# **NU Healing: Empowering the Margin(alized)**

by

**Anders Peacock** 

Submitted in partial fulfilment of the requirements for the degree of Master of Architecture

at

Dalhousie University Halifax, Nova Scotia July 2015

© Copyright by Anders Peacock, 2015

Dedicated to Grannie Annie and Grandad

# **CONTENTS**

Abstract	iv
Acknowledgements	v
Chapter 1: Introduction	1
The Periphery	1
Colonialism as an Agent of Marginalization	1
Climate of Crime in Nunavut	6
Chapter 2: Design	19
Site	19
Spatial Marginalization	19
Decentralization Leads to a Healing Typology	22
Test Sites: S, M, L	22
The Shacklands	26
Building	29
Kit of Parts	29
Armature of Engagement	43
Additional Design Drawings	48
Chapter 3: Conclusion	67
Appendix	70
Design Process Drawings	70
Bibliography	76

# **ABSTRACT**

The correctional system in Nunavut ignores the systemic social dysfunction underlying criminality in the Territory that has been the result of several generations of social and cultural displacement. As a physical manifestation of antiquated ideals, correctional facilities perpetuate colonial policies of cultural assimilation while further exacerbating problems of mental health, substance abuse and violence. As a social, cultural and political act, architecture has the capacity to critique the status quo while imagining the social, cultural and political context of a future that would support the realization of a new architectural type. "NU Healing: Empowering the Margin(alized)" represents an alternative that challenges the colonial policies inherent in Nunavut's correctional system and recognizes the transformative power of architecture to inspire enhanced social value and community infrastructure in a climate of cultural resilience.

## **ACKNOWLEDGEMENTS**

To my parents and grandparents, who first introduced me to the Arctic and without whom this whole adventure would not have been possible.

To Sarah Bonnemaison, for sending me down the right path at the very beginning.

To Diogo Burnay, for his boundless energy, enthusiasm and entertainment value (not to mention intellectual guidance).

To Richard Kroeker, for his committment to this project, insightful critique and for making me realize the potential for this thesis and all architectural endeavours to make a meaningful contribution even beyond the discourse of the discipline.

To everyone in Iqaluit, for their generosity, support and inspiration: Josh Armstrong, Dan O'Neill, Sofia Dobrev, Laakkuluk Williamson Bathory and everyone at Qaggiavut!

To Fatima, Cait and all of my studio companions, for sharing in so much of this journey.

To Maddy, for lending me this idea in the first place, for putting up with me during the process and for pinning it all up at the very end.

Thank you.

## **CHAPTER 1: INTRODUCTION**

# The Periphery

Historically, the perceived exoticism of an unfamiliar culture in a peripheral geographical location has relegated Inuit to the margins of global social and political consciousness, Canada being no exception. With increasing awareness of climate change, potential for resource development and issues of Arctic sovereignty, Inuit interests continue to be increasingly marginalized as their territory becomes the focus of sustained attention and interference from outside influence. In this context, "NU Healing" seeks to empower these marginalized inhabitants both as a means of reconciling the present effects of past colonialism and sustaining cultural vitality in an uncertain future.

# **Colonialism as an Agent of Marginalization**

Michel Foucault explores the evolving relationship between crime and society in a Eurocentric context in his treatise "Discipline and Punish: The Birth of the Prison." He traces the trajectory of criminal punishment from its medieval foundations in deterrence, characterized by the spectacle of public torture, <sup>1</sup> to contemporary rhetoric surrounding restorative justice. <sup>2</sup> Foucault is critical of the current model of rehabilitation through incarceration, contending that its coercive nature generates a cycle of delinquency. <sup>3</sup> This argument stems from the perception of society as a "normalized" entity in which its participants consent and abide by a commonly agreed upon set of rules and values. <sup>4</sup> The institutions of law, education, religion and health care constitute a series of instruments dispersed throughout society that act in concert with one another to assert authority over a population. <sup>5</sup> Their mandate of observation and documentation at the scale of the individual constitutes a form of societal panopticon that ensures normalization across the breadth of society. <sup>6</sup> This mechanism is successful in large part due to the separation of function

<sup>1</sup> Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1977), 44.

<sup>2</sup> Ibid., 269.

<sup>3</sup> Ibid., 272.

<sup>4</sup> Ibid., 184.

<sup>5</sup> Ibid., 218.

<sup>6</sup> Ibid., 223.

that renders the coercive nature of these institutions invisible in the context of daily life.<sup>7</sup> Essentially, Foucault defines an offender as an individual whose actions fail to conform to the standards of normalization in society. 8 Instead of suffering public shame and torture, as was commonplace until the late 18th century, 9 the current model of rehabilitation sees the offender sent to prison to undergo a process of coercive normalization in which they are instilled with the values and docility required to reintegrate into society. 10 Prison gathers the mechanisms of power into one institution to compel an individual to behave a certain way, thereby revealing their coercive nature. 11 Though this process is undoubtedly more humane than medieval punishments, Foucault argues that in practice, the current method of rehabilitation is counterproductive, serving only to transform one time offenders into habitual criminals and in doing so, generating a cycle of delinguency. 12 This occurs in a number of ways that are systemically related to the correctional practice in its current form. Most obviously, it gathers criminal types together in a single location, fostering an environment where offenders can learn from delinquents and promulgate criminal activity. 13 Moreover. the imposed discipline and constant surveillance that characterizes incarceration causes inmates to feel victimized, further ingraining their unlawful persuasions. 14 Upon release, the social stigma attached to convicts often precludes them from attaining gratifying employment or suitable living circumstances, 15 which, when combined with the perceived injustice of prison, contributes to destitution and delinquency. 16

Foucault's analysis of prison as a tool of normalization provides a poignant philosophical parallel to the process of colonization implemented by the Government of Canada in the area of the North, known today as Nunavut. The Inuit people native to this region of Canada embody a unique cultural heritage in every sense of the word, from language, clothing and diet, to spirituality and world view. Traditionally nomadic, Inuit

<sup>7</sup> Ibid., 218.

<sup>8</sup> Ibid., 235.

<sup>9</sup> Ibid., 7.

<sup>10</sup> Ibid., 236.

<sup>11</sup> Ibid., 233.

<sup>12</sup> Ibid., 267.

<sup>13</sup> Ibid., 236.

<sup>14</sup> Ibid., 267.

<sup>15</sup> Ibid., 268.

<sup>16</sup> Ibid., 272.

lived a subsistence lifestyle characterized by migration across a vast, seasonally dynamic landscape. Though Inuit culture reflects thousands of years of evolution in unison with their unique Arctic homeland, the complexity of Inuit society was overwhelmed by a colonizing power intent on dissolving the incongruities of traditional culture in a process of assimilation to Euro-Canadian standards. Evidence of this perspective is clearly illustrated as early as 1917 when the first Inuit were brought before Canadian courts for the murder of intrusive Roman Catholic missionaries from the South. In his opening comments on the case, Crown prosecutor Charles Coursolles McCaul declared:

These remote savages, really cannibals, the Eskimo of the Arctic regions have got to be taught to recognize the authority of the British Crown...and that the authority of the Crown and of the Dominion of Canada, of which these countries are a part, extends to the furthermost limits of the frozen North.<sup>19</sup>

This early example of the assertion of Southern values on a unique cultural group is consistent with Foucault's notion that prison ushers individuals beyond the perimeter of "normal" into the realm of societal acceptance. It is an attitude indicative of the approach taken against Inuit citizens of Canada right through the "Government Era" of the 1950s. In a thinly veiled attempt to bring the benefits of social welfare to the Arctic region, this period is defined by the mandate of the Canadian Government to lead Inuit into the normalized context of the rest of the country, and in doing so, assert the dominance of colonial influence as the guiding force of sovereignty in the Canadian North. In one of the most egregious human rights violations ever perpetrated in Canada, the government forcibly imposed a policy of compulsory settlement of Inuit in permanent communities. Concentrating Inuit populations in permanent locations enabled the government to regulate Inuit activity and morality through the application of Southern institutions of education, health care, religion and law. The very same institutions that comprise a prison in the Foucauldian sense.

<sup>17</sup> David Damas, Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic (Montreal & Kingston: McGill-Queen's University Press, 2002), 4.

<sup>18</sup> Nunavut Tunngavik Incorporated, *Annual Report on the State of Inuit Culture and Society: Examining the Justice System in Nunavut* (Iqaluit: Nunavut Tunngavik Inc., 2014), 4.

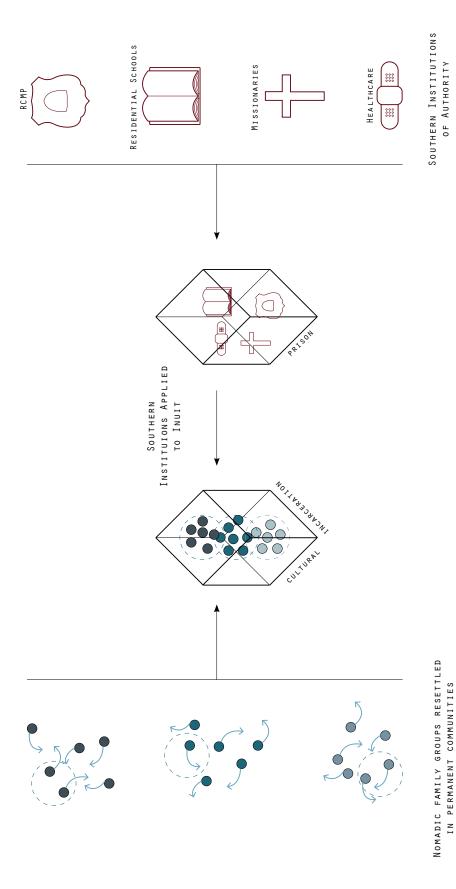
<sup>19</sup> Ibid.

<sup>20</sup> George W. Wenzel, "Inuit and Modern Hunter-Gatherer Subsistence," *Études/Inuit/Studies* 37, no. 2 (2013): 185.

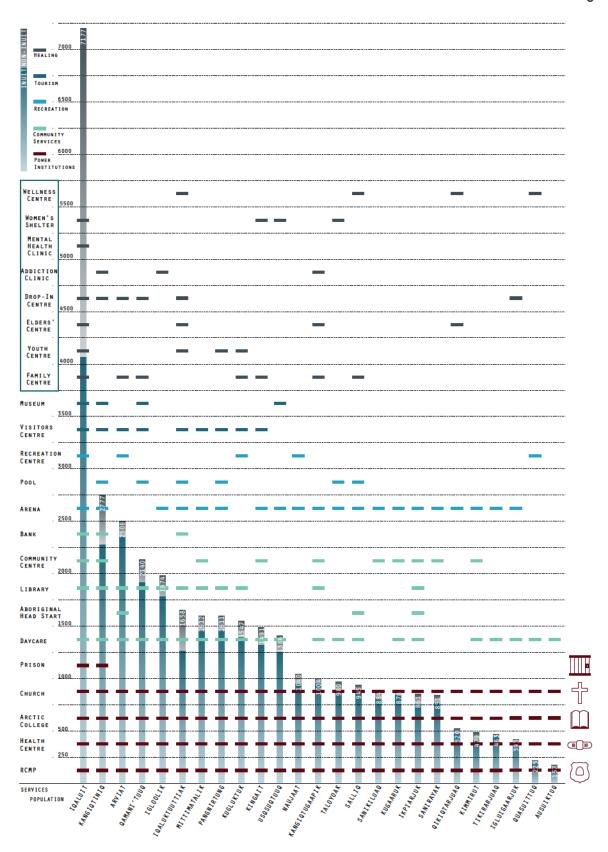
<sup>21</sup> James Frank Tester and Peter Kulchyski, *Tammarniit (Mistakes): Inuit Relocation in the Eastern Arctic, 1939-63* (Vancouver: UBC Press, 1994), 103.

<sup>22</sup> Tester and Kulchyski, *Tammarniit*, 104.

<sup>23</sup> Damas, Arctic Migrants, 116-131.



This diagram illustrates the manner in which institutions of authority are gathered together in a prison. These coercive institutions have been applied to Canada's Inuit population as a means of documenting and enforcing Southern values and regulations.



This data indicates that communities in Nunavut are saturated with institutions of authority while social and cultural infrastructure is lacking; data from Government of Nunavut, "Community Profiles."

This process of forced confinement, paired with the implementation of power institutions, amounts to a form of Inuit cultural incarceration. The repressive influences of these foreign institutions threaten to destroy the vitality of an Inuit culture that has existed for centuries. While acceptance of Inuit beliefs and values returns, the proliferation of Southern influences continues to challenge traditional cultural values, resulting in a loss of identity among a rising number of Inuit youth. This cultural displacement is in part responsible for a growing gap between Inuit elders and youth who are lacking an effective means of connecting with one another. It is an alarming reality that can be directly linked to increasing problems with mental health, substance abuse and even suicide across the territory.<sup>24</sup> The struggles faced by Inuit to engage with a Southern lifestyle in a meaningful way, mirrors the cycle of delinquency promulgated by Foucault, thereby extending the metaphorical thread of cultural incarceration through colonization.

### Climate of Crime in Nunavut

Nunavut is Canada's newest and northernmost territory, formally established on April 1, 1999.<sup>25</sup> It is home to Canada's youngest and smallest population, <sup>26</sup> with 84% of inhabitants identifying as Inuit.<sup>27</sup> At the same time, Nunavut also has the highest crime rate in Canada at over double the national average, <sup>28</sup> while it is estimated that 90% of crimes are committed under or in relation to drugs and alcohol.<sup>29</sup> The causes for these statistics are complex and can be linked to the sweeping cultural changes associated with the rapid process of modernization that has occurred over the last several decades. A large part of the problem, however, resides with the unsuitable approach to corrections in the Territory. The current correctional model fails to take Inuit values, beliefs and principles of justice into consideration.<sup>30</sup> Facilities in Nunavut are overcrowded, dilapidated and lack

<sup>24</sup> Nunavut Tunngavik, Annual Report, 34.

<sup>25</sup> General Practice Physicians in Nunavut, "The Road to Nunavut: A Chronological History," http://www.nunavut-physicians.gov.nu.ca/history.shtml.

<sup>26</sup> Nunavut Bureau of Statistics, *Nunavut Population Estimates by Sex, Age Group, Region and Community, 2013*, January 21, 2014, http://www.stats.gov.nu.ca/en/Social%20crime.aspx.

<sup>27</sup> Nunavut Bureau of Statistics, *Nunavut Population Estimates by Inuit and Non-Inuit, Region, and Community, 2006 to 2013*, January 21, 2014, http://www.stats.gov.nu.ca/en/Social%20 crime.aspx.

<sup>28</sup> Nunavut Tunngavik, Annual Report, 10.

<sup>29 &</sup>quot;Nunavut Struggles With Lack of Alcohol Treatment Options," *CBC News*, http://www.cbc.ca/news/canada/north/nunavut-struggles-with-lack-of-alcoholtreatment-options-1.1331131.

