.[viii]

Marco iterates that individuals within certain traditions are impervious to change where there are key opportunities to capitalize on this continuous change. In fact, as expressed earlier, according to McMinn and Polo (2005) in *41^0 to 66^0: Regional Responses to Sustainable Architecture in Canada*, "An emerging body of scholarly work supports the perception that the time is ripe for an approach to sustainable architecture that goes beyond technological considerations to address a variety of intangible but essential cultural values."   In other words, emphasis is placed on 'approach' with the intent of 'grasping' the conditions that make those cultural values acceptable at the moment.

In parallel to this understanding Anthony Giddens (1999), in *Tradition* states, "People and their individual customs and culture evolve over time, but also can be quite suddenly altered or transformed… they are invented and reinvented… As the influence of tradition and custom shrink on a worldwide level, the very basis of our self-identity and our sense of self changes. In more traditional situations, a sense of self is sustained largely through the stability of social positions and individuals in the community. Where

tradition lapses and life-cycle choices prevail, the self isn't exempt. Self-identity continues to be created and recreated on a more active (trust) basis than ever before."

Again, as stated by Marco, "where certain themes could co-exist and other themes couldn't coexist, there is a dimension of thought we enter and we do it unconsciously." More often this 'unconscious move' is a result of competing forces being imposed upon the individuals' internal and external state of location, one that can be viewed as the interplay of survival and survivance, as previously expressed by Gerald McMaster (2005) in *A Time of Visions* (interviewed by Larry Abbott). "Survival is more reactionary, while survivance is more about the condition of the peoples." Thus, as much as this report is about creating the ideal conditions for the future Indigenous student of design to embrace it is also about what is 'missing' from a contemporary school of architectural discourse.

Add to this understanding the following perspective of Pallasmaa (1988), which states in *Tradition and Modernity: The Feasibility of Regional Architecture in Post-Modern Society*, "Cultures mature and sediment slowly as they become fused within a given context and within the continuity of their own traditions. It is a reflection of natural, physical and social realities. Culture is also an entity of facts and beliefs, history and present material realities and mental conditions. It proceeds unconsciously and cannot be manipulated from outside the culture. For this reason, an authentic culturally differentiated architecture can only be born from distinct yet differentiated cultural patterns, not from fashionable ideals in design that generally aim to impose itself upon a culture with very little common interests."

Finally, as Mark Johnson (2007), in *The Meaning of The Body: Aesthetics of Human Understanding* states, "We are living in and through a growing, changing situation that opens up towards new possibilities and that is transformed as it develops. That is the way human meaning works and none of this happens without our bodies, or without our embodied interactions within environments that we inhabit and that change along with us." This is how the indigenous mind works wherein the manner in which the producer, in this case, the indigenous student of architecture becomes unified into one seamless act of creation with their production, thus living the object of investigation to its fullest extent.

Summary: Matrix Analysis

	Themes of Interest		
	Ontological Oscillation is a Sense-Making Process	**Immediacy**	**Cultural Reciprocity**
Dr. Joanne DiNova	I would say the strength is in the infinite connections indigenous ways of knowing make to everything and everyone else, and the potential these ways hold for finding a way out of the problems that seem to be facing our world.	I think we were hugely abstract thinkers already -- and quite comfortable with it. The abstract and the spiritual go together and for traditional indigenous thought, there wasn't a division between the abstract and the material as we see with the West. I think that was and still is the big difference.	I found that Native literature was usually read against an oral/literate binary. There can't be an absolute split between Aboriginal and Western ways. Somehow we have to find a way to relate with this way of knowing.
Marco Polo	Where there might be a model or framework a person can work from, this will allow them to go over their material but they are not going at it in the same way. What they achieve from the experience is the retelling of a story but they keep living it at a different level every time.	What I understand is that when stories come together, where certain themes could co-exist and other themes couldn't coexist, there is a dimension of thought we enter and we do it unconsciously -- the mind has the innate ability to organize the world and to frame this understanding with structured language.	The story doesn't change, but the individual's perspective and their role in a larger context does. There is real of tension in terms of the temporal, the whole notion of time.

Table 4: Interviewee Summary Matrix: Joanne DiNova and Marco Polo

The strength of the interview provided by Joanne lies in the revelation that there is a wealth of knowledge in the way an indigenous student articulates their research findings and resulting creations. Unfortunately it is a methodology that is not of Western modality because it requires individuals to situate themselves comfortably in the abstract and to create from this inner-state of being. When understood there is no clear division between the individual's mind and the embodied experience associated with the Indigenous person. Such a methodology can either be detrimental to the student's end product or a powerful creation, if achieved.

Whether it is exemplified through a story making process or through the creation of a simple artifact there are rooted connections to be discovered between certain words that can be expressed abstractly in form. For instance, the words 'spire, spiral and spirit', at a simple level each word speaks to 'a sense' of motion – a nonphysical world – to withdraw from within – to breathe.

This is what separates the cognitive (the "I") from the communal (the "we") aspect in creating an architectural piece and allows for language to be shared among cultural differences. Joanne foresees that, as more indigenous students become aware of this phenomenon or become increasingly comfortable in articulating these experiences, what could result is the enrichment of all educational outcomes, including the profession and education of architecture, where we are able to bring to two worldviews closer together.

Marco's interview served as a critical point of reflection with plenty of insight into the way cultures orient themselves in their world through a structured language. For one, Marco explains we have come to understand architecture traditionally through a Eurocentric ordering system; through a variety of cultures, contextual and artifactual experiences.

Thus, bringing into the focus the fact that culture and nature are one in the same, the story of a culture cannot be separated from the naturalness of the place from which it originates and it is this type of embodied relationship that many indigenous peoples have had with the natural landscape, which now including the unnatural academic landscape and the well-informed indigenous student within.

The value gained from the telling and re-telling of stories is cognizant of cultural patterns and behaviors of the individual and of the community to which he or she belongs. Quite adamantly, the sustainable practices associated with an indigenous culture depend highly upon the individual's capacity to absorb, process, and transmit knowledge to succeeding generations and is a characteristic associated with many indigenous cultures worldwide. It is this dimension of thought that makes indigenous cultures attractive to mainstream society – a source of untapped knowledge that is hard to identify or associated with a Western perception and is an observation Marco alludes to when he states, "the time has arrived for an approach to sustainable architecture that reaches beyond technological considerations and addresses a variety of intangible but essential cultural values." I presume Marco is speaking to elusive themes of architectural interest and worldviews that could co-exist but may require a dimension of cultural thought we have yet to see in a Canadian school of architecture.

From the interviews conducted with Joanne and Marco it is understood that one's figurative language becomes immediate, more so than writing, because of the mind's ability to organize the world and to frame this understanding with a structured language – even if it seems abstract and contradictory to opposing worldviews. Moreover, it is an active way of drawing out – abstracting from within - comparisons in the form of narrative. As much as any narrative is a string of symbols, gestures and mediations that

allows for different knowledge structures to be heard and understood we must not limit ourselves to a single course of action or mindset if we are to expand the boundaries of the architectural profession.

In fact, it is to everyone's advantage that we take a self-reflective approach while trying to understand and propose new interpretations of old archetypes, both structurally and linguistically, in an effort to continuously 'recreate shared ordering systems' out of our daily learning experiences. It's about making the best of both situations.

3.2.3   Ethical Concern: Cultural Reciprocity

According to Wendy K. Lamont (1996), in *Exploring the Impacts of Cross-Cultural Instruction on Professional Self-Reflection*, "The act of cultural reciprocity refers to the dynamic and material exchange of knowledge, values and perspectives between two-or more individuals of different cultural backgrounds. It pertains specifically to professors of education and their students, based on the history of their interactions and diversity of experiences in cross-cultural settings and it is most valuable where individuals intensively reflect and scrutinize the origin, development, and soundness of their existent morals, values, thoughts, and behavioral practices."

Donald Schön (1983), in *The Reflective Practitioner* adds to this understanding when he remarks, "You have to do something before you can understand it. Reflection, when informed by action is not possible while acting; it requires distancing in order to correspond and development concepts that can be used in the process of the practice."

To reiterated, the value of any knowledge exchange held between the six interviewees is seen to be most valuable and meaningful in response to the social setting of the academy wherein, a diverse cast of actors routinely interact with each other in debate or agreement towards problem-solving in general. This interactivity includes understanding design and is as much about communication as it is about the construction of an artifactual object, the potential opening for a cross-cultural dialogue and space for an Indigenous worldview.

Yet, what is more difficult to imagine is how the very foundation of Canadian architecture up until this point, with all its history and its educational models to choose from, could be considered to be complete without the inclusion of an indigenous way of knowing. Perhaps Russel Barsh (2005), in *Aboriginal Peoples and Canada's Conscience* understood it best when he strongly stated, "When we say Aboriginal people have contributed to Canadian society, it can be implicitly argued that there is a Canadian society to receive Aboriginal people's gifts and the knowledge they inherently hold towards the making of this place. This statement necessarily implies an exchange between two separate and distinct worlds: that there was a Canada before Aboriginal peoples encountered it, and that there would be a reasonably recognizable Canada had Aboriginal people never existed. It also implies that the main story of Canada took place somewhere else, neither on Aboriginal land nor in conflict or cooperation with Aboriginal nations – somewhere in Europe, perhaps."

To exemplify the critical understand of cultural reciprocity the following interviews with Dr. Lynn Lavallée and Dr. Mark Gorgolewski inform the need for a body of cross-cultural criticism that is informed by the esteemed cultural values held within indigenous/vernacular knowledge systems. Together these interviews provide insight as to how cultural reciprocity serves to inform their individual research.

Interview 5

Dr. Lynn Lavallée is a Ryerson University instructor in the School of Social Work. She is of Aboriginal heritage (Métis) and describes her understanding of Cultural Reciprocity as a symbolic gesture capable of making sound environmental choices for the betterment of community.

> **KC:** With the interview I am asking, "How do you bring an indigenous way of knowing to your professional practice, to your teachings, to your research and how do you use elements of material culture to harness that knowledge and later share it?
>
> **LL:** When I first think about professional practice I think about it in relation to my research. When you first asked the question it made me think about my Doctoral research and that's really the beginning of where I started to recognize indigenous knowledge. As for coming into what it is I was doing and it was a real struggle at first, the framework I was coming from related mostly to an ecological framework, which kind of relates to an indigenous framework but later found out it's been categorized as a western theory.
>
> I say western theory because I just found some resources that credit Indigenous knowledge for ecological theory. So basically it's the appropriation of indigenous knowledge into western knowledge, only to be given a new name, yet it really doesn't exactly fit an Indigenous way of knowing which is a natural way of knowing - no division of thought from being. And part of using an Indigenous approach is having to resist or being subsumed under Western theory and its foreign principles. So it's important that we hold our ground and not be subsumed under Western principles

With Lynn we hear concern that indigenous knowledge and its ways of knowing are starting to be appropriated and once again it is being categorized in favor of a Western doctrine of thought. We also hear minor variances in opposition to European models of education which continue to display very little intimacy in their approach to the natural environment. As a consequence, scientific methods continuously reduce the natural environment into segments that rarely rely on a secular and reciprocal understanding of place and its Indigenous peoples. As many indigenous researchers continuously stress, indigenous knowledge and its forms of learning not only comply with the natural laws of nature but also are based entirely on a 'holistic vision of life'. There is no split between the mind, body and spirit. Life is expressed and amounts to a complete set of experiential and interconnected elements.

Unfortunately those who have conducted research into the realm of indigenous knowledge and its variant ways of knowing fail to recognize that the phrase 'Traditional Ecological Knowledge' is a Western Scientific term that came into widespread use in the 1980's (Firket and Berkes, 1999). For the simple reason, hat this form of knowledge cannot be found in any university textbook. As a result, governments who control the development of natural resources and the competing interests of cultures over resources,

which include knowledge and understanding of place, have left it entirely up to the scientific community to investigate the matter thoroughly and once again categorize it in their favor.

KC: Western theory?

LL: Yes, a western concept you learn in university. For me, ecological theory kind of fit but I struggled with it. I thought it was my lack of ability to explain it properly but then I realized no matter how we explain from an indigenous perspective the western mind may never get it. I think it's the whole notion of being interconnected that people don't get. Western philosophy thinks very linear and can't get the interconnection and sometimes I think they may never get it.

KC: What do think that it is they don't get?

LL: Again, I don't think they will get how we as indigenous people see everything is interconnected. They may get it at a very simple level but when they have to go a little bit deeper inside themselves they don't understand it because they established a disconnection between one's mind over everything else – the entire mind, body and spirit divide. When it comes to the spiritual part that is something they don't get or don't allow themselves to get, how everything is spiritual, us talking right now is spiritual.

KC: Can you think of another symbol, or another element that you would use in your course of study to help push an indigenous ways of knowing, or represented in some way?

LL: Our (traditional) teachings that could be shared orally. That is a symbol of what we bring into the research and into the academy. We are guided by these ethical principles so they become our code of conduct by which we carry I carry out my profession. I always give students the alternative by asking:"What code of conduct really guides you?" That is one type of symbol (or gesture) I bring in.

Another symbol I bring is the Métis symbol (or infinity symbol), which is the bringing together of two cultures, where it is not entirely a western culture and not necessarily a First Nations culture either but somewhere in between - a blending of cultures and hopefully done in a good way. We have to find way to bring the two together. In doing so there is a piece of reciprocity created.

An extension of Lynn's personal and professional understanding reveals cultural reciprocity is an act of mutual knowledge acquisition towards others. It is the act of sharing which serves as an essential medium through which individuals can critically examine and legitimize the nature of their personal and cultural realities alongside others. Moreover, this act of sharing allows Lynn to practice her cultural knowledge with a dual purpose: to advance the Aboriginal condition in the academy and to carve out a space for her (and perhaps other Aboriginal students and faculty) to self-reflect.

Also, Lynn discovered throughout her research that she was best able to articulate an indigenous 'way of knowing' with the use of oral and visual metaphors, which she referred to as a process towards a Symbolic Based Reflection. As stated earlier by Donald Schön (1983), *reflection-on-action* is not possible while acting; it needs distance, it requires correspondence and the development of concepts that can be used in the process of the practice. Therefore, in accordance Schön, Lynn too exemplifies that an indigenous worldview can only have value if knowledge exchange and cooperation is developed and is most meaningful in a social context, in this case, the academy wherein a diverse cast of actors routinely interact with each other in debate or agreement towards problem-solving in general. As with the field of architectural design, social work too engages with the realities of people and the spaces they occupy, and is informed by everything we do and touch as well as by people with whom we communicate.

Interview 6

Dr. Mark Gorgolewski is a Ryerson University instructor in the Department of Architectural Science. He is non-Aboriginal and describes his understanding of Cultural Reciprocity as both a community and material culture exploration.

> **KC:** The basis of my thesis is that I am using material culture and facets of art, architecture and artifact development as the foundation of my study. The lens I am exploring utilizing is an indigenous ways of knowing, doing and making of place.

> **MG:** In my area of work I make an effort to make the building work in a way that is more in-tune with the environment. The way I focus on this is not specific to indigenous ways of knowing but more towards a vernacular way of knowing where people are familiar with a specific region, where people are in-tune with its characteristics and know what an appropriate response to their location, environment, culture, etc might be. My studies have been to look at those sorts of things. That may be indigenous to a culture, region, climate, etc, indigenous to a certain extent but that depends on your precise definition of an indigenous ways of knowing. That is my first response.

> My second response would be, a concern with how we integrate ways of thinking with a connection to place. Cultures and communities in the past have had a strong affinity to their location and this led to a richness of different cultures around the world. They developed fundamental benchmarks and characteristics that we may have to learn from as we move towards the future. I believe we are going to have to revert to a much more localized way of doing things, food production, building construction, supply of materials, etc., and from an environmental point of view we have to look at the knowledge we have lost to address these local characteristics.

With Mark's first response we understand the knowledge imbedded in a society's material culture is not something hypothetical, irrelevant or immaterial and is definitely not readily available to everyone. It requires a certain pre-knowledge of the subject informed by additional knowledge as to how to read and interpret the composed object. This involves understanding how local cultures relate to a specific place; not only narrate their understanding of place but also, embody the life forces - *social, economic, environmental and cultural -* and energies of that place. Thus, the central goal of design is not to create "any" object but achieve a certain goal with the material of the object. Moreover, Mark also identifies that many forms of localized knowledge systems are becoming lost because of world food and building material supply demands which are attributed to increasing global pressures.

> **KC:** There are two questions inside what you just said. Essentially talking about local knowledge and what you could take away from that. Explain.

> **MG:** One of my approaches is, whatever you are drawing you have to know what it is and in order to know what it is, you have to know something about it. So, it is fair to say, I

think we need to understand what things are. What are their characteristics? What are the basic components and its materials? What are the elements that we are working with? What is it about these materials, these things that we must know before we can actually draw anything? A similar approach can be applied to the communities we work with.

For instance, how do we reinterpret the old vernacular for new uses to meet new codes? What are the values of working closely with a community?

My experience wasn't working with an indigenous community but rather a rural based farming community. It meant having to work with the needs of the community and having to understand their expectations of what an architect can provide. Until you understand what a community wants you really can't draw anything, so an entire communication process has to be attained before you ever start drawing. By understanding the community and its material aspects there is a whole range of research that must be done before you start drawing, unfortunately that is not how architecture is presented at the moment.

According to Schön (1983), design as a process refers to the general, inherent human ability to conceive, create and change the future – something we all share. In this respect everything created by human beings as part of a planning process is design. As expressed by Mark, communities have the ability and knowledge to give form to abstract ideas as well, they have the ability to provide appropriate metaphors to make artifacts attractive; usable during preliminary design stages in the process. As a result, artifacts serve as appropriate design tools (or instruments) that carry a cultural message that have the ability to initiate wider discussions within a diverse community setting(s).

KC: That response is critical because it says there is an undisclosed element with the way we see materials and what we can do with them. Correct me if I am wrong but is there a lot of opportunity to explore the abstract inside of there? I say abstract because, a lot of times when we do material exercises we attempt to resolve something long before incremental steps of communication are taken to best understand how we can develop ways to correlate or express an idea, or the ideas of another person.

MG: I am very practical person so I always think of some end use but the role of exploring materials, there is definitely a role to explore in the realm of the abstract. Moreover, there is plenty of opportunity to learn and understand the core characteristics of a material before we actually move forward with a practical application. Therefore, there is certainly a role for that kind of approach. In terms of the local, vernacular or indigenous ways of knowing there is plenty to offer. Even though it may be perceived as a fundamental way of knowing and living 'in between' there is a lot of value but unfortunately it is being lost.

