(Soft Space: A Hub for the Urban Bricoleur)

by

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Soft Space:
A Hub for the Urban Bricoleur

Abstract

Theories of globalization can revise the long-established architectural concepts and constructs of scale and space. The spatial can no longer be perceived by architects as neutral, static or distinct single entities, but must be understood as relational, contextual and part of a process within the global economy. Sudbury is a hub for industrial flows – it facilitates the appropriation, production and distribution of commodities within the global economy. The history of Sudbury's settlement shows how its morphology was driven by a global market economy and not well informed social and public policies. This trend continues today and it is perpetuated by contemporary globalization.

The invisible potential of the Flour Mill as a site of differential space resides in how an architectural intervention will engage what Sudbury has produced as the 'other', the excluded and the marginalized spaces, artifacts and members of the community. The project will highlight differential space as an integral component to the city and aims to facilitate the emergence of differential space by proposing a '**Hub for the Urban Bricoleur**' as a critical design project and intervention for the Flour Mill neighbourhood.

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Introduction

This thesis seeks to unveil and remedy particular spatial manifestations of globalization in the Greater City of Sudbury, Ontario. Historically, the city has grown and developed as a product of industrial capitalism and globalization. Today, as the haze from the smokestacks loom heavily upon the city, the spatial connotations of globalization continue to develop in an inconspicuous but unavoidable manner. The abandonment of the downtown core for peripheral suburban lifestyles, the car-oriented architecture such as strip malls and massive 'big box' commercial developments, and the extensive vehicular arteries connecting the scattered residential, commercial and industrial developments located in Sudbury reflect typical symptoms of 19th century capitalism which have been perpetuated by contemporary globalization. Amongst these politically privileged and capially defined layers of development the by-products of Sudbury's growth such as auto-wrecking facilities, junkyards, slag pits, industrial tailings and abandoned industrial buildings remain concealed and obscured not only within the material landscape but are phantoms within Sudbury's ongoing production of abstract space. These types of sites/sights, spaces and buildings reveal realities of consumerism that are most often veiled, especially in Sudbury. Fig. 1: Uncle Rick's Flea Market – Building composed of abandoned

Fig. 2: Uncle Rick's Flea Market – Interior view of retail space.

Fig. 3: Rock City – View of accumulated abandoned cars.

Fig. 4: G+R Highway Surplus – Building has been demolished since date of photograph.

These material (by) products of globalization compose part of Sudbury's Landscape of Alterity. Lacking specific building typologies and disrupting architectural notions of identity, landscapes of alterity emerge as unfamiliar and consequently, politically and socially alienated spatial conditions in Sudbury. Blurred, masked and negated by the majority of Sudburians, spatial alterity or 'other spaces' transpire into grey zones within the landscape, unsettling Sudbury's historical and political meta-narrative and identity. The artifacts, spaces, and groups/classes of people that do not have the capacity to contribute to the 'greater global economic' system tend to be excluded from what Sudbury has produced as a 'normal/everyday way of life'. Sudbury's population is economically diverse, however its developments operate within a dominant economic narrative of commercial and capital enterprise and as a result presumes everyone is the same with respect to the economy. Consequently, politicians, developers, architects and many community members do not exercise a responsibility to 'difference and otherness' in Sudbury's globally defined consumer society. The City of Sudbury occupies a massive area of land and because of this much of its untouched land is constantly being developed to build new buildings such as big-box stores. As a result, the most textured, curious and historically significant areas in Sudbury have become the residual and the marginalized spaces of the city. Areas such as the downtown core are awaiting the architect to take on the role of the Bricoleur; to inhabit and invest in these otherwise neglected spaces to give them meaning.