<sup>30</sup> Correctional Investigator, Report of the Office of the Correctional Investigator (Canada) on the

adequate mental health and addiction services, while offenders are transported thousands of kilometres from their families and communities to serve their time.<sup>31</sup> The shortcomings of the correctional system are directly reflected in the high rate of recidivism among Inuit offenders.

Nunavut's crime rate has more than doubled since the inception of the territory in 1999.<sup>32</sup> The reasons for this statistic are varied and complex, however, many of the causes can be drawn directly from the outcomes of modernization and cultural repression. At the same time, Nunavut lacks an effective means of curbing this trend. At the time of writing, the Territory currently manages six correctional facilities, four of which are located in the capital Igaluit and include a Young Offenders Facility, Women's Correctional Centre, Uttaqivik Community Residential Centre and the main prison, Baffin Correctional Centre.<sup>33</sup> Other facilities operate in Rankin Inlet and Kugluktuk, however, the two primary correctional facilities shouldering the bulk of the inmate load in Nunavut are the Baffin Correctional Facility in Igaluit and the Correctional Healing Facility in Rankin Inlet. 34 Every facility in the Territory is near or over capacity, making overcrowding a constant concern.<sup>35</sup> The main facility, Baffin Correctional Centre (BCC) remains the primary repository for offenders in Nunavut and is in major need of an overhaul. A report undertaken by the Office of the Correctional Investigator found the BCC lacking in almost every measure of assessment with overcrowding and severe dilapidation of the physical condition of the building requiring urgent attention.<sup>36</sup> The prison, constructed in 1986, was initially designed to accommodate 46 inmates with the capacity subsequently expanded to 65.37 Over the course of the last few years, however, the actual occupancy regularly exceeds 100 inmates.<sup>38</sup> The report contends that, "Crowding of inmates is inconsistent with good

Baffin Correctional Centre and the Legal and Policy Framework of Nunavut Corrections, http://www.justice.gov.nu.ca/apps/UPLOADS/fck/file/Report%20OCI%20on%20NU.pdf, 11.

<sup>31</sup> Nunavut Tunngavik, Annual Report, 1.

<sup>32</sup> Ibid., 11.

<sup>33</sup> Ibid., 33.

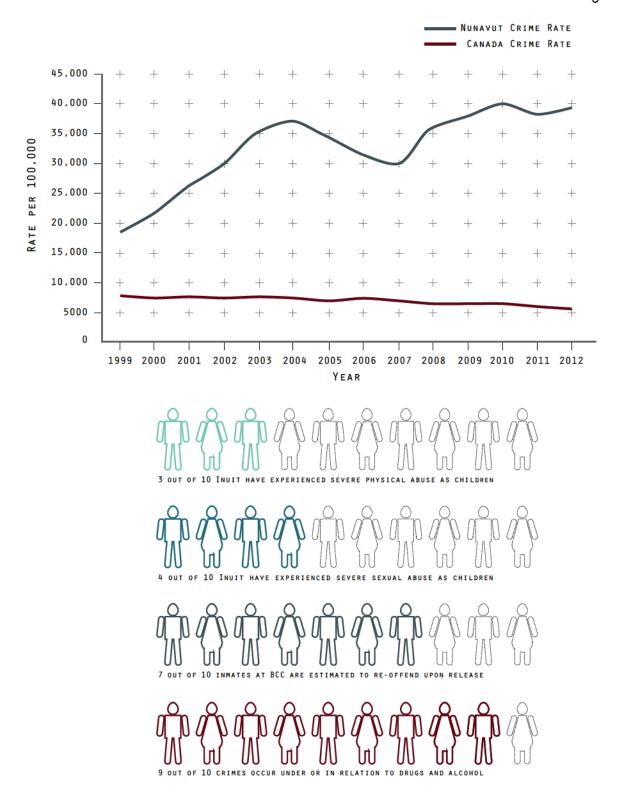
<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Correctional Investigator, Report on the Baffin Correctional Centre, 6.

<sup>37</sup> Ibid., 4.

<sup>38</sup> Ibid.



#### Statistics from:

Kerry McCluskey, "The Road to Rehabilitation: New Programs for Nunavut Inmates," *Northern News Services*, 2001.

"Nunavut Struggles With Lack of Alcohol Treatment Options," *CBC News*, 2013. Nunavut Tunngavik, *Annual Report*.

correctional practice and violates international human rights standards."39

The realities of this shortage of space manifest in many different ways, the most obvious being the overcrowding of prisoner cells. At the BCC, cells contain three to four times the acceptable number of inmates for the provided space, 40 often forcing inmates to sleep on temporary, emergency relief mattresses right against the cold concrete floor.<sup>41</sup> Worse, prisoners are routinely housed in the gymnasium, preventing residents from having anywhere to exercise indoors, 42 while in another area, 57 inmates were forced to share only two showers.<sup>43</sup> Due to the underlying lack of space at the BCC, rooms cannot be adequately cleaned because there is nowhere to move inmates while this occurs, resulting in severe mould infestations and poor ventilation throughout the facility. 44 These alarming deficiencies lead the Correctional Investigator to declare that the, "BCC is past it's best before date and needs to be closed and replaced by a new facility or facilities."45 At the time of writing, 70% of the inmates housed at BCC were on remand, but were forced to be mixed in with convicted offenders due to shortages of space, constituting "poor correctional practice."46 While the physical attributes of the BCC are clearly reprehensible, arguably the most devastating observation of the justice system in Nunavut is characterized by a failure to incorporate Inuit culture:

[Correctional] Legislation is silent on Inuit principles of justice, language, cultural and spiritual rights, and ceremonial and dietary requirements. No attempt is made to ensure that the correctional system and decision-making are responsive to the unique needs of Inuit people.<sup>47</sup>

Probably the only redeeming qualities of the BCC lie in the land programs that it operates. These programs offer Inuit inmates an opportunity to reconnect with the land and learn traditional skills as part of their rehabilitation.<sup>48</sup> Unfortunately, participation in this program

<sup>39</sup> Correctional Investigator, Report on the Baffin Correctional Centre, 7.

<sup>40</sup> Ibid., 5.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>45</sup> Ibiu.

<sup>44</sup> Ibid., 7.

<sup>45</sup> Ibid., 6

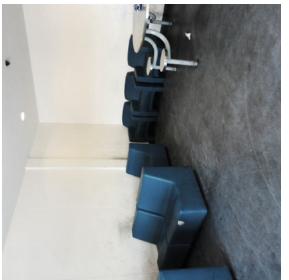
<sup>46</sup> Ibid., 9.

<sup>47</sup> Ibid., 11.

<sup>48</sup> Ibid., 13.









Images of deplorable conditions at the Baffin Correctional Centre. Clockwise from top left: dilapidated inmate cell, overcrowded inmate accommodate overcrowding, dirty showers, common room; from Correctional Investigator, Report on the Baffin Correctional Centre. cell, gymnasium converted to dormitory to

is limited due to the fact that any inmates who go outside the building are pressured to procure drugs and often suffer threats or physical violence if they fail to do so.<sup>49</sup>

The recently opened location in Rankin Inlet marks a first step forward in terms of more appropriate correctional measures, but does not do enough to work towards this goal. It maintains the neocolonial strategy of centralization, forcing offenders to be displaced from their families and communities. Due to the lack of space, there are many occasions when Inuit inmates are transferred even further afield to serve their sentences at institutions as far away as Yellowknife or Ottawa, 50 contributing to further isolation and culture shock during an already psychologically and emotionally challenging time. This solution fails to benefit any of the parties involved, as the financial burden on Nunavut Corrections increases due to the inflated costs of incarcerating an Inuk inmate outside the Territory. The daily cost of housing an inmate in Yellowknife, for example, rises to \$145/day compared to \$110/day within Nunavut.<sup>51</sup> Overcrowding is a serious issue that is undermining the potential for successful rehabilitation of offenders. The resulting poor living conditions likely add to feelings of injustice among inmates as warned by Foucault. At the same time, the lack of separation between convicted and accused offenders along with the congested living conditions establish opportunities for criminals to conspire and learn from one another. In a system already lacking a relevant cultural approach to corrections, the abhorrent conditions of the facilities only serve to victimize offenders and further ingrain their delinquent behaviour.

While the prison conditions in Nunavut are nothing short of deplorable, probably the greatest downfall of the correctional system and of the Territory as a whole, is the lack of access to badly needed social services. Individuals working within the sphere of justice in Nunavut, from legal aid representatives to judges, identify a serious need for mental health and addiction services.<sup>52</sup> Nunavut has an increasing problem with substance abuse and mental health which manifest themselves in alarming rates of physical and sexual

<sup>49</sup> Correctional Investigator, Report on the Baffin Correctional Centre, 10.

<sup>50</sup> Nunavut Tunngavik, Annual Report, 33.

<sup>51</sup> Kerry McCluskey, "The Road to Rehabilitation: New Programs for Nunavut Inmates," *Northern News Services*, http://www.nnsl.com/frames/newspapers/2001-05/may14\_01inmate.html.

<sup>52</sup> Nunavut Tunngavik, Annual Report, 31.

violence, as well as suicide.<sup>53</sup> Currently, Nunavut offers only one mental health clinic, recently opened in a refurbished building in Iqaluit,<sup>54</sup> however, this location is insufficient to serve the needs of an entire Territory whose population is spread over such a vast region. Even more alarming, is the fact that Nunavut does not offer a single addiction treatment facility for individuals seeking to break their drug habits.<sup>55</sup> At the same time, Nunavut lacks a resident psychiatrist and relies on flying one into the Territory on a monthly basis.<sup>56</sup> Individuals requiring the expertise of such a doctor are consequently forced to wait several months before meeting with a psychiatrist, whose temporary presence precludes patients from developing a thorough patient/doctor relationship.<sup>57</sup> As a result of the lack of social services, many residents suffering from mental health and addiction issues express their problems through criminal acts, meaning that the justice system is often the first stop for mentally ill and addicted patients needing treatment.<sup>58</sup>

Unfortunately, in keeping with other government institutions in the Territory, the correctional centres in Nunavut are lacking the resources to help these people, <sup>59</sup> inhibiting them from receiving the care and support required for effective rehabilitation, which ultimately contributes to future recidivism. Statistics support the notion that the ballooning rate of crime in Nunavut is really a social health problem. Estimates claim that approximately 60% of inmates in Nunavut suffer from Fetal Alcohol Syndrome Disorders (FASDs), a family of mental health problems that affects the behaviour of an individual as a direct result of alcohol consumption during pregnancy. <sup>60</sup> Similarly, another calculation suggests that 70% of the clients served by legal aid in Nunavut demonstrate signs of mental illness. <sup>61</sup> These statistics clearly indicate that crime is not the problem, rather a symptom of a society wide mental health epidemic. As a result of the lack of treatment options within the justice system, estimates of recidivism are as high as 70-75% among

<sup>53</sup> Ibid., 9.

<sup>54 &</sup>quot;New Mental Health Centre Opens in Iqaluit," *Nunatsiaq News*, http://www.nunatsiaqonline.ca/stories/article/65674new mental health treatment centre opens in iqaluit/.

<sup>55</sup> Nunavut Tunngavik, Annual Report, 34.

<sup>56</sup> Ibid., 32.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid., 31.

<sup>59</sup> Ibid., 34.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid., 36.

inmates released from the BCC.<sup>62</sup> What these statistics prove is that a large portion of crime in Nunavut is a result of repeat offenders that are not receiving the treatment they need from a misguided correctional system. At this juncture in Nunavut corrections, prison has as much a role to play in crime prevention as in rehabilitation. Making mental health and addiction treatment available to inmates would allow offenders to get the kind of care they need and neutralize the threat of alcohol and drug induced crime while reducing the potential for recidivism upon release. These statistics are indicative of a system of corrections that does not take into account the actual causes of criminal activity and fails to treat them in any meaningful way. They clearly identify a need for the facilities to provide this type of sorely needed healing infrastructure.

Beyond the lack of social services, correctional facilities in Nunavut fail to address Inuit principles of justice. Traditional Inuit society exercised a unique form of justice that incorporated elements of mythology and astronomy within a metaphysical world view.<sup>63</sup> Unpacking these traditional attitudes towards crime provide an opportunity to revitalize traditional Inuit principles in a contemporary context. To do so, it is pertinent to analyze the characteristics of justice in traditional mythology and understand the role of community in the resolution of impropriety. A significant example of social transgression manifested through myth is embodied by the creation story of the Sun and Moon.<sup>64</sup> This myth details an account of incest between a brother and sister, in which the brother would secretly assault the sister under cover of darkness. 65 Upon discovering the identity of her attacker, the sister chased her brother all the way into the sky at which point the brother became the Moon and the sister the Sun. 66 In an environment that experiences such drastic fluctuations in the availability of light across the seasons, it is important to note that the explanation for these celestial bodies brings the issue of social transgression to the forefront of Inuit consciousness. The explanation of the lunar cycle offers a further glimpse into the complex attitudes towards criminal behaviour in traditional times. The waning of the moon is explained by the starving of the brother as punishment for his misdemeanour, while

<sup>62</sup> McCluskey, "The Road to Rehabilitation."

<sup>63</sup> Nunavut Tunngavik, Annual Report, 7.

<sup>64</sup> John MacDonald, *The Arctic Sky: Inuit Astronomy, Star Lore and Legend* (Iqaluit: Nunavut Research Institute, 1998), 211.

<sup>65</sup> MacDonald, The Arctic Sky, 218.

<sup>66</sup> Ibid.

the waxing moon represents the sister feeling compassion for her brother and nursing him back to health.<sup>67</sup> Stars also figure prominently in Inuit astronomy due to the scarcity of light for prolonged periods during the winter. Contrary to western astronomy in which people are commonly represented by a series of stars in a constellation, Inuit believe that single stars represent individuals who have ascended to the sky upon breaking some form of social taboo.<sup>68</sup> Most often, the neighbouring stars represent close companions or relatives,<sup>69</sup> highlighting the importance of family and community in the resolution of misbehaviour.

These examples acknowledge that traditional Inuit culture was highly ritualized and contained an inherently agreed upon and socially complex set of rules and values around which Inuit society revolved. It also demonstrates that the breaking of rules came with consequences that involved not only the individual, but always others, especially family members. This is significant for the manner in which it characterizes crime as an occurrence that carries implications for the wellbeing of a whole community. The authority within a traditional community most often fell to the elders, whose role it was to act as agents of peace and social control.<sup>70</sup> Elders typically resolved conflict by counselling individuals that broke a rule, either privately or with the presence of other community members depending on the nature of the transgression.<sup>71</sup> This council would asses the threat an offender posed to the community before administering an appropriate solution.<sup>72</sup> It was generally believed that offenders and their families would suffer consequences including, "failing weather, lethal accidents or unsuccessful hunting," 73 which evidences both the intrinsic connection to family and metaphysical relationship to the land. Punishment was reserved only for repeat offenders and usually involved the exclusion of the individual from the community until they understood and valued their membership. 74 This form of punishment was particularly serious, because a traditional subsistence lifestyle depended

<sup>67</sup> Ibid., 219.

