Cultivating an Architectural Alternative:

Housing for Street Youth

by

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Abstract

Homelessness is not a problem of "social misfits" but results from established social structures in cities such as Ottawa. Presumably, the potential for poverty will always exist in major cities around the world, but an individual's right to shelter should never be in question. As a society, all too often we both overlook the extent of homelessness and fail to see its population as a heterogeneous group. Failure to address this diversity, as the failure to recognize diversity in general, only leads to the further breakdown of urban social structure. Homeless youth represent a vast portion of the "street" population; hence, as both children/youth and homeless persons, we can say they are a twice-marginalized community. The most telling portrait of how a "civilized" society is performing can be obtained by exploring the services available to its children. In Ottawa there are over four-hundred youth annually utilizing emergency shelters and countless more living on the streets.¹ This is a shocking number that underscores the severity of the homeless condition in Ottawa.

The fundamental nature of a "home" is not easily described, but in North American society the term often surrounds the idea and ideal of a cultural belonging. To a family, however constituted, "home" is a forged sense of people and place. It is about a local community and the roles within it. To a child, "home" is a place of comfort and security where he/she can find an emotional and mental state of refuge. It is a place of nourishment and growth where one's core values and memories are established. My research aims to explore the concept of "home" as it pertains to homeless youth, and their will for self-preservation. In an attempt to define the essence of a "home" beyond its basic utilitarian purpose as a place of refuge, this thesis will investigate design principles with which to develop a youth shelter.

¹ Lynne Brown, ed Report Card on Ending Homelessness in Ottawa (Alliance to End Homelessness Ottawa, 2010) 2

Street youth face numerous challenges: Drug use, prostitution and petty thievery are all common activities amongst the homeless. Without any sort of core family or community structure to support them, these youths are forced into illegal or unsavoury activities in order to sustain themselves. The Public Health Agency of Canada supports estimates that over one-hundred-fifty-thousand youth live on the streets each night in Canada.² The term "street youth" typically refers to homeless adolescents between the ages of twelve and twenty-four. This group of street youth have been characterized as the next generation to become homeless adults.³ Research shows that street youth often come from physically and or sexually abusive households and as result they turn to the street as an escape.⁴ How can architecture and not merely "shelter" be part of a solution that can offer healthy, supportive housing opportunities as an alternative to street life?

This thesis will focus upon a youth shelter whose architecture supports a community-based social program that will create a more conducive environment for personal healing and growth. The community-based aspects of the facility will have a horticultural focus creating educational opportunities in business management, environmental stewardship, as well as help establish working relationships with local businesses and citizens. The centre will be located in the LeBreton Flats, only minutes away from the heart of downtown Ottawa. The facility is placed here to concentrate on community living in the context of a diverse, urban environment. Furthermore, this thesis will examine a range of supportive housing options as well as a variety of

²Canada, Public Health Agency of Canada, Street Youth in Canada: Findings From Enhanced Surveillance of Canadian Street Youth, 1999-2003 [Ottawa: Public Health Agency of Canada, 2006] 1

³A. Baum, D. Burns, A Nation in Denial (Boulder: Westview Press, 1993) 15

⁴Ibid 15

programs and services that aim to promote healthy personal development and a sense of belonging within an environment of equality.

In a world where pride must be placed on striving for a common good, there should be more focus on the well being of those who live on the margins of society. As architects we have a societal responsibility to help provide environments that do not inhibit, but catalyze reconciliation between its disparate populations.

Part I: Identifying the Issue

Chapter 1

Defining "Street Youth"

Typically the term "street youth" refers to homeless youth between the ages of twelve and twenty-four.⁵ Misconceptions surrounding street youth often lead people to believe that homelessness is a conscious choice, when in fact it is most often a move of desperation. Most of the time these youths are runaways who either have no home, or are unable to return home due to issues of neglect, abandonment, abuse, or severe family conflict. For the purposes of this thesis, I will be referring to street youth as any young person between the age of twelve and twenty-four who has no permanent or consistent form of residence, and who spends significant amounts of time living on the streets, in youth shelters or in community centres. The term street youth, homeless adolescents, and homeless youth will be used interchangeably throughout this thesis.

Homeless Populations in History

Homelessness has taken many guises throughout history, always reflecting the values of the dominant culture of the time period. In Ancient Greece, the beggar was regarded as the lowest form of social being, even lower than a slave, for a beggar belonged to no system and had no

⁵ Jeff Karabanow, Being Young and Homeless (New York: Peter Lang Publishing, 2004) 3

* My design research relies significantly on the work of Dr. Jeff Karabanow as he is one of the few authors who focuses specifically on street youth in Canada. Dr. Karabanow received his Ph.D. in social work from Wilfrid Laurier University, and is currently a professor at the Maritime School of Social Work at Dalhousie University. Dr. Karabanow's book, Being Young and Homeless: Understanding How Youth Enter and Exit Street Life has been an invaluable resource for this thesis and represents the culmination of over a decade of research endeavours with various street youth populations. In order to draw apt conclusions about homeless youth populations in the restricted timeline of an architectural thesis, it was essential to build upon the comprehensive research of one such as Dr. Karabanow.

attachments.⁶ During the Middle Ages, the vagrant was considered suspect and dangerous, someone who was likely to rob and pillage. This attitude was common until the sixteenth century, when the notion of "holy poverty" became prevalent in the Christian Church, whereby a wanderer without worldly possessions was considered a person of spiritual nobility.⁷ The Great Depression gave way to the "hoboes" and "tramps" who formed the masses of destitute workers. Shortly after, there was the emergence of skid-rowers or bums who inhabited dilapidated urban areas or ghettos.⁸ As Dr. Jeff Karabanow describes, "Throughout history, responses to homelessness were frequently shaped by processes of criminalization, in which a homeless person was perceived and treated as a social "deviant.""⁹ Enforced imprisonment, compulsory work, banishment, branding, pillory, and torture, were just some of the devices used to control homeless populations, which inevitably led to a sense of alienation and isolation. While homelessness has been a constant throughout history, it was not until its increased prevalence in the 1980s that homelessness became defined as a significant social problem.¹⁰

At this time, recognition had increased due to the media's relentless bombardment of images and articles revealing the plight of society's homeless. Constant exposure to homeless individuals roaming the streets, sleeping in cardboard boxes, and abusing drugs and alcohol perpetuated an inaccurate view of the population. The over-saturation of media exposure helped to create what Baum and Burns describe as "a love-hate relationship with the homeless."¹¹ On one hand there was a sentiment of pity, compassion, and the desire to help those in need; on the other hand there was a sense of fear, frustration, and a general misunderstanding of the contributing causes of

⁶ Karabanow 10

⁷ Ibid 10

⁸ Baum 95- 104

⁹ Karabanow 12

¹⁰ Ibid 10

¹¹ Baum 11

homelessness. This led "proper citizens" to believe that the homeless were undeserving of help.¹² In the decades to follow, the issue of homelessness was exacerbated. Increased numbers of homeless persons gave way to the development of a multitude of different services such as soup kitchens, drop-in centres, and shelters in the majority of North American cities.¹³ Professor of Social Policy and author, Christopher Jencks, notes in his book The Homeless, that "By the late 1980s, America had created a network of shelters and soup kitchens that serviced between 200,000 and 300,000 people a day."¹⁴

Homeless Youth in History

In general, organised responses to the issue of homeless youth have differed in one key way when compared to those designed for homeless adults. The difference, according to Dr. Karabanow, occurs through the belief that homeless adolescents have the potential to be "reformed" or "transformed" into conscientious citizens.

The late nineteenth century (early progressive era) represented a shift from social Darwinism and the belief that delinquent and dependent children were inherently evil, towards a belief in the importance of one's environment in shaping character and values. In other words, the prominent philosophical debate of nature versus nurture which sharply influenced popular thought throughout the mid-nineteenth century, had also permeated the realm of social work.¹⁵

During this time, impoverished children, those living on the street and/or those having problems at home, were taken outside the urban setting into more rural areas to live at cottage-

¹² Karabanow 15

¹³ Ibid 11

¹⁴ Christopher Jencks, The Homeless (Cambridge Harvard UP, 1994) 103

¹⁵ Karabanow 16-17

like reformatories. Reformatories were a common trend in both Western Europe and North America, as they were believed to remedy the shortcomings and inadequate moral guidance that parents, schools, and other agencies of society were failing to instill. These institutions were laden with the philosophy and rhetoric of the Protestant Church, teaching youth westernized notions of family, work and religion.¹⁶ While in theory these reformatories were supposed to provide a more caring and understanding environment than the urban almshouse or local jail, they inevitably became training institutions where youth were taught lower-class working skills.¹⁷ The move to institutionalize these agencies for adolescents was a tremendous failure for they were based on the principle that individuals are able to change through obedience rather than by learning. These institutions were also infamous for isolating and segregating adolescents from the rest of the society, further exacerbating feelings of disconnection and alienation.¹⁸

From the 1970s on, there was a move towards deinstitutionalization of the facilities that catered to homeless youth. This was a crucial step in the history of homeless youth that came as a result of increased recognition of the reality of abuse within dysfunctional families. It had become more obvious that many of these youth had "slipped through the cracks" of the conventional welfare system.¹⁹ Today, perceptions of street youth have evolved with an increased awareness that street youth often exist because of reasons beyond their control.