The Flour Mill neighbourhood, located on the edge of Sudbury's downtown area is one of the city's oldest neighbourhoods. It is a bricolage of architectural typologies appropriated and détourned by its community members in order to give them new purpose and meaning in a stark but familiar setting. Although the Flour Mill area is perceived by most Sudburians as a rough and gritty neighbourhood filled with dilapidated buildings, industrial sites and low income occupants, in a strange and extraordinary way it embodies a social and material richness that does not exist anywhere else in the city. The majority of Sudburians see the Flour Mill through a negative lens and do not recognize the potential there to transform the underused, deteriorated and abandoned buildings into architectural projects that engage difference and encourage alternative forms of consumption. Since the erection of the grain silos, the Flour Mill has been an area of town that has been in contention with and vulnerable to Sudbury's overall increasing role in the global market economy. Persuaded to sell their land for subdivision, local farmers gave up farming for jobs in the relatively stable mining industry.¹ Today, the Flour Mill's identity is extremely entrenched within the historic narrative of the Silos. For some people they are considered to be a Sudbury Landmark and for others, an eye sore. Their existence has been debated since the closure of the grain factory in 1920. After the shutdown the mill was demolished, however it was too expensive to destroy the silos and they have remained as a controversial architectural symbol to this

¹ Kelly, Michael. Inventory and Guide to Historic Buildings in Sudbury. Laurentian University, Department of History. Sudbury, ON. 1978 p.6.

day. Throughout the past century, the occupants of the Flour Mill have been forced to adapt to Sudbury's sprawling and capitalistic development by cultivating alternative forms of consumption and place-making.

Flour Mill context, images of the neighbourhood

Fig. 4: View of Silos from Notre Dame

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The Flour Mill contains most of the second hand stores in Sudbury, such as Re-Store, Salvation Army, Jarret Center, Value Village, Liquidation World and a number of hock shops – these types of facilities serve many members of the community by providing them with subsidized places to work and cheaper places to shop other than Wal-Mart. Although it is in the center of the city, the Flour Mill is socially segregated and isolated from the rest of Sudbury; it is considered

to be an area of town occupied by underprivileged and 'dodgy/sketchy' people. The Flour Mill has evolved into a 'Landscape of Alterity' as its material and social landscape has become peripheral; of minor importance, almost marginalized by the surrounding wealth of unprecedented growth in the city of Sudbury today. Because of current global trends in development the Flour Mill's location and lack of economic potential, it continues to be neglected by Sudbury's municipal policies and urban plans in terms of the production, regulation and transformation of the city. Its urban landscape demonstrates a tension between the Flour Mill's (lack of) development and types of construction assemblies versus the rest of Sudbury's persistence to develop new subdivisions and demolish older buildings for parking lots in order to receive yearly municipal tax reductions and most importantly, to keep up with the market force.

Although Sudbury is not classified as a 'global city' nor generally perceived as one, it certainly embodies many characteristics of a global city and therefore, I argue it operates as one. The city has not only been affected by globalization, but is also a significant participant in the global economy, particularly within the flow of industrial and consumer commodities (mined minerals, automobiles and building materials) and as a consequence, their by-products (enormous piles of slag, abandoned vehicle parts and scrap metals and landfills congested with demolished and discarded building parts). Very few cities or towns are left untouched by the global economy and Sudbury is no exception. The history of Sudbury's settlement shows how its morphology was driven by a global market economy and not well informed social policies. This

trend, I argue continues today. Currently the *modes of production* that continue to facilitate the growth and morphology within Sudbury are symptomatic and reflective of multi-national and trans-national corporations' dominant economic powers and their focus on dispersed, privatized and abstract global networks. Historically, this is particularly true in Sudbury because the multi-national mining companies have played a crucial role in the city's land use, distribution patterns, and implementation of infrastructure. Today, the mining companies' economic powers continue to influence municipal expenditures on developments such as highway expansions (for those employees who travel to the mines on the edge of the city), increasingly growing industrial sites and even the tourist attractions in the city are focused on the mining industry in Sudbury. Since the mining companies are taxed at an incredibly high rate, the provincial and municipal governments utilize that tax money to perpetuate Sudbury's growth and identity as an industrial mining town. Furthermore, the government welcomes multi-national developers while providing them with land to build massive shopping blocks that are only accessible by vehicle. As a result, physical public spaces (especially in the downtown) are disappearing and losing their significance as arenas for a wide range of social interaction in favour for profit driven and/or privately controlled space. For Henri Lefebvre, this spatial situation is a consequence of Neo-Capitalism, whose central characteristic is the intervention of the state into economic life, and is founded on a vast network which is not immediately visible. It has emerged from modernism's 'Abstract Space', whereby physical spaces (raw materials, tools, motorways, etc.) are used to reproduce