In this excerpt, Mark takes the position that a vernacular 'way of knowing' is also a form of an indigenous 'way of knowing' and that there are many parallels that run between the two knowledge systems. Moreover, if we are to receive, make use of, and disseminate the knowledge exhibited by a culture's local understanding we must also place ourselves in the position to give back to that cultural setting. It's an ethical response.

His overall concern for the study of architecture, primarily by today's architectural student, is that we do not have to venture to foreign settings to receive this knowledge. For the most part it's available where there is a melding of cultures and a diverse palette of the materials at our disposal. Inevitably we are going to have to revert to a local way of doing things and we are going to have to look to those knowledge systems that we are losing. In contrast to the notion of knowledge being lost 'in between', there is also opportunity for 'found potential' as we shall read in a subsequent chapter.

Critically speaking, Mark also expresses that the current architectural curriculum is not presented to the student in this format. He also highlights the fact that we have to bring people out of a comfortable way of thinking, into an abstract realm of thought where we have to look at the vernacular for ways to reinterpret 'old styles for new ones'. In turn, this re-establishes new benchmarks, specifications and codes to abide by, both constructive building codes and ethical ones in the making from scratch. This might even entail having to reconstruct the vernacular mindset by bridging disciplines of study with material explorations and other aspects of culture, namely the relationship that people of different cultures have with all material, including knowledge.

Summary: Matrix Analysis

	Themes of Interest		
	Ontological Oscillation is a Sense-Making Process	**Immediacy**	**Cultural Reciprocity**
Dr. Lynn Lavallee	A symbol I bring is the Métis symbol (or infinity symbol), which is the bringing together of two cultures, where it is not entirely a Western culture and not necessarily a First Nations culture either but somewhere in between - a blending of cultures	I think it's the whole notion of being interconnected that people don't get - an Indigenous way of knowing which is a natural way of knowing – there is no division of thought from being.	Our traditional teachings: I bring these into my research and into the academy so they become a code of conduct by which I carry out my profession. We are guided by these ethical principles. In doing so there is a piece of reciprocity created.
Dr. Mark Gorgolewski	Cultures and communities in the past have had a strong affinity to their location and this led to a richness of different cultures around the world. They developed fundamental benchmarks and characteristics that we may have to learn from as we move towards the future.	Until you understand what a community wants you really can't create anything, so an entire communication process has to be attained before you ever start creating, unfortunately that is not how architecture is presented at the moment.	How do we reinterpret the old vernacular for new uses to meet new codes? It means having to work with the needs of the community and having to understand their expectations of what an architect can provide.

Table 5: Interviewee Summary Matrix: Lynn Lavallee and Mark Gorgolewski

Cultural Reciprocity, which relies heavily on a process of communicative inquiry, along with one's active pedagogy (or research) is empowering in the sense that it encourages the professor and research student to explore, exchange and reconsider the relationship between a professional research based practice (instructor) and the cultural knowledge held by others less considered or encountered within the profession of architecture (the indigenous student of design).

Without a doubt the very presence and delivery of an indigenous perspective delivered by a person of Aboriginal decent in a Canadian school of architecture shall serve two purposes:

1. To catalyze the educational process of self-analysis in relation to cultured others for future Aboriginal students of architectural design, and,

2. To provide an opportunity to preserve an Indigenous way of knowing while encouraging a Canadian academic institution to re-contextualize Indigenous traditions, which will in turn create an enduring intellectual space for the Aboriginal student?

This in itself informs the critical making of a literary and active response framed within research practice that brings to the forefront the act of cultural reciprocity. As Warwick Fox (2000), states in *Ethics in the Built Environment,* "Human needs, wants and interests are to be taken as the basis of the norms that determine conduct in relation to the provision of buildings or with the processes of building. Supported by actions that may be confined in a pragmatic way to those which can be derived from acquired knowledge and experience, that is, from the point of view of the cognitive other (human). Values are then assigned to ecosystems and future generations, etc. providing reciprocity where a present individual's (the researcher in this case) interest or society's (the collective research participants) can be demonstrated. Once this reciprocity is determined, a moral or ethical position could be seen to be established where one has the duty to act for the present good and future."

With Lynn and Mark we understand the cultural knowledge held by indigenous/vernacular people provides opportunity for any professional who works with community to develop actions that are supported by a framework of discussion which, coincidentally, must be logically or ecologically derived. Also, the development of these initiated actions must serve a devoted mutual purpose: to preserve those knowledge systems that we are losing in relation to each other under mutual global stresses and to place esteemed value on the exchange of cultural knowledge provided cooperation is achieved in addressing problem-solving in general.

3.3.0   Summary of Cultural Matrix

So far what has been observed are a series of critical narratives that speak to a variety of interpretations how one might identify with an indigenous way of knowing which, so far, has been expressed as a melding of instrumental knowledge with existential knowledge; a type of intuitiveness; an embodied interactivity through the act of creating something of communicative value and, perhaps, even the making of an oral/literacy binary.

All interviewees expressed concern for the loss of language and cultural knowledge and its attachment to place making or object making. In other words, there requires a critical need to establish a common ground of understanding that is both reciprocal and morally driven with respect to one another from 'within' and 'outside' the domain of Aboriginal culture which includes prejudice and impartiality.

Also afforded is a glimpse where future indigenous students of design may what to consider the notion of 'living the object of investigation' fully and appreciatively while not giving way to academic pressures to adhere to current trends in architectural education that are strictly governed by technical and standardization trends informing current architectural practices. It is then the opening of an ethical space with shared responsibility that will help reshape the relationship factors held between the physical environment that constitutes a Canadian school of architecture and where future Indigenous students of design might begin to express their cultural knowledge freely and openly without trepidation or a sense of inferiority.

As much as there are intonations of melding distinct cultures together there are clearly social forces held with each worldview that exhibit resistance towards change and cultural harmonization. Contrary to early criticisms, the study of architecture does takes place in the social, therefore it must engage fully with advanced and/or alternative sociological perspectives regardless of whether there is no bench mark for indigenous knowledge from which to measure the discipline of architecture.

Additionally, each Aboriginal interviewee expressed the need to deeply protect the cultural values and beliefs associated with their culture with added effort to help establish personal and group identity as a counter force against the Western norm. As a few non-Aboriginal interviewees have stated, although there are differences in terms of the social and temporal tensions with each culture there are also common tenants of understanding in their stories, myths, legends and even technological innovations (making of knowledge) associated with each culture – these being shared interests and patterns of human behavior that raise inquisitive and critical questions with respect to one another no matter the degree of difference or separation.

As we shall read in the next section, although there are fundamental differences associated with each culture, there are also shared essences within the Western-Indigenous paradigm that are transferable and reflective of both worldviews. These shared essences pose ample opportunity for future indigenous students of design to develop independent strategies that make use of their cultural traditions as ingredients to warrant the establishment of a level playing field across the academic landscape, most importantly, in a school of Canadian architecture.

Chapter Notes: Communication is Design

i This comment was provided by Christopher Hunter who teaches the Cree Language at the Native Canadian of Toronto, 2009.

ii Franz Boas (July 9, 1858 – December 21, 1942) was a pioneer for anthropological thought. Like many others, he trained in other disciplines, studying human cultures and societies namely around anecdotal knowledge, which is how indigenous knowledge systems continue to be classified.

iii Benjamin Lee Whorf (April 24, 1897– July 26, 1941) was an American linguist. Whorf is widely known for his ideas about linguistic relativity, the hypothesis that language influences thought. Whorf has been credited as one of the fathers of this approach, often referred to as the "Sapir-Whorf hypothesis", named after him and his mentor Edward Sapir. In the last ten years of his life he dedicated his spare time to linguistic studies, doing field work on Native American languages in the US and Mexico.

iv In his book *On Equilibrium*, John Ralston Saul maintains imagination, reason, memory, intuition, ethics and common sense are the six qualities that make us human, the essential traits that give us the ability to interpret and act on the world around us. The key is to balance each quality against the others in a kind of dynamic equilibrium, hence the title of his book.

v Turner summarizes Kymlicka: "Because culture is a primary good for all individuals, governments and institutions ought to preserve the integrity of the plurality of cultures from which individuals make their choices." It follows that Aboriginal peoples are entitled to protection of their cultures.

vi In Ong's most widely known work, *Orality and Literacy* (1982), he attempts to identify the distinguishing characteristics of orality: thought and its verbal expression in societies where the technologies of literacy (especially writing and print) are unfamiliar to most of the population which includes oral based societies such as Indigenous people. Ong describes writing as a technology that must be laboriously learned, and which effects the first transformation of human thought from the world of sound to the world of sight.

vii Hegelian dialectic is said to be based on four basic concepts: 1) Everything is transient and finite, 2) Everything is made out of opposing forces/opposing sides (contradictions, paradigms, 3) Gradual changes lead to turning points, where one force overcomes the other, and 4) Change moves in spirals
.

The following table highlights key participant research findings and will be used later in the report to summarize a course of cultural action with recommendations.

3.3.0 Summary: Matrix Analysis

	Themes of Interest		
	Ontological Oscillation is a Sense-Making Process	**Immediacy**	**Cultural Reciprocity**
Lila Pine	It is about **networking, making connections through experience design, a type of embodied interactivity,** which relates very much to an Aboriginal way of knowing.	**As long as our knowledge is separated from** indigenous language then it will remain very, very difficult to bring that way of knowing into the way we teach and learn.	I do think **there is kind of underlining tenant that have similarities, or at least certain ways of being in the world we share** which contributes to our way of knowing that are the same.
Dr. June Komisar	The **intuitiveness** of a designer is similar to an indigenous way of knowing **which allows you understand the potential of the material, the site and the form in relation to one's body. It's a small movement** but maybe that is more of what we need to put in the classroom situation.	**In architecture school you have this disconnect. A situation where the student is not working in a primal, personal or immediate way with the materials.** Therefore I bring my experience as a designer and that is unfortunately intuitive.	**We are living in a very hybridized culture where we are borrowing from everyone. Everything is mixed and is richer for it.** Unfortunately we may soon not know of a traditional way of building but we are in fact inventing it from scratch.
Dr. Joanne DiNova	I would say the strength is in the infinite connections indigenous ways of knowing make to everything and everyone else, and **the potential these ways hold for finding a way out** of the problems that seem to be facing our world.	I think we were hugely abstract thinkers already, and quite comfortable with it. **The abstract and the spiritual go together and for traditional indigenous thought, there wasn't a division between the abstract and the material** as we see with the West.	**I found that Native literature was usually read against an oral/literate binary.** There can't be an absolute split between Aboriginal and Western ways. Somehow we have to find a way to relate with this way of knowing
Marco Polo	Where there might be a model or framework a person can work from this will allow them to go over their material but **they are not going at it in the same way. What they achieve from the experience is the retelling of a story but they keep living it at a different level every time.**	What I understand is that when stories come together, where certain themes could co-exist and other themes couldn't coexist, **there is a dimension of thought we enter and we do it unconsciously.**	**The story doesn't change, but the individual's perspective and their role in a larger context does.** There is real of tension in terms of the temporal, the whole notion of time.
Dr. Lynn Lavallee	**A symbol I bring is the Métis symbol (or infinity symbol), which is the bringing together of two cultures,** where it is not entirely a Western culture and not necessarily a First Nations culture either but somewhere in between - a blending of cultures	I think it's the whole notion of being interconnected that people don't get - an Indigenous way of knowing is a natural way of knowing **– there is no division of thought from Being.**	**Our traditional teachings:** I bring these into my research and into the academy so they become a code of conduct by which I carry out my profession. **In We are guided by these ethical principles. In doing so there is a piece of reciprocity created.**
Dr. Mark Gorgolewski	**Cultures and communities in the past have had a strong affinity to their location and this led to a richness of different cultures around the world.** They developed fundamental benchmarks and characteristics that we may have to learn from as we move towards the future.	**Until you understand what a community wants you really can't create anything,** so an entire communication process has to be attained before you ever start creating, unfortunately that is not how architecture is presented at the moment.	How do we reinterpret the old vernacular for new uses to meet new codes? **It means having to work with the needs of the community and having to understand their expectations of what an architect can provide.**

Table 6: Interviewee Summary Matrix

Chapter 4 – THE CULTURAL ARTIFACT

"Architects live in a representational world, between the world of comprised ideas and the mundane world of materials. Yet, when the role of symbol in relation to an indigenous culture is introduced there is an altercation between reality and how an individual collaborates the material wisdom they withhold and with the ecology of site in which they are immersed."

Richard Kroeker, On Working with Mi'kaq Culture

4.0.0   Architects utilizing Cultural Artifacts

Contemporary indigenous art at its most vital, demonstrative and extreme aspect explores 'new' relationships with 'place' that evolve within the same field of inquiry as architecture: exploring the essential issue of space and how to relate to it. The discovered cultural artifact, as an exploration, design process and medium to work with becomes a depository for cultural values where we find, fundamentally, that a different way of working with a material can evoke different meanings and interpretations which, coincidentally, inform the exploration of *new values* as well, thereby allowing for an individual's culture (or figured world) to be opened up.

According to Vygotsky (1978), human learning and development occurs in socially and culturally shaped contexts, somewhere in-between mutual processes, collaborative practice and where the individual locates them self in society. Essentially, people who come to learn, depend on what they have experienced in the social context in which they have participated, and since the knowledge embedded in the production of cultural artifacts is ingrained with social constructs, this knowledge may not readily available to anybody. As a consequence, it requires a certain 'pre-knowledge' of the subject matter and how one *reads*, *interprets*, and *engages* with the making of that artifact.

Therefore, it can be said the making of an indigenous artifact yields knowledge that is dependent on the actual object produced. However, this regulates the object to that of a by-product, an *extraction* or *adaptation* of the knowledge acquisition process, and, in retrospect, places the making of art, artifact and architecture in the context of similar disciplines.

Yet the most interesting proposition to explore is the claim that artifact development is a form of visual and verbal communication since it locates the object as 'a central' and 'fundamental' component of ones' knowledge acquisition process (Scrivener, 2002). As discovered with the semi-structured interviews, this places the use of any cultural artifact in a very particular situation and context of discussion and affords ways of conversing with not only the 'thing' but also 'with those involved throughout the study, including case studies.

In support of the cultural premise proposed throughout this study Polo and McMinn (2005), claim cultural artifacts not only serve as repositories for indigenous knowledge but also serve as an opportunity for contemporary architects and emerging scholarly writers to establish their own distinctive cultural forms. In this view, the cultural dimensions associated with an indigenous way of knowing can be connected to new meanings by *rebuilding*, *reshaping* and, in many instances, by *re-contextualizing* old archetypes for new ones.

With this perspective cultural artifacts constructed by the indigenous person carry with them "development histories" by virtue of the activities of which they are previously a part, such as ceremonial pieces which may be employed to mediate the present. In other words, one's purposely driven reflexive strategy allows for them to replace and reconstruct certain indigenous identity pieces. As a result, artifacts assume an obvious and necessary material aspect whose substance is embedded in the composition of the culture. By the same token, they are both instruments and memory devices for the preservation of an indigenous way of knowing.

4.1.0   The Cultural Artifact as a Dialogical Mode of Inquiry

According to Wertsch (1991), a narrative is a story that *tells a sequence of events* that is significant to the narrator or their audience. When narratives are looked at within the framework of socio-cultural theory, we understand there is an interlinking between the individual and their context. Moreover, as individuals are telling their stories, of which they are not isolated or independent, they are very much connected to an extent with the making of something physical and abstract.

As mentioned in the previous section, the development of an artifact posses the ability to be a communicative piece used in connection with qualitative research and serves as *a staged reference point* in a design *process*; able to articulate artifacts that are not only products occupying space but can also be transmitters of reality (Heikkinen, 2002).

In this widest sense, artifacts in relation to the built environment, that may lead to the making of architecture, coincide in similar domains as being artifactual, that is, *true-to-life* communication that uses sculpture to influence non-verbal communication and personal inquiry about the making of place.

Reinforced, it allows for *the exploration of* a *sensibility*, that such a sensibility is essentially a collective formation of social existence capable of expressing oneself in the world of everything and anything. Artifacts are *elaborate mechanisms* for defining social relationships, *sustaining* social rules, and *strengthening* social values. But the central connection between art and the collective formation of social existence – *life* - does not lie on such a fundamental plane or individual perspective; it also lies on a semiotic plane as well (Geertz, 1983).

The signs or sign elements that make up a semiotic system are ideally connected to the society in which they are founded, which is a qualitative element of material culture. And by examining the composition of an artifact as a piece informed by dialogue, a written story or as a vernacular prototype, including how the accent of an Aboriginal archetype materializes, the artifact informs a 'way of experiencing' or 'knowing' and brings forward a particular frame of mind - *out into the world of all objects.*

Again this speaks to the notion of a figured world where *social relationships* are named and established; where words of genius loci (*the spirit of place)* can be fathomed; and where the abstract is informed by a sense of spirit brought 'out into the open' where everyone can experience the artifact for what it is and what it could become. As a result, an indigenous way of making and relating to a cultural artifact may be just as designable as any other and is worth re-exploring since an Indigenous 'way of building' is starting to inform the appearance and practice of Canadian regional architecture (See Chapter 5: Reflexive Case Studies).

4.2.0   A Reflective Piece of Design Experience

In this chapter, I will elaborate how the concept of an indigenous way of knowing, doing and making has been used to establish a reflective piece of design process with the intent to recapture and articulate the experience gained from a series of constructed ecological artifacts. As expressed by Klaus Kripendorff in *The Semantic Turn* (2006), "the making of an ecological artifact plays a particular role relative to a localized understanding" which is a characteristic often associated with indigenous patterns of thought or Traditional Ecological Knowledge (TEK) systems.[i]

The added richness found in Kripendorff's understanding is that most ecological artifacts provide an exceptional opportunity to create a new opening for intellectual space, cross cultural discourse and design analysis while fulfilling research objectives yet, must also be mindful that all research objectives be entirely reflective of the site, reflective of the individuals within the site of analysis and reflected in the objects used to achieve research objectives.

As ambiguous as ecological artifacts may seem, the significance of their constructed value is gained by creating situational awareness in order to influence and inspire change that governs architectural education. By speaking and creating from an indigenous worldview all research objectives return to a fundamental set of first principles with the way architectural design may be articulated in the interest of Canada's indigenous peoples.