Today's young person on the street is often thought to be fleeing an abusive, dysfunctional family life or a miserable institutional situation, who finds refuge on the street or in a short-term emergency shelter. In the contemporary social work schema, fault is redirected away from the

¹⁶ Karabanow 17

¹⁷ Ibid 17

¹⁸ Ibid 18

¹⁹ Ibid 19

individual and placed upon such socio-political factors as housing, employment, and family and/or institutional inadequacy.²⁰

Challenges

Once on the street, youth face numerous challenges and are often presented with many arduous tasks in order to survive. Involvement with drug and alcohol abuse is one of the most prominent issues amongst street youth in North America. Specifically in Canada, marijuana and heroin use were found to be the most prevalent drugs of choice for street youth. "In numerous interviews, boredom, emotional pain, and suffering were cited as reasons why Canadian youth engaged in such activity."²¹ In some cases youth find themselves in such dire straits that they turn to drug trafficking as a means of survival often leading to addiction or dependence. In other cases, the feeling of alienation, loneliness, and emotional trauma are the inherent causes of drug and alcohol abuse in young adolescents. Second to drug and alcohol abuse, prostitution and petty thievery are two other issues that homeless youth typically face while living on the streets. Child prostitution and petty thievery represent a fast and profitable option for those with no alternative for income. As a result of these many activities, there is an ever-growing concern for the physical and mental well being of youth who have little or no support from adults. These street youth populations represent high-risk groups for a multitude of diseases and health issues including HIV, unintended pregnancies, physical injuries, asthma, lice and scabies, sleep deprivation, depression and attempted suicide.²² These risks underscore the need for supportive and affordable housing where street youth can live and receive vital services, as well as generate supportive social networks.

²⁰ Karabanow 20

²¹ Ibid 40

²² Ibid 44

Statistics

Regardless of Canada's longstanding international reputation for providing a high quality of life for its citizens, a growing number of Canadian youth are suffering from homelessness.²³ World-wide populations of street youth are not known, but it has been estimated to be in the millions.^{24,25} Dale Dematteo estimates that every day, one hundred fifty thousand youth are living on the streets in Canada.²⁶

Locally in Ottawa, a non-partisan coalition of over seventy community agencies called the Alliance to End Homelessness (ATEH), releases a yearly report card that accesses the number of homeless using emergency shelters. In 2009 the ATEH reported that four hundred and eleven different youth utilized the emergency shelters of Ottawa.²⁷ This statistic had increased from 2008 where only three hundred and ninety one different youth had utilized emergency shelters.²⁸ The ATEH report card also states that the average length of stay in shelters has increased. In 2008 the average length of stay for youth was thirty-one days, while in 2009 the average length of stay was thirty-seven days.²⁹

These statistics highlight the severity of youth homelessness in Ottawa, and describe a growing population of street youth. It should be noted that these numbers are not inclusive of the entire homeless youth population in Ottawa, as they do not include those who live on the

²³ CJ Frankish, SW Hwang, D Quantz, Homelessness and Health in Canada: Research Lessons and Priorities (Can J Public Health, 2005) 23-29

²⁴ E Roy, N Haley, P Leclerc, et al, Prevalence of HIV Infection and Risk Behaviours Among Montreal Street Youth (Int J STD AIDS, 2000) 241-247

²⁵ AE Weber, JBoivin, L Blaise, et al, HIV Risk Profile and Prostitution Among Female Street Youth (J Urban Health, 2002) 79(4) 525-535

²⁶ D DeMatteo, R Coates, E Goldberg, et al, Toronto Street Youth and HIV/AIDS: Prevalence, Demographics, and Risks (J Adolesc Health, 1999) 361

²⁷ Brown 2

²⁸ Ibid 2

²⁹ Ibid 2

streets, or those who couch surf among friends. The true population of street youth is difficult to discern as many of these youth are hidden amongst the city. Ultimately it can be assumed that Ottawa's street youth population is larger than what statistics support, representing a severe problem in need of a change.

The NIMBY Phenomenon

Despite homelessness among youth being on the rise, there are often parties who are against building new affordable housing projects. Combating the "NIMBY" (Not in My Back Yard) phenomenon is a common occurrence that most new social housing projects face in today's high-end housing markets. The NIMBY phenomenon characterizes people who are generally affluent and opposed to new, less upscale developments near them. In most cases local residents express three major concerns: safety, a collapse of neighbourhood cohesion and a reduction of property values.³⁰ But are these valid concerns?

In 2008 a community group in Toronto called "The Dream Team" and the University of Toronto conducted a study entitled We are Neighbours: The Impact of Supportive Housing on Community, Social, Economic and Attitude Changes. Their extensive community-based research study explored the impact of two supportive housing buildings on the surrounding neighbourhood.³¹ The two supportive housing facilities selected for the study were located in a neighbourhood adjacent to downtown Toronto. As a part of the study, all participants involved were guaranteed confidentiality. Consequently, the neighbourhood and facilities involved were not identified. The supportive housing projects were selected based on the criteria that they were

³⁰ Alice de Wolff, We Are Neighbours: The Impact of Supportive Housing on Community, Social, Economic and Attitude Changes (Toronto: Wellesley Institute, 2008) 2

³¹ Ibid iii

located in the same neighbourhood, were distinctive in their history and community integration, and were opposed by the local community when first proposed. The resulting facilities selected were referred to as Building A and Building B in the study. Building A was a twenty year-old facility with fifteen units, sited on a residential street where there had been some opposition but no formal hearings. Building B was a two year-old, twenty six unit facility located on a busy commercial street. There had been active opposition to this building. Building A was a supportive housing building for those with mental illness, while Building B was a low-rise apartment building whose tenants were primarily from homeless shelters.³²

Through the use of a community-based research process, it was concluded that supportive housing projects do not hurt property values or increase crime. During the period of the study, property rates actually increased and the crime rate decreased. Statistics revealed that, "The volume of dispatched calls dropped by 27%. Incidents of sexual assault were down 32% from their highest point in 2001; incidents of other assault were down 11.5%, also from their highest point in 2001."³³ In addition, their interviews go further to show that supportive housing tenants make important contributions to the strength of their neighbourhood. Due to the tenant's low income, they more frequently shopped at local businesses for necessities and as a result contributed a modest amount to the local economy. At the same time, they also had a carbon footprint that was far smaller than their neighbours.³⁴ "The opposition that had originally existed was gone with virtually no expression of negative attitudes found among immediate neighbours."³⁵ Granted, this case study was not based on a social housing project for homeless

³² De Wolff 7.

³³ Ibid. 13.

³⁴ Ibid. 16-17

³⁵ Ibid. IV.

youth, but many of the residents were in fact homeless with the added complications of having mental health issues. One can argue that if these marginalized communities can have such a positive impact on a neighbourhood, the same could be said of a social housing project that dealt with street youth.

Homeless youth populations have endured many adversities as result of not conforming to a social norm. A general misunderstanding of street youth culture and its contributing causes has lead to numerous pitfalls in the field of social work. The following chapter discusses these pitfalls of social engineering and the resulting urban consequences.

Chapter 2

Pitfalls of Social Engineering

Throughout history homeless populations young and old have been the victims of social engineering. Often defined as "outsiders" by virtue of social status, these populations have been subject to segregation, upheaval and institutionalization. As Daly describes,

These individuals are consigned to the periphery of public consciousness because by failing to conform they violate social norms and offend public sensibilities. We deal with them by disassociation, distancing ourselves to minimize or displace feelings of resentment, fear contempt, guilt, shame, or conflict. In doing so a cycle of disinterest and disaffection is generated, allowing us to shun collective responsibility. We compartmentalize and place barriers between "us" and "them". We tend to see some things and ignore others.³⁶

Homelessness is an age-old occurrence in "civilized society" and is accepted as an inevitability. The issue, however, lies in how these marginalized groups can be embraced within the cities, and what is being done to alleviate their proliferation?

Philosopher Michel Foucault recounts the many pitfalls of social engineering in his book Madness and Civilization, citing the frightful circumstances that marginalized populations were forced to endure. While not explicitly focusing on homeless adolescents, Foucault draws direct connections between the disappearance of leprosy in the Western world with the exclusionary treatment of poor vagabonds and the insane. Leprosy had all but disappeared by the beginning of the fifteenth century, but the same perceptions that had pushed lepers to a peripheral existence were redirected towards other aberrant populations. The occupants of the leprosarium's had

³⁶ Gerald Daly, Homeless (Routledge London, 1999) 8

changed, but their quarantine-like treatment had remained the same, attaching the stigma associated with leprosy to a new scapegoat.³⁷ Ultimately this illustrates society's reluctance to accept those who do not fit within a social norm. Foucault continually highlights examples in history where communities have shunned or isolated anomalous populations perpetuating an irrational fear of coexistence. During the Renaissance, groups of "madmen" in Europe were expelled onto "ships of fools" that were cast out and entrusted to mariners and the uncertainty of the sea, effectively ridding towns and cities of their bothersome minorities. The mentally ill were expected to find salvation in their solitude, when in fact many became worse or died alone away from their families.³⁸ In Paris, during the early seventeenth century, there were less than one-hundred-thousand residents living in the city with over thirty thousand beggars living on the streets. Instead of developing a system that would help reduce and accommodate these struggling groups within the constructs of the community, there was a purging of the homeless who were unable to find employment within the city. "A decree of the Parliament dated 1606 ordered the beggars of Paris to be whipped in a public square, branded on the shoulder, shorn, and then driven from the city".³⁹ A year later in 1607 an ordinance was established that employed archers at the city walls to ensure that the homeless did not try to return.⁴⁰

Today we look back at such acts of social engineering and control with shock and dismay, questioning our current approach in dealing with homelessness. Similarities in isolation of disparate populations can still be found in present day cities. Toronto's Regent Park is an example of such an urban blunder. As Canada's first social housing project, Regent Park is home

³⁷ Michel Foucault, Madness and Civilization (New York: Random House, 1965) 7

³⁸ Foucault 7-12

³⁹ Ibid 47

⁴⁰ Ibid 47

to over seventy-five hundred people, where seven out of ten households remain beneath the poverty line. The community is comprised entirely of social housing, and covers sixty-nine acres in downtown Toronto.⁴¹ After suffering more than fifty years of inequality, social exclusion and long term entrapment due to the development's self enclosed monoculture, Regent Park is currently undergoing a one billion dollar, fifteen year redevelopment strategy. Current plans for a complete rebuilding of the site include mixed social and market units as well as re-integrating the area with the rest of Toronto in an effort to avoid repeating a half-century of ghettoization. Dr. Sean Purdy describes "a spectacular process of social polarization from the 1950s to the 1990s where Regent Park residents became trapped."⁴² This brings to question whether or not our responses have actually changed from the seemingly irrational time Foucault describes?