<sup>68</sup> MacDonald, The Arctic Sky, 15.

<sup>69</sup> Ibid.

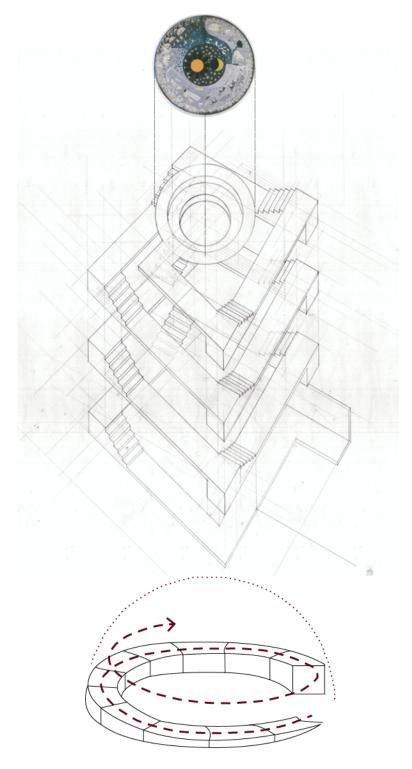
<sup>70</sup> Nunavut Tunngavik, Annual Report, 7.

<sup>71</sup> Ibid.

<sup>72</sup> Ibid.

<sup>73</sup> Ibid.

<sup>74</sup> Geert Van Den Steenhoven, *Research Report on Caribou Eskimo Law* (The Hague: Department of Northern Affairs and National Resources, 1955), 63.



These initial process diagrams demonstrate the manner in which the traditional spiral building pattern of an igloo is reinterpreted in a contemporary context as a circulation route. The procession from ground level upwards is inspired by the mythological ascension of rule-breakers to the sky where they would transform into stars, a belief that is evidenced in the creation story of the Sun and Moon. At the summit of this spiral climb resides the elders' circle, modeled after a form of traditional court, in which elders can counsel individuals in a culturally appropriate setting; from John MacDonald, *The Arctic Sky*.

on cooperation between community members, meaning individual survival was near impossible in such an unforgiving environment. There are even historical accounts of a type of elders' court consisting of two concentric circles of massive stones with seating on the inner stones, the last evidence of which was seen in Akitsiraqvik in 1924.<sup>75</sup> This space provided a setting for counselling and judgement between elders and rule breakers in a formal realization of community hierarchy.

When considering an architectural response to existing prisons in Nunavut, the research gathered above details two distinct approaches to justice in the Territory. The first outlines the current state of prisons and criminal justice by identifying their inadequacy both in terms of their physical state of existence and lack of Inuit cultural expression. The second demonstrates the traditional means of dispensing justice in Inuit communities, drawing heavily on mythology and nomadic community structure prior to contact with Europeans. It is important to recognize that to adopt either of these systems exclusively would fail to constitute a successful project. Certainly, maintaining the status quo is not the answer as it would sustain the primacy of the Southern colonial influence over Inuit people, while returning to a pre-contact form of organization would ignore the manner in which Nunavut has evolved to become a globally connected and aware community through technological advancement and appropriation. As Wright so aptly points out, "... as we have climbed the ladder of progress, we kicked out the rungs below,"76 a truth evidenced in the context of Nunavut today as a place where Southern influences have become so ingrained in daily life that it would really be impossible and undesirable to return to a primordial state of existence. Instead, the guiding design characteristic embodied in NU Healing is a synthesis of cultural tradition and contemporary influence. Despite the massive cultural displacement incurred due to rapid modernization and displayed by widespread social struggles, Inuit have proven resilient in finding ways to sustain traditional practices through adaptation of outside influences. The continued practice of subsistence hunting demonstrates the manner in which Inuit have adapted a traditional activity in a contemporary context.<sup>77</sup> Though families no longer have the opportunity to live on the

<sup>75</sup> Nunavut Tunngavik, Annual Report, 7.

<sup>76</sup> Ronald Wright, An Illustrated Short History of Progress (Toronto: Anansi Press, 2006), 15.

<sup>77</sup> Wenzel, "Modern Hunter-Gatherer," 188.

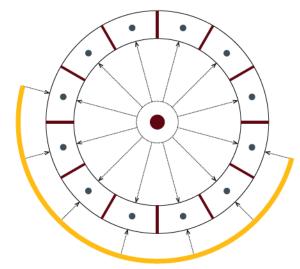
land and follow the migrations of their prey as they did in nomadic times,<sup>78</sup> hunters have restructured the travel in response to the routine demands of wage labour employment.<sup>79</sup> Hunters use snowmobiles because of their superiority over dog teams in terms of speed, allowing them to cover more territory in the reduced amount of time available.<sup>80</sup> Wage labour work therefore becomes of critical importance as it provides people with the income required to buy technological imports such as snowmobiles and the fuel they consume.<sup>81</sup> This example of the appropriation of contemporary influences in a culturally significant manner inspires the fundamental framework of the NU Healing project. Though it is important to recognize that Nunavut cannot be reduced to a romanticized notion of ancient nomadism, the cultural voracity of the people has not diminished in the face of outside threats. NU Healing explores the concept of synthesis from the perspective of site, program and materiality to create a typology of healing spaces that incorporates Inuit principles of healing and building in a contemporary Inuit society.

<sup>78</sup> Laidler et al., "Travelling and Hunting in a Changing Arctic: Assessing Inuit Vulnerability to Sea Ice Change in Igloolik Nunavut," *Climatic Change* 94 (2008), 388.

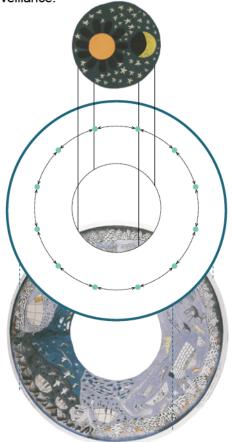
<sup>79</sup> Wenzel, "Modern Hunter-Gatherer," 188.

<sup>80</sup> Claudio Aporta, "The Trail as Home: Inuit and Their Pan-Network of Routes," *Human Ecology* 37, no. 2 (2009), 133.

<sup>81</sup> Wenzel, "Modern Hunter-Gatherer," 190.



These diagrams explore the manner in which architecture can harness the geometry of the circle to achieve very different effects. The Panopticon uses the circle to establish a power hierarchy based on visibility. The guard in the central tower is invisible to the prisoner. The prisoner, however, is illuminated by the light entering from outside. As the prisoner cannot see the guard, they experience the sensation of constant surveillance.



A traditional Elders' Court uses the circle to create a democratic space in which everyone is located in an equal position. This space was used by elders to counsel wrong-doers and decide on an appropriate course of action. Both the land and the cosmos figured prominently in perceptions of crime and justice; from John MacDonald, *The Arctic Sky*.

## **CHAPTER 2: DESIGN**

### Site

### **Spatial Marginalization**

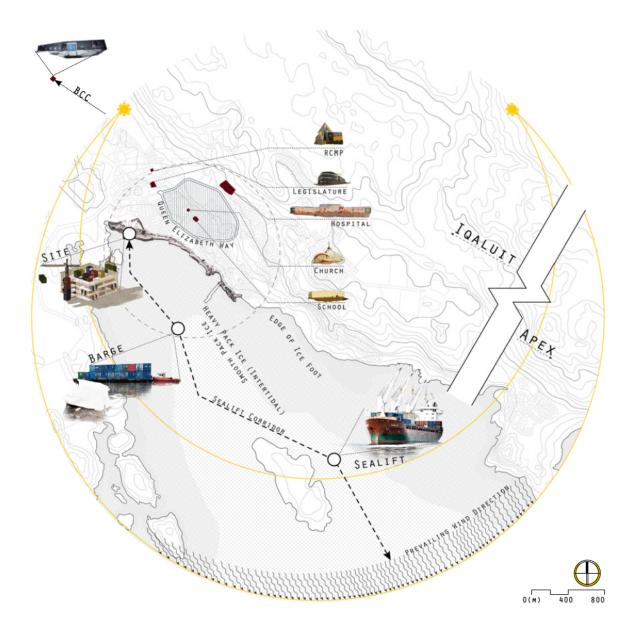
Permanent settlements in Nunavut embody a spatial armature of colonial ideology from a territorial to architectural scale. Historical attitudes of segregation are evidenced by the enforced separation of "Eskimo" camps from those of the white man, demonstrated by the "Eskimo suburb" of Apex on the fringe of Frobisher Bay (modern day Iqaluit). This example of enforced segregation is a spatial manifestation of colonial policies established as a means of keeping Inuit settlements in close enough proximity to monitor morality, while set apart in an effort to avoid incurring Inuit dependence on government handouts. The inherent racism implied by this policy reflects the colonial opinion that lazy Inuit took advantage of the generosity of welfare and completely ignores the genesis of Inuit relations with Southern colonizers. In fact, with the onset of fur traders, Inuit hunters were hired by trapping companies to tend to traplines and harvest furs in exchange for Southern goods.82 Due to the harsh realities of arctic living, a hunter in the employ of trappers was simply unable to practice a subsistence lifestyle concurrently. Consequently, trading posts forced Inuit dependence on Southern goods while eroding a culture of nomadism and subsistence hunting.83 When fur prices fell and trading companies pulled out, the responsibility to fill the ensuing void was transferred to the federal government. Naturally unwilling to dispense welfare, and keen to avoid the well recognized problems incurred by First Nations reservations in southern Canada, the government proceeded with a strategy of non-interference, rhetoric that they felt justified their unwillingness to spend money to deliver the badly needed support required by Inuit following interference by Southern traders.<sup>84</sup> Ultimately, this gave rise to the arms reach approach pursued by the government, in which Inuit communities were separated from white settlements, the physical foundations of which are still visible today.

Though these colonial boundaries are being eroded, contemporary community

<sup>82</sup> Tester and Kulchyski, Tammarniit, 20.

<sup>83</sup> Ibid., 26.

<sup>84</sup> Ibid., 37.



Map identifying the urban context of Iqaluit, Nunavut. Note the separation of the former "Eskimo suburb" Apex from the main body of Iqaluit; base map from "GeoGratis," Natural Resources Canada.

plans throughout the North depict institutions of power and authority, including RCMP detachments, schools and government offices, occupying a centralized location in keeping with ideals of Southern planning. Land is parcelled into individual lots, on which each receives a poorly built cousin of a building barely suited to southern Canada, let alone the Arctic. The presence of accessory buildings scattered on the periphery of these lots, serves not only to identify the dwellings of hunters, but also demonstrates the inadequacies of government housing to respond to the needs of Inuit pursuing a traditional lifestyle. 85 At the smallest scale, the partitions of government houses prescribe the routines of social interaction occurring within an Inuit household to the standards of a southern Canadian family unit. Only a thin strip of coastline is reserved for traditional use and is a contemporary example of the manner in which Inuit cultural practices are pushed to the margins in both a spatial and social context. This area of the Inuit community is a site of vibrant cultural expression that will be revisited in greater detail below. What is clear from this reading of Northern settlements, however, is the spatialization of colonial policies that parcel Inuit into the rigid grid of a southern Canadian lifestyle while threatening a social and cultural fabric that has flourished for centuries.

The nested scales of spatial marginalization extant in Nunavut are currently promulgated at a territorial scale by the concentration of institutions of power and authority in centralized locations. The reality of this fact is most acutely evident in the structure of the current correctional system. The centralized nature of correctional facilities in two main centres, Iqaluit and Rankin Inlet, forces individuals to leave their homes and communities on the fringes of the territory to serve time in these larger administrative centres. Evacuating individuals from their communities precludes the opportunity for a healing process that remedies not only the individual but the tear in the fabric of the community left by their actions. Often, this results in individuals serving time in jail far from home, only to return to face the same challenges that instigated their actions in the first place. Support from family members during an emotionally fragile time is similarly diminished by the huge distances and costs involved in travel within the territory.

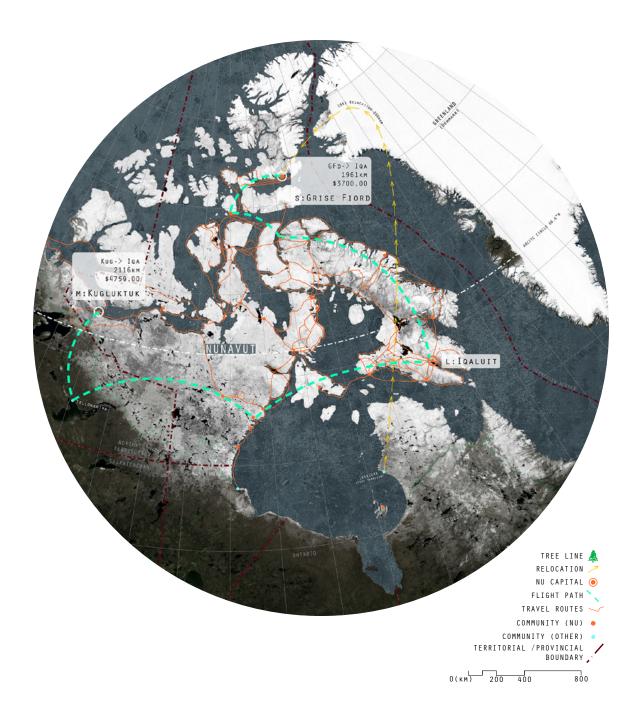
<sup>85</sup> Joshua Armstrong, "The Second Promise: An Architect's Journey through the Shacklands of the North" (MArch thesis, Carleton University, 2012).

# **Decentralization Leads to a Healing Typology**

The social roadblocks and associated problems with a centralized approach of conventional correctional administration in Nunavut inspires a site strategy that decentralizes the physical elements of healing infrastructure and disperses them throughout the Territory. This strategy gives rise to the development of a type of healing space that can be realized in each of the widely dispersed communities across Nunavut and immediately addresses some of the most pressing shortcomings of the current model. The establishment of localized healing spaces in each community precludes the need to displace individuals from their home and family. It generates opportunities for the individual to confront the underlying causes of their actions in a collaborative social process that heals community and self alike. Secondly, it permits individuals to remain within reach of familial support during a psychologically delicate facet of their life experience. Importantly, the act of decentralization subverts the colonial model of concentrating power at the centre in both a spatial and conceptual sense. It is at this juncture that NU Healing diverges from the correctional facilities or jails as they currently exist, and instead represents an alternative to incarceration wherein individuals that have committed social transgressions can engage with elders and community members in a safe and positive context to understand and heal the causes of their distress in a culturally responsive and autonomous environment. The building provides infrastructure that can be used to provide the kind of mental health and addiction support needed by both individuals and community members at large to access the root causes of social ills before their manifestation as acts of crime. The difference is most succinctly described as a counter point to the medieval attitude of punishment and deterrence embodied by incarceration, by offering an approach to healing that responds to the unique needs of Inuit people and the unique challenges they face.