In the context of this report, key to all research objectives involved is the need to continuously make personal and participant adjustments over an extensive period if time. As I have discovered during my process of design, rigorous learning is by no means a static process but rather, a dynamic process that continuously readjusts as the individual considers and reconsiders their judgment and the approach taken towards design while also having to be consistently mindful of the cultural beliefs held by others in relation to the overall research study and the created ecological artifacts.

As the research became a living-breathing exploration unto itself - between the interviewees, the ecological artifacts created and myself - the ultimate challenged arrived in the act of making many personal adjustments along the way.   Such a process is considered reflexive and involves introspection toward oneself as an inquirer; outward to the cultural, historical, linguistic, political, and other forces that shape everything about inquiry; and, in between researcher and participant regarding the social interaction they might share.[ii]

The following are these questions accompanied by my responses:

1. What is the function of the ecological artifact in the development of your thesis? Is it a way to work out concepts that might relate to architectural representation or is this a kind of separate creative activity that has justification of its own?

I discovered that utilizing an ecological artifact in the process of my research challenged me to engage with the medium of design as a communication device, primarily as a relational tool - very much like a computer but richer in terms of experiential learning.

First, the artifact became a meditation tool – it became an object without words with boundary conditions attached, a "go to" place where I could explore a sensibility informed by my tactile nature in order to achieve certain research objectives beyond the immediate action of words. In the process of making an object, I came to appreciate my personal ecology that goes into an artifact by *knowing* what my body could bring to the research process.

Second, the ecological artifact became a material investigation. Again, there was 'no break' or 'gap' in the learning process involved because all movements or actions involved were a fluid act between myself and the materials. When the material broke, I discovered a set of parameters (or limitations) as to how much pressure can be applied to the material, namely my own human force. What I also discovered is that working with a natural material, such as wood, it is far easier to manipulate and shape the object intuitively because the fibers in the material work in the same capacity as the muscle fibers in my body. There are tiny surface tensions and discrepancies in the material but when they are assembled as a collective the object very much distributes the forces throughout entire assembly, again, very much in the way our body works, very flexible and forgiving. This was noticed specifically when I paid attention to what my body was doing such as feeling the extension of my hand, wrist, and forearm, then throughout my entire body. This offered me a richer sense of experiencing ideas of design and communicating because it was tangible – it could be touched, and thus I could feel the applied forces in return and that in it self was experientially real. As a result, the experience enabled me to better appreciate what the material had to offer.

Third, the ecological artifact provided an ideal opportunity to *re-interpret* my indigenous identity and its evolving traditions in the context of other indigenous people in the academy. It also allows for me to *re-contextualize* an indigenous way of making architecture in the context of cultured others – Western vis-à-vis non-Western - where the ecological artifact relayed a new creation story or some variation of a moral understanding between me, the research participants (interviewees) and, most importantly, other Aboriginal students.

Together, the research participants, the artifact and I were designing in triangulation thereby affording me the opportunity to reshape the shared knowledge that went into the making of an ecological object in a refined informative way. Once documented as a collaborative process, the indigenous knowledge I bring forward is no longer classified as anecdotal because it is tied to the understanding of a shared academic experience, which makes it worthy of universal discussion and review.

So, is this design process a way of working out research objectives? Yes. Is it a way to translate culture across architecture, built and unbuilt? Yes. Is it a separate activity that has a justification of its own? Yes.

In other words, the ecological artifact becomes a shared middle ground that takes up space and is informed by the ideas, information and common experiences held between research participants while also connecting patterns of intellectual thought across the dimension of culture.

2.   Elaborate on the 'layering of ideas, information and patterns' found in your ecological artifacts.

First, the way the question is phrased is very much in line with the thinking of Gregory Bateson, whose perspective I have very much come to appreciate.[iii] I acknowledge Bateson for good reason because he championed 'a way of thinking' articulated from a Eurocentric standpoint that runs parallel to many indigenous perspectives. Also, his views are extremely supportive to the intent of my study and are in direct correlation to the way indigenous peoples have always thought about their relationship to the environment and others. This is especially true in terms of knowledge and discipline study where everything is interconnected to a large degree. So, when I now think of an ecological artifact, I look at them in terms of established relationships, connections and patterns informed by a specific context and conditioning of peoples; all of which are factors that have gone into the making of my architectural education and can be promoted as a built and unbuilt process of learning.

In terms of research participation, whether they knew it or not, all participants were, in fact, 'active participants' who offered their 'active trust' – some to a higher degree than others. What this says is that each research participant provided a 'relational idea' as to how they understood an indigenous way of knowing and elaborated on this by offering key 'information' and 'experience'.

This exchange of cultural knowledge and experience can best be described by actively sub-creating a series of counter narratives with the intent to extract a different cultural perspective from each participant. In essence, I was trying to create a new a story informed by institutional conditions through different cultural lenses. As Bateson would say, "Stories are the royal road to the study of relationships. What is important in a story, what is true in it, is not the plot, the things, or the people in a story, but the relationships between them."

It is the relational value, I believe, that we either fundamentally forget about or were unaware of, that exists when we begin to construct a tangible architectural object or idea. We simply are not taught to consider this way of thinking when we enter a school of architecture. As a result, we undermine and forget what our entire 'sense of being' has to offer and its 'sense making' abilities. In addition, we tend to forget that we are as much a part of the object or ecological artifact from its inception, and as indigenous students of design, we struggle with ourselves in the context of a Western tradition. That is, of course, if we are willing to venture into that dimension of thought. Which leads me to the opening of an idea and experience, that is, artifact development allows for 'the notion of 'play' to occur. Here I describe play as an opportunity for the object to reveal a new way of understanding what is important versus trivial, central versus marginal, thereby demanding our attention and concern inclusively towards an Indigenous way of knowing. In further elaborating the concept in relation to Heidegger, play allowed for myself as an artist to entertain the Western/Indigenous cultural paradigm. As such, play shaped an aspect of my culture's sensibility by collecting the scattered ideas and information offered up by the interviewees, then unifying this data into a coherent and meaningful possibility for a greater academic response and cultural action piece.

3.   What is the significance of the two terms 'active trust' and 'the idea of play' in relation to the ecological artifacts you create? Is there a greater underlying message to the work you are creating?

First, until the indigenous student of design begins to think and communicate more critically about who they are and what they can bring to the academy, we will not see an improvement in the lives, living conditions and future aspirations of those that may want to become engineers, environmentalists or architects. All of these are professions that work together and within the context of community at some level and, more often than not, involve some sort of building process or environmental activity that involves 'a local understanding of a peoples' and the objects with which they identify.

So, for me, a way to do this was to take a proactive and collaborative approach amongst scholarly others and not be a mere spectator but, rather, be willing to share my cultural knowledge and the experiences that come with it. Such an approach establishes an active trust in the expert system - the academy – and to keep this system from becoming a passive experience there must be a critical and active learning response that informs the design experience.

In fact, the idea of an active trust is not a new idea.[iv] It comes from a sociological perspective where institutions become reflexive based on the propositions offered by the experts. Throughout this study, the research participants remained open for critique and honest critical judgment towards an indigenous way of knowing, doing and making of architecture.

The result is a set series of ecological artifacts that served not only as pedagogical tools of inquiry but also, as a thought process of shared experience that additionally offered a series of dynamic propositions; ecological opinions and judgments that exhibited moral justification for the making of an ecological artifact. So when I say 'active trust', what I am referring to is the response-ability we have to remain active participants in the academy and to stand by the ethical beliefs we as indigenous students of design will bring to a place called a Canadian school of architecture which, traditionally, has been delivered from a set of Western ideals. That is what makes this research study worthy of discussion and critical of investigation. It plants new seeds into the minds of others.

Second, how was I going to carry out this research in relation to cultured others? I did this through the 'act of play'. In order to understand the significance of play, I had to further explore how play enhances every aspect of learning; moreover, how play may shape one's approach and research positioning with respect to a given environment. This is especially poignant in a school of design where cross-cultural communication is critical to establishing a common ground (or understanding) of indigenous and non-indigenous others.

So for me, the idea of play provides an opportunity to create the necessary foundation for the development of an intellectual, social, cultural, physical and emotional skill set necessary for future success in my training and, hopefully, establishing this notion within a new Canadian school of architecture and my chosen life profession. As well, since most of my research participants were academic professors, the idea of play provided me with an opportunity to further explore the close relationship between symbolic play and literacy development. By this I mean, symbolic play and language can lead to representational thinking which can then be expressed as a developed architectural artifact, such as the spiral piece - gravity and airflow.

4. Continuing with the idea of symbolic play, language and representational thinking, can you elaborate on the shared experience gained from one of the ecological artifacts created *in relation* to the researched participants? Namely the gravity and airflow piece and what you discovered.

I've come to understand that the idea of symbolic play, language and representational thinking is richly informed when conversed about among others, especially when there are cultural differences and intonations in the language they use to explain an idea or want to be understood. I can now say, even within the ideas, information and patterns of difference, there is a sense of opportunity and potential to be discovered. The key is to locating the kernel of an idea within a vast amount of information grounded by the variances is located in the language used to share ideas.

For instance, with the gravity and airflow piece I was able to link a spiraling object in relation to the language or narrative sequencing offered up between Marco Polo and Dr. Joanne DiNova. Through their individual words, articulations and cultural differences, I was able to find power and potential. The power held within each narration was used to describe the making of the object and, equipped with these shared experiences, I tried to locate 'a common ground of understanding'. This power then allowed me to morph a form into existence based on the words used in combination with my understanding of the material.

Figure 14: Initial collaborative mock-up of gravity and airflow piece.

Figure 15: Reconstruction of both 'gravity and airflow' and 'skin and bones' artifacts for display.

As Joanne eloquently put it, "we can spiel, spell and spiral ideas into creation, always finding a way to connect and reconnect the past from the present. This is the indigenous way". Marco intuitively replied, "the spiral is a paradigmatic symbol found in many cultures and serves as 'a way' to go at telling stories at different angles and to different audiences." To me, their words revealed a combined intellectual merit coupled with respect and imaginative qualities held regarding an indigenous way of knowing, doing and making that allowed for them to express these words. In fact, they are symbols borrowed from each way of knowing - *the western rational perspective versus the indigenous* or *the story-telling culture versus the written* – ultimately serving as counter narratives to one another.

As for the morphed forms and material making processes, when an element can be combined with another element of different size, length, color, width or tonal change, a different dynamic is appreciated. Again, this dynamic quality is a result of cultural interpretations provided by Marco and Joanne.

With this specific artifact – gravity and airflow – I raised my entire consciousness 'to a go-between space' where competing forces and natural characteristics found in the material were consistently being discovered at a different level of tactility. I began to feel the embodied energy inherent in a material along with the idea of surface tension that results in the process of making. These are existential forces that must be dealt with. I have realized that most material exercises translate differently across the dimension of culture, each informed by 'a different way of knowing' and is something I want to further pursue in the future.

Although there were a lot of factors to consider conceptually before I started to develop the gravity and airflow piece, it was the process of having to capture the theme of interest that was challenging. As mentioned earlier, I had to find a restored balance between the intellectual, social, cultural, physical and even emotional values associated with the created piece. When I brought my entire body into the design process, I brought emotion, movement, intuitive feelings and, yes, my individual spirit to the textual and contextual forefront, simply because I am informed by the ultimate site of contention – my body.

5. **Speaking to material change, thickness, arching lines and blend of color and grain in the material, can you explain what you discovered when you project something onto another element where you might have an idea or a combination of ideas. Also, what does this do to your process? Elaborate.**

I discovered that by working the material repeatedly there are sequential events being played out and this happened quite naturally, especially after I removed myself from the situation and reflected as to why the material reacted a certain way. This is what I refer to as a go-between space. I also discovered, in the process, that I tried to compensate for some of the discrepancies in the material especially when I tried to capture curves. I discovered this with the larger artifacts: skin & bones and gravity & airflow because the counteracting forces were more powerful than I.

At first the mock-ups were smaller in scale and connections were secondary. When scaled to three (3) times their size, the material became more robust and so the connections were more robust – this affected the way I handled the material. At first it was the experiential qualities gained through the sense of touch then my overall connection to the material that allowed for the experience to grow. This is when my entire body was allowed to play. This was very hard to reflect upon at first because it overly occupied my mind. At first I was consistently approaching the entire piece trying to control the entire form and I found that this did not work. The manipulation required me to balance between visual distance and tactile distance, simultaneously. Trying to balance these two was something that required time to understand and ran parallel to the parameters of the interviewees – non-western alongside western, non-indigenous alongside indigenous. As result, I now understand what it means to literally abstract a form of art from the materials – it required me to pull it out of my entire being and the knowledge gained in the process.

Figure 16: Initial skin & bones mock-up, platform base, balsam wood

Figure 17: Connections are more robust – entire body comes into play because of scaled outcome

Figure 18: Venice Installation approximately 3 times larger, heavier grained material

Later, I became more comfortable by working toward abstraction, looking for a deeper interpretation and literally tying ideas together. In the Cree language we call this *Ba-bish-kan*, which literally means to 'tie it all together'. Again, further implying our symbolic world is not separate from our being, especially in regard to indigenous language: we 'are' language and we 'are' symbolic beings constituted by both.

And when you enter and exit the go-between space you also achieve two other things in the process: 1) you come to place where there is a 'center space' – a type of ascension or *axis mundi* - that grounds you and the artifact, 2) you create a boundary condition where your body is very much the line of focus and threshold. I think it's important to understand this because the material exhibits this understanding through reactionary forces. Therefore, your body is going to react as well. It propels you to respond intuitively under these stresses and whether or not you might want to add another piece, yet, only to discover it doesn't work and positions you and the idea further away.

In terms of practical workmanship, think of it this way: Imagine testing and working with concrete. You can only alter the state of the material (it's rigidity) so much unless you introduce 'a catalyst' to ease the surface tension. I discovered that a simple substance like water provides what you need to arrive at a true form and it is only achievable when done in a very tactile way. This is purely experiential learning and is the point Juhani Pallasmaa and my interviewee June Komisar make, you cannot receive this knowledge in the classroom. Moreover, it is the type of knowledge and experience an indigenous student of design can bring to their learning process and can share with others in the process – it's cultural reciprocity in the spirit of collegiality and that is what I try bring to my process.

6.   So, in terms of experiential learning would you say artifact development is the ideal medium for experimentation?

In the context of this study and from the cultural standpoint from which I am delivering it, I would have to say, most definitely. In fact, this is the exact same question that I posed to one of my interviewees, Dr. Mark Gorgolewski, and I have come to appreciate his perspective in other ways as well.

For instance, Mark replied, "whatever you are drawing you have to know what it is and in order to know what it is, you have to know something about it. So, it is fair to say, I think we need to understand what things are. What are their characteristics? What are the basic components and its materials? What are the elements that we are working with? What is it about these materials, these things that we must know before we can actually draw anything? By understanding the community and its material aspects there is a whole range of research that must be done before you start drawing, unfortunately that is not how architecture is presented at the moment."
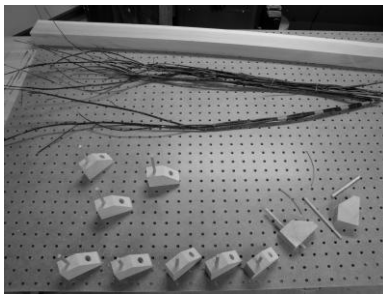
Figure 19: Setting up a jig.
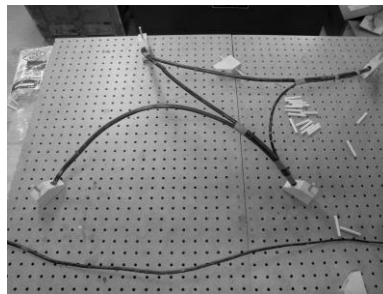
Figure 20: Working with material in a raw state before its refined
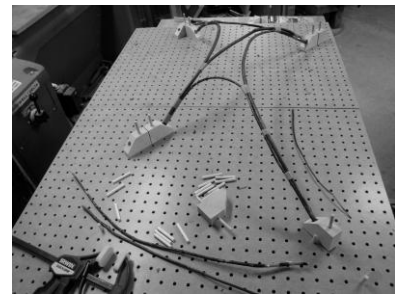
Figure 21: Working with counteractive forces

Again, it's time for a new set of values to inform the way we carry out research in relation to others but be mindful of our individual positions as students and teachers.   For me, that is where the value of my indigenous identity comes into play and where I am situated right now – in the academy.

The dialogue I have established between cultured others seeded the necessary ethical space for experimentation and, therefore, allowed me to recalibrate the way I carried out the study – making mutual adjustments along the way. Furthermore, the dialogue allowed the academy to reframe its obligation towards those individuals not of Western tradition, especially in the context of a Canadian institute where future indigenous students of design need to hear and see another person's level of comfort and struggle in terms of ecological wisdom, something that I have tried to bring to the classroom, studio and academy as a whole.

To say the least, an indigenous way of knowing has always been about experimentation and investigation with people and about materials and it will always be about the continuation of patterns in relation to what we have to work with, most importantly, how we might reposition ourselves alongside everyone else.

I say this again because it is a different type of knowledge informed by a different sense of approachability. It required me to literally go back and take a look at what was already there and to bring it a further step forward. Again, some will refer to it as traditional ecological knowledge because it levels

the playing field and favors western terminology while others might refer to it as indigenous knowledge or a vernacular knowledge. Either way they are all processional thought patterns that embrace experimentation and investigate architectural relationships while raising critical questions as to what is present and what is missing. It is also about creating situational awareness in an effort to understand connections between a set of individuals (my interviewees) and the making of an object informed by two different societies with contrasting worldviews. So, this is why I find it important to name this process 'a way of knowing'. It's paradigmatic and in procession with others at the same time.

What I also discovered through shared experience is that we indigenous people bring our entire sense of being to what is being researched. We dwell fully throughout the research and to many this is a foreign idea to the way architecture has been delivered. I believe Heidegger called it, "Building, Dwelling and Thinking". There are parallels in the way we, as indigenous people, go about it. What I find really interesting is the way Heidegger describes the experience of making architecture in terms of a fourfold. The way I understand the fourfold is that it does not readily fit the dialectical model of thinkers in any rational discussion or science because it's a mythic and mystical way that is far different from the structure of logical thinking.

Apply the latter of these statements to that of Klaus Krippendorff in *The Semantic Turn* and you start to see the value gained from the perspective of cultured others and that is, 'Design strategies that go against the ecological wisdom of a culture are likely to fail'. We only have to look at some of the more recent projects in Canadian regional architecture to see that precedent was set with the way our people related to certain environments, how we adapted and continue to flourish.