As already noted, homeless populations will always exist to some degree whether elective or as a result of an economic downturn. The solution, however, is not to polarize these populations, but to integrate those who desire to be integrated within the fabric of the city. Such diversity will not only allow homeless populations such as street youth to benefit from the advantages of a potentially supportive community, but it could also help promote social and economic vitality within the city.

Urban theorist Jane Jacobs discusses these concepts of vitality and diversity within the city in her book, Death and Life of Great American Cities. Jacobs argues that modernist planning policies are destroying inner-city communities by rejecting the nature of the people who live within them. She finds quintessential faults in urban planning committees that use deductive reasoning in planning cities, resulting in the segregation of urban centres in terms of use, i.e.

⁴¹ Sean Purdy, "Ripped Off" By the System Housing Policy, Poverty, and Territorial Stigmatization in Regent Park Housing Project, 1951-1991, (Labour/Le Travail, 2003)

⁴² Purdy pars 67

residential, industrial, and commercial functions. She criticises these planning strategies for leading to the destruction of communities and innovative economies by creating isolated unnatural urban spaces. In contrast, Jacobs advocated a dense and mixed-use urban approach that would preserve the individuality and spontaneous growth of existing neighbourhoods.⁴³ To put it simply, if lively well-used streets and urban spaces are the end game to a "successful city", then the economic driver to achieve such success is diversity.

It should go without saying that streets or districts which do have good primary mixtures and are successful at generating city diversity should be treasured, rather than despised for their mixture and destroyed by attempts to sort out their components from one another.⁴⁴

Jacobs is referring to the kind of diversity that brings a social and economic exuberance to a city. In her book Jacobs discusses four indispensable generators of diversity, the first of which is the most relevant to this thesis. The first generator of diversity is the need for the many internal parts of the community to have more than one primary function. These primary functions must ensure that people go outdoors on different schedules and are there for different purposes, but are also able to share many of the same facilities. Often making reference to primary and secondary uses (primary uses being those which draw people to a specific area and secondary uses being those enterprises that grow in response to the presence of primary uses), Jacobs argues that without the proper balance of primary uses, secondary uses will not develop resulting in grey urban decay areas within the city.⁴⁵

But more than this, wherever we find a city district with an exuberant variety and plenty in its commerce, we are apt to find that it contains a

⁴³ Jane Jacobs, The Death and Life of Great American Cities (New York: Random House, 1961)

⁴⁴ Ibid 177

⁴⁵ Ibid 161-164

good many other kinds of diversity also, including variety of cultural opportunities, variety of scenes, and great variety in its population and other users.⁴⁶

In summation, Jacobs is stating that diversity in population and culture is inherently responsible for promoting the growth and development of healthy cities. Having established this, would it not be reasonable to say that seemingly aberrant populations such as homeless adolescents and their respective housing should be nurtured within the urban fabric of the city, and not be rejected to the periphery? This design proposal explores how when paired with the proper program, a social housing project for street youth can be mutually beneficial for both the youth, and the surrounding community as a whole.

Segregation of marginalized social groups such as the homeless population has inevitably led to the development of slums and ghettos, contributing to sparse city growth and urban decay. Similar to how these segregated populations have caused a fracture point in the continuity of our cities, so too have the abandoned industrial sites, the “brownfields”, of our recent past.

⁴⁶ Jacobs 148.

Chapter 3

Introduction to Brownfields

Today there is an ever-growing concern for the well being of the global environment. Issues of climate change and dwindling natural resources have led to an increased interest in more sustainable methods of developing urban centres. Nations across the world have begun revitalizing urban areas in a quest to improve the quality of city life and promote sustainable development.⁴⁷ Brownfield redevelopment can generate a wide array of economic, social, and environmental benefits.⁴⁸ As a result, adaptive reuse and redevelopment of "brownfields" has garnered the attention of planners and policy-makers worldwide. These abandoned landscapes act as a cautionary tale for the future, but also represent *great opportunities for urban renewal*.

The term "brownfield" has been redefined numerous times throughout the years as the issues surrounding such sites have evolved. Initial references to these sites were concerned with the topic of contamination. A "contaminated site" was generally referred to as a patch of land that had pollutant levels in the soil and or groundwater that exceeded those considered safe by regulators. However, negative connotations were often associated with the term "contaminated". In an attempt to avoid stigmatization, alternative terms were used such as "derelict" in the United Kingdom and "brownfield" in the United States. Early print references place the origins of the word back to the 1970s where United States steel industry used the phrase "brownfield expansion" in reference to the modernization of existing plants.⁴⁹ The term was not specifically used to denote potentially contaminated land until Charles Bartsch from the Northeast Institute

⁴⁷ Christopher A. De Sousa, Brownfields Redevelopment and the Quest for Sustainability (Boston: Elsevier, 2008) vii-viii

⁴⁸ Ibid viii

⁴⁹ De Sousa 2

employed the term "brownfield" during a conference on managing old industrial property. The word has been adopted by both public and private sectors ever since.⁵⁰

The most widely excepted definition of the word brownfield is the one by the federal United States Environmental Protection Agency (EPA). The EPA defines brownfield as, "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant."⁵¹ Despite public awareness of brownfields existing in the early 1970s, it was not until the late 1970s and early 80s that the true dangers of such contaminated sites were realized. Industrial pollution disasters such as the Love Canal in the United States, and the Sydney Tar Ponds in Canada received extensive media coverage that highlighted public anguish and ignited the need for change.⁵²

The proliferation of brownfields is a severe problem in every industrialized nation. More specifically in North America, brownfields are often a product of a post-industrial society. Changing arenas of industrial domination, displaced workforces, and new forms of legislation are all leading causes of this undesirable residual space. A recent trend in adaptive reuse projects has inspired many countries to extensively collect, document and disseminate information on both the whereabouts of brownfield sites and their specific contaminants. Once acquired, this information becomes an essential tool in establishing human and environmental health risks, as well as facilitating cleanup and redevelopment strategies.

The United States has an extensive tiered system for identifying brownfield sites that extends through federal, state, and local government branches. Together, a complimentary web of

⁵⁰ Ibid 1-2

⁵¹ Public Law 107-118 (H R 2869) - "Small Business Liability Relief and Brownfields Revitalization Act" signed into law January 11, 2002

⁵² De Sousa 8

information is coordinated on each contaminated property. Sites that are deemed the most hazardous are put on the EPA's computerized inventory for Comprehensive Environmental Response, Compensation, and Liability Information System or (CRLIS). The sites which exceed a designated hazardous rating on the inventory are placed on the National Priorities List, while those which fall below are assigned to state and local inventories respectively.⁵³ According to the 2007 National Priorities List there were 1618 sites listed with 1240 undergoing active remediation, 61 with proposed schemes and 317 that were archived. In addition to these inventories there are also a number of organizations that strictly track hazardous materials and police their use and storage. Nationwide, the EPA estimates there are over 450,000 brownfields across the United States, while the US Government Accountability Office has estimated there may be between 130,000 and 450,000 commercial and industrial brownfields.⁵⁴

The scale of brownfields in Canada is less known when compared to those of the United States. This can be attributed to the failed approach by the Federal Government in the early 1990's to create a national inventory of brownfields. Unfortunately, the provinces were unable to agree upon the extent and potential use of a contaminated sites inventory. As a result in 1995 the Federal government established a Contaminated Sites Management Working Group which focused solely on gathering information on federal lands. More than 4000 federal sites have been assessed with an estimated 2,680 identified as contaminated, while between 1395 and 1595 are considered suspect. Information on other brownfields is inconsistent, but estimates suggest there are around 30,000 contaminated sites across Canada with the highest concentrations occurring in Alberta, British Columbia, Ontario and Manitoba.⁵⁵ In comparison, brownfield sites in Canada

⁵³ De Sousa 4.

⁵⁴ Ibid. 4.

⁵⁵ De Sousa 15.

occupy an estimated three percent of urban land, while brownfields in the United States occupy double that amount. However, considering Canada's less intensive industrial background, these statistics are not surprising. Ultimately the overall percentage of brownfields in North America is minimal but still problematic due to their high concentrations in urban areas.⁵⁶

High concentrations of brownfields in urban areas raise many potential health and environmental issues. A wide range of contaminants can be ingested by humans and animals through polluted soil, both directly and indirectly. Ingestion of food produced on these sites, inhalation of airborne particles that volatilize from the soil or abandon chemicals, and direct skin contact with contaminated water or airborne particles are all pathways that leave animals and humans susceptible to contamination. The human health and environmental risks depend on the toxic properties of the contaminants, the duration and the concentration of the particles involved.⁵⁷ The risks involved with brownfields can vary from site to site, but ignoring the problem as many local governments do, is obviously not the answer. Failure to capitalize on these opportunities not only presents public health and environmental risks, but it can also lead to sporadic development and urban decay.