### Test Sites: S, M, L

With respect to the vastness of Nunavut, it is important to demonstrate the manner in which NU Healing, as a design type, responds to the heterogeneity of people, topography, climate, environment and community scale within the Territory, while communicating the architectural language that unites the project as an articulated strategy. This approach presents an opportunity to identify how the design responds to the nuances of respective sites, while expressing the fundamental characteristics that describe, not only the identity



Map of Nunavut identifying cost and distance of travel between communities; base image from "Outline of Canada," Wikipedia.

of the project, but the nature of the Territory as a whole. To illustrate this concept, NU Healing is deployed in three test communities in Nunavut that reflect the way in which this type speaks to the unique qualities of each locale, while reflecting ubiquitous aspects of site across the territory.

#### Grise Fiord

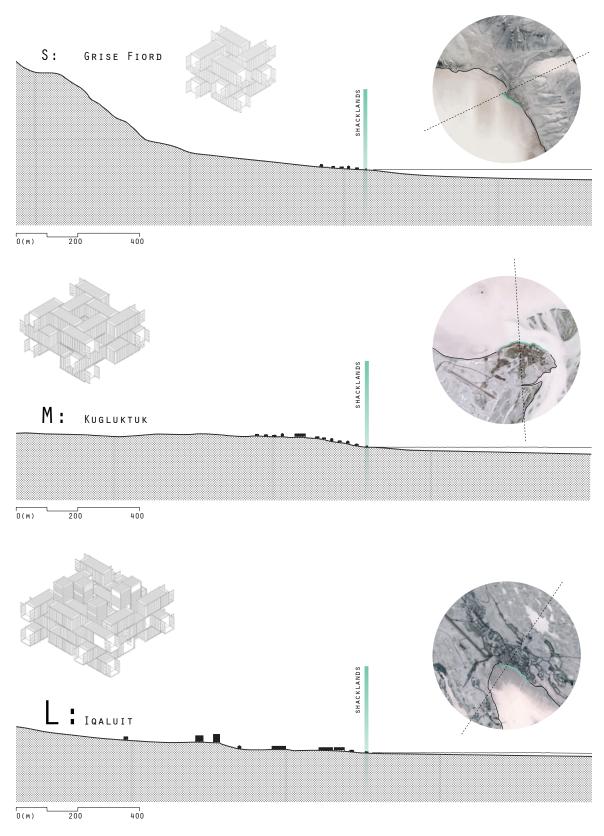
Grise Fiord represents the small scale focus of this project, however, its relevance as a test site goes much deeper. As a community of just over 150 people, Grise Fiord is the smallest permanently inhabited community in Nunavut and also the most northerly, residing on the southern tip of Ellesmere Island.86 As a result of its polar disposition and mountainous terrain, Grise Fiord provides an opportunity to challenge the building in relation to the greatest environmental extremes of the Arctic environment, characterized by drastic seasonal transitions, cold temperatures and contrast in daylight. Its size permits a demonstration of the project in its most elemental form, as a seed that embodies the fundamental characteristics of the design that grow and expand in response to changes of scale in larger communities. Grise Fiord also serves an important symbolic position in the study of Inuit marginalization in a spatial and temporal context. The history of settlement in this community is fraught with colonial ideals of marginalization as the community was established in 1953 through a Canadian government policy of relocation.87 Several families from Northern Quebec along with a few from Pond Inlet on Baffin Island were relocated under the pretense of offering welfare benefits and plentiful wildlife for hunting.<sup>88</sup> The actual reasons for this relocation stem from a disagreement between the provincial government of Quebec and the federal government over who should be responsible for sponsoring Inuit welfare. During a time of increasing tensions during the Cold War when the issue of Arctic sovereignty began being raised with some interest, the federal government saw an opportunity to take care of two situations at once. In response to the perceived welfare burden on the province of Quebec and in order to establish a more permanent presence in the High Arctic, the federal government moved these families to the site of what is today Grise Fiord.89

<sup>86 &</sup>quot;Land," *Grise Fiord*, http://www.grisefiord.ca/eng/land.html.

<sup>87</sup> Tester and Kulchyski, Tammarniit, 147.

<sup>88</sup> Ibid., 143.

<sup>89</sup> Ibid.



Site sections and aerial images of three communities in Nunavut identify the coastal relationship of the Shacklands as a common thread uniting communities of varying scale, topography and geographical location; base image from Google Maps.

### Kugluktuk

The community of Kugluktuk represents the median population range for settlements across Nunavut. Being the westernmost community in the Territory, residents of Kugluktuk speak and write a dialect of Inuktitut known as Innuinaqtun. Along with its unique demography, its geographical proximity to the tree line means that low lying shrubs and even sparse, dwarf trees characterize the landscape, a rarity in a Territory largely defined by tundra.

### Igaluit

As the largest community in the territory and the capital city, Iqaluit is a venue for the project to adapt to its largest scale, but also to demonstrate its importance as a counterpoint to the existing system that resides in the city. Its thriving cultural waterfront and hub for imports to the Territory offer a chance to demonstrate how the project can fit into and enhance a more developed waterfront condition.

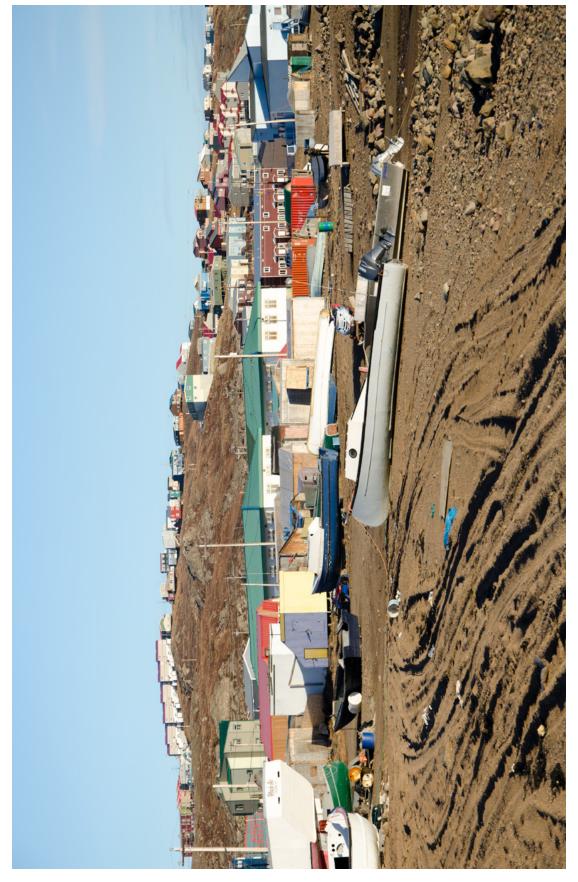
#### The Shacklands

Borrowing a term from Joshua Armstrong's 2012 Master of Architecture thesis, the "Shacklands" perfers to the ubiquitous strip of beach that mediates between land and water in communities across Nunavut. The test sites described above offer an opportunity to explore the fundamental design principles of NU Healing at three scales relating to topography, population and geography, however, the coastline is a constant feature and a defining characteristic of Inuit identity, both past and present. The edge condition represented by the Shacklands constitutes a point of departure for boats in the summer, traversing a briefly liquid landscape in pursuit of marine life, and in the winter, a frozen substrate for sled travel and a platform for hunting. While the modern lot arrangements that define the spatial character of communities reflect principles of private ownership inherent to the capitalist model of southern Canada, the coastal edge is reserved for traditional use, granting Inuit culture and lifestyle a home on the margins of modernized settlements. In this way, the Shacklands becomes a threshold that mediates between Northern and Southern ways of living. It is characterized by an eclectic assortment of sheds, shacks and shipping containers, along with all manner of things from broken

<sup>90</sup> Joshua Armstrong, "The Second Promise."



The coastal situation of Iqaluit, Nunavut, identifying the autonomous edge condition serving as a threshold between tradition and modernity; base map from "GeoGratis," Natural Resources Canada.



An image of the Shacklands in Iqaluit, Nunavut, September, 2013.

electronics, to children's toys, parts of old vehicles and remnants of animal carcasses. It is a threshold that serves as a departure point for hunters transitioning from the modern confines of private ownership, wage labour employment and parcelled lots on land to pursue traditional practices associated with a subsistence lifestyle. It is a place of thriving cultural activity where meat is carved and shared, where gear for hunting is stored, where sleds, boats and skidoos rest haphazardly and where even the homeless erect shacks or tents to squat. It is also a threshold through which goods arriving from southern Canada and around the world on annual sea lifts must pass and therefore personifies the meeting of external and local cultural forces. The lack of formal regulation represented by this autonomous edge condition offers potential for a culturally responsive architectural intervention that challenges the top-down nature of the discipline with the bottom up characteristics of informal settlement. The Shacklands, as an autonomous cultural entity, is an important sinew that ties not only the disparate communities of the Territory, but an uncertain future with a vibrant past.

# **Building**

### **Kit of Parts**

NU Healing can be conceptualized as a kit of parts, a theory that describes the manner in which distinct elements come together to create a whole, like ingredients of a delicious meal. One of the themes driving the kit of parts is the idea of synthesis. As a guiding force, synthesis describes the manner in which modernity and tradition mediate between each other, a condition reminiscent of the Shacklands. The idea of synthesis seeks to revitalize traditional building archetypes in a contemporary context. The following headings explore each ingredient of the project.

### Circulation

The building is entered from the beach via one of two circulation cores, spaced apart from the main body of the building by bridges that perform a similar function to the tunneled entrance of an igloo. These cores serve as an extended threshold, that marks both a physical and temporal transition from outside to inside. In a practical sense they perform the role of a climate lock, preventing cold, arctic gusts from permeating throughout

the building. The connecting sinews facilitate the transformative experience of moving from the outside to the interior, offering not only places to shed tools and garments, but providing an opportunity for mental repose that mirrors the lengthened spatial transition in a temporal form. Upon entering the body of the building, a central healing space is framed by two layers of shifted shipping containers, themselves cloaked in additional external layers of glazing and netting. Taking inspiration from the traditional amauti (female parka) which is constructed of two layers of skins stitched together with the fur exposed on the interior to trap warm air and on the exterior to shed precipitation, the two layers of container building blocks are intertwined by the pattern of circulation. The visitor circulates primarily along the periphery of the building, in between the outer layer of sea cans and the external glazing/netting component. Due to the shifted configuration of the containers, the circulation invites the user inward, thereby stitching the external space with the interior. This pattern of drawing the inhabitant inward and back out again, allows them to gain varied and unique vantage points on the central healing and gathering space. Similarly, interior stairs linking one level to the next are arranged to draw the user towards the centre and back out, thereby stitching not only the interior and exterior, but extending the thread vertically, from one level to the next.

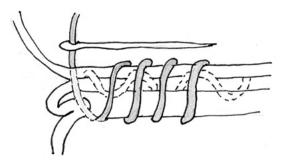


Diagram of a waterproof stitch. A way of joining layers; from Betty Kobayashi, *Sinews of Survival:* The Living Legacy of Inuit Clothing.

### **Foundation**

Foundations of northern buildings must take into consideration the nature of the ground condition, characterized by an active surface layer, a deeper permafrost layer and ultimately bedrock. The layers described here are present throughout Nunavut and are most often negotiated by drilling piles deep into either stable permafrost or bedrock and lifting the building off the ground to prevent the heat of the building from melting surrounding permafrost. This project exploits the action of lifting in an effort to bring

light underneath the building and provide sheltered areas to enhance cultural activities already taking place in the Shacklands, including the carving of meat or repairing of sleds and equipment. The platform resting on the piles is inspired by the manner in which the accumulation of snow during the winter raises the elevation of grade to establish a new datum. In a traditional context, inhabitable space would be sculpted from this new level to construct the igloo. In this instance, the building carves out a collective healing space, for gathering and performance. The platform itself is angled to achieve the necessary depth to accommodate the mechanical functions of the building, while its faceted underside, treated with reflective material, generates a micro climate that stays a few degrees warmer than its surroundings. The top surface of the platform provides a substrate for the arrangement of the structural modules and display of social activities.

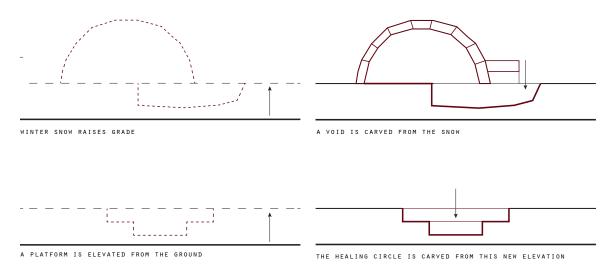
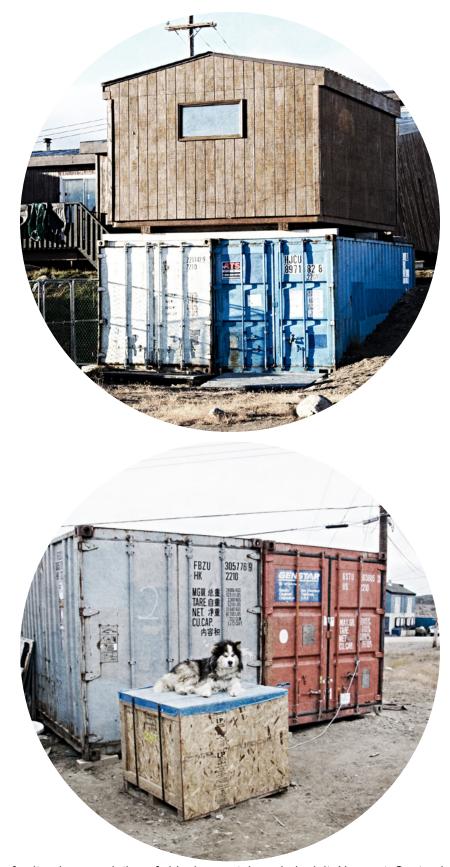


Diagram illustrating the manner in which the building reinterprets an intrinsic characteristic of the traditional igloo to generate a central healing and gathering place.

### Structure

The structural strategy takes cues from the Shacklands, a place where foreign intrusions are appropriated in culturally significant ways. One such foreign object, ubiquitous to the contemporary Arctic landscape and the beach in particular, is the shipping container. Shipping containers are the by product of the importation of all of the things provided for a community, from food and clothes, to vehicles and building materials. The shipping containers are brought on ships from southern Canada during the summer once the sea ice melts and communities can usually expect only one or two sea lifts each year.