7.   How have the ideas, information and patterns extrapolated from the interdisciplinary interviews helped shape your thinking?

For one, I am more comfortable with the cultural knowledge I possess and may want to bring it forward in the future. I now feel more reassured and confident that our indigenous knowledge base is just as valuable as Western knowledge systems if not, more valuable in the context of any North American setting, simply because it originates from here.

Also, by hearing firsthand the viewpoint offered by half of my interviewees, that an indigenous way of knowing can be either an abstract level of thought or an understanding capable of providing the necessary thrust to move forward upon different values systems. Again, this says a lot about the intellectual space we are immersed in and what is presently being offered in a school of architectural thought. So, for me, the interdisciplinary interviews posed deeper questions that should continue to be explored by future Aboriginal students of Canadian architecture.

What I really valued though, were the responses that considered place making, not as a design exercise, but rather as the making of an ethical space where one's experiential learning process is the appropriate design response. Nothing is more valuable than the idea of bringing together diverse societies within an institutional setting that has the ability to contribute towards the development of a cultural framework shared among human communities, especially a campus community where much of my research was conducted.

It is important to acknowledge, that by working in collaboration with my instructors, I was trying to find a balance between different knowledges and values systems where both worldviews share some elements of common good, responsibility, duty and obligation toward each other. In the end, I felt the appropriate design response should be a dialogical model of inquiry informed by sound principles of critical judgment and supported by a shared knowledge system. Added to this is the understanding that by sharing cultural knowledge we are to collectively negotiating the future of both architectural and ecological wisdoms while trying to escape the nuances that strain indigenous-western relationships.

8. What is the single most significant challenge you experienced thus far with your research? Be it personal, in conversation or in exchange with the materials or between others.

When I make an artifact I am constantly thinking about how the work seems paradoxical, illogical in the sense that is performed backwards – the artifact is built first and the dialogue is wrapped around it which is the opposite to way many oral based societies functioned – observe, listen then construct.
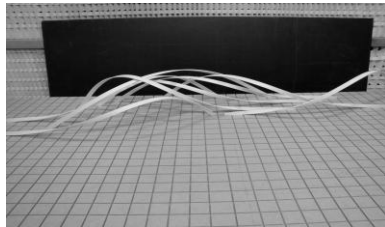
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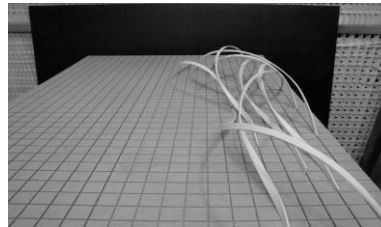
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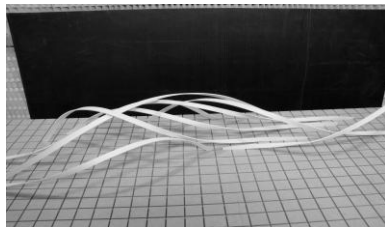
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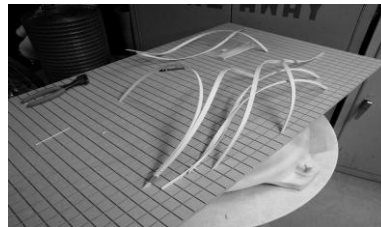
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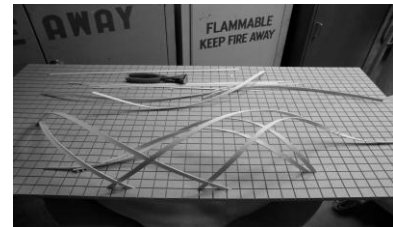
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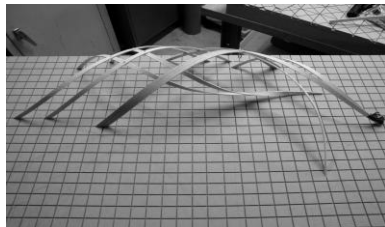
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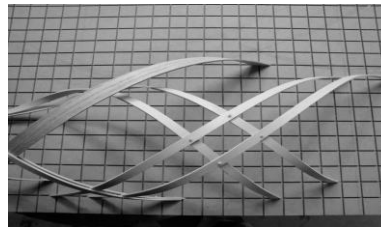
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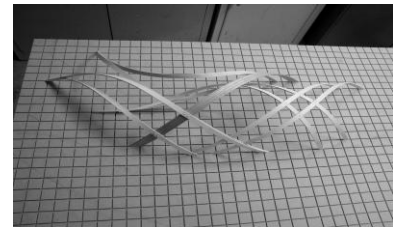
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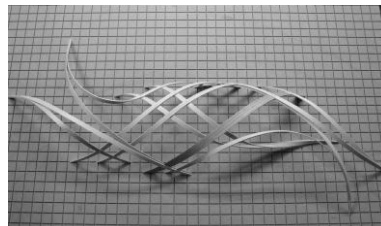
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Figures 22 – 25: Experiment and investigate the material qualities. Figures 26 - 28 Abstract an Idea.
Figures 29 – 32: Tie the object together (Cree: Ba-bish-kan) Figure 33: Live the story of the object.

The question then becomes, "How do I begin a piece of work that has to consider scale, material behavior along with the development of connections while still being able to bring separate worldviews together? Better yet, do I want to bring them together?" This has been the bigger question of my studies and what I have come to expect from myself at an advanced level of architectural study.

So, this is where the conceptual framework I have set for myself deals with *transformation design* – the idea that an architect can become a cultivator of knowledge. And by cultivation I mean the ability to acquire knowledge and perceptions from others then fuse these in the form of a balanced artifactual expression between Indigenous and Western ways of knowing.

I know in the end they will come together in the form of a narrative, which is a given. What I really want to see is how they might align with each other. For instance, one of my interviewees offered up the comment: "try and reconstruct the vernacular mind."

When I reflect on this proposition I now see, what he may have been asking me to do, that is, go deeper into the values system of a person and how they relate to the environment – urban, rural or natural – and see what they tell you. Until we understand the person's ethical positioning that formulates the vernacular mind, and how it might express itself, we really can't change it at all, and the same goes for the indigenous mind.

9.   **A much simpler question. How do you see artifact development in relation to sketching? Are there differences or similarities to one another?**

For me, this goes to the core of my studio experience and the design process I wanted to establish for myself from the beginning of my studies and that is, to foster an alternative approach to architecture informed by the cultural knowledge I possess, which requires a discipline to observe and stay grounded in a non-Western tradition. Yet, it's important to reframe the question at hand because there are a series of case studies that I want to touch upon for added support to this specific question.

First, with sketching, it's two-fold – it has good merits along with limiting merits. I say limiting merits because sketching sometimes hinders the student from approaching the immediacy gained thru materiality, away from the object and further away from communicating our ideas intuitively.

In contrast to sketching, I came to understand it is far more valuable to learn the structural capabilities and performance values of a material before I begin to draw. I know from being trained initially in the field of engineering, that we were always engaging with the material – mainly steel, soil and concrete – and testing their physical properties according to ASTM Standards. In this way, we were best able to capture the structural strengths and composition that a form can endure while exposing the material to a variety of tensile and compressive forces, sometimes even as a composite assembly – concrete and steel. Well, the same analogy could be applied to bending a material under human force – by putting your entire body into action you allow for the tensile and compressive forces within the material to inform your experiential learning process.

As one of my interviewees replied, we have to reinvestigate and re-evaluate building materials because they play a vital role in developing technical knowledge and sometimes these discoveries allow for us to tap into the knowledge held by cultured others - vernacular or indigenous – which, as a result, affords us with a new way to interpret material culture and the values placed upon the material.

Quite simply, all materials carry within them different values sets and potentially different knowledge systems. Therefore, as we develop an active trust with the community we also develop an active trust with the material and what we may or may not do in relation to a community. That, too, is part of the greater dialogue. So the artifact becomes didactic – educational, informative and moralistic. The artifact is intended to teach and to ultimately serve as a pedagogical tool. Whatever is inherent in the material is not a falsity and after awhile you are able to establish your own sense of order with it because of the hands-on approach employed.

This, I believe, is why architectural practitioners such John and Patricia Patkau, along with Richard Kroeker are able to tap into the knowledge of Canada's indigenous peoples and its regional cultures. Each of these practitioners allowed themselves to see and feel a different set of hermeneutic principles while being exposed to a different set of cultural values by working closely with materials, modeling certain projects of traditional forms, either symbolic or totemic in gesture. As a result, each practitioner enriches their independent practice in response to a specific culture or cultural factors that have shaped and sustained Aboriginal culture and societies to this very day.

For many students hand sketching or sketch-up is the immediate response and these methods sometimes position you further away from other areas that are just as important in becoming an architect – such as working with the ideals of a community and the values placed upon a material.

10.   Final question. Would you say that artifacts can establish a means of empowerment for future Aboriginal students and communities?

Definitely, I think it's the same as creating art. In fact, there is a fine thread that runs through the three mediums – art, artifact and architecture – and they raise (or address) the same questions about power and identity but at different scales of social, cultural and ecological response wherein these responses do not take place in isolation. Therefore the notion of community is always involved.

Consequently, in the context of this study, I became very interested in locating this thread of communal discussion because it brings forward broader and more critical questions about developing an architectural criticism for future Canadian Aboriginal students interested in architecture as a career.

This is important because if more indigenous peoples are becoming urbanized and are seeking a better life alongside countless other cultures, especially in university settings, then it is critical their worldview not be looked upon as inferior but, rather, worthy of universal discussion. Especially in a program of study such as architecture that aims to make sense of the world we all live in.

As Gerald McMaster has said, "the making of art and artifact from an indigenous perspective addresses the issue of survival and survivance, where survivance is about the condition of a people." It also speaks to the process of destruction - bringing down barriers - and regeneration all in the same breath.

Finally, in further developing my critical thinking skills I have come to understand that artifact development reveals just enough information to let others to fill in the gaps when speaking to and about indigenous identity. It seems mystical and paradoxical in the same breath and that is what makes it so intriguing to others.

11.   What's the significance of the latter statement?

Well, it's more like a continued narrative: there are moments of discovery, and there are moments of intense relationship and empowerment struggles over what constitutes an indigenous 'way of knowing'. For example, someone might say, "What differentiates an indigenous way of knowing from a vernacular mindset?" or "What differentiates an indigenous logic to a symbolic one?"

For one, it's in the narrative, how it is told and by whom. Second, by introducing the subject of material culture from an indigenous perspective, where the development of an artifact locates its precedence in the history, language and memory of a people what is also presented is a greater sense of cultural awareness and education for everyone.

I'll admit, there were moments throughout the artifacts I created where a narrative is clearly not there and that's just part of the learning process and by over thinking the process too far often reveals very little. So for me, I aimed to explore a series of shared ideas then tried to express these as both a built and unbuilt process of research. That is where the idea and research objective of developing a critical architecture is most valuable to me. It allows me to see how other people relate to an object of discussion while trying to articulate it with a different type of cultural knowledge not present in the Canadian School of Architecture.

Chapter Notes: A Reflective Piece of Design Process

[i] The term 'Traditional Ecological Knowledge' is important for the consideration of a broad range of questions related to nature-human relationships. In the exploration of environmental ethics, indigenous peoples and traditional ecological knowledge have attracted considerable attention from both scholars and popular movements. Traditional ecological knowledge may be defined as a cumulative body of knowledge, practice and belief evolving by 'adaptive processes' and handed down through generations by cultural transmission (in oral based societies), about the relationship of living beings (including humans) with one another and with their environment.

[ii] The need to reflect on self as a means of self-development is widely endorsed in schools of education; moreover, it requires educators to learn about what they know and uncover their own ignorance. This uncovering can prove to be a positive socio-cultural force if a decision is made to use the opportunity to move forward thereby, creating agents of change and learning strategies in the process.

[iii] Gregory Bateson wrote 'Steps to an Ecology of Mind' in which his central message was that relationships are the essence of the living world, and that we need a language of relationships to understand and describe it. One of the best ways to do so, in his view, is by telling stories.

[iv] According to Beck and Gidden in Reflexive Modernization (1994), the term 'active trust' is based on the creation of semantic worlds (a system with provision for natural languages) informed by an ethics of care.

Chapter 5 – REFLEXIVE CASE STUDIES

All architecture proposes an effect on the human mind and should not be considered merely as a service to the human frame. Therefore, architecture as a style has a means of integrating society within its own histories and is a mode of continuity across time that is at once a form of historical knowledge and a concrete link between past, present, and future. To perform this function, architecture cannot simply copy an earlier style. It must be conceived in the style indigenous to a nation.

John Ruskin, Lamp of Sacrifice, 1849

5.0.0   The Reflexive Binary

Up until his point much of the report focused on the exchange of cultural knowledge among six interviewees speaking to the idea of an indigenous worldview and way of knowing.

Midway through, the report also entertained the notion of a reflective design process where an in-depth analysis was provided into the existential experience gained while constructing a series of ecological artifacts. Again, the intent of this exercise was entirely premeditated, thereby allowing the researcher to develop a deeper understanding of what it means to 'propose an effect on the human mind', that is, put in place a cultural response (or benchmark) that would continue to inform a historical linkage to be shared and moved forward by future Aboriginal students of architectural design.

Now that this is understood as two-way process (or binary), this chapter aims to bridge the Indigenous paradigm even further by elaborating on the concept of reflexivity by making use of formal design strategies utilized by non-Aboriginal Canadian Architects seeking to gain a foothold into an Aboriginal worldview. Derived from Latin terms the 'reflexio' and 'reflectere' mean 'to bend back on' and in the Cree language this type action (or cultural response) is called *Wa-pi-mi-sow*, which, literally, means 'to see a reflection of oneself either physically, mentally or premeditated.' This type of cultural response or cultural practice is synonymous with most sacred ceremonies because it involves our entire being throughout the process.

Also, it is important to re-centre the report at this point because the following section exemplifies how contemporary Canadian non-Aboriginal architects are attempting to draw attention to the use of building materials that foreground the 'textual', set against the backdrop of an Aboriginal condition. Especially when it comes to Aboriginal/non-Aboriginal relationships and how these formal design strategies have reduced the transparency, style and the synthetic roots of their craft in order to locate a balance between the symbolic and the appropriation of applied technologies and building methods.

In relation to an indigenous worldview and way of knowing the case study then becomes most valuable wherein each scenario serves a specific purpose within the overall scope of the research, that is, to reveal a set of cultural patterns, reflexive strategies or ecological relationships from study to study.

Again, as stated by Groat and Wiley (2002), "there is no quick and easy formula for making the choice between single- and multiple-case design, or about the number of cases necessary for a multiple-case design. But two principles are most paramount:

1. The nature of the theoretical or research questions, involved; and
2. The role of replication in testing or confirming the study's outcomes, which may even involve having to utilize some of the researcher's own creative past and present activities.

These are the case studies:

5.1.0 Case Study: Canadian History Seminar Exercise

In the course of developing this study a group seminar discussion had presented the opportunity to explore six (6) Canadian Aboriginal art, architecture and writing projects measured against six (6) provisional polemic points of Kenneth Frampton's take on Critical Regionalism. The intent was to arrive at a cross-cultural understanding of the reflective strategies associated with each project and how student's understanding relates to another's. This exercise served as a prime opportunity to develop a cultural matrix in collaboration with others that would later be applied to the six (6) research participants throughout the course of this research study.

Although each student participant arrived at their own understanding of an Aboriginal project of shared interest, the matrix served and fulfilled the following functions:

- The matrix approach highlighted the cultural aspects associated with an indigenous way of knowing through art and architectural events that have shaped and, in some instance, reshaped Canadian Aboriginal traditions along with the notion of place making where the added impact of Western structures have misrepresented the development of Aboriginal culture in contemporary settings.

- The matrix serves to be an interesting communication device because of the cultural framework established around the process of research as a means of supporting collaborative efforts.

- The matrix served as a process of education to unite both the function of restoration of Aboriginal identities, forming the necessary framework for research participants to participate fully and measurably in intercultural dialogue. As a result, a series of shared research relationships held between the researcher and all participants were encapsulated.

- The matrix, which, ultimately, aimed to promote intercultural dialogue, was able to build upon common principles and goals, thereby locating each case study in a contemporary specific Architectural response.

- The matrix exhibits that indigenous knowledge and ways of knowing are more than capable of occupying a particular space within a Canadian school of architecture. Proving, within every culture or society knowledge is a source of power with innovation, capable of moving social forces in the direction of mutual development and understanding towards each other.

5.1.0 Case Study: Canadian History Seminar Exercise

Points of Interest

Projects of Aboriginal Interest	Information and Experience	Space / Place	Typology / Topography	Architectonic / Scenographic	Artificial / Natural	Visual / Tactile
Seabird Island School, B.C. **Patkau Architects** **MIKE BLOIS**	Level of connection to outside is determined by orientation	34	Forested geometry layout evident with Aalto's space topologically	Totemic elements are visible in the construction and in relation to the site	Timber frame building expresses the natural finish of its materials	Cedar shingles cladding weathers to a deep red-brown based on orientation
Prototype for New Understanding **Brian Jungen** **SHARON LEUNG**	Art as a response to Aboriginal Cliches/Stereotypes powered by media.	Dissecting universal commodities to create art pieces that reflect of place and cultural timepieces	35	Art reflecting realistic landscape of place, landscape of econmoy and social consequence. Not the tourist/artificial landscape.	Motifs of Change - a dialectic view of culture that perpetually challenges and resurrects the past	Materiality, craftsmanship sensitive to the human body.
First Nations Garden Pavillion **Saucier + Perrotte** **JUSTIN YEUNG**	In Aalto fashion the architecture attempts to mediate between man and technology and support his social and cultural integration.	Screened with a mat of lashed tree branches that provide shading along the south-west facade, it merges with the surrounding forest and exploits the ambiguity of inside and out.		36	Instead of being accepted as an autonomous process, the cultural aspect has been turned into an object of deliberate fabrication.	
Cultural Continuity: Mik'maq Precedents **Richard Kroeker** **KARL SARKIS**	In Mi'kmaq culture, the symbolic develops as a response to how one collaborates with nature to take care of one's needs.	Minimal use of universal materials to suggest a building is stemmed from mass production	Site holds fundamental information; building before drawing	37	The building does not hide its relationship with the natural world	The tactile and sensual experiences are heightened by the building's setting and exposing of natural material qualities
Views on Contemporary Aboriginal Art **Gerald McMaster** **MARK HADDOCK**	38	Place of activity: Aboriginal artists are coming to realize these places called Indian Reserves are complex and two-edged; preconditioned for its being; in terms of survival and survivance. Identity has always been an issue for survival; survivance is about the condition of the peoples.		Aboriginal art, in all its diversity, articulations, and representations of tribal realities, will always be at the very root of a Canadian Identity.	There is the potential for Aboriginal artists to create within two diffferent contexts which have very differet realities to draw from - the Native world and non-Native world.	1980 saw a turnng point in Northwest Coast Art - one of transformation and metamorphosis in a long history of change.
Nk'mip Desert Interpretive Centre, B.C. **Hotson Bakker Boniface Hadeden Architects** **BRETT FINE**	Representation of culture values and community's future goals	Place where a Journey begins	Reflection of the Unique Desert Landscape	Rammed Earth Wall against Mountain range vistas	Sustainable Concept with Interaction b/w Climatic Elements	39

Table 7: Student Matrix

Re-Contextualizing the Architectural Learning Experience: The AlterNATIVE Perspective (Part V)

* See List of Figures for images 34 -39.