In this problem lies an opportunity for cities to repair fissures in the urban fabric caused by brownfields. As brownfield issues evolve and begin to focus as much on urban renewal as issues of contamination, cities are now being presented with unique opportunities to rejuvenate their inner neighbourhoods. The negative connotations that were typically associated with brownfields are now beginning to change as these sites have become a symbol of sustainable design. Ottawa's

⁵⁶ Ibid. 6.

⁵⁷ Ibid. 7.

LeBreton Flats is an example of such a brownfield that is ideally located to reinvigorate healthy city growth.

Throughout history, society's approach to issues of brownfields and youth homelessness has been comparable. Both have been relegated to the periphery of society and allowed to continue while often only being offered temporary resolutions. This thesis proposes a long-term synergistic solution that focus on the healing processes of both street youth and brownfields. It is for these reasons that I have chosen to site this thesis project in the brownfields of LeBreton Flats.

History of the Flats: A Tail of Contamination

The history of LeBreton Flats can be traced back to 1613 when the French explorer Samuel de Champlain sailed down the "Kitchissippi River", now called the Ottawa River, and established the area as an important route for the flourishing fur trade in Europe. For the next two centuries residents who populated the river banks thrived off of the fur trade.⁵⁸ In the early 1800s the lumber industry dominated the area as a result of its proximity to the river. The Ottawa River became an effective means of transport for the raw materials involved in the industry. Shortly after, Colonel John By began the construction of the Rideau Canal to connect the Rideau and Ottawa Rivers in order to help transport military supplies to the American border. Many of the workers who were contracted to build the Canal found residence on the south side of the river, which is now called LeBreton Flats. The Flats were considered to be one of Canada's oldest industrial and residential neighbourhoods.⁵⁹

⁵⁸ National Capital Commission, "Historical Perspective - National Capital Commission," 15 Oct 2008, 18 Feb 2011
<http://www.canadacapital.gc.ca/bins/ncc_web_content_page.asp?cid=16300-20444-20506-20508 <=1>

⁵⁹ National Capital Commission, "Historical Perspective - National Capital Commission," 15 Oct 2008, 18 Feb 2011
<http://www.canadacapital.gc.ca/bins/ncc_web_content_page.asp?cid=16300-20444-20506-20508 <=1>

In 1900 "The Great Fire" ravaged the neighbourhood, consuming the entire area and reducing everything to ash and rubble. After, a group of merchants, tradesmen and their families resettled the Flats with industries such as sawmills, storage yards, metal fabrication factories and rail yards. In 1962 the private land of LeBreton Flats was expropriated by the National Capital Commission (NCC) to make room for an elaborate federal compound called "Pentagon North" that never came to fruition. During this process twelve hundred residents were relocated throughout the city and the land laid vacant for forty years.⁶⁰ In this time, the site was used for a series of public events as well as a snow dumping area. Due to the nature of the oils and chemicals associated with the industry that existed in the area, as well as the combination of the Great Fire and continuous snow dumping, the Flats became heavily contaminated. The presence of such contamination meant that soil had to be remediated before any redevelopment could happen. LeBreton Flats had effectively become one of Ottawa's largest brownfields, and a particular eyesore on such prominent federal land. Finally after a long period of stagnation, the municipal, provincial, and federal governments agreed upon a vision to resurrect the once vibrant and colourful LeBreton Flats. Based on the principles of "new urbanism"⁶¹ the area was to be a medium density, mixed - use neighbourhood, with zones of residential and institutional areas. The focus was to emphasize the area as a gateway to the capital core, highlighting perspectival views of Parliament.

⁶⁰ Ibid

⁶¹ Janine Debanne, "Flats on the Flats," Canadian Architect Sept 2005 42

The Great Fire in 1900 as seen from Parliament Hill after it has crossed the Chaudiere and entered LeBreton Flats (Figure 1)

Following the soil remediation and construction of the Canadian War Museum on Blocks X and W in 2004, the contract for the new housing district on the south side of the Ottawa River Parkway was awarded. Architects Dan S. Hanganu and Daoust Lestage Inc. with Claridge Homes Corporation of Ottawa were charged with the task of designing the first residential developments to exist on the Flats in more than forty years, marking the beginning of the LeBreton Flats long awaited brownfield urban renewal.⁶²

LeBreton Flats Site Zoning Plan (Figure 2)

⁶² Debanne 42

Part II: Precedents and Proposed Solutions

Chapter 4:

Temporary Vs Permanent Architecture

Homelessness is a diverse and complex issue that requires both short and long-term solutions in order to effect change in the growth of this marginalized community. In response to the lack of accessible social housing in Ottawa, the following chapter examines the possibilities for temporary structures to aid the homeless as compared to permanent structures.

Temporary structures for the homeless are not a new idea and in many cases they have experienced great success, sometimes as interventions, but usually more as social critiques on the plight of the homeless. Artist Krzysztof Wodiczko's Homeless Vehicle (Figure 3) is a project that was launched in New York City in the late 1980s. The Homeless Vehicle Project was designed in response to the ever-growing homeless population that far exceeded the space available in a limited number of city shelters. Unlike families and children, homeless individuals were not given priority placement in the city's transitional housing facilities or in welfare hotel rooms. Instead they were offered overcrowded dormitory shelters that imposed dehumanizing, or even prison-like regimentation. As a result, many individuals chose a nomadic life on the streets. Wodiczko's Vehicle was designed to offer these urban nomads a sense of place and an address in the absence of suitable shelter. Composed of steel and canvas, the vehicle offered a large storage compartment for the collection of cans and belongings, as well as an extendable sleeping chamber that was shielded from the elements. Wodiczko saw his vehicle not just as a temporary shelter, but as a poetic statement on the dire conditions of our society.

The signifying function of the vehicle is as important as its strictly utilitarian purpose. It attempts to function as a visual analog to

everyday objects of consumption and merchandising (such as food vendor carts) The vehicle bears a resemblance to a weapon In our view, the movements of carts through New York City are acts of resistance, opposing the continuing ruination of an urban community that excludes thousands of people from even the most meagre means of life ⁶³

Artist Michael Rakowitz took a similar approach in addressing temporary structures on the issue of homelessness The paraSITE project (Figure 4) proposed to take advantage of the exterior ventilation systems on existing architecture in order to inflate a temporary shelter Once deflated the structure could be easily transported or carried around on an individual's back Much like Wodiczko, Rakowitz envisioned his project as an object of protest against the politics that were trying to “homeless proof” city streets

Sean Godsell Architects also examined temporal architecture for the homeless in their urban furniture designs Conventionally, street furniture is designed to deter the homeless from sleeping, but in the case of Park Bench House (Figure 5) its purpose is quite the opposite In Melbourne, Sean Godsell Architects began designing some of the most rudimentary forms of shelter into the city's infrastructure Park Bench House is a dynamic structure that serves two purposes during the day it acts as typical park bench, but in the evening hours it transforms into a mesh sleeping area with a tapered roof This demonstrates how a simple gesture by the city can immediately respond to the need for shelter The firm has also applied similar concepts to their Bus Shelter House (Figure 6) and Future Shack (Figure 7)

Temporary architecture for the homeless has many benefits and applications These structures can be delivered to the streets much faster after conception than more permanent forms

⁶³ Krzysztof Wodiczko, Krzysztof Wodiczko: New York City Tableaux, Tompkins Square, the Homeless Vehicle Project (New York: Exit Art, 1990) 22

of architecture. They can deliver the most basic needs for shelter to the homeless at little cost to cities, as well as possibly provide individuals with a small degree of self worth. But perhaps even more essential than shelter is the ability of temporal architecture to create awareness. By casting light on the grim living conditions of individuals, this form of architecture forces the hand of those who can effect change.

Permanent architecture for the homeless such as Toronto's StreetCity and Strachan House are both successful examples of transitional homes. StreetCity was conceived as a high-support housing facility to house fifty-two homeless persons. It was an alternative form of communal housing that catered to the needs of the chronically homeless. Originally an old garage for the Canada Postal Service, it was converted into a series of six houses, with twelve individual private bedrooms built on either side of a main corridor named "Main Street."⁶⁴ Unlike conventional hostels, residents could come and go as they pleased, with no restrictions on alcohol or drug use. One of the unique aspects of StreetCity was its self-governance by the staff and residents, who also formed a city council within their community. These residents met weekly in Main Street to discuss local issues like rehabilitation programs and upcoming events. People living in StreetCity created their own rules by which to live, and were not forced into a strict living regimen. The facility was a forward-thinking operation that exercised a tolerant and harm-reduction philosophy, which was not segregated by sex. StreetCity's focus was on community living, and placed much value on public and semi-public spaces. StreetCity was initially intended to be a temporary facility, but due to demand it ran successfully for 14 years before it closed in November of 2003. One of its greatest successes was its ability to teach

⁶⁴ Rae Bridgman, StreetCities Rehousing the Homeless (Peterborough Broadview P, 2006) 219

residents how to live in a community again. One resident even said “I can be seen or I can see. I’m not invisible. I’m part of the world.”⁶⁵

Strachan House is the second-generation project that followed the principles of StreetCity. It has a more permanent framework that is based around the specific community that had evolved at StreetCity. Architects Levitt and Dean Goodman, focused their design primarily on the feedback that came out of their many meetings with the residents. As a result of the project being so attune with the community’s lifestyle, it became successful as a transitional home. Strachan House was a reliable and constant element in the otherwise unstable lives of the residents.