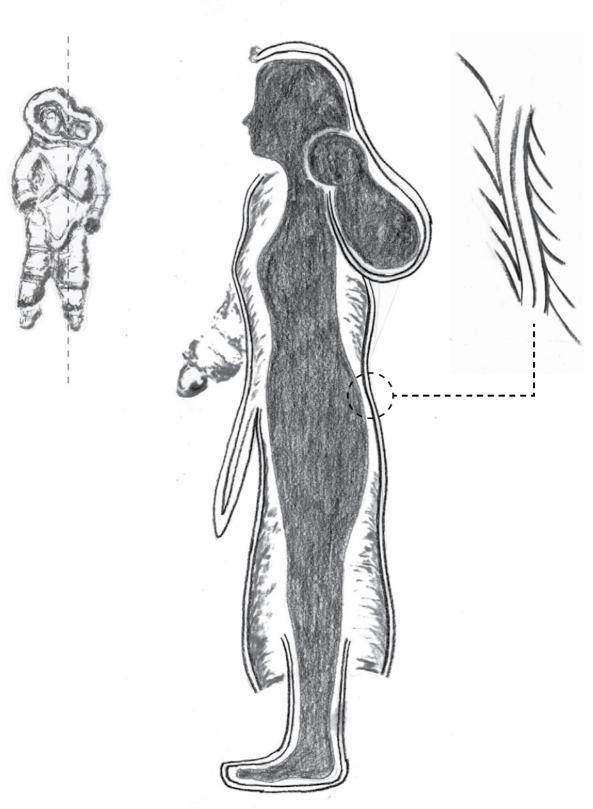
Examples of cultural appropriation of shipping containers in Iqaluit, Nunavut, September, 2013.

The sea lift is crucial to the survival of the community as the cost of importing goods by airplane is exponentially more expensive. Due to the cost of shipping, it is often cheaper for empty shipping containers to be left in the community rather than make an empty return journey, resulting in a dearth of containers littering communities across Nunavut. Far from being waste, however, Inuit have adapted containers in culturally significant ways for all manner of uses, as is evidenced In the Shacklands. The shipping container, as has been explored in other locales, represents a clearly logical building block module, however, it carries much deeper significance to the North. There is undoubtedly great symbolic relevance in transforming an object formerly employed as a vessel of Southern influence and appropriating it in a culturally significant way. In addition to its obvious modularity, its prevalence makes it one of the most available, and in many ways, local building materials. While its initial purpose is the delivery of foreign goods, the potential use of shipping containers as a building material has, until now, only been evidenced in the informal realm, as accessory buildings on parcelled lots and on the beach for storage. Sea cans have enormous potential as a formalized material that takes cues from its informal origins. The modular qualities of a sea can are imbued with inherent structural capacity and inhabitable space, while offering a limitless number of possible configurations.

The interior of each shipping container can be conceptualized as a programmatic seed of the varied activities imagined for the building, including spaces for healing, conversation, dwelling, creation and food preparation among others. While the program contained within each of these modules is easily modified to reflect the unique needs of each community, the most important function of the containers is the manner in which their arrangement generates unscripted interstitial space to provide an opportunity for unexpected and spontaneous social interaction. The configuration of the containers takes advantage of their inherent capability to be stacked one on top of the other, however, in this application they are shifted to generate voids. As a result, the containers serve not only to enclose private space within, but frame the public space that is not imbued with compartmentalized program.

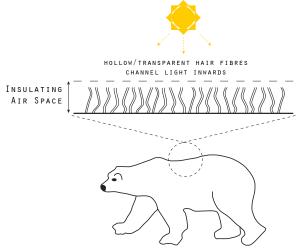
### Skin

Inuit have historically navigated a cold winter climate with adeptly crafted clothing, which can be considered the first layer of traditional architecture. The success of the



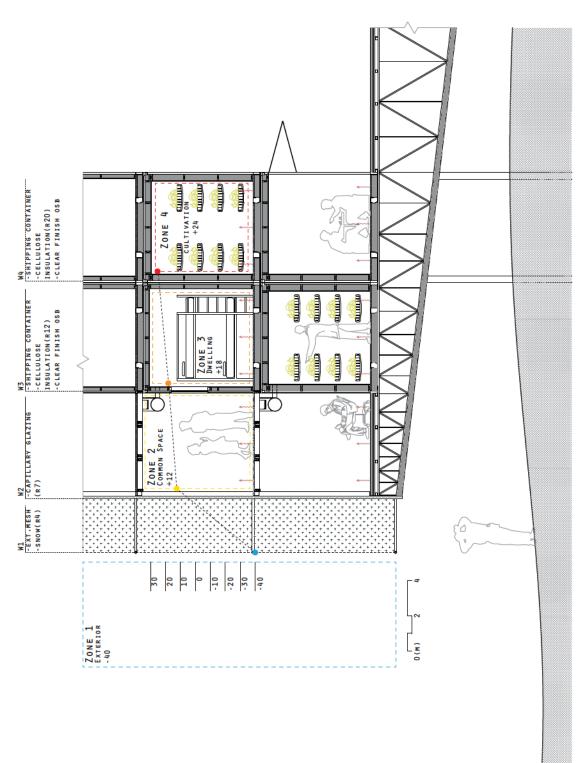
The amauti shown in section with a detail demonstrating the layering of two skins. The fibres of the exterior skin flow downwards to shed precipitation, while the interior fibres flow upwards to prevent the garment from riding up on the inhabitant.

clothing lies in its attention to the details of layering and stitching. The amauti is one such example of a garment that utilizes a double layer of skins and the directionality of fur to shed precipitation on the exterior, while generating a barrier of warm air to insulate the body on the interior. While contemporary construction in the North relies on the brute force of fossil fuels for heating and petrochemical insulation to establish separation between the interior and the elements, NU Healing seeks to finesse the relationship between interior and exterior not as a separation, but as a gradient of comfortable space. The woven fishing net is familiar to the beach environment, but is reimagined in this context as the outermost layer of skin. Its permeability allows unobstructed penetration of light during the summer, while it acts in similar fashion to a snow fence in winter, slowing the wind speed of the air and encouraging snow to build up behind it and against the building to add the necessary extra insulation required during the cold of winter.



The glazing system takes inspiration from the fur of a polar bear. Capillary tubes within the glass generate an insulating air space while guiding light to the interior.

Beneath the net lies a layer of highly insulative, translucent glass utilizing a triple glazed system complete with capillary tubes that maintain an airspace between glazed layers. Interestingly, the capillary tubes in this type of glazing operate in a similar manner to that of polar bear fur. The translucent fibres of polar bear hair trap air next to the bear's skin, while guiding sunlight through to the heat absorbing black skin. In the context of the building, the capillary tubes serve as a way of diffusing light into the building while providing changing views of the landscape outside as the inhabitant passes next to it. Similarly, from the outside, the translucent nature of the glass reveals the vibrance of the painted containers within and a glimpse of activity in a discrete way that avoids generating



Wall section visualizing the gradient of internal temperature and comfort across the layers of the building.

a fishbowl effect. With this series of external layers and airspaces that envelope the containers, there is no need for heavy duty insulation within the containers themselves. This permits the building to express the use of the container by leaving its corrugated profile exposed on the outside. Within the container, minimal cellulose insulation for added warmth and sound baffling is concealed beneath a clear finished oriented strand board (OSB) interior that offers visual and tactile warmth to the most intimate spaces of the building. The interior OSB cladding is a material choice inspired by the shacks, many of which commonly use it for sheathing.

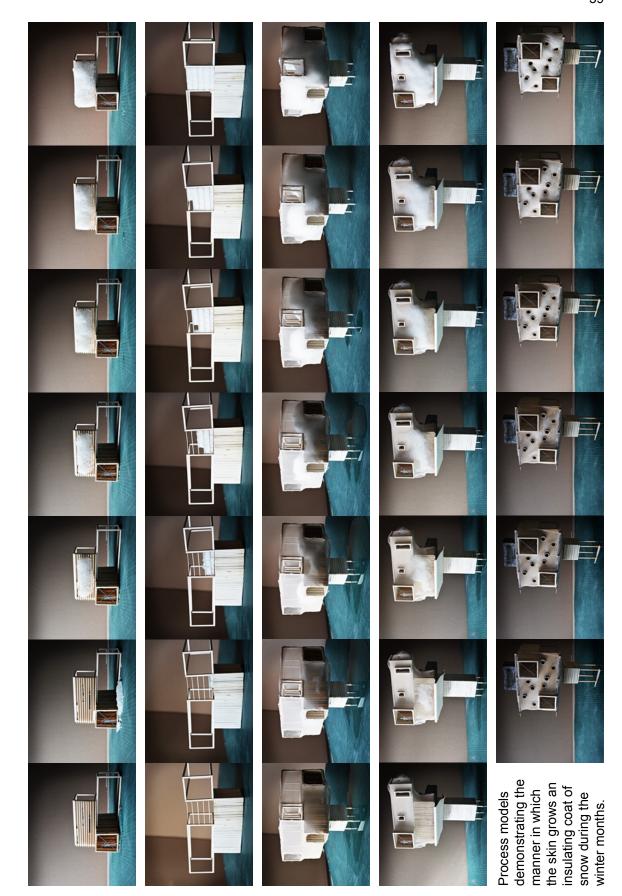
As a complete system, the skins work to develop a temperature gradient that transitions from the harshness of arctic weather, to interstitial gathering spaces warmed by the heat of bodies and activity, to the most comfortable, cocoon like spaces within the containers themselves. While this layering takes cues from traditional garments and explores them in unfamiliar ways to mediate between the exterior and the interior, the manner in which the outer net catches snow during the winter and melts in the spring, allows the building to change both physically and emotionally to reflect the powerful seasonal changes of its arctic habitat.

#### Roof

The roof shares a similar intention to the underside of the building, to invite light into space, however it does so in a very different way. Where the polished metal surface and faceted geometry of the underside of the foundation platform serves to draw light underneath the building and generate a microclimate, the roof is characterized by periscopic hoods that draw indirect sunlight from outside to cast over the gathering space within. For this purpose, shipping containers are rotated to stand on end, the bottom side cut open and interior painted to flavour the quality of light filtering into the space. The top end of the container penetrates the datum of the roof line at which point a portion of the side wall is cut away to invite the entrance of light, each container having a different declination to capture the sun at different times of day. The resulting projections along the roofline engage not only with light, but also with wind and snow. The inherent rectangular geometry of the shipping container interrupts the flow of wind causing unexpected drifting of snow on top of the roof, that works in tandem with the walls to fully submerge the building in a seasonal, insulating blanket of snow.



The Shacklands as seen through the building's unique insulating glazing system. The optical effect generated by the capillary tubes curates views to the surrounding landscape by distorting the view beyond the viewers direct gaze. As the viewer moves parallel to the glass, new sights are revealed in increasing clairty.



#### **Environment**

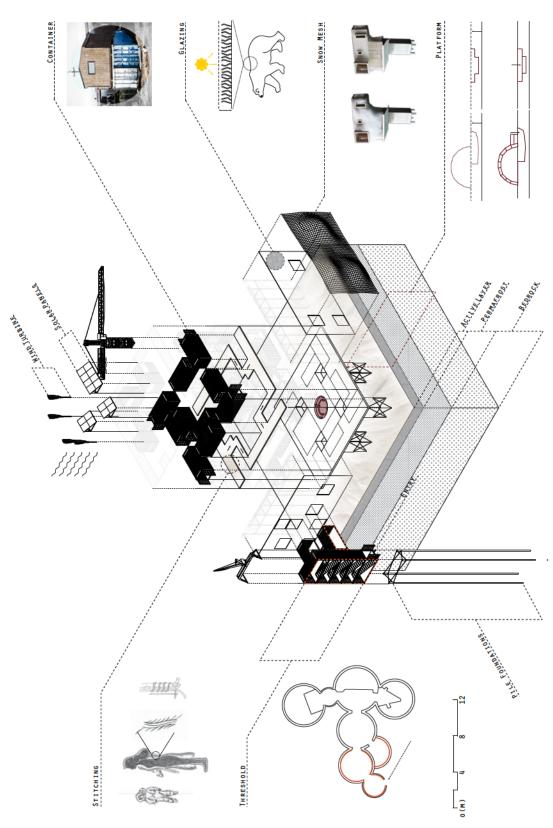
As has been evidenced in the discussion of many of the architectural components of the building, the environment plays a crucial role and in many ways becomes part of the architecture. In an environment that experiences such drastic seasonal changes from summer to winter, it is important that the building and the weather establish an interplay and relationship that reflects seasonality and its consequent human experience. Beginning with the reflective underside of the platform, its gently faceted geometry draws light underneath the building to generate a semi-protected outdoor space that can continue to play host to the liveliness of the Shacklands. The reflective treatment of the material serves to magnify the strength of the arctic sun, creating a microclimate that is a few degrees warmer, and stays snow free longer to lengthen the season and level of comfort for activities on the beach. With the impending inevitability of winter, heralded by driving winds and falling snow, the net encompassing the exterior of the building captures the snow that blows across and around the building. Over the course of the winter, the net encourages a continual build up of snow to blanket the building and provide an increased level of warmth that is paralleled by the intimate experience of hibernation. Similarly, the projections on the roof invite the wind to shape shifting patterns of snow to complete the building's seasonal garment of white. As light returns and the great melt occurs, the building sheds its winter coat to once again exploit the unlimited generosity of the midnight sun.

The importance of allowing the building to experience seasonal transformations goes beyond poetic whim, but rather seeks a deeper and more intrinsic connection to people, place and tradition. Contemporary buildings in the North construct thicker and thicker walls with increasing insulation values to separate buildings ever more from the specificity of their environment. Specialized engineers develop increasingly complex models to try and calculate and predict the flow of the wind and snow so that it passes by unobstructed as if the building did not exist. Conversely, Nu Healing stresses the connection to the environment as a way of bridging the gap between contemporary architecture and continuity of the architectural experience from the past. Traditional Inuit structures responded to seasonal change, especially in terms of their materiality. Igloos made use of winter snow, while anything from animal skins, driftwood, sod and stone took the place of snow in summer. This building does not try to shun or distance itself from its environmental

predicament, rather it embraces seasonal change as a way of striving for a relationship to place that was inherent to the material culture of the past while reinterpreting these values in a contemporary context.

## Healing Space

The healing space comprises the heart of the program and is modelled after aboriginal circles of inclusivity. Its function varies, but fulfills a role as an arbiter between offenders, victims, elders and community members, but also as a cultural incubator to encourage a stronger connection between individuals and traditional and emerging cultural expression that has the potential to unite families, communities, generations and cultures. It is a space of true cultural autonomy and expression, and like the beach, is unscripted and dynamic.



Exploded axonometric identifying the building's kit of parts and their connection to the local environment, material culture and traditional building archetypes.