5.2.0   Case Study: Patkau Architects, Seabird Island School

The tectonic display of Seabird Island School could not have been created without a thorough understanding of Alvar Aalto's organization of space topologically, which is rooted in a Finnish tradition on the basis of an amorphous "forest geometry", as opposed to the "geometry of town" that tends to guide Eurocentric thought (Pallasmaa, 1988).

Key to this case study is the fact Patkau Architects were capable of establishing an understanding of culturally adapted architecture that reverberates with tradition. In other words, it fuses and reflects the timeless vernacular idiom where, consequently, an authentic culture-specific architecture could not have been invented but rather, it had to rediscovered in order to exhibit and bring to the forefront aspects of Aboriginal identity and tradition, either through explicit characteristics of style or more convincingly, through the hidden dimensions of Aboriginal culture.

The formal design strategy employed by the Patkau Architects on this project involved learning directly from totemic elements associated with early styles of West Coast architecture wherein, their architectural thinking had been reshaped by a deep respect for the craft of hand construction, namely, where the tectonic was the primary vehicle for developing a theoretical and cultural underpinning for this piece (LuCuyer, 2001). Thus, revealing Patkau Architects achieved their understanding of an Aboriginal worldview through a type of hand crafted construction exercise prompting a cultural response from the community that allowed for a greater cross-cultural understanding to take shape.

Figure 40: Totemic elements associated with early styles of West Coast architecture.

Figure 41: Tectonic quality through the use of a variety of struts, beams and trellises.

As with other projects, Patkau's working process begins '*with a search for the found potential*', that is, for those aspects of a project that can generate a unique order '*shaped by the cultural circumstances'* of the site and its situational ingredients. Moreover, this found potential is discovered through close scrutiny of the physical, social and cultural aspects of the Seabird Island community and its surrounding typological conditions (Patkau, 1994).

Figure 42: Depiction of Supernatural Salmon.
Artist: April White, Haida Nation
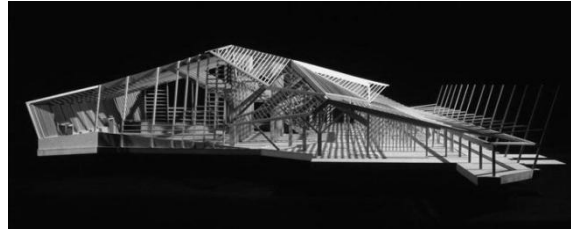
Figure 43: Modeling Seabird Island School to the
particularities of an Aboriginal worldview

The piece, I believe, can best be summarized as a conceptual and idealized purity that explores 'the other', reconciling the objective with the subjective, and the generic with the particular. As with much of their earlier work, Patkau's investigative methods are supported by a tectonic language or stylistic variation that searches for the unusual in the common everyday systems of building. Through the conceptual and tectonic heterogeneity Seabird Island School is appropriately rooted in the contingencies of a complex Aboriginal worldview.

5.3.0   Case Study: Richard Kroeker, Cultural Continuity, Mi'kmaq Precedents

Richard Kroeker states, "symbolic gestures are not a rhetoric of shapes and forms that signify a culture but rather, they develop a way for which First Nations people may work with the materials around them and recognize in it characteristics that reverberate one's relationship to a specific place' (Macy, 1998).

This case study implies that symbolic gestures *fused* with a local understanding of material *reflects* the timeless indigenous/vernacular idiom. In this view, the making of an appropriate building technology and response is not neutral but rather, is quite dynamic, fundamental and an important characteristic of reflexivity. For Kroeker, this served as *a gateway into early Mi'kmaq culture* and the most ecological and geographically contingent means of establishing a cultural economy to construct with.

The primary element of Kroeker's technique involved the use of small scale round poles, often referred to a pre-commercial thinnings, derived from plantation forests (McMinn, 2005, Polo, 2005). Similar to the process employed at Seabird Island School, by investigating local typologies, craft traditions informed by local indigenous practices and the cultural values informed by the topography, the most appropriate site is capable of providing the necessary tools, materials and knowledge to reconstruct with because it holds all the fundamental information for an appropriate response.

Figure 44: Bridge Structure based on Mi'kmaq detailing

Figure 45: Traditional bent wood tensile framing (ceremonial structure)

With Kroeker we find the richest reflexive strategy because of his ability to showcase a variety of permutations with the use of single elements where each thinning member becomes an extended member (or template) for the next. Such an approach not only corresponds sequentially to the design process but also addresses the theory of Reflexive Regionalism advocated by Timothy J. Cassidy because it exhibits the necessary ingredients and potential to become regional over time.

Yet, Kroeker also reminds us of the notion that architects continuously tap into an 'image bank' of sorts to re-contextualize and refine their approach to local settings that exhibit similar temporal qualities established elsewhere. As a result, architects employ cultural images as a trigger or starting point for case-specific research. F. Downing (1992), in '*Image Banks: Dialogues between the Past and the Future*', describes this experience as a repository of stored images of buildings, places, events and experience, including their own past work. Architects like Kroeker probe their memories for portions of their knowledge with similar features seen elsewhere in order to recognize or identify aspects of a 'situation' they may have encountered or seen elsewhere. The dynamic, sense-making nature of this process may be represented in terms of story-making in relation to decision-making, and, in relation to design, is deemed a type of premeditated conversation (Schön, 1987).

Figure 46: Hallow Spruce, 1988
Richard Harris, England

Figure 47: Beaverbank Project, 1998
Richard Kroeker, Canada

Figure 48:Beaverbanl project upon completion

Take for instance, the preceding images. On the left, Richard Harris's organic 'Hallow Spuce' (1988) constructed in Grizedale Forest, Engalnd makes use of local materials with minimal impact on the environment and exhibits similar plantation forest material - small scale round poles - and techniques involved to develop Kroeker's Beaver Bank House (1998) in Nova Scotia, Canada. Each project is located relative to one another in terms of latitudinal, forest conditions and climate but situated differently in terms of temporal understanding.

5.4.0   Case Study: Suacier + Perrotte, First Nations Cultural Pavilion

This case study has been described as such, "In typical architectural fashion when confronted with the problem of designing a building for a diverse group of people whose existence was traditionally focused on the natural landscape, architects Saucier + Perrotte chose first to study the land. Seeking to develop a scheme that captures the significance and preservation of site, a long, thin ribbon of space defined by a roof was envisaged as a casting of the path. Warped to acknowledge land contours and the bed of an existing stream, this roof was cast in concrete and lifted high into the trees. Supported on slender randomly distributed columns of self-rusting steel, it forms a canopy threaded through the forest. By carefully scrutinizing the form of the land and considering its particular significance to the First Nations' people of the region, this new pavilion radically transforms the programme of the building to create an educational focus and a distinct place in a fragment of forest at the heart of the city (Carter, 2001)."

This contemporary piece draws a parallel perspective to the art of Brian Jungen in that the cultural element has been turned into an object of 'deliberate fabrication'. Here Saucier + Perrotte attempt to mediate between the human-nature relationship with technology and support the notion of social and cultural integration by becoming universal through synthetic contradiction. Synthetic contradiction in the sense screened mats made with lashed tree branches placed 'in the horizontal' provide shade along the southwest facade, which falsely 'attempts' to merge with the surrounding forest only to exploit the ambiguity of and inside-to-out situation.

Figure 49: Deliberate fabrication with the use of lashed tree branches

Figure 50: Overshadowing ribbon of concrete placed 'up' and 'away' from site.

To some extent Saucier + Perrotte succeed in drawing attention 'to the use of building by using conventional building materials' and 'to the orientation and placement of these materials' that foreground 'textual' qualities of the site only, but fail considerably to capitalize on formal strategies that 'reduce the

transparency of the style or craft'. Where most Aboriginal projects establish a sense of engagement or relationship with the site, the First Nations Garden Pavilion places it self 'up' and 'away' from the topography. As a result, any potential within the site, whether it is scenographic and natural, is significantly overshadowed by a ribbon of concrete that has no cultural connection associated with the Aboriginal peoples of this region.

On a deeper level of political positioning the project serves to be invigorating based on the melding of local cultures - somewhere in-between early French settlement and historic First Nations affairs in relation to traditional territories affiliated with Mohawk culture - somewhere along the melding of a socio-political construct, perhaps along the lines of a Metis worldview.

5.5.0. Case Study: Brian Jungen, Prototypes for a New Understanding

Earlier in the report the notion of art, artifact and architecture was introduced with the notion that objects of creation are mere proliferations that occupy a specific time and space in relationship to people and place. With Brian Jungen, who is of European and Native Canadian heritage (his father, a Swiss, and his mother, a member of the Dunne tribe) we find a fusion of work that mixes elements of contextual Aboriginal artifact imagery with "iconic" elements of global mass consumerism - the red, black and white shoes of Nike - otherwise known as Air Jordan's.

This case study is very much responsive to the concepts embedded within Kenneth Frampton's Critical Regionalism where Jungen's reflexive cultural strategy is one that opens to a *world culture,* as it is a vehicle to *universal civilization.*   As described by Gerald McMaster, Jungen utilizes his cultural background 'to gain control' and 'premeditate' his constant repositioning between the urban centre, the marginal Indian Reservation, back to the urban centre and onto the world platform. In doing so, it is a strategic practice where he is always willing to accept new experiences, new ideas, new knowledge and the willingness to explore other cultural viewpoints.

Figure 51: Haida Totem Poles Queen Charlotte Island 1890's

Figure 52: Jungen's totems allow us to see that the design embroideries of golf bags resemble the more deliberate lines and curves of Nisga'a, Kwakwaka'wakw, or Haida traditional monuments.

With his installation titled, '*Prototype for a New Understanding'* and other works that identify with totemic elements of West Coast Aboriginal Art, Jungen constantly juxtaposes the use of consumer products as a means to dissect global commodities and in return, creates an art that is synthetic, reflective and driven to respond to real social, cultural and economic landscape conditions associated with a contemporary Aboriginal condition. Therefore, the art literally masquerades as an unexpected counteractive response to Aboriginal clichés and stereotypes. As for a visual experience, *Prototypes for a New Understanding* allows for the audience to withdraw the figural and the tectonic elements therefore, allowing the artifact to

become legible in its presentation.   Without this read his art becomes purely figural and loses its critical potency – deemed an essential component in the making of a multi-layered Aboriginal identity.

Figure 53: Traditional Hamatsa Mask. Date unknown

Figure 54: Prototype for a New Understanding. Brian Jungen, 1998

By viewing his work as a form of art, or by philosophizing on the overall nature of the synthetic contradiction he places in the foreground, we observe thru Jungen, and by his own contrast, does so in order to represent what he sees in a new form. In doing so Jungen displays a higher degree of cultural continuity with an understanding that exhibits a difference between traditional and contemporary art forms associated with West Coast Aboriginal Art and how it has evolved. Again, implying Aboriginal identity and its knowledge base exhibits potential to become regional over time.

Moreover, it is fair to say, Jungen's artistic perspective on the world entertains the laws of synthetic logic[i]. For instance, Jungen sees that with a traditional Aboriginal viewpoint labeled "A" is not simply "A", but rather, it has the ability to go beyond itself into the domain of a counteractive response, say, "-A", therefore, he successfully depicts this as a type of reflexive logic throughout his artwork. As a result, Jungen as an observer of his own artwork is not pre-occupied or primarily concerned with determining what it represents through rational analysis but rather, attempts to experience the work in such a way that the synthesis of his European and Native Canadian heritage become part of the larger 'textual' and 'contextual' experience.

Chapter Notes: Reflexive Case Studies

i Synthetic logic is defined as a non-standard system of paraconsistent logic, In other words, a logical system that attempts to deal with contradictions in a biased way. In this case study, purposefully playing on the idea of Aboriginal identity, perhaps, therefore allowing for synthetic logic, with contradictions attached to exist as a meaningful component of language and typology. Moreover, synthetic logic is based on the law of non-identity (A is not A) and the law of contradiction (A is −A). These laws are the exact opposite of the two basic laws of standard, analytic logic, exemplifying the law of identity (A is A) and the law of non-contradiction (A is not −A).

Chapter 6 – THESIS SUMMARY

The architect's professional knowledge is enriched by contributions from many disciplines and different fields of knowledge and all the works produced by these other arts and humanities are subjects to the architect's scrutiny. This expertise derives from practice and theory wherein, practice consists of the ceaseless and repeated use of a skill by which any work to be produced is completed by working manually with the appropriate materials according to a predetermined design. Theory, in contrast, is the ability to make clear and explain works created by such manual dexterity.

The Education of the Architect
Vitruvius, 25 B.C.

6.0.0 Data Analysis and Recommendations

According to Linda Groat (1992), on Re-conceptualizing Architectural Education: The Necessity for a Cultural Paradigm, "Unfortunately, few architecture students are likely to learn about or reflect on the implications of cultural trends in the context of their architectural education simply because, most architecture schools tend to remain intellectually isolated from the larger university setting: and certainly, the peculiarities of the studio format and the charette phenomenon reinforce this distance. As a consequence, the kind of intellectual dialogue that would expose students to significant trends and innovations in other disciplines is often lacking. A culturalist or alternative perspective on architecture, however, would implicitly recognize the fundamental necessity both of conceptualizing architecture in the context of significant cultural trends and, therefore, of being engaged with the full range of disciplines and research methods of the larger university."

Therefore, before closing out the latest chapter in a larger body of thematic work titled: *The AlterNATIVE Perspective (Parts I-V)*, it is worth taking a moment to review a few research activities or methods of the larger university and how the definition of these activities partially lend interpretation, meaning and support in the content of this report. More importantly, how these research activities serve to compliment and frame the academic and cultural knowledge offered by the six (6) interviewees to extent or another. For instance, if:

Environmental Research investigates the physical context of the built and unbuilt environment, opening timely questions about the influence of society on any given environment and;

Social Research examines the behavior of people who inhabit and use the spaces of the built and unbuilt environments and;

Cultural Research studies the norms and relationships of the inhabitants associated with specific place in regards to past, present, and future activities and actions and;

Educational Research provides opportunity to examine the pedagogies of society, which, traditionally have been explored in relation to people in learning situations and environments (including a school of architecture), then…

It is fair to say, all research that is carried out in relation to people, place-making and is informed by spaces of engagement where ethics informs our personal and shared capacities can be considered political by human nature. Therefore, when Aboriginal researchers construct their own questions, they will tend to bring a broad holistic perspective to the process, one that is interconnected by the very nature of their ethos – *sprit of a culture* - and the existence of their personhood in relation to others. This serves to include an alterNATIVE learning style and worldview that is very much interconnected in the ways in which those research activities mentioned above serve to compliment each other.

Therefore, is it correct to say, as all of the world and its complete naturalness is connected - triangulated very much like the mind, body and spirit and very much triangulated like the research participants, researcher and created ecological artifacts developed during this reflective study. Yet, as discovered throughout the course of this unprecedented report, having to locate these interconnections and patterned relationships required a long line of obedience in order to cultivate a richly informed, defined and intercultural response. As one interviewee adamantly stated, 'the research and design methodology you are contending wherein artifact development is used as pedagogical inquiry is informed by real tension in terms of the temporal (the notion of time, identity and relationship to environment) and deals with degree of cultural continuity at very different levels of thought'. Take for example:

Martin Heidegger (1936), in *The Origin of the Work of Art*, writes "the essence of art, on which both the artwork and the artist depend, as an opportunity for works of art to show us a new way of understanding what is important and trivial, central and marginal, to be ignored or demanding of our attention and concern. Further elaborating, artists do this by giving us works of art that serve as a cultural paradigm. As such, the work shapes a culture's sensibilities b collecting the scattered practices of people, unifying them into coherent and meaningful possibilities for greater action, and epitomizing this unified and coherent meaning in a visible style. Style, in this instance, serves as the basis upon which old practices are conserved and new practices are developed. The people, in turn, by getting in tune with the artwork, can then relate to each other in the shared context of the work."

Linda Groat (1992), in *Re-conceptualizing Architectural Education: The Necessity for a Cultural Paradigm* adds that, "current research practices in architectural education would be usefully modified by adopting a culturalist paradigm, thereby creating and educational milieu better able to engage and embrace the transformation of contemporary cultures."

Finally, a more recent perspective offered by Polo and McMinn (2005), in *41^0 to 66^0: Regional Responses to Sustainable Architecture in Canada* where, "the time has arrived for an approach to sustainable architecture that reaches beyond technological considerations and addresses a variety of intangible but essential cultural values. In doing so, a broader critical discourse is taking shape by engaging sustainability not only as a technique or method, but a cultural paradigm possibly inspiring future and contemporary architects to establish their own distinctive cultural forms and identity."

It then becomes evident that the need to *"Re-Contextualize the Architectural Learning Experience: The AlterNATIVE Perspective (Part V)"* affords the academy with opportunity to further establish this cultural paradigm in hope of creating an enduring intellectual space upon which future indigenous students of design interested in the profession of architecture can move forward. In terms of a contemporary indigenous response and criticism, the value of an alterNATIVE architectural process is exhibited in the ability to find and re-arrange a number of ideas and beliefs offered by others across the academic landscape. Therefore, preserving and situating an indigenous knowledge base in the academy while providing additional insight for future Aboriginal students to navigate their current course of study in relation to a wide range of disciplines and research methods made available to them.