the capitalist system and the class structure that underpins it. For globalization theorist, Steven Flusty this spatial consequence of globalization is called 'hard space'. It is the structuring of the dominant (economic) narrative, and reflects the authoritative determination of its terrain. He breaks down hard space into what he describes as 'interdictory' spaces. For example, he cites spaces such as those which cannot be utilized unobserved due to active monitoring as jittery space, space that can not be reached because of obstructions such as walls, gates, checkpoints or contorted paths as crusty space, space that cannot be seen nor found due to grade changes or view impediments as stealthy space, and lastly, space that cannot be occupied comfortably as prickly space.² It is within this increasing hardness of the city that these types of spaces become naturalized and control is exercised over the whole of society by means of mediation through agencies such as political leaders and capitalists. These spaces are intended to privilege those who fall into a certain status quo and to intercept, repel or filter people who are socially defined as blemished, defective or inadequate consumers. Simultaneously, space subsumes this hegemony, serves it, makes use of it and over time characterizes a system which begins to define everyday spatial practices. Thus space emerges not as a thing, nor a container, but as a processual set of relationships tied to a specific mode of production within a particular society and time. Due to Sudbury's prominent position within the global industrial market of mining and metals distribution and

² Steven Flusty 2004, "Part 1: From the World to the City to the Street, and Back Again", *De-CoCa-Colonization: Making the Globe from the Inside Out* (Routledge) p.72-74

contemporary globalization's influence on the city, its spaces and buildings are becoming increasingly dominated by abstract space.

In order to 'ethically', 'consciously', and 'critically' participate in the production of space and transform Sudbury's contemporary spatial form, I am suggesting Lefebvre's analysis of space as an essential framework to critically interrogate, expose and intervene in Sudbury's *abstract* and *differential* space. Furthermore, I will touch upon contemporary theories of globalization which focus on the renegotiation and reinterpretation of the traditional notions scale and place in order to bring into light Sudbury's hardened Landscape of Social Consumption and to elucidate its softened Landscape of Alterity. At the same time, this thesis seeks to create an architecture which mediates between the hard and the soft and facilitates the emergence of *differential* space in the city. I will speculate how Lefebvre's theory on the Production of Space, along with contemporary theories of globalization can be interpreted into critical urban planning and designed as an architectural intervention. Moreover, I will investigate the insight they offer in order to demonstrate and put into praxis the ability to cultivate the capacity for change in the City of Sudbury?

Chapter One: From Global to Local and Back Again

Theories of both the production of space and contemporary globalization can revise the long established architectural constructs of *space*, *scale* and *place*. These relatively new ideas are advantageous when discussing the production of space in Sudbury because they offer a new lens to help recognize the hybrid relationships between the global and local and their influence on the city. Within this discourse they are conceptualized and described as processes, that is, sets of social and productive arrangements which accumulate into sedimentary/concrete space throughout history. As such, architects and urban planners should no longer conceive of spaces, scales and places as single and distinct entities. Henri Lefebvre argues that space is not inert, neutral or a pre-existing given, but rather an ongoing production of spatial relations that are informed by a collective assemblage of our knowledge and history. He describes contemporary spatial form as a process of assembly, simultaneity and accumulation; a collage of what he labels as conceived, perceived and lived space. It is here that Lefebvre's production of space sets the stage to search for a renewed understanding of space through the (re)negotiation and interpretation of scale and place. Within theories of globalization these spatial concepts have diverged from traditional notions of and approaches to **scale** and influenced perspectives on **place**-making. To begin, it is essential to define and describe general theories of globalization. It refers to a *multi-scalar* set of processes which encompass the international circulation of people and cultures, information and technology, products and services. Historically, globalization