Permanent architecture for the homeless can provide more than a long-term solution for shelter; it can offer a sense of home. It provides individuals with stability, as well an avenue for hope. Communal homes such as StreetCity and Strachan can give particular groups such as the chronically homeless the opportunity to learn how to live with others in a structured environment again. Perhaps one of the greatest strengths of permanent architecture for the homeless is its ability to provide a constant in an otherwise unstable life.

Temporary and permanent architecture for the homeless each have an essential role in benefiting those in need. A temporal form of architecture can offer the homeless shelter and mobility in a very immediate way that permanent architecture cannot. It has power to evoke awareness and act as a political statement on the condition of our less fortunate. However, it can never truly act as a solution to the homeless condition. Unlike the temporal, only permanent architecture can offer the homeless security, reliability, and consistency. Most importantly it can

⁶⁵ Bridgman 110.

provide a home, not only in terms of shelter, but also in terms of belonging, independence and control over one's life.

(Figure 3) **Left:** Artist Krzysztof Wodiczko - Homeless Vehicle

(Figure 4) **Right:** Artist Michael Rakowitz - The paraSITE project

(Figure 5) **Left:** Sean Godsell Architects- Park Bench House

(Figure 6) **Left:** Sean Godsell Architects- Bus Shelter House

(Figure 7) **Right:** Sean Godsell Architects- Future Shack

Precedent Study Analysis:

Over the past two decades, people and organizations across Canada have developed a wide array of responses and initiatives to address the needs of street youth. These organizations range from emergency shelters, drop-in centres, and health clinics, to alternative schools, job training programs and supportive housing. I chose to focus on three particular projects that have experienced success with some of the more progressive theories in housing the homeless. This

chapter will look at the nature and characteristics these projects, and how they have influenced the design of this thesis. These projects include: Dans La Rue in Montreal, Youth Services Bureau in Ottawa, and the former Tent City in Toronto.

Dans La Rue Montreal

Dans La Rue is a grassroots, community-based organisation that primarily consists of three services; a drop-in centre called Chez Pops, an emergency shelter called the Bunker, and a mobile emergency service run out of a large van. Chez Pops is a multi-use building that consists of a cafeteria, community rooms and a series of consultation rooms. While at Chez Pops, street youth can have a nourishing meal, seek both mental and physical consultation as well as participate in a series of constructive activities designed to build their self-sufficiency. The Bunker is Montreal's largest overnight youth shelter where adolescents can find refuge when faced with living on the streets. The Van is Dans La Rue's third major service offered. As a mobile vehicle, the Van is able to go directly to the youth on the streets, offer them warm food and a hot drink, as well as tell them where they can go to find help at Dans La Rue.

Dans La Rue's approach to homeless youth is one that was born out of necessity. The program was initially established as a mobile emergency service. After gaining an impressive reputation among hard-core street youth for providing flexible, unobtrusive services twenty-four hours a day, Dans La Rue went through a metamorphosis. While spending many hours on the streets working with homeless youth, the founders of Dans La Rue gained a better understanding of the needs and idiosyncrasies of street life. Ultimately their mobile outreach program grew to

become a comprehensive emergency shelter and drop-in service, filling some of the gaps in the services offered to youth.⁶⁶

Architecturally, Dans La Rue has succeeded in many regards. Both Chez Pops and The Bunker have effectively been stitched within the urban fabric of Montreal. The Bunker is well integrated within a diverse residential neighbourhood, not consigned to the periphery as many other failed youth facilities have been in the past. It is located in the Plateau Mont-Royal neighbourhood, within walking distance of many local necessities such as grocery stores, schools, pharmacies and hospitals. Aptly named, the emergency shelter is architecturally similar to a bunker. Wedged between two neighbouring buildings and protected by its harsh stone facade, The Bunker houses a series of single beds and counselling rooms. Chez Pops is located in the same neighbourhood just east of Parc La Fontaine. Similar to the emergency shelter, Chez Pops is well integrated within the community but located on a more commercial street. The building is attune with the scale of the surrounding businesses and presents a welcoming public exterior to the street. While the architecture of Dans La Rue supports the immediate and short term aspects of housing street youth, it falls short in addressing the long term and more preventative methods of social housing that keep youth from returning to the streets.

As discussed earlier in chapter four, there is a need for both temporal and permanent forms of architecture, in order to comprehensively address the issue of homelessness. Homelessness is a multidimensional issue that requires a multitude of solutions. The architectural framework of Dans La Rue fails to present housing options that teach youth the rigour of living on their own. While Dans La Rue has succeeded in locating its facilities within the core of the city, it falls short in providing an architecture that encourages social interactions between shelter residents and the

⁶⁶ Karabanow 79.

local neighbourhood. As Karabanow says, "An important part of developing a sense of community, and of feeling oneself to be an active citizen, is the need for youth to form positive relations with the world outside the shelter."⁶⁷

The Architecture in this design proposal, to be discussed in detail later, will generate such opportunities for social interaction by blurring the boundaries between public and private space. The housing aspects of the project will be integrated into a public park space creating essential social interaction areas where street youth can establish positive relations within the greater community. Building upon the strengths of Dans La Rue, this design proposal responds to the immediate needs of street youth in the form of an emergency shelter and drop-in centre. In addition, this proposal will also address the more long-term aspects of housing street youth by offering transitional housing opportunities. Much like Dans La Rue, these services will be immersed within an urban context so the residents can benefit from the amenities and services of the city.

(Figures 8-10) Left to Right: Chez Pops; The Bunker; The Van

Youth Services Bureau of Ottawa

Youth Services Bureau of Ottawa or (YSB), is one of the largest and most comprehensive non-profit agencies serving youth in Ottawa. Over three hundred and fifty professionals work

⁶⁷ Karabanow 89

from twenty locations across the city to deliver a vast range of programs and services that support at-risk youth and their families. My primary focus will be on the YSB young men's and women's shelters. Both shelters offer young men and women aged twelve to twenty immediate access to safe housing. They are open three-hundred-sixty-five days a year, twenty-four hours a day and welcome all youth who have no other place to go. Both shelters have thirty beds and offer emergency shelter space, but unlike Dans La Rue they also have transitional housing apartments. Transitional housing is intended to offer a supportive living environment where individuals are given the tools and opportunities needed to succeed in permanent housing. It is an intermediate step between emergency shelters and permanent housing, with limits on the length of stay. The young women's shelter is housed in a new facility located in Sandy Hill. The three story building is divided between fifteen emergency shelter rooms and fifteen transitional apartments. The emergency shelter rooms are composed of a single bed, a small desk, a large window and a shelving unit for clothes. The transitional apartments are more generous in size and are composed of a three piece bathroom, a small kitchenette, a single bed, a table and three chairs, a shelving unit, and a large window. While the emergency rooms are available to any youth between the ages of twelve and twenty, the transitional apartments are reserved for youth who have sought council with youth services and are between the ages of sixteen and twenty-one.⁶⁸

The main floor of the building is based on an open floor plan layout where the kitchen and main dining hall spill out into the community lounge room. These vibrant, well-lit community spaces are shared by all the residents, and are overlooked by two staff offices. In addition, there are a number of very small council rooms, community bathrooms, and laundry rooms on each floor. The young women's shelter also has a donation room, a food bank, as well as lounge and

⁶⁸ Liette Duguay, Personal Interview, 21 Oct. 2010.

staff offices in the split level basement. Behind the shelter there is also a small vegetable garden that can be utilized by both staff and residents.

The young men's shelter has all of the same services and number of rooms as the women's shelter, but at smaller scale due to the restrictions of the building. Located in Centretown, the shelter is an older building that was acquired and renovated for the needs of the YSB. Similar to the women's shelter, the community rooms are located on the main floor of the building along with a number of other support spaces. The second floor is comprised primarily of emergency shelter rooms, while the third floor consists of transitional apartments. The men's shelter also has a roof balcony that is heavily used in the summer months as a garden space. The shortcomings of the young men's shelter lie in its compartmentalized floor plan. All the rooms in the building, including the community rooms, are disjointed from one another by a labyrinth of partitions and doors. These partitions inhibit social interactions among youth. Further severing the building are the long narrow corridors on each floor that service the rooms. Floor space is a major concern as every room in the building is undersized.

Similar to Dans La Rue, YSB has achieved success in establishing its services within the context of the city. Both the young men's and young women's shelters have been embraced within the community, and have been successful in meeting the immediate needs of street youth. YSB has even gone further in offering an architecture that begins to address the more long term needs of street youth. The transitional apartments are an essential part in helping youth develop the necessary skills and attitudes required to negotiate life in the city. Despite many of these positive moves, YSB still suffers from reasonably high rates of recidivism. Liette Duguay, a coordinator with YSB, explains that some street youth still regress back to the emergency shelters, even after they have graduated from the transitional housing program and found permanent

residence within the city.⁶⁹ This can partially be attributed to the design of the transitional apartments themselves. In order for homeless adolescents to be successful in transitioning into society, they not only need to have a basic set of life skills, but also a sense of independence and self confidence. Designing the transitional apartments within the protective umbrella or safety net of the emergency shelter deprives street youth of the self-reliance and self-confidence needed to succeed on their own. Hence, transitional housing that isolates adolescents in single studio apartments instead of encouraging a communal living situation is problematic. While it is understandable that street youth need the privacy and security of their own room, there are many benefits to sharing the more communal aspects of a home.

The architecture in this design proposal builds upon the transitional housing model utilized at the YSB. YSB has illustrated the need for transitional housing in Ottawa as both the young men's and women's shelters have long wait lists for their transitional apartments.⁷⁰ While YSB has experienced success in transitioning youth into permanent housing, some youth still regress back to a life on the streets. The focus of this design proposal is to offer transitional housing opportunities where small groups of youth live together in independent homes under the guidance of a peer mentor figure. The purpose of this design is to promote social relationships amongst adolescents who are tackling many of the same challenges, and to instil a sense of belonging within the local neighbourhood. These relationships will enable youth to learn from one another, focusing on education and empowerment as deterrents for recidivism.