This demonstrates that The AlterNATIVE Perspective is worthy of critical discussion and review, and is adept enough to re-contextualize a much needed learning environment while seeding the creation of an intellectual space for indigenous forms of knowledge and language for immediate curriculum development in a Canadian school of architecture. Consequently, on the basis of this report the following recommendations are put forward. That Ryerson University, Canada's newest school of architecture in 35 years facilitates opportunities:

1. **Where the Etymology of Design does not exclude an Aboriginal worldview, thereby allowing future Aboriginal students to comfortably express the embodiment of their cultural values and their indigenous knowledge base.** The perception that indigenous languages are anecdotal is absurd. Many would agree it merely requires a shift in mindset and dedication by Aboriginal speakers to create a presence in the academy in their particular language.

2. **For Aboriginal students to collaborate with Aboriginal instructors across the academic landscape, namely, assist in the development of Cultural Capacity that would foster a sense of cultural reciprocity for everyone.** A focus on collaboration would also generate a more receptive framework for linkages to be established from discipline-to-discipline wherein Aboriginal students are situated therefore, allowing for "larger conversation" which is central to the very idea of culture.

3. **The development of a "Cultural Framework" by which the transmission of Aboriginal values and traditions can be explored, debated and shared amongst cultured others.** Likewise, indigenous students from other departments should be welcomed into architecture classes and encouraged to challenge the established architectural paradigms from their particular culture and vantage point.

6.1 Final Thoughts

As discussed earlier, the advantage of utilizing a cultural matrix to summarize the report allows for the beginning of a collaborative framework where The AlterNATIVE Perspective may continue to engage with certain aspects associated with an indigenous way of knowing; moreover, build upon common principles associated with Western and Indigenous worldviews.

The use of a cultural matrix also demonstrates an Indigenous culture's societal knowledge is a source of power with innovation, capable of narrating and moving social forces in the direction of better understanding of Canadian Aboriginal cultures in the service of mutual interest.

Wherein each interviewee plays the role of an ecological mind, offering up cultural wisdom, academic advice, experience and struggle it is the binary (or twofold) held between different cultural mindsets that inform a shared understanding – *everyone performs function and everyone has a place to do so.*

Finally, the content displayed throughout the matrix is expressed as an act of knowing, doing and making architecture as an interdisciplinary mode and is supported with previously established works, research writings, and developed artifact pieces along with reference to iconic images portraying indigenous time pieces. And somewhere in-between these findings, is the role of Indigenous language.

Signifying, Cree words such as *Ki-we-pa-ki-tini-ke-win, Na-wa-so-ni-ke-win*, *O-shi-chi-kay-win*, and *Wa-pi-mi-sow* serve to remind us there is an AlterNATIVE perspective informed by an etymological approach to architectural design waiting to be rediscovered.
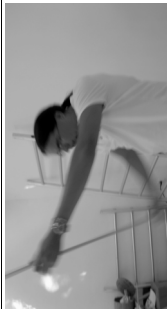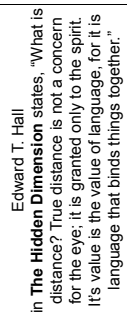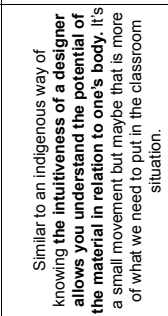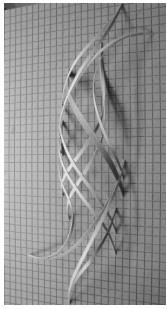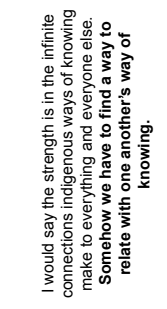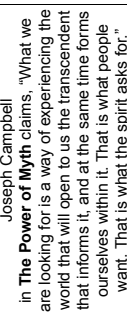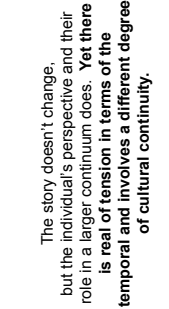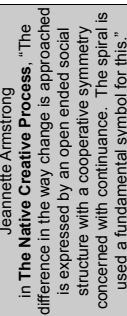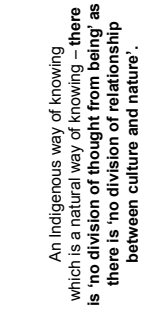
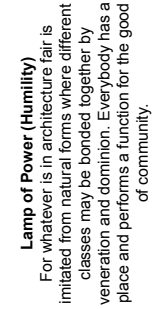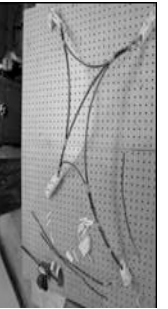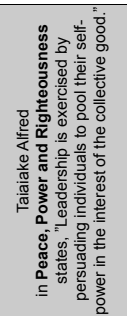|	The Ecological Mind	The CULTURAL MATRIX expressed as an Act of Knowing, Doing and Making Architecture		Recommendations
Lila Pine	It is about networking, **making connections through experience design**, a type of embodied interactivity, which relates very much to an Aboriginal way of knowing.	**O-SHI-CHI-KAY-WIN:** a Cree word that describes 'the act of making an object in connection to one's entire Being'. To take from the world and sub-create; make use of all that is natural including your spirit.	I do think **there are underlining tenants that have similarities or at least certain ways of being in the world that we share** and these contribute to our ways of knowing that are the same.	Edward T. Hall in **The Hidden Dimension** states, "What is distance? True distance is not a concern for the eye; it is granted only to the spirit. It's value is the value of language, for it is language that binds things together."	**Facilitate opportunities where the Etymology of Design does not exclude an Aboriginal worldview thereby allowing future students to comfortably express the embodiment of their cultural values.**
Dr. June Komisar	In architecture school you have this disconnect. A situation where the student is not working in a primal, personal or immediate way with the materials.	56	Similar to an indigenous way of knowing **the intuitiveness of a designer allows you understand the potential of the material in relation to one's body.** It's a small movement but maybe that is more of what we need to put in the classroom situation. 55	Kenneth J. Chakasim in **The AlterNATIVE Perspective (Part V)** states, "To live the story of the object is to understand the body as the essential site of interest. With this understanding I am afforded the opportunity to introduce my indigenous culture as the primary catalyst to bridge the mind, body and material relationship."	
Dr. Joanne DiNova	I think we were hugely abstract thinkers already, and quite comfortable with it. For traditional indigenous thought **there wasn't a division between the abstract, the material and with the spirit,** as we have come to see in the West.	**WA-PI-MI-SOW:** a Cree word which means ' to see a reflection of oneself either physically, mentally or premeditated.	I would say the strength is in the infinite connections indigenous ways of knowing make to everything and everyone else. **Somehow we have to find a way to relate with one another's way of knowing.** 58	Joseph Campbell in **The Power of Myth** claims, "What we are looking for is a way of experiencing the world that will open to us the transcendent that informs it, and at the same time forms ourselves within it. That is what people want. That is what the spirit asks for."	**Facilitate the development of a Cultural Framework by which the transmission of Aboriginal values can be explored, debated and shared amongst others.**
Marco Polo	Where there might be a model or framework a person can work from this will allow them to go over their material but they are not going at it in the same way.	59	The story doesn't change, but the individual's perspective and their role in a larger continuum does. **Yet there is real of tension in terms of the temporal and involves a different degree of cultural continuity.** 60	Jeannette Armstrong in **The Native Creative Process,** "The difference in the way change is approached is expressed by an open ended social structure with a cooperative symmetry concerned with continuance. The spiral is used a fundamental symbol for this."	
Dr. Lynn Lavallee	Our traditional teachings: I bring these into my research so they become a code of conduct by which I carry out my profession. **We are guided by these ethical principles.** In doing so there is a piece of reciprocity created.	**KI-WEPA-KI-TINI-KE-WIN** A Cree word that describes 'the act of sharing something' and become larger in the process. It expands the person in its exercise.	An Indigenous way of knowing which is a natural way of knowing – **there is 'no division of thought from being' as there is 'no division of relationship between culture and nature'.** 61	Jon Hawkes in **The Fourth Pillar of Sustainability** states, "Being able to articulate shared goals, knowledge, values, beliefs where meanings are consistently shifting and altering is culture at work."	**Facilitate opportunities for Aboriginal students to collaborate with Aboriginal instructors across the academic landscape - Build Cultural Capacity.**
Dr. Mark Gorgolewski	How do we reinterpret vernacular knowledge? It means having to work with the needs of the community while **learning the core characteristics of the material and the cultural values placed upon** them before we move forward with a practical application.	62	**Lamp of Power (Humility)** For whatever is in architecture fair is imitated from natural forms where different classes may be bonded together by veneration and dominion. Everybody has a place and performs a function for the good of community. 63	Taiaiake Alfred in **Peace, Power and Righteousness** states, "Leadership is exercised by persuading individuals to pool their self-power in the interest of the collective good."	

* See List of Figures for images 55 - 63

Table 8: Thesis Summary Matrix with Recommendations

Re-Contextualizing the Architectural Learning Experience: The AlterNATIVE Perspective (Part V)

CHAPTER 7 – LITERATURE REVIEW

"When certain human qualities are worshipped in isolation they become weaknesses, even forces of destruction or self-destruction. In short, they become ideologies. Yet, it is our different qualities that give us the intelligence, self-confidence and practical ability to think and act as responsible individuals. Through these shared qualities we have the ability to shape events rather than be shaped by them. "

John Ralston Saul, On Equilibrium

7.0.0   Literature Review

This literature and annotated bibliography review serves to provide a summary and inventory of all published materials utilized to support the overall study. In some way or another each title, author or interview provided the necessary insight and understanding to further develop The AlterNATIVE Perspective (Part V) that continues to challenge the contemporary wisdom offered by a Canadian school of architecture. In doing so, the alternative approach taken continues to provide a critical understanding of the complex nature of an Indigenous/Western relationship worldview. As a result, this approach provides a renewed point of departure for future Aboriginal students of architectural design to advance the Aboriginal condition within university settings across Canada.

As discovered throughout the course of this literature review and, more importantly, in conversation with the interdisciplinary interviewees, the purpose of architectural research is not to develop new theories, but to contribute to the profession by employing alternative interview and learning styles conducive to an Aboriginal worldview, thereby, urging today's Canadian school of architecture to critically ask:

- Where are we in relation to Aboriginal peoples of this country?
- Where do we want to go now that notions of a reflexive regionalism are starting to identify the values of distinct norms of Aboriginal culture?
- What do we now expect from a Canadian School of Architecture where one of its historical predecessors advocated for schooling to be used as a tool of assimilation in relation to Canada's Aboriginal peoples, resulting in the marginalization of Aboriginal culture in Canadian society for subsequent decades afterwards?

Yet, throughout the intake of this literature review it has become quite evident that there is need for a renewed cultural paradigm that must be informed by contemporary Aboriginal scholars and researchers capable of delivering more informed decision-making processes. Moreover, there is an additional need for sound research material that is capable of bridging the Indigenous/Western paradigm. In the words of Jamake Highwater (1981), in *Vision and Reality*, "with hopes of giving rise to a potentially bright new epoch" as well as in the words of John Ralston Saul (2006), in *On Equilibrium*, "how our different qualities give us the intelligence to shape events rather than be shaped by them."

Concluding, the overall goal of this research study is to contribute to architecture's social and creative capacity, informed with foresight and cultural action, which does not exclude an Indigenous way of knowing (episteme) and its means of relating to construction (*technè*). As an independent discipline, architecture has yet to welcome the Indigenous or alternative perspective but we are now closer as a result of the interdisciplinary approach taken throughout the course of this study.

Annotated Bibliography:

Abbott. L (2008). *A Time of Visions: An Interview with Gerald McMaster*. Message posted to http://www.britesites.com/native_artist_interviews/

The premise of this volume of interviews with contemporary Native American artists is that their words can help us to understand their images. The interviews conducted by Abbott attempt to dispel misconceptions about Native art. Overall, the interviews, conceived more as conversations, offer the reader the opportunity to listen to a diverse group of artists discuss their working methods, their creative processes, and the meanings of their work. Yet, with all art (and not just "ethnic" art), there are possibilities of meaning which the artist can help people discover with the understanding, there are personal and cultural dimensions interwoven in a work of art, dimensions which are so personal or so specific that only the artist's clarification can help us in the process of these discoveries. It is the Aboriginal artist who can provide us with a map to guide our understanding, or better yet, a cultural framework that offers a context for the individual vision that is manifested in a particular work or style.

Ackerly, B. (2006). *John Rawls: An Introduction*. Perspectives on Politics, Vol. 4(1), pg. 75

John Rawls is widely regarded as one of the most important political philosophers of the second half of the twentieth century. He is primarily known for his theory of justice as fairness, which develops principles of justice to govern a modern social order. Rawls' theory provides a framework that explains the significance, in a society assumed to consist of free and equal persons, of political and personal liberties, of equal opportunity, and cooperative arrangements that benefit the more and the less advantaged members of society.

Alfred, G. R. (1999). *Peace, Power, Righteousness: An Indigenous Manifesto*. Don Mills, Ont.: Oxford University Press.

Alfred challenges the contemporary wisdom on Aboriginal governance and institutions to come together in three sections: peace, power and righteousness with talk of healing, coming together and finally respecting the future of Aboriginal generations to come. Alfred also argues that indigenous peoples must return to their social, cultural and political traditions and use these traditions to educate a new generation of leaders committed to values and the preservation of indigenous nationhood.

Augaitis, D. (2010). In Jungen B., Augaitis D. (Eds.), *Brian Jungen*. Vancouver, B.C.: Vancouver Art Gallery.

This book is the first to chronicle the composition of one of Canada's most compelling young Aboriginal artists and includes essays from five internationally respected curators plus an interview with the artist himself. Brian Jungen has been acclaimed for producing evocative work that transforms ubiquitous consumer items into inventive sculptural forms, often linking his First Nations heritage to issues of contemporary Aboriginal culture and the global economy.

Bateson, G. (1972). *Steps to An Ecology of Mind*. New York: Ballantine Books.

Gregory Bateson in Steps to an Ecology of Mind examines the patterns of mental phenomena and the world of ideas and relationships in a biological context, at times, focusing the lens of epistemology on the issues of ecology and social decision making. Yet, the core message argued throughout the text is that the ecology of mind is an ecology of pattern, information, and ideas that happen to be embodied in things or objects - material manifestations. Further stating, science which limits itself to counting and weighing these embodiments is like to arrive a very distorted understanding of human nature because the mind is not a separable from its material base, and traditional dualisms separating mind and body or mind from matter are erroneous.

Battiste, Dr. M. (2002). *Indigenous Knowledge and Pedagogy in First Nations Education*.

This report responds to the Government of Canada's working partnership with First Nations to improve the quality of Aboriginal life and education in Canada through an Educational Renewal Initiative. It reviews the literature that discusses Indigenous Knowledge and how it is handed down from generation to generation, and provides insight into the reasons and tensions between Indigenous and Eurocentric ways of knowing, and points out the challenges these conflicts bring to all levels of educational systems.

Beavon, D., Voyageur, C., & Newhouse, D. (2005-). In Beavon D. J. K., Voyageur C. J. and Newhouse D. (Eds.), *Hidden in plain sight: Contributions of Aboriginal peoples to Canadian identity and culture*. Toronto: University of Toronto Press.

Newhouse, Voyageur and Beavon focus on post-colonial indigenous scholarship grounded in indigenous theory and experienced works to create a complex understanding of indigenous peoples in the contemporary world. The text opens a dialogue about an Aboriginal contribution to the development of the Canadian nation and challenges the prevailing ideas that Aboriginal peoples are passive victims of colonization. Chapters in the text are responses to a call for papers that were issued through a variety of networks: academic, public service, and community organizations. Hidden in Plain Sight adds another cultural dimension to the story and experience of Canada, showing the extraordinary contributions Aboriginal peoples have made and continue to make.

Beck, G. (1994). In Giddens A., Lash S. (Eds.), *Reflexive modernization: Politics, tradition and aesthetics in the modern social order.* Stanford, Calif.: Stanford University Press.

Giddens and Lash specifically offer an in-depth examination of the de-traditionalizing of the modern world. Giddens argues we are entering a phase of development of a global society, which is not a world society but one with universal tendencies - a gradual but steady progress, development, or shift of values in a particular direction. Lash, in similar discourse, develops a theme of reflexive modernization in relation to aesthetics and the interpretation of culture. The dissemination of their work led to a global conference with specific interests in Architecture and the Role of Identity, primarily in developing countries where the theme of reflexive modernization took on a more indigenous response. Beck takes a more analytical approach and reveals that societies, which are no longer rooted in their traditions, are forced to refer back onto itself. In the process, the society has become self-referential, exhibiting a form of reflected strategies.

Berkes, F. (2008). *Sacred Ecology.* (2nd Ed.) New York: Routledge.

Berkes in Sacred Ecology makes a strong case for broadening the Western scientific base of ecology into one which is more holistic and encompasses ethical, social, political and spiritual perspectives. He focuses on the scientific ecology of indigenous cultures, their knowledge of local ecosystems, their relationship with the land, and the manner in which they have been managing their land for millennia. He describes the different approaches used by Western ecology and Indigenous ecologies (because there are many in response to the many regional attributes of Canada) and points out that although they may reach the same conclusion about resource management, they do this from entirely different

vantage points, practices and worldview. He makes the point that what is different about the way indigenous people relate to the environment is the notion of reciprocity - a cultural act or 'attitude' of giving thanks and giving back to the environment that shapes indigenous cultures. Further claiming, the attitude of 'giving back' is missing from the Western worldview and ecological/resource management practices.

Broadbent, G. (1969). In Broadbent G., Ward A. and Portsmouth College of Technology. School of Architecture. (Eds.), *Design Methods in Architecture.* New York: Wittenborn.

Broadbent in Design Methods in Architecture explores how play becomes an important role in determining what a designer can accomplish. Broadbent presents a survey of the different methods that designers, particularly architects have used to generate new designs proclaiming, design methods are often influenced by the development of technology, or the discovery of new insights into the nature of the world.

Campbell, J. (1991). In Moyers B. D., Flowers B. S. (Eds.), *The Power of Myth* (1st Anchor Books ed. ed.). New York: Anchor Books.

Joseph Campbell, in The Power of Myth frames the importance of metaphor and poetry to capture the imaginations of individuals and societies. Campbell claims myth supplies a sense of meaning and direction that transcends the everyday mundane existence while giving it significance in a variety of forms and functions that discloses the world of mystery and awe, making the universe a sacred picture. As others have stared, most impressive is Campbell's encyclopedic knowledge of myths wherein he demonstrates the ability to recall the details and archetypes of almost any story, from any point and history of culture and translate it into a lesson for inspirational and, I dare say, spiritual living in the here and now.