has been in *process* for centuries, however it is only recently that a few key features present in society are new and distinctively different from previous eras of globalization. For example, contemporary information technologies and the dominating power of multi-national corporations have accelerated and increased the multiplicity of linkages and interconnections between the states and societies which make up the modern world system. Sudbury's modes of production most definitely operate within these relatively new global spheres. Globalization is defined "as a process or set of processes rather than a singular condition. It does not reflect a simple linear developmental logic, nor does it prefigure a world society or a world community. Rather, it refers to the emergence of interregional networks and systems of interaction and exchange."³ Theories and definitions of globalization often describe the global condition as a process or a set of processes. It is important and necessary to understand that globalization is always in process; it is in a constant state of emergence and evolution. For architecture this is significant because architects are working within this constant state of evolution and the outcome (built form/buildings) is a result of our position within these global-local processes. The process is a multiplicity of spatialized relations over time, a complexity of economic, political, technological and social interactions tied into one another, where each are part of the process and often create something new as a result. Globalization describes the process by which events, decisions, and activities in one part of

³ David Held and Anthony McGrew, David Goldblatt and Jonathan Perraton, *Global Transformations: Politics, Economics and Culture*, Polity, 1999, p.3

the world can come to have significant consequences for individuals and communities in quite distant parts of the globe. The worldwide *processual* nature of globalization has two distinct dimensions: extensity (or stretching) and intensity (or deepening). In terms of stretching, Anthony Giddens claims that,

Globalization is the intensification of world-wide social relationships which link distant places in such a way that local happenings are shaped by events occurring many miles away and vice-versa.⁴

Giddens is referring to an increased level of 'time-space distancing'; he claims that it is much higher than any previous period, and the relations between local and distant social forms become correspondingly "stretched". Globalization is a 'stretching process', where "modes of connections between different social contexts or regions become networked across the earth's surface as a whole."⁵ Time-space distancing is the intersection of presence and absence, and of the 'here' and 'there', where distant places and people can influence immediate moments and spaces. When constructing a building, the use of materials is often affected by the global market economy; a demand for a particular material elsewhere in the globe greatly affects its availability in another part of the world. For example, Japan is one of Canada's principal metals customers and because of their copious needs for metals in steel construction and their willingness to pay for it, Canada is more eager to export it to Japan rather than keep it here in

⁴ Giddens, Anthony. The Consequence of Modernity. Stanford University Press, California, 1990. p.64

⁵ Giddens, Anthony. The Consequence of Modernity. Stanford University Press, California, 1990. p.65

the country.⁶ Increasingly common situations like this are defining construction techniques and architectural aesthetics in Canada, particularly in Sudbury where cost and budget is always a key factor when building.

Globalization has also been described as a compressing process. Doreen Massey denotes the new complexity of differentiated movements between people, cultures and artifacts as an accelerated phase of 'time-space compression'; where different groups and individuals are placed in very distinct ways in relation to global flows and interconnectedness.⁷ Giddens' and Massey's descriptions of globalization help to conceptualize some of the theoretical, abstract and geographic transformations and interrelationships that have occurred as a result of globalization. Both the notion of a 'stretching' or 'compressing' time-space sphere demand that economics, politics, technologies and social groups are no longer bound nor contained by a geographic locale. The stretching of space and the subsequent compression of time allow for groups of people across the globe to be more interconnected in ways most are not even aware of. However, what becomes even more important in this matter is each person's relation to these 'glocal' flows/processes; it is what Massey calls the power-geometry of time-space compression. Different social groups and different individuals carry on in very distinct ways in relation to these flows and interconnections. For architecture, this is a considerable insight because the

⁶ Natural Resources Canada: http://www.nrcan.gc.ca/mms/scho-ecol/main_e.htm

⁷ Doreen Massey 1993, "Power-Geometry and a Progressive Sense of Place". In J. Bird, B. Curtis T. Putnam, G. Robertson and I. Tickner (eds) *Mapping the Futures: Local Cultures Global Change*. London: Routledge. p.12

placement of buildings within a city's evolving landscape plays a large role in the choreography of everyday actions.