⁶⁹ Liette Duguay, Personal Interview, 21 Oct 2010

⁷⁰ Ibid

Tent City

In contrast to these other examples, Tent City was not a formal social housing project, but rather a housing community that evolved organically. Its spontaneity and growth brought to light the dire conditions of homelessness in Toronto and highlighted the need for more affordable social housing projects.

Tent City began as a result of the unprecedented surge in homelessness across Canada. This surge was a result of Canada's National Affordable Housing Program being cut in 1993.⁷¹ People started to be turned away from the shelters of the city and began camping out in the open. In the late 1990s, a shanty town sprung up in Toronto on the contaminated land of an old iron foundry. The small community grew very rapidly and drew much media attention for its utter lack of political and governmental control.⁷² Tent City, as it came to be called, was a vivid reminder of how large the homeless crisis had become. Never before had there been such an open and visible display of public misfortune in Canada. Initially, Tent City was painted in a positive light in the eyes of the homeless community. It was a safe and healthy alternative to overcrowded, disease-ridden shelters, and it was rent free. Residents were able to build their homes from whatever building materials they could find, and as a result many found independence and dignity in their way of life. While living in tent city many residents worked, got married and crafted art pieces, but the "city" was not without problems. As numbers grew, illegal garbage dumping, drugs, and prostitution became serious problems that plagued the small shanty town.⁷³ In one instance, a birth was even reported in the Tent City. Regardless of these circumstances, many found it to be

⁷¹ "Housing in Canada: A National Crisis," Citizens for Public Justice, 18 Sept. 2008, 11 Apr. 2011 <<http://www.cpj.ca/en/housing-canada-national-crisis>>

⁷² Gordon Laird, Shelter: Homelessness in a Growth Economy: Canada's 21st Century Paradox (Calgary: Sheldon Chumir Foundation for Ethics in Leadership, 2007) 41

⁷³ Ibid. 42

more promising than the estimated twelve-year wait for communal housing. Despite much protest all the residents of Tent City were evicted in September of 2003, and the site was ploughed under. Much can be learned from the lifespan of Tent City, as "It taught people that funding and institutions are only part of the answer. It was the experience of Tent City that made people ready to live in housing again. People need options and the ability to make choices."⁷⁴

In summary, Tent City was successful in creating a social condition where homeless individuals were given the opportunity to establish a sense of self worth. Freedom, independence, and a feeling of belonging were many of the characteristics that made Tent City so desirable to its residents. The sheer development and longevity of the city proved that homeless populations are capable of living in healthy community environments. While temporary developments such as Tent City are not sustainable housing options for homeless adolescents, they can be helpful in forming an architecture that supports many of the same concepts of community. The architecture in this design proposal focuses on the individuality of each housing unit amongst a community of residents. Interconnectivity and the balance between public and private spaces are the essential principals utilized in this project which evolved from the lessons learned at Tent City.

(Figure 11) **Left:** Tent City community
(Figure 12) **Above:** Tent City shanty overlooking Toronto skyline

⁷⁴ Purdy, <<http://www.historycooperative.org/journals/llt/52/purdy.html>>

In conclusion, after having analysed the architecture and services of Montreal's Dans La Rue, Ottawa's Youth Services Bureau and Toronto's former Tent City, it has become evident that homelessness amongst adolescents is a multifaceted issue that requires immediate, long term and supportive housing approaches to effectively meet the needs of street youth. Initial responses to homeless youth require an architecture that is located within the context of the city and offers an open and responsive environment that is conducive to the more public aspects of an emergency shelter. Secondary responses to street youth require an architecture which promotes independence and self reliance within an urban environment. Designing a residential architecture through the manipulation of public and private areas encourages the essential social interaction needed to help transition youth into mainstream society.

Chapter 5: A Homeless Intervention

Guiding Principles and Conceptual Framework

The previous chapters have examined the most significant issues surrounding homeless youth, brownfields, and current supportive housing options; the focus of this essay now shifts towards an architectural alternative. A point of intervention is needed to help assist homeless adolescents transition from a life that exists on the streets, to one that exists as part of a community. Traditional housing projects for street youth have a tendency to be disconnected and hidden from the public realm, an undesired response for an already marginalized community. Social housing programs for street youth should be fostered within the context of a city's urban fabric so disenfranchised populations can benefit from all of the opportunities within a community. This project builds upon concepts of reconciliation in order to establish a neighbourhood where people from disparate populations can coexist and mutually benefit from one another. There are two major considerations that need to be addressed in order to achieve such a proposal. First is the selection of a site that will be conducive to such diverse relationships. Second, is the design of an architectural program that creates levels of reliance between differing groups and encourages moments of social interaction. The premise behind such social planning is to establish working relationships within the public, and to positively reinforce community living in order to reconcile a disenfranchised population.

The overarching concept behind this thesis design project utilizes a shared garden and public park space as a device to generate social interaction between local Ottawa communities and homeless adolescents. Sharing the site is a hybrid form of architecture that offers both transitional and emergency housing options. The residents of this community will be charged with the responsibility of running and maintaining the horticultural aspects of the site. These

responsibilities will allow homeless adolescents to learn valuable skill sets outside of their day to day schooling as well as help them establish working relationships within the local community. Equally benefiting from the project, surrounding communities would be able to utilize the urban garden and park space cultivated by these youth, and thus, begin to shed previous negative misconceptions or fears surrounding homeless youth. The landscaping of the site plays a large role in the mediation of private and public spaces; it is essential to shaping and "sowing" together the different programmatic areas.

Site Concepts

After analysing many different site opportunities throughout the city of Ottawa, LeBreton Flats emerged as the site that would best nurture the concepts put forth in this thesis project. As a new community on the verge of intense growth, the Flats has yet to be characterised by any particular social demographic. As an article in *The Ottawa Citizen* points out, "The early arrivals fit no single mould. Some are young and single. Others are retired. There are owners and renters. Some are here for months. Some are here for life."⁷⁵ The LeBreton Flats is therefore a blank slate, located just on the outskirts of downtown Ottawa with multiple public transit points only steps away.

Block V (Figure 15) is the specific area in the LeBreton Flats where the project is sited. Due to the prominence of its river-front location, the site will attract high levels of public interaction, which immediately evokes a desired line of communication between the residents and the surrounding community. Directly south of Block V, on the opposite side of the parkway, is a residential and commercial condominium development that is currently under the first stage of

⁷⁵ Kelly Eagan, "Early Inhabitants Revel in The City Life," *Ottawa Citizen* 17 Oct 2008

construction. The neighbouring site to the west of Block V is the low-lying landscape of The Canadian War Museum, which emphasises a view towards the Peace Tower on Parliament Hill. The attempt made in this project is to embrace the many different social, urban and institutional aspects of the surrounding area and sew them together in a way that speaks to a form of harmonious coexistence.

(Figure 13) Left: View from atop the Canadian War Museum framing the perspective toward the Peace Tower on Parliament Hill

Initial observations of the site were of the aforementioned perspectival view of the Peace Tower. The perspective cuts directly across Block V bisecting the north end of the site. In order to preserve this view, the bisecting axis was physically emphasised in both landscape and architecture as a "public datum". Used as an organizing device, all public aspects of the project were oriented in regards to this main axis of circulation to mirror a public path put forth by the War Museum.

LEGEND

- Local Schools
- Peace Tower Perspective
- Arterial Roads
- ▬ O-Train Route
- Surrounding Green Space
- Claridge Homes Condominiums

SITE CONTEXT
(Figure 14)

PROPOSED SITE : LEBRETON FLATS

Soil conditions were one of the major challenges that influenced the approach to site design. Due to levels of metal and PAH contamination (discussed later in the chapter) there is a need to address the remediation of the soil, prior to any site development. The solution proposed is to utilize the mechanisms of phytoremediation, where the natural metabolic processes of plants are used to clean the soil. The lower soil contamination levels present on Block V make it an ideal candidate for phytoremediation as there would be little risk for human exposure to contaminants. Phytoremediation not only offers a low impact solution for the eradication of contaminants, but it also allows for interim uses of the site during the process of remediation. This alternative soil remediation plan was a primary driver in the formal design aspects of the project. The centrally located Remediation Gardens will create areas of transparency throughout the site, while helping to shape circulation paths. Plant material in the gardens will extract toxins for harvest in the highest contaminated areas, while accentuating other program zones. After an estimated three to five year remediation period, the soil will be free of contaminants, and the gardens will be available for public and resident use. Two other remediation areas will be densely planted with poplar trees, veiling the north and south ends of the site. These areas will be articulated in elevation, providing shaded park and rest spaces for pedestrians. During this interim period, the remediation areas will be maintained by the appropriate authorities who are trained to handle such contaminants. Once remediated, these wooded areas will then be harvested for their metal contaminants. The resultant park space will be planted with apple trees, creating a public orchard that will be maintained by the resident youths.

The intentions of this design were to choreograph a remediation plan that caused the least amount of disruption possible to the integrity of the site. The natural healing processes of phytoremediation were also conceptually parallel to the mission of housing homeless youth. Just

as the LeBreton Flats is going through a process of recovery, so too are the youth who are trying to escape a life on the streets.