Canizaro, V. B. (2007). In Canizaro V. B. (Ed.), *Architectural Regionalism: Collected writings on Place, Identity, Modernity, and Tradition.* New York: Princeton Architectural Press.

In this collection of essays the editor Vincent Canizaro brings forward the notion at the beginning of the twentieth century, regionalism became a highly influential and innovative international architectural trend while trying to place Kenneth Frampton's famous "critical regionalism" in a historical context. Despite only selecting one short text by Frampton, Canizaro is more concerned with presenting architectural regionalism as a broad phenomenon of which critical regionalism is only one strand. The essays contained in the book represent a seminal collection of important, and/or otherwise unpublished writings on the subject of architectural regionalism in its various aspects: history, style, planning, ecology, Modernism, and becoming regional over time as a reflexive strategy.

Cardinal, D. (1991) In Armstrong J. C. (Ed.), *The Native Creative Process: A collaborative discourse between Douglas Cardinal and Jeannette Armstrong*. Penticton, British Columbia; Theytus Books.

In The Native Creative Process: A Collaborative Discourse Between Douglas Cardinal and Jeannette Armstrong, architect and writer explore literary and artistic creative processes from a contemporary Native perspective. Each artist discusses values, knowledge, spirituality and creativity from their unique viewpoints. Douglas Cardinal is a Metis architect whose award-winning building designs reflect his view that design is a spiritual process. Okanagan writer, Jeannette Armstrong is committed to the development of Native creative expression in Canada.

Carter, B. (Ed.). (1994). *Patkau Architects* (2nd Ed.) Halifax, N.S.: TUNS Press.

In short, this book contains ten projects from the firm Patkau Architects whose poetic creativity continues to be at the forefront of contemporary Canadian architecture. Each project features photographs, drawings, and descriptive text and includes an interview with the Patkaus conducted by Marco Polo. In the section titled, "Mapping Territory", author Carter establishes a notion for comprehending an essential theme in Patkaus work, namely their enduring concern with siting a

building and by analogy with what Carter describes as "the found potential of a site followed by intervention." This can be seen in reference to the Seabird Island Band School of Agassiz, the wood formed profile of the building traces and enfolds the distant mountain ranges and evokes the harvesting of salmon upon which the First Nation band traditionally lives.

Cassidy, T. J. (2000). *Becoming regional over time: Towards a Reflexive Regionalism.* In Architectural Regionalism: Collected writings on place, identity, modernity, and tradition. Princeton Architectural Press.

Cassidy's perspective on architecture and theory is from an experiential perspective informed not by phenomenology but by the direct participation with the land and culture, followed by a close reading of history. He builds a case for what he calls a "reflexive regionalism", an architecture born out of awareness and time, rather than designed and delivered as already regional. Whether it is a rural community or an urban neighbourhood, Cassidy believes all communities, at some point in time, are faced with a challenged tension that results in newly established identities. As such, it is a reflexive regionalism that directs attention back towards the landscape and its history which add meaning for those who live there.

Chomsky, N. (2006). *Language and Mind* (3rd Ed.) Cambridge: Cambridge University Press.

Chomsky focuses his attention on the question, What contribution can the study of language make to our understanding of human nature? Focus is placed on Chomsky's early work on the nature and acquisition of language as a genetically endowed, biological system, through the rules and principles of which we acquire an internalize knowledge. In his view, to truly study language is to study a part of human nature, manifested in the human mind. What does he mean by this? To begin, one has to understand what Chomsky thinks the nature of human languages actually is, and why it is so interesting. One of the fundamental aspects of human language, according to Chomsky, is its creative nature.

Del, G., Hall, B and Rosenberg, D (Eds.). (2008*). Indigenous knowledges in global contexts: Multiple readings of our world.* Toronto, Canada: University of Toronto Press.

Dei, Hall and Rosenberg provide a collection of essays from across Canada and around the world that discuss indigenous knowledge and their implications for academic decolonization. The book is divided into four sections: Situating Indigenous Knowledge; Resistance and Advocacy, Indigenous Knowledge in the Academy and Transforming Practices. The authors situate indigenous knowledge in relation to conventional knowledge, and examine the varying strategies, projects, and theories that are currently being developed in support of indigenous knowledge base systems, while maintaining that different bodies of knowledge continuously influence each other.

Downing, F. (1992*). Image banks: Dialogues between the past and the future*

Frances Downing in Image Banks: Dialogues between the Past and the Future defines the image bank as the accumulation of an architectural designer's mental imagery of memorable past place-experience. The image bank provides the designer with "known" experience through which the "unknown"—a design problem—can be understood wherein, the frequency of source between three categories of a designer's lifetime—memorable mental images of places gathered during youth, during years of education, and (for professionals) during the years of practice—are determined. Downing further describes, the integration of image banks between formal (learned exemplars from the history of "designed" architecture) and informal (memorable places generally of vernacular or common architecture) place imagery is studied through multidimensional scalogram analysis where it was found that practitioners possessed highly fluid image banks that provided an easy alignment of ideas no matter whether the ideas came from formal or informal exemplars. Interesting enough, students displayed more rigidity by keeping formal and informal place images separate in their image banks.

Dreyfus and Wrathall. (2007). *A Companion to Heidegger*. Oxford: Blackwell Pub.

Dreyfus and Wrathall in 'A Companion to Heidegger' share the perception, the onerous task Heidegger set out to achieve was to provoke his readers to thoughtfulness rather than provide them with a simplistic answer to a well defined problem. Often described as a notoriously difficult philosopher to understand, Heidegger wrote in such a way that he was deliberately tried to break with the philosophical tradition by challenging the reader to reflection. And when it comes to thinking about ontology, Heidegger argues that traditional treatments of 'being' have failed to distinguish two different kinds of questions we can ask: the ontic question that asks about the properties of beings (relating to real as opposed to phenomenal existence), and the ontological question that asks about ways or modes of being.

In the chapter titled, "The Origin of the Work of Art" Heidegger describes the essence of art, on which both the artwork and the artist depend, as an opportunity for works of art to show us a new way of understanding what is important and trivial, central and marginal, to be ignored or demanding of our attention and concern. Further elaborating, artists do this by giving us a work of art which can serve as a cultural paradigm. As such, the work shapes a culture's sensibilities by collecting the scattered practices of a people, unifying them into coherent and meaningful possibilities for greater action, and epitomizing this unified and coherent meaning in a visible fashion. The people, in turn, by getting in tune with the artwork, can then relate to each other in a shared context with the work.

Firth, S (2004). *A Primitive Exchange: On rhetoric and architectural symbol.* Architectural Research Quarterly, Vol. 8(1), pg. 39

In relating stories about origins that recall an idealized 'Primitive' condition, Vitruvius seeks legitimacy for judgement about architecture. At issue is the problem of authority, and Vitruvius is anxious about authority, and about order. Vitruvius' audience for his story of the Primitive dwelling, as for the rest of his treatise, the Ten Books on Architecture, is the emperor Octavian, introduced in the dedicatory preface as 'imperator Caesar.' His book to Caesar asserts a commonplace among rhetoricians, that authority is sought in a distant past, and in exemplars, useful precedents that promise a perfect work. 'Décor,' writes Vitruvius, 'demands the faultless ensemble of a work composed, in accordance with precedent, of approved details. It obeys convention, which in Greek is called thematismos, or custom or nature'. The task of the orator was to 'demonstrate' that authority, and so for architecture, in his mythmaking and concern to demonstrate the truth of his opinions, Vitruvius establishes that the task of architecture is the representation of order.

Fox, W. (Ed.). (2000). *Ethics and the built environment*. New York: Routledge.

Warwick Fox in Ethics and the Built Environment responds to the need of a debate on the ethical dimension of building in all its forms from a variety of disciplinary perspectives and approaches. As its name suggests, Ethics and the Built Environment is concerned with examining any and all ethical questions that arise with respect to a moral person's interactions with any and all aspects of the world around him or her.

Frampton, K. (1995). *Studies in tectonic culture: The poetics of construction in nineteenth and twentieth century architecture.* Cambridge: The MIT Press.

This is a book about the relationship between architecture and the primary conditions of its creation. Informed by ideas of space, function, language, tradition, society, culture and even politics, Frampton reinforces the idea architecture is also about bringing together these various elements that inform architecture emphasizing there is unfounded 'expressive potential' to be discovered between the ideas that inform architecture and the simple act of construction wherein, he sums up these relationships in the word tectonics, from the Greek tekton, meaning carpenter.

Frampton emphasizes tectonic cultures are threatened by the forces of universal commodification. Commodification is the transformation of what is normally a non-commodity into a commodity, or, in other words, to assign value and is in danger of being swept away. The delicate, humane balance between the ontological and representational aspects of construction is fast becoming an irrelevance in a world of spectacle and mere simulation. Further emphasizing, the spectacle is happening in the building industry, which increasingly 'distances the architect and future architect' from the techniques of construction, in the schools, where images have become more than substance, and in politics, which can only make sense of architecture through a matrix of social, economic, environmental that now includes, cultural forces.

Frampton, K. (2002). *Labour, work and architecture: Collected essays on architecture and design.* New York: Phaidon Press.

Kenneth Frampton in Labour, Work and Architecture, provides an anthology of critical writings which, focus on twentieth-century architecture, dealing with themes and movements, built works and the architects responsible for select buildings set against a broader historical context. His anthology includes early critical reviews from the 1960s and 1970s analyzing contemporary buildings, as well as illustrated theoretical and historical essays such as his influential essay 'Towards a Critical Regionalism' by examining the ideological and material circumstances under which architecture is produced in relation to the built environment. Yet, it is the essay 'Towards a Critical Regionalism' that has had a profound effect and influence on the course of this study by attempting to view architecture through the critical writings of Frampton that tend to delve deeper beneath the aesthetic surface of buildings in search of cross-cultural references with meaning.

Freire, P. (2000). *Pedagogy of the Oppressed* (30th anniversary ed.). New York: Continuum.

Paulo Freire puts forth a pedagogy in which the individual learns to cultivate their own growth through situations from his daily life that provide useful learning experiences. To this end, Freire proposes that educational topics or opportunities be taken from the daily experiences the individual constantly encounters and that they avoid the current educational pitfall of resorting to artificial experiences. Therefore, it is important to establish dialogue with a community. Since this implies the use of a language similar to that with which the individual is familiar, it is necessary to integrate oneself into the life of the individual - to study his language, practice and thought. Later, through the application of identity, structure and education, these elements will come together to create and situate cultural knowledge, since it is not necessary to refer to far away and imagined spaces to find and create opportunities and topics for critical study.

Grande, S. (2004). *Red Pedagogy: Native American Social and Political thought.* Maryland, USA: Rowman & Littlefield Publishers.

In Red Pedagogy: Native American Social and Political Thought author Sandy Grande insists that Native Americans in general, including indigenous scholars, and non-Natives need to critique, challenge, and even reject dominant modes of thought that have been applied to indigenous populations for years. Grande provides solid evidence that some Native scholars are currently challenging older paradigms. Another critical facet of Red Pedagogy is its prescription that once Native Americans free themselves from Western concepts, they need to fill the void by creating new indigenous ones. Some Native scholars, Grande contends, are already pursuing this venture, offering examples such as Gerald Alfred in Peace, power and Righteousness: An Indigenous Manifesto and of Chippewa intellectual Gerald Vizenor who popularized the term "Survivance." Again, the term "survivance" specifies that Native American existence over the centuries has been much more than just a story of simple survival. Rather, it is an account of survivance which, according to Grande, includes the act of cultural recovery, re-imagination, and reinvestment of indigenous ways of being.

Groat, L. N. (2002). In Wang D. C. (Ed.), *Architectural Research Methods.* New York: Wiley.

Groat provides unique coverage of research methods is specifically targeted to help professional designers and researchers better conduct and understand research process. Part I explores basic research issues and concepts, and includes chapters on relating theory to method and design to research. Part II gives a comprehensive treatment of specific strategies for investigating built forms. In all, the book covers seven types of research, including historical, qualitative, correlational, experimental, simulation and modeling, logical argumentation, and case study and mixed methods.

Groat, L. N. *Reconceptualizing Architectural Education: the Necessity for a Culturalist Paradigm.* (Conference Proceedings: Ottawa)

Linda Groat puts forward the observation current practices in architectural education would be usefully modified by adopting a culturalist paradigm, thereby creating an architectural milieu better able to engage and embrace the transformation of contemporary cultures. In doing so, essential opportunities are established while giving voice to those less heard in the conversation of the larger cultures at hand. To do otherwise, Groat believes, would be to risk eventual exclusion from the larger cultural conversation: and that, in turn, would constitute the demise of the architectural profession itself.

Gruft, A. (2005). In Morris and Helen Belkin Art Gallery. (Ed.), *Substance over Spectacle: Contemporary Canadian architecture.* Vancouver: Arsenal Pulp Press.

Andrew Gruft, in Substance Over Spectacle puts forward some of the most exceptional architectural work in Canada over the past 10 years, providing a preview of select architectural practices that reveal what some consider a national sensibility that is unlike any other architectural trend in the world. Gruft argues that Canadian architecture is very much influenced by the country's geographically large, environmentally diverse mosaic, as well as its political, social and cultural heart. The book includes highlights projects from across the country that include schools, art galleries, subway systems, power plants, and private homes which, he shares his affinity with some of Canada's leading thinkers on architecture and design: George Baird, Sherry McKay, Marco Polo, and Georges Adamczyk. By and large Substance over Spectacle also explores issues of viability, sustainability, community, and utility as they relate to the Canadian architectural experience.

Hall, E. T. (1990). *The Hidden Dimension.* New York: Anchor Books.

Hall examines the various cultural concepts of space and how differences among them affect modern society. The Hidden Dimension demonstrates how man's use of space can affect personal relations, cross-cultural exchanges, architecture, city planning, and urban renewal. Hall's purpose with The Hidden Dimension is to bring awareness to what has been taken for granted. By this he means, to increase self-knowledge and decrease self-alienation and to help introduce people to themselves

Harries, K. (1997). *The Ethical Function of Architecture*. Cambridge, Mass.: MIT Press.

In a series of arguments, Harries questions the premises on which architects and theorists have long relied—ideas that continue to contributed to architecture's current identity crisis and marginalization. He begins by criticizing the aesthetic approach, focusing on the problems of decoration and ornament then turns to the language of architecture. Questioning, if the main task of architecture is indeed interpretation, in just what sense can it be said to speak, and what should it be speaking about? Expanding upon suggestions made by Martin Heidegger, Harries also considers the relationship of building to the idea and meaning of dwelling. Architecture, Harries observes, has a responsibility to community; but its ethical function is inevitably also political.

Hawkes, J. (2001). *The fourth pillar of sustainability: Culture's essential role in public planning*. Australia: Common Grounds Publishing.

Hawkes in The Fourth Pillar of Sustainability: Culture's Essential Role in Public Planning points out that the concept of sustainable development has matured and has opened up the debate for further review. He explains why culture should now be considered as a critical key element of the sustainable development framework and not be viewed as an additional ingredient alongside current social, environmental and economic responses but also, because peoples' identities, signifying systems, cosmologies and epistemological frameworks shape how the environment is viewed and lived in, further stating, culture shapes what we mean by development and determines how people act in the world.

Highwater, J. (1981). *The Primal Mind: Vision and Reality in Indian America*. New York: Meridian.

The work of Jamake Highwater provides an uncommon insight into the world of Indians and into Western civilization itself. Highwater examines the cultural aspects of American Indian ritual, art, oral tradition, architecture, and ceremonial dance as broad and unique cultural metaphors coming from a world fundamentally different from that of the West. The perceptions of time and space, the visions and realities of Native American culture as they evolved during centuries of almost complete isolation are discussed in an original and often startling new manner. The ideas and intellectual aims of Western cultures are reconsidered in contrast to the lifestyles, attitudes, and worldviews of American Indian peoples as well as other primal peoples of the world. Jamake Highwater suggests that the least apparent but most urgent thrust of the twentieth century has been the fusion of the mentality of primal people with that of Western civilization, giving rise to a potentially brilliant new epoch.

Johanson, R. (2003). Case study methodology reflected in architectural research. *Book of Proceedings: Four Faces - the Dynamics of Architectural Knowledge*. pg. 71-74.

According Johanson case study methodology is of the utmost importance in architectural research and is characterized by a purposeful selection of the case to study and triangulation, which is normally conducted by means of multiple-method data collection. Generalizations are made from a particular case in the interest either of theory or of other cases. In the field of architecture, the case may be an artefact. Understanding of an artefact often requires knowledge, not only of its contemporary setting, but also of the historical context of its design. Thus, case studies in architecture tend to be historical case studies wherein the case study may also be the design process, sometimes even the researcher's own creative activity.

Johnson, M. (2007). *The meaning of the body: Aesthetics of human understanding*. Chicago: University of Chicago Press.

In The Meaning of the Body, Mark Johnson explores the connections between cognitive science, language, and meaning. Johnson uses recent research into infant psychology to show how the body generates meaning even before self-consciousness has fully developed. From there he turns to cognitive neuroscience to further explore the bodily origins of meaning, thought, and language and examines the many dimensions of meaning—including images, qualities, emotions, and metaphors—that are all rooted in the body's physical encounters with the world. Johnson argues that all of these aspects of sense-making are fundamentally aesthetic (a set of principles underlying and guiding artistic movement) . He concludes that the arts are the culmination of human attempts to find meaning and that studying the aesthetic dimensions of our experience is crucial to unlocking meaning's bodily sources.

Krippendorff, K. (2006). *The semantic turn: A new foundation for design*. Boca Raton: CRC/Taylor & Francis.

Krippendorff in The Semantic Turn boldly outlines a new science for design that gives designers previously unavailable grounds on which to state their claims and validate their designs. It sets the stage by reviewing the history of semantic concerns in design, presenting their philosophical roots, examining the new social and technological challenges that professional designers are facing, and offering distinctions among contemporary artefacts that challenge designers. The book builds an epistemological bridge between language/communication theory and human-centered conceptions of contemporary artefacts.