"Every time you drive to that out of town shopping center you contribute to the rising prices, even hasten the demise, of the corner shop. And the 'time-space compression' which is involved in producing and reproducing the daily lives of the comfortably-off in first world societies – not just their own travel but the resources they draw on, from all over the world, to feed their lives – may entail environmental consequences, or hit constraints that will limit the lives of others before their own."⁸

Similarly, this widening gap between socio-economic spheres is occurring in Sudbury as a result of the increasing influence of Multi National Companies. The globalization process is shifting/altering Sudbury's urban spaces to places of consumption and rendering the individual as an economic subject - a pond of institutional initiatives. Sudbury has a diverse population; however globalization discourse fosters everyone as the same with respect to the economy, as municipal political decisions become increasingly intertwined within globalized capitalistic intentions. The resulting architectural implications tend to transform architecture into a commodity for the developers and governments.

To transform Sudbury's urban sphere, it is necessary to understand how globalization is revising the traditional concepts of scale and place, so that architects and urban planners can challenge architecture's new role as a commodity. These three parameters of space, scale and place within theories of globalization and contemporary spatial form will be discussed in greater detail

⁸ Doreen Massey 1993, "Power-Geometry and a Progressive Sense of Place". In J. Bird, B. Curtis T. Putnam, G. Robertson and I. Tickner (eds) *Mapping the Futures: Local Cultures Global Change*. London: Routledge. p.63

throughout the thesis. The concepts will help to define of a conceptual way of acting as an architect, the parameters of the process (conceptual to representational) and the formal and social implications of the proposed project in the City of Sudbury.

Contemporary Globalization has become a key catalyst for urban change in Sudbury over the past two decades. The city's urban fabric/morphology has been undergoing a physical transformation due to globalization since its early pioneering. The initial development of Sudbury's topography is a direct result of a political, economic and industrial ability to commodify the landscape and exchange it within the global market economy. Sudbury's growth has carried on in this fashion as it continues to accommodate numerous global agents such as Multi National corporations and developers.

Manuel Castells describes the dominant form of space in the condition of globalization as the 'space of flows'. "The space of flows is the material organization of time-sharing social practices that work through flows."⁹ Flows of capital, people, information, technology, goods and services link and connect the 'spaces of places'. Where the space of place refers to the physical contiguity of an urban node, governed and identified by a city's regime and its political, economic and cultural background. As a portion of geographic space, place is often conceived of as a bound setting constituted by identity and territoriality. According to Arjun Appadurai, locality is the key characteristic of place; it is phenomenological and is constituted by social immediacy and the relativity of

⁹ Castells, Manuel. *The Rise of the Network Society*. Blackwell Publishing, 2000 P.442.

contexts. For Sudbury, its identity is industrial production and its territoriality is bound by a geological formation, the Sudbury Basin. Sudbury is a hub of industrial flows – it facilitates the appropriation, production and distribution of commodities within the global economy. It is a physical place along and among networks of commodity and industrial flows. In terms of mining, Sudbury is where production occurs – raw materials are transformed into saleable products, which in turn enter the global market economy as vital commodities. With the advent of contemporary globalization, spatial organizations within cities today are defined by their position within global processes and flows. The space of flows and the space of place simultaneously co-exist in the city *proper*. The space of flows is created by the interaction of spatially distributed actors and the space of place is the material infrastructure that makes these interactions possible.¹⁰ When discussing the city as a node or hub Castells states,

The space of flows is not placeless, although its structural logic is. It is based on an electronic network, but this network links up specific places, with well-defined social, cultural, physical, and functional characteristics.¹¹

From an architectural point of view, the space of flows creates the space of place. This is obvious in Sudbury as most of its material infrastructure has been dependant on the mining industry's connections with the rest of the world. The greater the degree of interconnectivity with other places has spawned a greater degree of new industrial developments throughout the city.

¹⁰ Stadler, Felix. The Space of Flows: notes on emergence, characteristics and possible impact on physical space. Lecture given in Paris at the 5th International Plant Congress. Paris, 2001.

¹¹ Ibid, 445

Fig. 8: View of INCO facilities

Fig. 9: Typical INCO signage

Fig. 10 Clarabelle Mine, INCO

Sudbury's predominate mining company, INCO (International Nickel Company) has recently been bought out by a Brazilian mining company CVRD (Companhie Vale de

Rio Doce) and as a result the city is going

through a transformation. A number of new mines are opening, therefore new employment opportunities are encouraging more people to move to Sudbury and as a result, new subdivisions are being built to house these new Sudburians. Moreover, as Sudbury continues to prosper as an internationally renowned and celebrated mining city the municipal government and the Ministry of Northern Development and Mines is developing new initiatives to promote private and public sector projects which will facilitate technological and industrial intensification within the city.