Current Remediation Status of LeBreton Flats

The NCC's current remediation plan for LeBreton Flats has involved many of the more traditional methodologies for dealing with brownfields. These processes have been effective in remediating areas of the Flats, but have also been financially taxing and labour intensive. The process used to remediate the sites where both the Canadian War Museum and the Claridge Homes development exist, was a standard "dig and dump" technique. This remediation process is simple in terms of extraction, but with an average cost of one million dollars per acre it is not

the most economical of options.⁷⁶ A "dig and dump" process, involves the removal of contaminants from a site by excavating the entire affected area and replacing the contaminated earth with fresh soil from another location. The polluted soil is then transported to a controlled location, or in this case, used as fill for a local dump.⁷⁷

Block V in the NCC's LeBreton Flats Redevelopment Project is currently a vacant parcel of land. This land is proposed to have interim use as a grassed parkland and overflow parking for the adjacent war museum for the next five to ten years. Final use of the property following parkland use is intended to be for institutional purposes, such as a Federal Museum.⁷⁸

In accordance with the most recent soils report conducted by Dessau-Soprin Inc., Block V showed to have a number of chemical concentrations exceeding applicable MOE* and CCME* cleanup standards.⁷⁹ While there are a number of substances that exceed these cleanup standards, most are concentrated sporadically throughout the site and have decidedly small chances of reaching human exposure pathways. Having said this, there are two substances that have been identified as Contaminants of Concern (COC). **Lead** and **Benzo(a)pyrene** both have high frequencies of detections in the site soil, that range in the ninety fifth percent UCLM*

In response to this information, a risk management plan was proposed that required Block V to be covered with a minimum of fifteen to thirty centimetres of clean soil in order to cap contaminants until a more permanent remediation plan is devised. The establishment of grass

⁷⁶ Raskin Ilya, D Ensley Burt, eds Phytoremediation of Toxic Metals Using Plants to Clean Up the Environment (Toronto Wiley-Interscience, 2000) ix

⁷⁷ Dessau-Soprin Inc , NCC Blocks W and X Remediation Environmental Assessment Study (Hull Dessau-Soprin Inc , 2002) 25-26

⁷⁸ INTERA Engineering Ltd , Human Health and Ecological Risk Assessment Part of Block V - LeBreton Flats (Ottawa INTERA Engineering Ltd, 2005) 4-5

⁷⁹ INTERA Engineering Ltd 16

* MOE is the Ontario Ministry of the Environment

* CCME is the Canadian Council of Ministers of the Environment

* UCLM - (upper confidence limit on the mean) typically used to estimate exposure concentrations in risk assessments

and landscaping would help maintain the new topsoil and prevent harmful exposure that may cause human and ecological health risks.⁸⁰ While not warranting immediate remediation due to the immobility of soil contaminants, Block V still poses a number of risks. Soil encapsulation is an effective way of containing contaminants, but it does not solve the root of the problem. The toxins are still lurking below the surface and could possibly be a major cause for concern should the soil cap ever be disturbed in a careless manner. Brownfields such as Block V with lower levels of contamination and more flexible development schedules are often ideal candidates for phytoremediation strategies. These techniques are far less labour intensive and in many cases represent a much lower capital investment.

Alternative Phytoremediation Proposal

Coined in the 1980s, the term phytoremediation was used to describe the use of plants to ameliorate degraded or polluted substrates. Phytoremediation techniques were originally developed by early agriculturalists as plant based systems to minimize soil erosion, restore disturbed environments and to cleanse polluted water deposits. In the last decade there have been rapid developments in the scientific methods behind phytoremediation which has sparked much interest in the technology in terms of soil remediation.⁸¹

Phytoremediation is an emerging technology that uses certain plants to clean up soil, water, and air contaminated with environmental pollutants such as polychlorinated biphenyls (PCBs) through degradation, extraction, or immobilization of contaminants. This technology has been receiving attention lately as an innovative, cost-

⁸⁰ INTERA Engineering Ltd 58-59

⁸¹ Neil Willey, Phytoremediation Methods and Reviews (New Jersey: Humana Press, 2007) v

effective, and long-term alternative to more established engineering methods used at hazardous waste sites.⁸²

Phytoremediation is a broad term used to describe a series of remediation mechanisms. These mechanisms include: phytoextraction, rhizofiltration, phytostabilization, rhizodegradation, phytodegradation, phytovolatilization, hydraulic control, vegetative cover systems, and riparian corridors/ buffer strips. For the purposes of this thesis, the focus will be concentrated on phytoextraction, and rhizodegradation as they are the mechanisms which are most applicable to the contaminants found on Block V.

Phytoextraction is the first mechanism which will be used to extract the high concentrations of lead and other metals of concern. As lead is an elemental metal it cannot be degraded by living organisms, therefore the best technique for removing it from the soil is by way of concentration and extraction.⁸³ Phytoextraction utilizes the roots of plants to absorb toxic metals from the soil where they are then concentrated and translocated to the aboveground harvestable plant tissues (fig. 8). The concentration process results in a reduction of contaminated mass, and also a transfer of the metal from an aluminosilicate-based matrix (soil) to a carbon-based matrix (plants). The plant material then oxidizes the carbon into carbon dioxide, further decreasing the mass of the matter to be treated, disposed of, or recycled. The goal of phytoextraction is to reduce the levels of toxic metal in the soil within a time period of one to three years. To achieve this goal, the plants used have to be able to accumulate greater than one percent of targeted metals in biomass, and produce more than twenty metric tonnes of harvestable biomass per

⁸² Willey 3

⁸³ Ilya Raskin and Burt D. Ensley, eds Phytoremediation of Toxic Metals: Using Plants to Clean Up the Environment (Toronto: Wiley-Interscience, 2000) x

hectare a year.⁸⁴ In order to achieve these kinds of results on Block V, soil amendments such as synthetic chelates and organic acid would be needed in order to increase metal translocation from the roots to above ground plant tissues.⁸⁵ While there are many advantages to using phytoextraction there are also a number of disadvantages that need to be accounted for when planning to use such technology. Metal hyperaccumulators tend to grow slowly and typically have a shallow root base which can be a problem, as the only toxins hyperaccumulators can absorb occur in the immediate root zone. To counteract this complication the contaminated areas must be tilled after every harvest to ensure thorough remediation. Another disadvantage to phytoextraction is the availability of the contaminants once they have been extracted from the soil and translocated into the plant tissues, thereby increasing exposure pathways to both animals and humans. Appropriate barriers must be established to ensure a degree of separation between vulnerable parties.

(Figure 18) **Right** Process of Phytoextraction

⁸⁴ Raskin 61-63

⁸⁵ Ibid 63

Rhizodegradation is the second mechanism which will be targeted at remediating benzo(a)pyrene and other PAHs from the soil. Rhizodegradation is the process in which organic contaminants within the plant root zone, or rhizosphere are broken down into harmless by-products. It is believed that rhizodegradation is carried out by bacteria or other microorganisms whose numbers typically flourish in the presences of the rhizosphere. As Amanda Van Epps cites, "Studies have documented up to 100 times as many microorganisms in rhizosphere soil as in soil outside the rhizosphere."⁸⁶ The presence of the microorganisms are believed to be so prevalent because plants exude sugars, amino acids, enzymes, and other compounds that can stimulate bacterial growth. The roots also act as a pathway for oxygen transfer and help increase the surface area for microbes to grow on.⁸⁷ The benefits to using rhizodegradation is its ability to eradicate the contaminants within the subsoil. The toxins are never absorbed in aboveground tissues thereby reducing human exposure paths, and decreasing plant maintenance, as they do not need to be harvested. The plant media associated with rhizodegradation generally have a much deeper root base than other phytoremediation mechanisms, allowing for remediation of contaminants at far greater depths. Disadvantages to rhizodegradation involve the substantial amount of time needed to establish a significant root base which can sometimes be limited by moisture conditions of the soil. Additional fertilization is also needed due to microbial competition for nutrients.⁸⁸

Implementation of these mechanisms will be dispersed throughout the site as illustrated in (Figure 17). Four Remediation Gardens will be oriented in the heart of the site and will utilize

⁸⁶ Amanda Van Epps, Phytoremediation of Petroleum Hydrocarbons (Washington U S Environmental Protection Agency, 2006) 2

⁸⁷ Ibid 2

⁸⁸ National Risk Management Research Laboratory Office of Research and Development, Introduction to Phytoremediation (Ohio U S Environmental Protection Agency, 2000) 23-24

both phytoextraction and rhizodegradation mechanisms to remediate the COC's. Hyperaccumulators such as Indian mustard, pennycress, alyssum sunflowers, and lupins will be planted throughout these gardens to extract the high concentrations of lead. In addition to these plants a number of wild grasses, cattail and hybrid poplars will be planted in intermittent rows to biodegrade benzo(a)pyrene and other PAH deposits. The rows of hyperaccumulators will be seasonal plants that are harvested at the end of every growing season and recycled for their concentrations of lead. After harvesting these plants their respective rows will be tilled and replanted the following spring with more hyperaccumulating plants. The intermittent rows of plants that utilize processes of rhizodegradation will be allowed to grow for numerous seasons in order to establish a significant root system. Crop rotation of these plants will continue in the Remediation Gardens for a number of years until soil tests no longer show the presence of toxins. Once remediated the garden will then be turned over for use by the local residents and community.

At the north and south ends of the site there are two more remediation areas that will be planted exclusively with fast-growing hybrid poplar trees and wild grasses. These park areas will be raised in elevation as a result of the contaminated soil excavated from the architectural areas. Hybrid poplar trees are ideal plants for remediation in these elevated park areas because their roots are able to increase the rhizosphere (root zone) to depths of fifteen feet. Poplar trees also have the unique ability of being able to execute both rhizodegradation and phytoextraction processes. In addition, fresh topsoil and native grasses will be planted at the base of the poplars, promoting the degradation of contaminants while simultaneously creating a vegetative cap enabling safe public use of the park while it undergoes remediation.