Kuokkanen, R. J. (2007*). Reshaping the university: responsibility, Indigenous epistemes, and the Logic of the Gift.* Vancouver B.C.: UBC Press

Rauna Kuokkanen argues that attempts by universities to be inclusive are unsuccessful because they do not embrace indigenous worldviews. Programs established to act as bridges between mainstream and indigenous cultures ignore their ontological and epistemic differences and, while offering support and assistance, place the responsibility of adapting wholly on the student. Indigenous students and staff are expected to leave behind their cultural perspectives and epistemes in order to adopt Western values. Reshaping the University advocates a radical shift in the approach to cultural conflicts within the academy and proposes a new logic, grounded in principles central to indigenous philosophies.

Kuokkanen, R. J. (2000). *Towards and "indigenous paradigm" from a Sami Perspective*. The Canadian Journal of Native Studies, Vol. 20(Issue 2), p.411.

Kuokkanen discusses the need, significance and objectives of an "Indigenous paradigm" which is a way of both decolonizing Indigenous minds by "re-centering" Indigenous values and cultural practices and placing Indigenous peoples and their issues into dominant, mainstream discourses which until now have relegated Indigenous peoples to marginal positions. Kuokkanen argues that the main objectives of such a paradigm include the criticism of Western dualistic metaphysics and Eurocentrism as well as the return to the Indigenous peoples' holistic philosophies in research; moreover, a critical reason for an "Indigenous paradigm" is to raise questions of relevant research regarding Indigenous communities and to contribute an indigenous way of understanding toward different ways of knowing and theorizing. Therefore, an indigenous paradigm can introduce new perspectives to research by challenging and deconstructing dominant values, world view and knowledge systems while offering a new set of tools for analyzing non-Western cultures which, for its own part, may diminish the dangers of misinterpretations of our cultural expressions.

Langdon, J. (2009). *Indigenous knowledges, development and education*. Rotterdam, the Netherlands: Sense Publishers.

In Indigenous Knowledges, Development and Education author Jonathan Langdon assembles together a selection of authors whose work speaks to the interconnection of indigenous knowledge types. The book serves as an attempt to provide varied examples of how different epistemologies can inform each other and contribute to knowledge production that reflects diverse ways of knowing about Indigenous knowledges, development and education and examines how these knowledges co-exist in a number of specific sites. Areas of specific interest: the examination of the use of local/traditional/indigenous knowledges in sustainable livelihoods projects; a reflection on building collaboration towards the emergence of an indigenous research methodology; a thinking-through of the linkages between language, development and education in indigenous Canadian communities.

Leach, N. (1997). In Leach N. (Ed.), *Rethinking Architecture*: A Reader in Cultural Theory. New York: Routledge.

Neil Leach brings together a series of seminal writings on architecture informed by key philosophers and cultural theorist of the twentieth century. These contributing writers raise critical issues around the built environment and are increasingly central to the study of the social sciences and humanities, of which, architecture is informed by. The collection of essays offer a refreshing and alternative take on the question of architecture and provocatively force us to rethink many of the accepted tenets of architectural theory from a much broader cultural perspective.

LeCuyer, A. W. (2001). In Miralles E., Behnisch G. and Patkau Architects (Firm) (Eds.), *Radical Tectonics*. London: Thames & Hudson.

Radical Tectonics presents four practices that are extending the boundaries of conventional construction to respond specifically to programmatic and site requirements. Capturing the dynamic work of Günther Behnisch (Stuttgart), Enric Miralles (Barcelona), Patkau Architects (Vancouver), and Mecanoo (Delft) whose architecture focuses on the art of construction (the tectonic) and innovative craftsmanship. The work of these architects bring contextual awareness of particular social and political environments to land form, the vernacular to playful manipulation of program and landscape, these studies confront architecture's very nature with vigour and provocation.

Ledouux, J. (2006). *Integrating aboriginal perspectives into curricula.* The Canadian Journal of Native Studies, Vol. 26(Issue 2), pg. 265

This document is intended to assist curriculum developers and educators to integrate Aboriginal perspectives into new and existing curricula. The overarching goals stated within the document are to develop opportunities for Aboriginal students to develop a positive self-identity through learning their own histories, cultures, traditional values, contemporary lifestyles, and traditional knowledge. Also, to allow them to participate in a learning environment that will equip them with the knowledge and skills needed to participate more fully in civic and cultural realities of their communities. Supporting comments are provided by John Ralston Saul where he states, 'only recently has acknowledgement started to be given for the contributions Aboriginal people have made to the "formation of Canada as we have come to know it." Implying, Canada is a project built upon the foundation of an Aboriginal pillar then fused afterwards with Francophone and Anglophone settlement patterns.

Macy, C. (1998), *Appropriate Technology: Nova Scotia architect Richard Kroeker explores the relationship between technology and nature.* Canadian Architect, Vol. 43, pg. 16

Christine Macy, in Canadian Architect puts forward an article titled Appropriate Technology that explores the design research relationship between technology and nature as carried out by Richard Kroeker. According to Kroeker, understanding context requires the ability to grasp the imperatives associated with a specific site with the ability to understand its history, culture, and the physical environment. And by making use of locally available materials, and utilizing and redeveloping indigenous (Mi'kmaq) building techniques, the best design response makes will fashion the most natural elements available while producing a functional and appropriate technology. The article provides and an opportunity to further understand the history of Mi'kmaq culture that relates to craft of construction and indigenous occupations practiced by the people, with a view towards creating appropriate building responses that would benefit an Aboriginal community.

Makela, M. (September 2007). *Knowing through Making: The Role of the Artefact in Practice-led Research.* Vol. 20

Maarit Makela describes artists and designers are beginning to take an active role in contextualizing and interpreting the creative process in practice, as well as the products of this process, by looking at the process itself and the works produced through it. From this new point of view, the knowledge and skills of a practicing artist or soon to be designer for a central part of the research process, and this

has produced a new way of doing research. In this new type of research project, part of the research is carried out as art or design practice; they can be conceived both as answers to particular research questions and as artistic or designer argumentation.

McMaster, G. (1995). *Object to sanctity: The politics of the object.* International Journal of Canadian Studies

This paper examines the idea of the object by offering perspectives that draw upon Western and Aboriginal thought to investigate contemporary issues of the object. Several questions are examined, for instance: How do we theorize the object sanctity in terms of identity? How do the collecting practices of one culture redefine and overlay new meaning? How does the view of one Aboriginal person contribute to our understanding of culturally specific knowledge systems?

McMinn, J & Polo, M. (2005). *41° to 66°: Regional responses to sustainable architecture in Canada.* Cambridge, Ont.: Cambridge Galleries, Design at Riverside.

Polo and McMinn identify that the role of culture in defining sustainability is starting to be seen through an emerging body of scholarly works, which supports the perception the time has arrived for an approach to sustainable architecture that reaches beyond technological considerations and addresses a variety of intangible but essential cultural values. In doing so, a broader critical discourse is taking shape by engaging sustainability not only as a technique or method, but a cultural paradigm possibly inspiring future and contemporary architects to establish their own distinctive cultural forms and identity.

Nabokov, P. (1989). *Native American Architecture.* Toronto: Oxford University Press.

Peter Nabokov and Robert Easton together examine the building traditions of the major tribes in nine regional areas of the continent from the huge plank-house villages of the Northwest Coast to the mound builder towns and temples of the Southeast, to the Navajo hogans and adobe pueblos of the Southwest. Going beyond a traditional survey of buildings, the book offers a broad, clear view into the Native American world, revealing a new perspective on the interaction between their buildings and culture. Looking at Native American architecture as more than buildings, villages, and camps, Nabokov and Easton also focus on their use of space, their environment, their social mores, and their religious beliefs.

Ong, W. J. (2002). *Orality and literacy: The technologizing of the word.* New York: Routledge.

Ong assembles together two decades of work on the differences between primary oral cultures, those that do not have a system of writing, and chirographic (i.e., writing) cultures to look at how the shift from an oral-based stage of consciousness to one dominated by writing and print changes the way we humans think. In total, Ong devotes the first three chapters of seven to "thought and its verbal expression in oral culture". In the next three chapters, 4 through 6, he discusses "literate thought and expression in terms of their emergence from and relation to orality" . Finally, in chapter 7, he suggests that in the future knowledge of the differences between orality and literacy might produce new and interesting insights into our interpretation of various kinds of literature that may further enrich already established types of literary criticism.

Pallasmaa, J. (2009). *The Thinking Hand: existential and embodied wisdom in architecture.* Chichester, U.K.: Wiley.

In The Thinking Hand, Juhani Pallasmaa reveals how the architect becomes the bridge between the imagining mind and the emerging image. The book surveys the multiple essences of the hand, its biological evolution and its role in the shaping of culture, highlighting how the hand–tool union and eye–hand–mind fusion are essential for dexterity and how ultimately the body and the senses play a crucial role in memory and creative work.

Pallasmaa, J. (2005). *The Eyes of the Skin: Architecture and the Senses* (2nd ed.). Hoboken,|: Wiley.

Pallasmaa in The Eyes of The Skin provides two summaries; the first surveys the historical development of the ocular-centric paradigm in Western culture since the Greeks, and its impact on the experience of the world and the nature of architecture. The second examines the role of the other senses in authentic architectural experiences making reference to indigenous cultures, and points the way towards a multi-sensory architecture which facilitates a sense of belonging and integration.

Patkau Architects (2006). In Frampton K., *Patkau Architects* (Firm) (Eds.); New York: Monacelli Press.

Kenneth Frampton in Patkau Architects, 2006 provides an overview of the work produced by this very important practice that draws on the principles of modern architecture and is simultaneously inspired by the traditions and often spectacular landscape of the Pacific Northwest. As narrated, the work produced by Patkau Architects has become well known for a straightforward, versatile expression of material and detail as well as a focus on the tectonic and the role of sculpture that is inherent in the architecture they have produced to date. The key project of interest lays in the development of Seabird Island School and the influential role of Aboriginal traditions. The Seabird Island (First Nation) Band believes that the first purpose of any educational program is to foster the Aboriginal culture in relation to Pacific Northwest people. In short, the project of interest is significantly informed by Aboriginal community values by making the school a part of the village common space, wherein interaction between the school (object), site (environment) and the community (people) was highly encouraged.

Ruskin, J. (1989). *The Seven Lamps of Architecture*. New York: Dover Publications.

Ruskin opens The Seven Lamps of Architecture with the notion that in architecture, as in society, material concerns have supplanted spiritual concerns as the body has tended to supersede the soul. The "lamps" are in fact the various modes by which architecture produces meaning. Material forms in fact have a double reference, exemplifying both the "spirit" of a building and also the moral condition of the workman, behind whom stands the moral condition of the society that produced him. Ruskin's aim, then, is to understand spiritual reality through a logic of evolving forms in order to determine the beneficial course of those forms. Ultimately, to describe the soul and body of architecture in their ideal relationship is to describe the soul and body of a society in their ideal relationship.

Saul, J. R. (2002). *On Equilibrium*. Toronto: Penguin.

John Ralston Saul explains how our different qualities give us the intelligence, self-confidence and practical ability to think and act as responsible individuals. He argues, however, that when certain human qualities are worshipped in isolation they become weaknesses, even forces of destruction or self-destruction. In short, they become ideologies. He identifies six qualities that give humans the ability to act responsibly: common sense, ethics, imagination, intuition, memory, and reason. Through these qualities, Saul suggests, we have the ability to shape events rather than be shaped by them.

Schön, D. (1983). *The Reflective Practitioner: How professionals think in action.* New York: Basic Books.

Donald Schön, a leading M.I.T. social scientist and consultant examines five professions-- engineering, architecture, management, psychotherapy, and town planning--to show how these professionals really go about solving problems. The best professionals, Schon maintains, know more than they can put into words. To meet the challenges of their work, they rely less on formulas learned in graduate school than on the kind of improvisation learned in practice - the exploration with ability to 'think on their feet'. This largely unexamined process shows precisely how "reflection-in-action" works and how this vital creativity might be fostered in future professionals as those mentioned above.

Scrivener, S. (2002). *The art object does not embody a form of knowledge.* Working Papers in Art and Design, Vol. 2

> Scrivener positions the article wherein the visual arts community places great significance on the art object and the art making process. Consequently, many visual artists wish to see a form of research in which art and art making are central: that is to say, the art making process is understood as a form of research and the art object as a form of knowledge. Scrivener points out an alternative position, that is, the art making process yields knowledge that is independent of the actual art objects produced thereby illustrating art is usually thought to endow into emotions, human nature and relationships, and our place in the World, etc.

Sharr, A. (2007). *Heidegger for Architects.* New York: Routledge.

> Adam Sharr puts forward Heidegger for Architects as the second book in the new Thinkers for Architects series. Written specifically for architects and students of architecture, Sharr introduces key themes in Heidegger's 'thinking' by drawing from key texts such as 'The Thing', 'Building, Dwelling and Thinking' and 'Poetically, Man Dwells'. Throughout these texts Heidegger pleads that the 'immediacies' of human experience should not be forgotten and that people 'make sense' first through their inhabitation of their surroundings, and their emotional responses to them. As a result, only then can people attempt to quantify their attitudes and actions through science and technology and for the architectural philosopher they understand, building configures physically, over time, how people measure their place in the world. In this way, architecture has the ability to assist and centre people in the world, as well as offers the individual places, such as the academy from which to enquire about them selves. Sharr summarizes with the notion, Heidegger felt that this is how architecture had been understood in the past, and that the insatiable rise of technology will obscure the particular ethos (the guiding beliefs or ideals that characterize a community) of every builder and dweller interested in architecture.

Smith, A. and Schank Smith, K. (2003). *The Pendulum of Play: The effects of play on diversity in architectural education.* An American Institute of Architecture Diversity Committee Publication: 20 on 20/20 Vision

> Smith and Schank Smith identify that paradigms governing architectural education swing with trends, moments of philosophy or approach. They identify new concepts can be realized and filled by the marginal – the other – in the process, addressing issues of diversity. The swing in trends might reflect a change in culture, address issues of diversity, gender and ethnicity. In the process, the authors identify paradigms such as a Play on Diversity can be a key mechanism used to define the future of architecture and who comes to practice architecture, thus defining different approaches an architectural education may come to offer.

Stainback S. B., Stainback W. C. (1992). *Controversial issues confronting special education: Divergent Perspectives.* Toronto: Allyn and Bacon

> The authors draw together, in one source, divergent perspectives on critical issues or questions confronting the field of education. Each issue is addressed in a pro/con format. Each contributing author provides an outline of their position on a particular issue and provides the strongest supporting arguments and evidence available.

Titley, B. (October, 1980). *The education of the Canadian Indian: THE STRUGGLE FOR LOCAL CONTROL.* Vol. 20 (1)

> Brian Titley in The Education of the Canadian Indian: THE STRUGGLE FOR LOCAL CONTROL brings into focus a series of studies that have attempted to educate Aboriginal children in the value system of the dominant society have generally been met with failure. Aboriginal organizations, in taking control of education, hope to educate their children in a system which stresses Indigenous values and culture. Titley also elaborates on the historical experience of Canada's Aboriginal peoples

resembles in many ways that of colonized peoples on other continents. Like the indigenous populations of Africa and Asia, they were subjected not only to conquest by Europeans, but also to deliberate efforts at cultural change, most often carried out in residential schools.

Turner, D. A. (2006). *This is not a peace pipe: Towards a critical indigenous philosophy*. Toronto: University of Toronto Press.

In This is Not a Peace Pipe, Dale Turner explores indigenous intellectual culture and its relationship to, and within, the dominant Euro-American culture. He contends that indigenous intellectuals need to engage the legal and political discourses of the state, respecting both indigenous philosophies and Western European intellectual traditions. According to Turner, the intellectual conversation about the meaning of indigenous rights, sovereignty, and nationhood must begin by recognizing, firstly, that the discourses of the state have evolved with very little if any participation from indigenous peoples and, secondly, that there are unique ways of understanding the world embedded in indigenous communities.

Ulmer, G. L. (2003). *Internet invention: From literacy to electracy*. New York: Longman.

The book describes Ulmer's definition of "electracy" (as opposed to orality or literacy) and leads readers through activities that ask them to examine their interactions with four discourses, which Ulmer labels career, family, entertainment, and community. Internet Invention is roughly divided into four sections, each one covering one of the four discourses. Ulmer's delivery is complex, and the sheer number of specialized terms and prerequisite knowledge required to understand all of the concepts offered within make Internet Invention more accessible to those who have adequate knowledge of rhetoric and writing. As one academic critic recognized, Ulmer's work also recognizes pedagogical implications. Namely the transition from a predominantly literate culture to an electronic culture is already engendering changes in the ways in which we think, write and exchange ideas. Ulmer has been concerned with the kinds of changes that take place as a result of this transition and his primary concern has been a pedagogical one – that is, he is interested in 'how learning is transformed by the shift from the apparatus of literacy to the apparatus of what he comes to term 'electracy' - between career, family, entertainment and community.

Vygotsky, L. S. (1978). In Cole M. (Ed.), *Mind in society: The development of higher psychological processes*. Cambridge, Mass.: Harvard University Press.

In Mind in Society Vygotsky applies a theoretical framework to the development of perception, attention, memory, language, and play, and examines its implications for education. The mind, Vygotsky argues, cannot be understood in isolation from the surrounding society. Man is the only animal who uses tools to alter his own inner world as well as the world around him. Drawing upon a variety of simple mnemonic devices to the complexities of symbolic language, Vygotsky articulates the understanding society provides the individual with technology that can be used to shape the private processes of mind.

Wall, S. (2009). *Common ground: An interview with Juhani Pallasmaa*. Journal of Architectural Education, Vol. 63(Issue 1), pg. 75

The article presents an interview with Juhani Pallasmaa, a Finnish architect who is also an International Fellow of the Royal Institute of British Architects. When asked whether he thinks the process of making an architecture is fundamental in both an architect's education and in the development of his work Pallasmaa states, there are aspects of construction associated with the making of architecture that proceed unconsciously very much in the way a bird builds a nest, it is guided by the movement of its body. In terms of learning architecture, the student must be guided by both their hand and body in unison. Implying, indigenous architecture is an example based on the reaction of human forces arising out of situations of life and day-to-day living in favour of casting off technology and fashion for the simplicity of craft and tactile exploration.

Wertsch, J. V. (1991). *Voices of the mind: A Socio-cultural Approach to Mediated Action.* Cambridge, Mass.: Harvard University Press.

Wertsch in Voices of the Mind further develops a semiotic approach to culture in a direction that is central for Vygotsky. The most inspiring and interesting result of Wertsch's effort is that the idea of the "multi-voicedness" of human mind, corresponding to the multi-voicedness of both culture and communication, is introduced into psychology. Wertsch creates a theoretical and methodological framework that serves to be significant to those studying ways in which culture shapes mind.