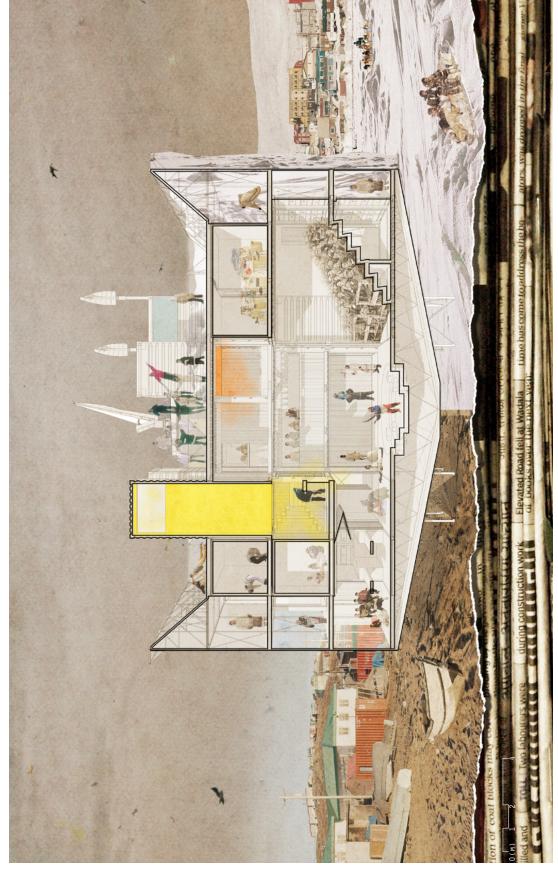
# **Armature of Engagement**

#### Social Infrastructure

As a whole, the kit of parts coalesce to act as an armature of community and cultural engagement. The building's unscripted interstitial spaces abolish the segregation of social activities evidenced by the partitions of government houses and serve instead as a stage for evolving social and cultural appropriation. The so called "program" of the building is suggested by the enclosed space of the containers and supposes places for counselling, dwelling or private reflection as well as service spaces to support activities like food preparation, art, film or performance. The flexibility of the containers in the way that they hinge, roll or slide open allow the container to be just a programmatic seed of potential by encouraging activities to extend beyond the corrugations of the container. At the same time, these programmatic seeds are intentionally mixed to dispel any notions of hierarchy in the building while blurring boundaries of public and private. This unusual arrangement of program seeks to develop spontaneous and unexpected encounters, relationships and activities.

## **Community Infrastructure**

The building is both a piece of social and community infrastructure. By combining this multiplicity of functions and activities, the building acknowledges the benefit of Northern buildings to give back to the community in as many ways as possible. In doing so, the building not only justifies the time, energy and expense of such an endeavour, but it presents an opportunity to become a truly positive, indispensable and indelible aspect of the layered community fabric. To do so, the building takes advantage of its site, as well as the opportunities presented by the climate and environment. Firstly, the siting of the building in the Shacklands has already been espoused for its symbolic and metaphorical significance, however, it also performs an essential practical function for the community. As the primary vessel for goods arriving in Northern communities, the sea lift provides a crucial connection between communities in Nunavut with the rest of the country and the world. When a container ship or barge arrives at any community it requires some form of infrastructure in order to off load the goods it carries, making the crane an important feature of the building. Essentially, the crane allows the building to build itself by having



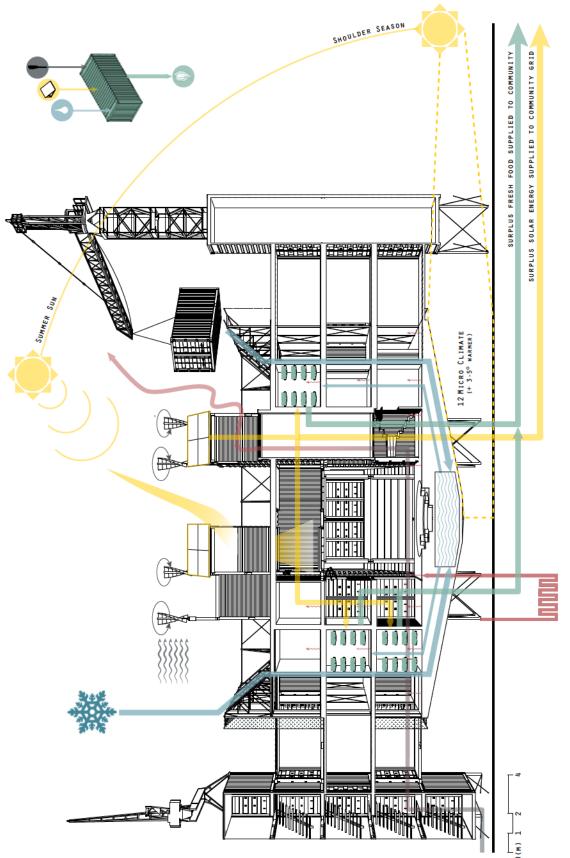
Building section showing contrasting seasonal conditions and diverse forms of cultural expression to evidence the manner in which the building foregrounds social interaction.

the capabilities to lift and move containers and building materials into place during the process of construction. Upon completion of the building, the crane is further utilized by taking advantage of the building's coastal context as a tool for loading and unloading cargo arriving by ship in each community. This practical function is important not only to the community, but to the conceptual framework of the building itself as a threshold between the traditional and contemporary, between outside influences and the individual community. In this way, the crane becomes a functional tool of iconic infrastructure and a metaphorical symbol that mediates between competing forces.

Another way in which the building takes advantage of its physical circumstance relates to sustainable energy production. The unique, arctic environment means that solar panels built into the building's facade generate electricity during northern summers where 24 hour sunlight is present. During the darker, winter months, the lack of light is supplemented by wind power. Helical wind turbines on the roof of the building take advantage of plentiful coastal winds, that can at times reach hurricane force. Their helical design enables them to generate power regardless of the wind direction, a great benefit over more conventional windmill turbines. Any excess energy produced by the building can be fed into the local grid to alleviate the dependence on ageing, inefficient and polluting diesel generators that currently power northern communities.

The interior of the building also has a greater community role to play in the form of growing fresh food. Food prices in general, and fresh produce especially, is only available at egregious prices related to the astronomical cost of importing from southern cities. The poor diets resulting from the price and lack of access to fresh food are responsible for the alarming rates of obesity and nutritional deficits plaguing northern communities. To combat skyrocketing food prices, reduce dependence on imported food and encourage healthy eating, the building contains a number of sea cans retrofitted into greenhouses that can produce fresh fruit and vegetables. Far from being a conventional greenhouse, however, these containers employ a system of hydroponics that uses specifically attuned LED lights (solar/wind powered) to generate an exponentially higher yield with less water and no soil compared to a traditional greenhouse. While these high tech forms of agriculture are undoubtedly the most efficient way of growing maximum produce for remote northern communities, there is also potential for mental health benefits that

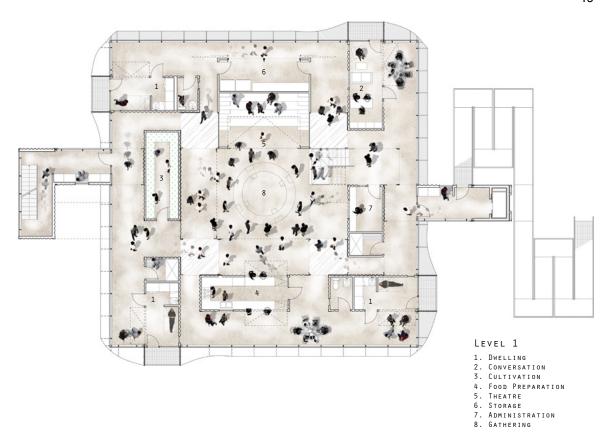
have proven links to gardening. Whether these benefits transfer from traditional forms of gardening to hydroponically grown containers remains to be seen, however, the ability to produce and share food with the community draws on the foundations of traditional Inuit culture and presents another way for residents of the building to gain self worth by giving back. Together with the social value that is core to the concept of the building, these infrastructural elements offer further returns to the community and deeply root the building in its spatial, temporal and social context.

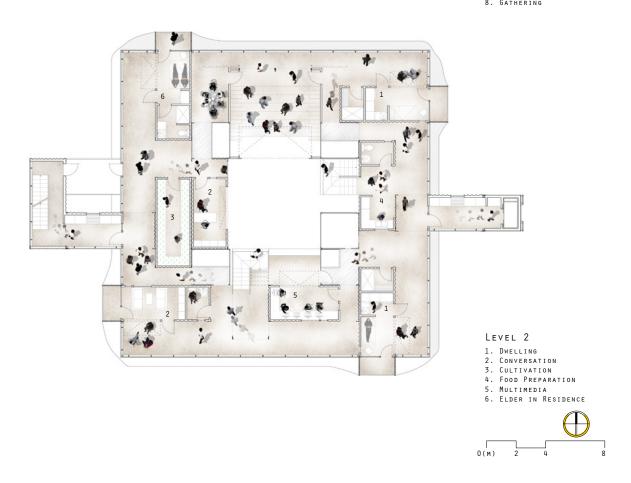


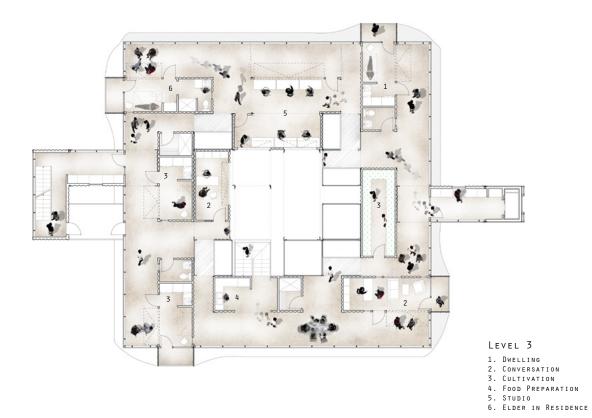
Sectional perspective diagramming interaction with environmental phenomena and energy flows within the building.

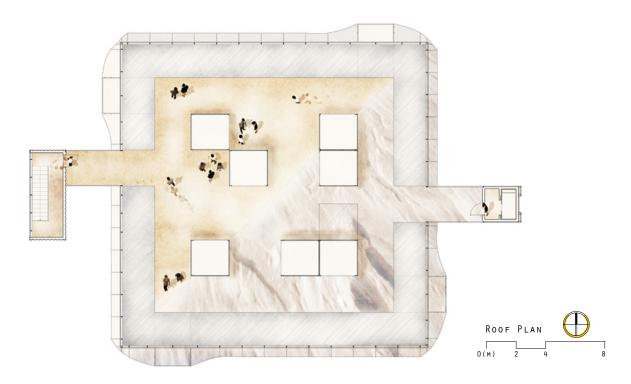
# **Additional Design Drawings**

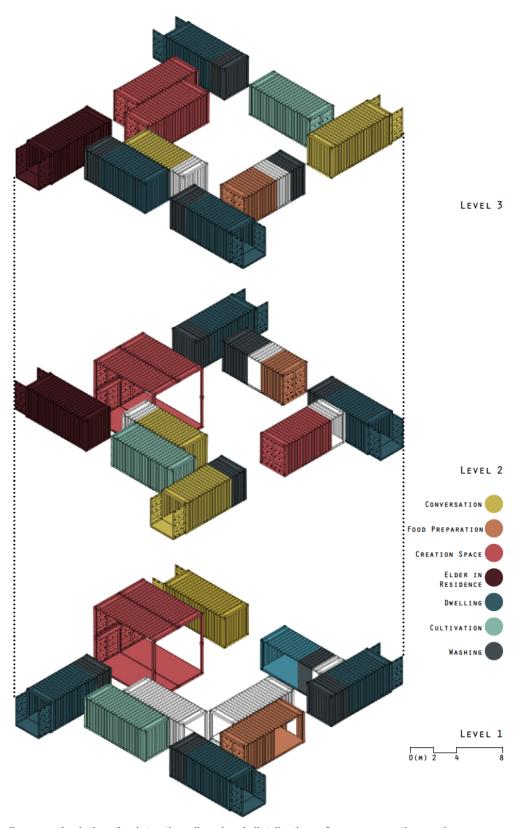












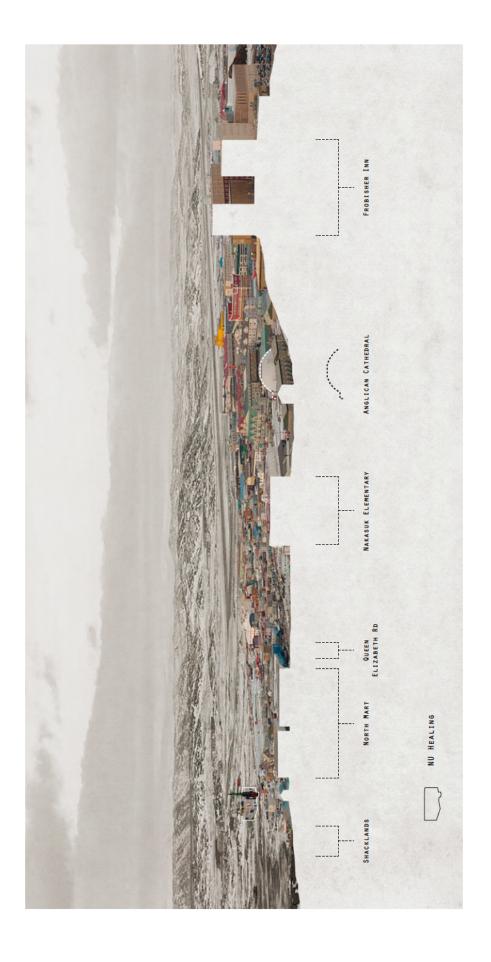
Axonometric diagram depicting the intentionally mixed distribution of programmatic seeds throughout the building, designed to encourage unexpected relationships and spontaneous social interaction.



Contextual site plan showing the relationship between the site, the Shacklands, city and sea lift corridor; base image from Google Maps.



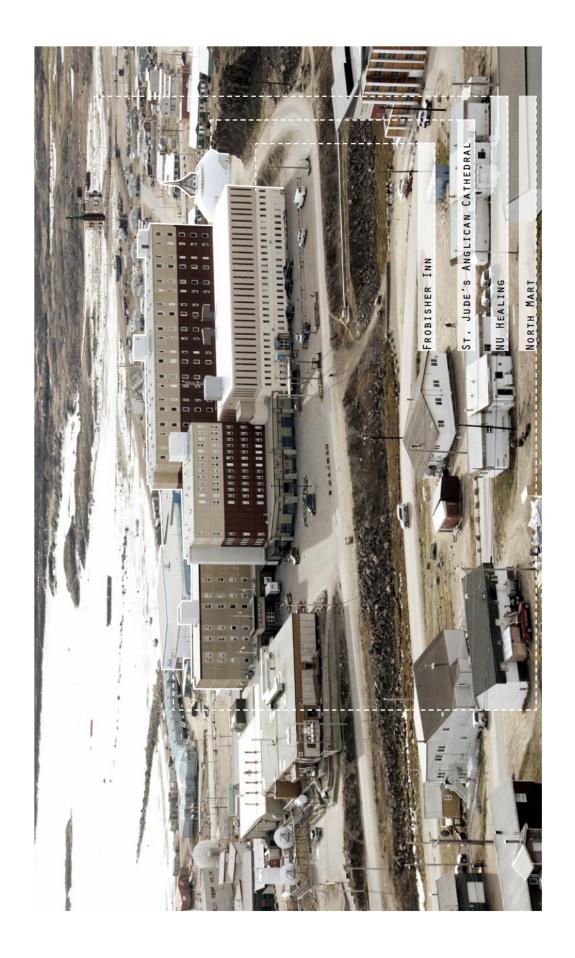
Site section A; base image from "Iqaluit From Above," Finding True North.