LeBreton Flats has been marred by contamination since its beginnings as an industrial and residential neighbourhood. Phytoremediation of Block V in LeBreton Flats is an innovative and cost effective solution that will remediate the contaminants of the site while simultaneously offering appealing interim park uses. Using a natural attenuation process such as phytoremediation allows for opportunities where the architecture can interact with the landscape, creating a dynamic urban park composition that offers numerous amenities to the community. While contamination has shaped the history of the Flats, it will be its remediation that shapes its future.

Transitional Housing

Upon examining local Ottawa housing models for street youth as well as other diverse social housing schemes, it has become evident that the provision of shelter in and of itself is not a sustainable solution. In order for social programs to be successful in transitioning youth into permanent and stable housing, they must create a safe and communal-like environment that offers realistic responses to the contributing causes of homelessness.

One of the main challenges that plague contemporary shelter systems today is the rate of recidivism. Recidivism is defined as the percentage of youth who find placement within housing but later return to the shelter system. There are many factors that lead to recidivism, but some of the most preventable obstacles include a lack of daily life skills such as cooking or managing finances. Another obstacle commonly faced is a reluctance to utilize shared living opportunities due to negative living experiences with others, such as abusive or negligent parents. As a result of these reservations, youth are often charged with finding bachelor apartments that are inevitably more expensive and increasingly rare to find in an urban environment.

The transitional housing in this proposal acts as an alternative to current supportive housing in Ottawa. Concepts of communal living are reflected in the housing to emulate a more practical living experience. The housing units focus on re-establishing a concept of "home" within the adolescent in order to positively re-enforce a shared living environment. Similar age groups of street youth are paired together in housing units of six youths, along with a peer mentor who will help guide and assist them through any life skill obstacles. Not only is this a more economically affordable than individual housing units, but it will also encourage street youth to take advantage of future shared housing options. The mentorship process builds upon the successes of past residents and encourages them to impart their experience to new residents. Ideally, selected

youth who have successfully "graduated" through the transitional housing program would be offered a yearlong residency in a mentorship capacity in order to help guide the next group of homeless youth. It is through this form of communal living that residents will begin to see the positive aspects of shared housing and begin to develop a support network that will help them succeed with their new life beyond the shelter.

In terms of urban planning, the architecture of this proposition is intended to be an extension of the neighbouring Claridge development, spilling over the Ottawa River Parkway and extending towards the river. The transitional and emergency housing populates the perimeter of the site creating a veiling effect that partially conceals the inner workings of the park space. By orienting the bulk of the architecture along the southern border, it allows for large portions of the site facing the water to be preserved for public use. Each block of housing is two stories high with the first floor below grade in order to relate to the low-lying landscape of the neighbouring architecture along the river. The first floor of each unit is designed with a focus on the public domain. The open floor plan supports the kitchen and main living spaces which open onto a shared courtyard space amongst three transitional homes. Each courtyard culminates in an informal "theatre space" below street level that is shared between the community and residents. Oriented towards the more private south end of the first floor are two bedrooms. The second floor of each unit houses four bedrooms with a mezzanine space that is open to the first floor drawing in the southern sun exposure from a skylight above. Extending like fingers through the site, the architecture is meant to act as a porous wall with gateways leading into the park space.

Ground Floor
(Figure 20)

Second Floor (Street Level)
(Figure 21)

Section Through Transitional Housing Unit
(Figure 22)

TRANSITIONAL HOUSING PLANS & SECTION

TRANSITIONAL HOUSING
Unit Circulation
(Figure 23)

View from Park Space
(Figure 24)

View from Ottawa River Parkway
(Figure 25)

TRANSITIONAL HOUSING RENDERINGS

Emergency Shelter

The emergency shelter responds to the needs of the younger street youth who need more supervision and guidance as well as those who are unable to yet manage more permanent transitional housing. Similar to the transitional homes, the emergency shelter creates a porous wall condition around the south west corner of the site veiling the interior contents. The main floor of the building supports the more communal aspect of the program such as the cafeteria, common space, recreation room, seminar rooms and a small health clinic. The upper floor houses a series of shelter rooms that are accessed off of shared corridors which accentuate views over the landscape.

The emergency shelter in this proposal is geared towards helping all street youth who require immediate assistance, while the occupants of the transitional housing units will be selected on a case by case basis. Street Youth who suffer from extended health, substance abuse, and mental health issues would not be eligible for residency in the transitional housing as the facility does not provide the medical facilities needed to house such individuals.

Garden and Park space

The central feature to the garden and park spaces is an elevated pedestrian walkway that bisects the site. This directly corresponds to an axis that connects the neighbouring War Museum to the Peace Tower mediating circulation between the different levels of landscape. The walkway or "public datum" has three main pedestrian rest areas which are designated as free program zones. These areas project into the garden and park spaces relating to the architecture of the transitional and emergency housing. Culminating at the north east end of the site, the walkway projects over the existing wet pond, and folds upwards at its tip to allow for an existing

bike path to continue through below. The fold in structure also provides shelter for a rest area above. Connected to the "public datum" are a series of sloped pathways that direct pedestrians and cyclists through the park's spaces. These pathways extend beyond the Block V to unite the circulation of the surrounding area. There are three interstitial zones which step down in elevation, joining the architecture of the housing with landscape of the park. As an informal theatre space, these areas are designed to generate interactions between the members of the surrounding community and with time to also generate interactions with members of the youth housing who in fact are the caretakers of the public landscape. As with all park spaces, night time security is always an issue of concern. In order to address this issue a series of major and minor light standards were designed to demarcate the primary access points of the park space. These lighting features extend throughout and beyond the site creating an illuminated nightscape that would be, like all public urban areas, policed by local authorities.

Greenhouses

Forming the south border of the central walkway are two elongated greenhouses. These greenhouses are utilized as community and resident garden space during the interim period where the Remediation Gardens are detoxifying the soil. The experience of sharing greenhouse space between disparate populations will be a microcosm of the future social condition that will occur on the entire site. Once the soil has been decontaminated, and the Remediation Gardens have become available for general use, the greenhouses will then be used as an educational tool for teaching street youth and the general public about plant growing cycles. In the winter months the greenhouses will also offer year-round garden space for the surrounding community members. Architecturally the greenhouses use passive solar design to optimize growing conditions. The

north westerly walls of the greenhouses are embedded into the soil to regulate heat loss, while the glass facade facing the south east is oriented for optimum sun exposure.

In summary, the composition of the project encourages an overlap between the architectural components and the landscape. The diversity in program promotes a range of different users who likely would not meet under ordinary circumstances. Together these elements create an environment where individuals can build an empowered and resilient community.

Second Floor
(Figure 26)

Ground Floor
(Figure 27)

LEGEND

- ☐ Courtyard
- ☐ Shared Balcony
- ☐ Circulation
- ☐ Bedroom
- ☐ Bathroom
- ☐ Shower Room
- ☐ Viewing Area
- ☐ Green Space
- ☐ Laundry Room
- ☐ Communal Living Space
- ☐ Seminar Room
- ☐ Health Clinic
- ☐ Tool Storage
- ☐ Offices / Consultation Rooms
- ☐ Community Space / Lounge
- ☐ Cafeteria
- ☐ Kitchen

EMERGENCY SHELTER PLANS

(Figure 28)

(Figure 29)

(Figure 30)

SITE MODEL

Chapter 6

Conclusion

As a product of their environment street youth effectively highlight deficiencies in our society as a whole. There is no *one* succinct solution to homelessness amongst youth as the contributing causes are multiple, diverse, and to a certain extent, inevitable. Progress lies in identifying the crucial points of intervention where change can be effected.

Increasing street youth populations call attention to the ineffectiveness of current social housing methods. As society's understanding of homeless adolescents has evolved from individual pathologies to that of environmental pressures, so too should the architecture that supports these populations. Street youth populations are not homogeneous and therefore require an architecture that is flexible in responding to various needs. There are numerous conceptual approaches to providing supportive housing, but the architectures which have shown the most success in attracting youth, are those which address the immediate and long-term needs of homeless adolescents. These agencies foster concepts of education and empowerment in the hope of preventing individuals from returning to the streets. While these methods have experienced some success, they often still suffer from a vicious circle of recidivism. More often than not, street youth populations report not only disturbing levels of poverty, neglect, abuse, and family dysfunction, but also overwhelming feelings of alienation and distancing from mainstream culture. Current supportive housing does not effectively address these feelings of disconnection. This thesis proposal focuses on concepts of diversity and cohesion on both micro and macro scales in order to re-establish relationships between disparate populations. On the micro scale, the design of the transitional homes emphasises the benefits of communal living in an effort re-imagine the nature of a home. The architecture promotes a sense of independence and belonging

while negotiating private and public space in order to encourage communal interactions. On the macro scale, the project combines public park uses with private residential uses to effectively promote diversity within the urban fabric of the city. The landscape acts as a mediator between the local community and the residents of the shelter, offering shared programs spaces such as the Remediation Gardens. Through this dual program relationships aim to be forged that will help street youth make the successful transitions into stable and then eventually permanent housing.

The architecture of this thesis proposal does not aim to eradicate youth homelessness in its entirety, as in some cases it is a conscious choice of lifestyle. This thesis seeks to offer alternative options for youth who are homeless not by choice, but as a result of structural social deficiencies. As architects, we not only have the potential, but the responsibility, to cultivate architectures that embrace and encourage cohesion amongst all social environments.

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