Site section B; base image from Bing Images.



View of NU Healing from across Frobisher Bay; base image from "Fuel Ship Arrives in Iqaluit," Ron Wassink.



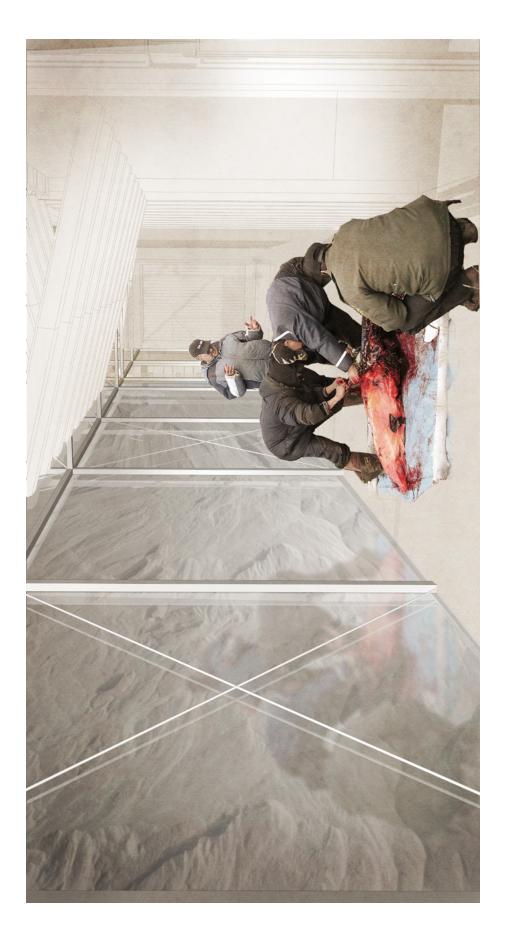
View of NU Healing from atop the hill in Iqaluit; base image from "Astro Hill Complex," Wikimedia Commons.



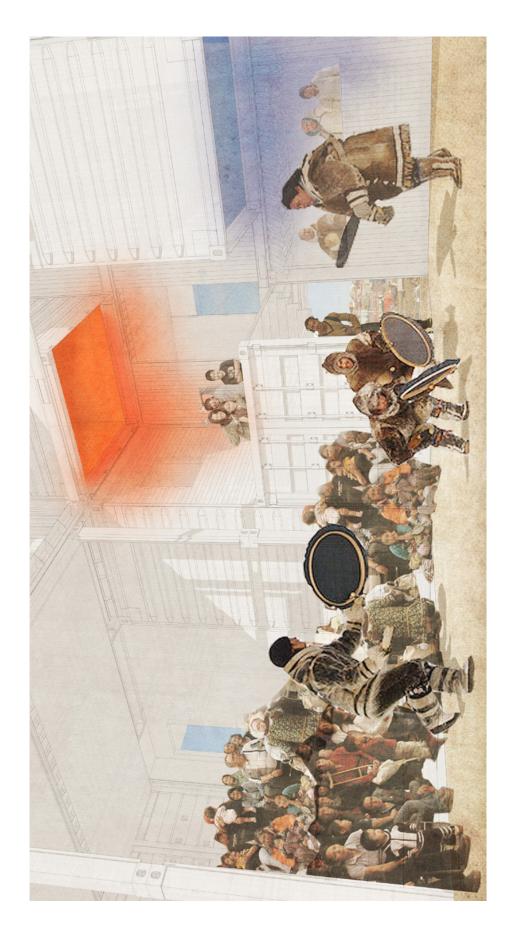
Youth take advantage of the roof to compete at Inuit head-pull, a traditional activity being reinvigorated by younger generations.



A printmaker looks beyond his work to the throat singers in the gathering space below.



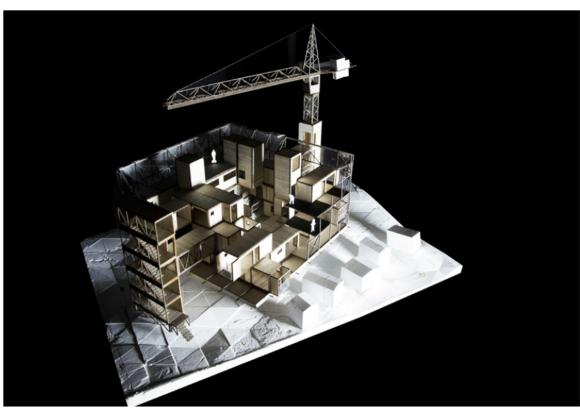
Views to the outside are masked by an insulating coat of winter snow, while hunters carve a frshly caught seal.



Onlookers enjoy a traditional drum dance in the gathering space.



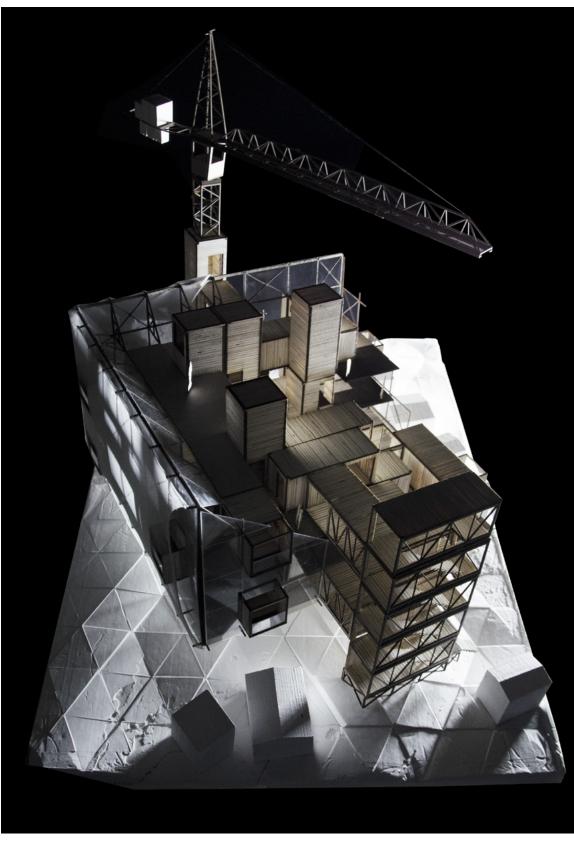
Two people take shelter in the micro climate beneath the building. One constructs a Qamutik while the other juggles.



Cut away building model at 1:50 scale demonstrating interior spaces and facade strategy.



Elevation of building model showing the exterior snow mesh facade as it would appear during the summer.



Aerial view of the building showing the snow mesh facade, vertical circulation threshold and the crane used for constructing the building and unloading containers from the sea lift barge.



In this image, the finished exterior of the building's underside is cut away to reveal the structure of the raised platform.



View depicting the reflective underside of the building as it would appear from the Shacklands. The reflective finish and faceted geometry is intended to bring light underneath the building and generate a sheltered micro climate that remains a few degrees warmer than surrounding areas.





This image illustrates a portion of the accessible outdoor rooftop as well as the exterior mesh filled in with its winter layer of insulating snow.

## **CHAPTER 3: CONCLUSION**

Nu Healing is a direct response to the shortcomings of the current correctional model in Nunavut, characterized by dilapidated physical infrastructure, unsuitable living conditions, lack of social services and failure to address the unique needs of Inuit people. It represents an alternative to incarceration by attempting to access the underlying causes of the unchecked rates of violence, sexual abuse, mental health problems and substance abuse that are plaquing the Territory. The project considers the ongoing social ills and associated criminal behaviour as symptoms of widespread cultural displacement experienced during the rapid process of modernization and assimilation promulgated by the neocolonial attidues of the federal government over the last several decades. By taking into consideration the causes and effects of this "cultural genocide."91 Nu Healing aims to provide both an armature for the sorely needed social services required by individuals struggling with substance abuse and mental health and a community hub promoting autonomous cultural expression and vitality. Ultimately, this project seeks to occupy the decolonial threshold by developing a space where offenders, community members, families and elders can gather to reconcile the effects of colonial policies as a way of promoting and enhancing Inuit cultural vitality.

Nu Healing is a decentralized network of healing spaces that can be realized in every community in Nunavut, to subvert the colonial approach of centralization, while allowing individuals to remain within reach of the vital support networks that exist with their families and community. This presents an opportunity to enact meaningful change by healing both the individual and the greater community affected by their actions. Inuit culture, which has been relegated to the periphery of spatial and political consciousness by colonial policies of community segregation and modern lot arrangements, is revitalized through NU Healing by an effort to empower the spatial margins and their Inuit inhabitants.

This goal translates into an approach to site, that explores the coastal context of communities in Nunavut and capitalizes on the autonomous waterfront condition reserved for "traditional use." This thin strip of arctic beach serves as a spatial and temporal threshold that filters tradition and modernity, characterized by the clash between a subsistence

<sup>91</sup> Sean Fine, "Chief Justice Says Canada Attempted 'Cultural Genocide' on Aboriginals," *The Globe and Mail*.

lifestyle and wage labour employment, while operating as a physical link between local and global influence. These unique relationships reveal the dichotomy inherent in contemporary Inuit reality, making the Shacklands a culturally relevant and politically charged location to develop an architectural project that negotiates the decolonial narrative.

At the building scale, Nu Healing further explores the connection to place through expression of the drastic seasonal transformation unique to the arctic region of Nunavut. By encouraging the building to express seasonal change, the project builds deeper connections to its context by establishing a link to a rich lineage of Inuit architectural archetypes guided by relationship to the seasons, in both a material and experiential sense. This aspect of the building serves as a counterpoint to imported Southern building models that increasingly disconnect architecture and environment, while revitalizing traditional Inuit concepts in a contemporary context. As a series of layers and skins, the building expresses the transition from exterior to interior and from summer to winter, while using programmatic seeds to propogate the unscripted activities and community relationships unfolding throughout the building.

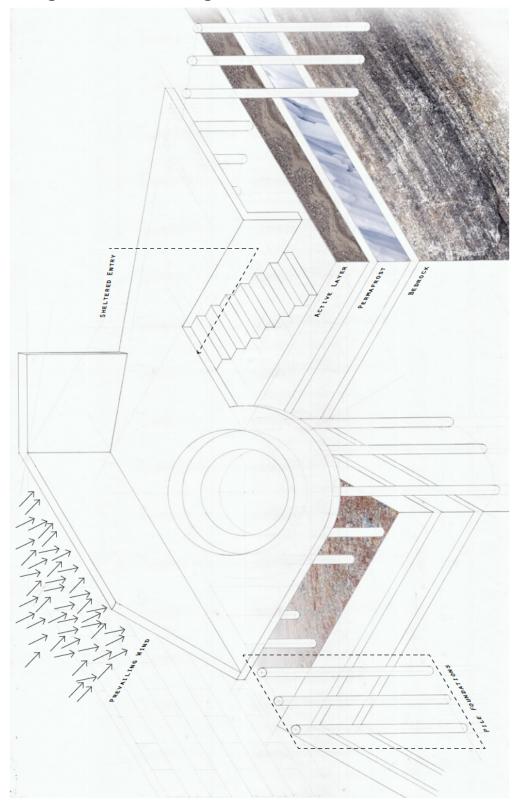
Beyond the social value offered to the community, the project also recognizes the added infrastructural value that a building can provide for remote Northern communities. This crossover is displayed by the building's ability to efficiently grow fresh produce, offering building residents an opportunity to gain self worth by giving back to the community, while combatting alarming rates of obesity and nutritional deficits as a direct result of the astronomical price and scant availability of fresh food. The combination of solar and wind energy technologies that power the building and growing containers take advantage of abundant environmental phenomena while contributing back to the local grid to reduce reliance on heavily polluting and aging diesel generators.

As an alternative to the current correctional model in Nunavut, NU Healing endeavours to negotiate the decolonial threshold and empower a culture emerging from decades of systemic marginalization. By taking advantage of the autonomous waterfront context inherent to communities in the Territory, the project seeks to become a hub of Inuit cultural expression, while providing a space to heal individuals struggling from the effects of cultural displacement. Making use of local materials and reimagining traditional Inuit

building archetypes in a contemporary context, the building garners an intrinsic connection to its temporal heritage and unique environmental habitat. Beyond the social value of the building, the project acknowledges the opportunity for the building to give back to the community in terms of sustainable energy and harbour infrastructure, while providing fresh food to be shared with the community. As an alternative to the current correctional model in the territory, NU Healing is a space for the reconciliation of past colonial abuse and incubation of future cultural expression.

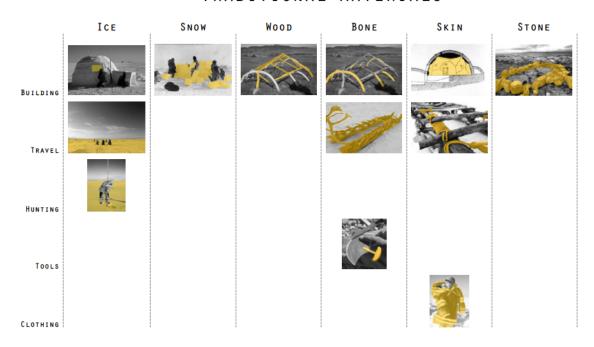
# **APPENDIX**

# **Design Process Drawings**

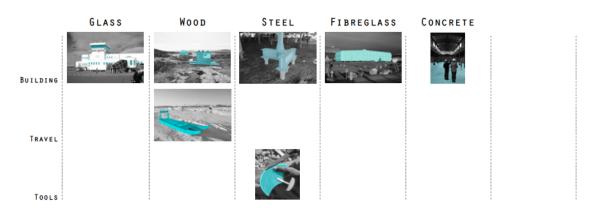


The intent of this drawing is to extract ubiquitous features of site at a territorial scale and develop principles that begin to inform design at a building scale.

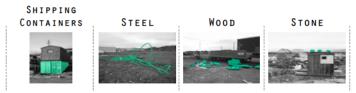
## TRADITIONAL MATERIALS



## NEW MATERIALS

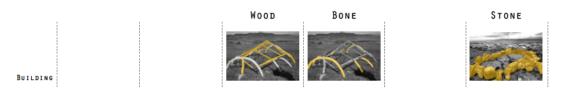


## FOUND MATERIALS

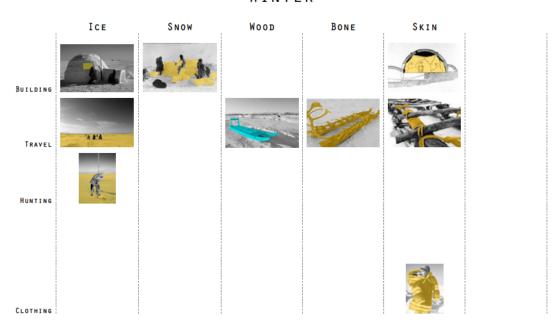


Traditional Inuit building materials are characterized by their seasonal use and multiplicity of function. They are gleaned from their environment and often return to the land after being used, the melting of snow and ice being one example. Contemporary materials are imported and lack a meaningful connection to seasonality. By seeking a synthesis of new and traditional building materials, the building is connected to its environment through the experience of seasonal change.

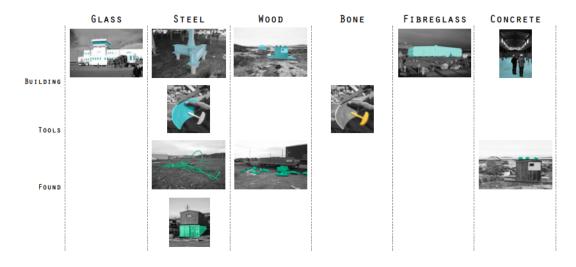
### SUMMER



### WINTER

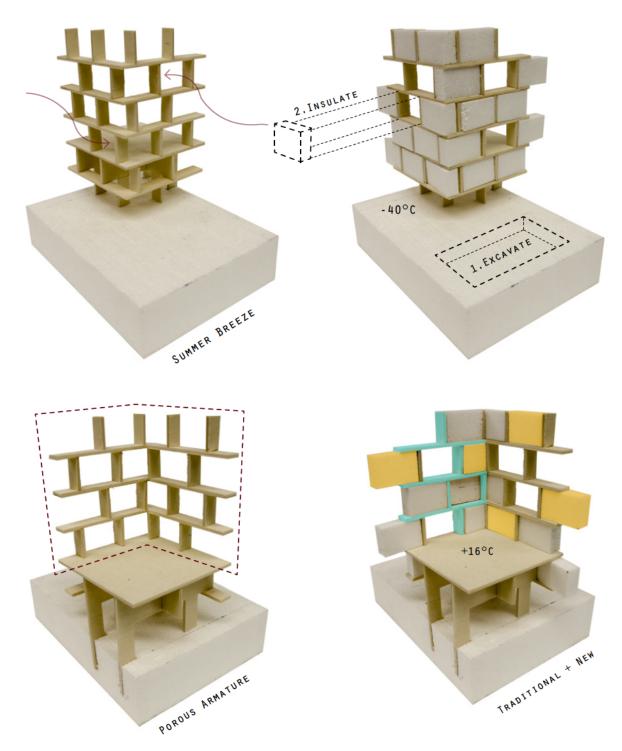


# ALL SEASON

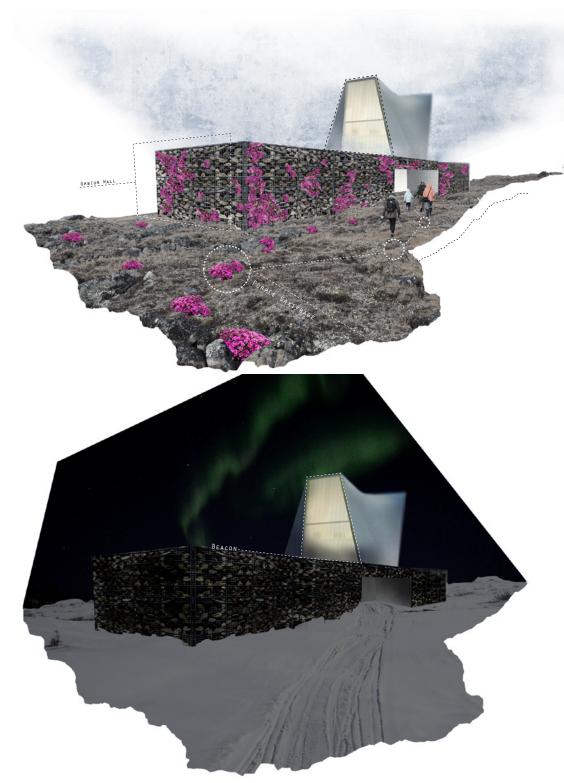


Organizing this material inventory based on seasonality, reveals the specificity of traditional materials and lack of connection between imported materials and their environment.

SUMMER WINTER



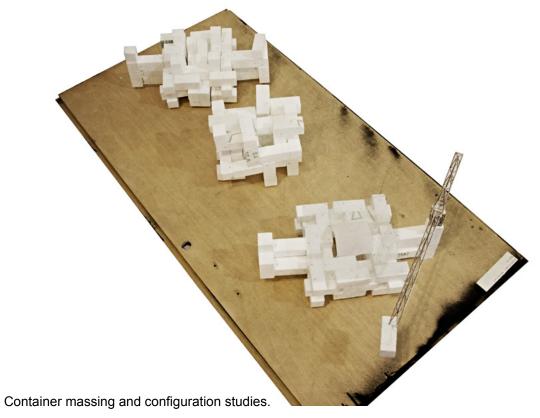
These study models detail an armature of contemporary materials that is open to the elements during the summer months and insulated with snow during the winter. The nature of this facade makes it suitable for areas of program that are more tolerable of temperature variance, while the insulative qualities of the snow ensure that the space remains habitable during the winter.



These process collages depict ideas about seeking a synthesis between traditional (stone) and contemporary (gabion baskets) material. This building system proposes seeding the gabions with purple saxifrage, the floral emblem of Nunavut and a hardy Arctic flower especially prevalent in the High Arctic region. Typically, this flower will bloom during the months of June and July, offering another way in which the building can respond to the change in seasons and celebrate the short duration of summer.



Process models exploring the relationship between containers and skin. Relics of snow facade tests.



#### **BIBLIOGRAPHY**

- Aporta, Claudio. "The Trail as Home: Inuit and Their Pan-Network of Routes." *Human Ecology* 37, no. 2 (2009): 131-146.
- Aporta, Claudio. "Routes, Trails and Tracks: Trail Breaking Among the Inuit of Igloolik." *Études/Inuit/Studies* 28, no. 2 (2004): 9-38.
- Aporta, Claudio. "Old Routes, New Trails: Contemporary Inuit Travel and Orienting in Igloolik, Nunavut." Phd. diss., University of Alberta, 2003.
- Aporta, Claudio, and Eric Higgs. "Satellite Culture: Global Positioning Systems, Inuit Wayfinding and the Need for a New Account of Technology." *Current Anthropology* 46, no. 5 (2005): 729-754.
- Armstrong, Joshua. "The Second Promise: An Architect's Journey through the Shacklands of the North." MArch thesis, Carleton University, 2012.
- Bing Images. Accessed July 14, 2015. http://3.bp.blogspot.com/\_Uli7SunXZn8/TPl3-bEt9xl/AAAAAAAAKE/3Av7siuJKd4/s1600/lqaluit FPO DSC5504.jpg.
- Correctional Investigator. Report of the Office of the Correctional Investigator (Canada) on the Baffin Correctional Centre and the Legal and Policy Framework of Nunavut Corrections. Accessed November 26, 2014. http://www.justice.gov.nu.ca/apps/UPLOADS/fck/file/Report%20OCI%20on%20NU.pdf.
- Damas, David. *Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic.* Montreal & Kingston: McGill-Queen's University Press, 2002.
- Dawson, Peter C. "Seeing Like an Inuit Family: The Relationship Between House Form and Culture in Northern Canada." *Études/Inuit/Studies* 30, no. 2 (2006): 113-135.
- Erskine, Ralph. "Architecture and Town Planning in the North." *Polar Record* 14, no. 89 (1968): 165-171.
- Finding True North. "Iqaluit From Above." Accessed July 14, 2015. http://findingtruenorth.ca/wp-content/uploads/2013/12/Iqaluit-035-970x490.jpg.
- Fine, Sean. "Chief Justice says Canada Attempted 'Cultural Genocide' on Aboriginals." The Globe and Mail. Last updated May 29, 2015. http://www.theglobeandmail.com/news/national/chief-justice-says-canada-attempted-cultural-genocide-on-aboriginals/article24688854/.
- Foucault, Michel. *Discipline & Punish: The Birth of the Prison*. Translated by Alan Sheridan. New York: Vintage Books, 1977.

- General Practice Physicians in Nunavut. "The Road to Nunavut: A Chronological History." Accessed November 27, 2014. http://www.nunavut-physicians.gov.nu.ca/history. shtml.
- George, Jane. "Can Tradition Cure Criminals?" *Nunatsiaq News*, June 1, 2007. http://www.nunatsiagonline.ca/archives/2007/706/70601/news/features/70601 184.html.
- Google Maps. Accessed July 14, 2015. https://www.google.ca/maps.
- Government of Nunavut. "Community Profiles." Accessed September 22, 2014. http://www.gov.nu.ca/information/community-profiles.
- Hallendy, Norman. *Inuksuit: Silent Messengers of the Arctic*. Vancouver: Douglas & McIntyre, 2001.
- Hamlet Council of Grise Fiord. *Consultation Report: Infrastructure for a Sustainable Grise Fiord*. Prepared by Aarluk Consulting Inc., Iqaluit, 2011.
- Kobayashi, Betty. Sinews of Survival: The Living Legacy of Inuit Clothing. Vancouver: UBC Press, 1998.
- Laidler, Gita J., James D. Ford, William A. Gough, Theo Ikummaq, Alexandre S. Gagnon, Slawomir Kowal, Kevin Qrunnut and Celina Irngaut. "Travelling and Hunting in a Changing Arctic: Assessing Inuit Vulnerability to Sea Ice Change in Igloolik, Nunavut." *Climatic Change* 94 (2008): 363-397.
- "Land." Grise Fiord. Accessed November 27, 2014. http://www.grisefiord.ca/eng/land.html.
- Lee, Molly, and Gregory A. Reinhardt. *Eskimo Architecture: Dwelling and Structure in the Early Historic Period*. Fairbanks: University of Alaska Press, 2003.
- Legislative Assembly of Nunavut. "The Official Flower of Nunavut." Accessed November 27, 2014. http://www.assembly.nu.ca/about-legislative-assembly/official-flower-nunavut.
- MacDonald, John. *The Arctic Sky: Inuit Astronomy, Star Lore and Legend.* Iqaluit: Nunavut Research Institute, 1998.
- Mauss, Marcel, and Henri Beuchat. Seasonal Variations of the Eskimo: A Study in Social Morphology. Translated by James J. Fox. London: Routledge & Kegan Paul Ltd, 1979.
- McClusky, Kerry. "The Road to Rehabilitation: New Programs for Nunavut Inmates." *Northern News Services*, May 14, 2001. http://www.nnsl.com/frames/newspapers/2001-05/may14\_01inmate.html.
- McGrath, Melanie. *The Long Exile: A Tale of Betrayal and Survival in the High Arctic*. New York: Alfred A. Knopf, 2006.

- Natural Resources Canada. "GeoGratis." Accessed February 20, 2015. http://geogratis. gc.ca/api/en/.
- "New Mental Health Treatment Centre Opens in Iqaluit." *Nunatsiaq News*. May 21, 2013. http://www.nunatsiaqonline.ca/stories/article/65674new\_mental\_health\_treatment\_centre\_opens\_in\_iqaluit/.
- Nunavut Bureau of Statistics. *Nunavut Population Estimates by Sex, Age Group, Region and Community, 2013.* January 21, 2014. http://www.stats.gov.nu.ca/en/Social%20 crime.aspx.
- Nunavut Bureau of Statistics. *Nunavut Population Estimates by Inuit and Non-Inuit, Region, and Community, 2006 to 2013*. January 21, 2014. http://www.stats.gov.nu.ca/en/Social%20crime.aspx.
- "Nunavut Struggles With Lack of Alcohol Treatment Options." *CBC News*. April 18, 2013. http://www.cbc.ca/news/canada/north/nunavut-struggles-with-lack-of-alcohol-treatment-options-1.1331131.
- Nunavut Tunngavik Incorporated. *Nunavut Community Wellness Project: An Aboriginal Health Transition Fund Project*. Accessed November 26, 2014. http://www.neweconomygroup.ca/documents/NTI\_NCWP\_Final\_Report\_English\_WEB.PDF.
- Nunavut Tunngavik Incorporated. *Annual Report on the State of Inuit Culture and Society: Examining the Justice System in Nunavut*. Iqaluit: Nunavut Tunngavik Incorporated, 2014.
- Parkin Architects Limited. "Creating Institutional Designs that Work." Accessed November 26, 2014. http://www.parkin.ca/tag/rankin-inlet-healing-facility/.
- "People." *Grise Fiord*. Accessed November 27, 2014. http://www.grisefiord.ca/eng/people. html.
- Reilly, John. *Bad Medicine: A Judge's Struggle for Justice in a First Nations Community*. Victoria: Rocky Mountain Books, 2010.
- Statistics Canada. Canadian Centre for Justice Statistics. Uniform Crime Reporting Survey and Demography Division. *Nunavut Criminal Violations by Region and Community, 1999 to 2013*. Prepared by Nunavut Bureau of Statistics, July 29, 2014. http://www.stats.gov.nu.ca/en/Social%20crime.aspx.
- Stern, Pamela. "Wage Labour, Housing Policy and the Nucleation of Inuit Households." *Arctic Anthropology* 42, no. 2 (2005): 66-81.
- Strub, Harold. *Bare Poles: Building Design for High Latitudes*. Ottawa: Carleton University Press, 1996.

- Stuckenberger, Nicole A. "The Inuit and Climate Change." *Études/Inuit/Studies* 34 (2010): 5-19.
- Tester, James Frank, and Peter Kulchyski. *Tammarniit (Mistakes): Inuit Relocation in the Eastern Arctic, 1939-63.* Vancouver: UBC Press, 1994.
- Van Den Steenhoven, Geert. Research Report on Caribou Eskimo Law. The Hague: Department of Northern Affairs and National Resources, 1955.
- Wassink, Ron. "Fuel Ship Arrives in Iqaluit." Accessed July 14, 2015. http://ronwassink. blogspot.ca/2013/08/fuel-ship-arrives-in-iqaluit.html.
- Wenzel, George W. "Inuit and Modern Hunter-Gatherer Subsistence." *Études/Inuit/Studies* 37, no. 2 (2013): 181-200.
- Wikimedia Commons. "Astro Hill Complex." Accessed July 14, 2015. https://upload.wikimedia.org/wikipedia/commons/2/25/Astro\_Hill\_Complex,\_Iqaluit.JPG.
- Wikipedia. "Outline of Canada." Accessed October 19, 2014. https://en.wikipedia.org/wiki/Outline\_of\_Canada#/media/File:Canada\_BMNG.png.
- Wright, Ronald. An Illustrated Short History of Progress. Toronto: Anansi Press, 2006.