If a city is a node (attractor), defined by its position within flows, then the morphology within a certain city is a reflection of its Inter-City Relationships. Peter J. Taylor describes the city as a *development* of human and economic

relations stretched over space and time; a historic process of change that reflects a tying together of various networks across the globe. The focus on inter-city relationships plays a large and significant role in understanding the current morphology of cities as it looks at globalization through a city-centric perspective as opposed to a nationwide overview. Furthermore, this new lens establishes that there is now a general thrust to integrate regions, cities and localities into a global framework. This is especially true in Sudbury as its Economic Development Plan is focusing on its local strengths and assets from which to start and build in the global economy. Throughout Taylor's overview of scholarly literature on the history and development of Inter-city Relations he continuously stresses the idea that cities are not stagnant entities, but are dependant on their connections with other cities and are in a constant state of development. Although Inter-City relationships have always played a role in the spatial organization of cities, he is claiming that with the onset of contemporary globalization and the subsequent capitalistic trading processes, this condition is becoming more and more significant in shaping contemporary cities and the network(s) they collaboratively form.¹² For the City of Sudbury these networks include the flows of consumer and industrial commodities. These consumer commodities most specifically include the automobile; as Sudburians are increasingly dependant on personal vehicles not only for transportation, but also as a means to publicize their status quo. As a result, public transportation is avoided by those who can afford vehicles and the auto-wrecking facilities which

¹² Taylor Peter J. 2004, "Inter-city relations, World City Network: A Global Urban Analysis", Routledge, pp.7-30.

lie on the outskirts of the city are overcrowded with derelict vehicles. According to the *Global City Model*, Saskia Sassen promotes Taylor's concept of inter-city relations by positing that no single global city can exist autonomously; each city strengthens global and transnational networks.

Recapturing the geography of places involved in globalization allows us to recapture people, workers, communities, and more specifically, the many different work cultures, besides the corporate culture, involved in the work of globalization.¹³

Although at many times globalization is considered to be “expunging local difference”, “eliminating the difference of place” and the “opponent of local”, recent theories of globalization such as Taylor's and Sassen's declare that these ideas have been exaggerated and that the global and the local are inextricably linked through globalization's “multi-scalar processes”. These processes are inevitably being organized in specific cities (places), which form key nodes in global flows and relations. What is happening instead is that new forms of local culture are being produced along with new meanings of what counts as ‘local’. Sudbury's local culture however, is still fixated on its role in the mining industry. For example, travel brochures, tourist attractions and various artistic installations constantly focus on the juxtaposition between the industrial setting of the city and its natural landscape. This condition indicates Sudbury's tendency to foster consumerism and as a result breeds a banalistic culture; one which serves utilitarian purposes rather than being inspired by original,

¹³ Sassen, S. *Critical Globalization Studies*, “The Many Scales of the Global: Implications for Theory and for Politics.” Routledge. Ed Richard Applebaum and William Robinson, 2005, p. 157.

innovative and spirited insights. Besides Sudbury's unexciting local culture however, there is hidden a more resilient local consumption culture – one that is similar to what Katerina Gerasimova defines as 'Artful Consumption'. She identifies this culture in the post-war Soviet economy as a term that applies not just to the acquisition phase of consumer goods, but also to what she describes as the post-commodity phase of use and reuse. "She documents the way that the meanings of goods are transformed through use, including the personalization of things through practices of mending and repair, handing things on to successive generations or finding new uses for goods that no longer serve their original purpose. Furthermore, she claims that Soviet consumers were adept in the arts of storage, exchange, barter and hoarding (just in case), with many goods being diverted from their intended use."¹⁴ Because of Sudbury's tendency to foster consumerism there is an increasing amount of post-commodity items that are being sent to the scrap yards, secondhand stores and wrecking facilities. This pattern reflects Sudbury's contrasting mentality towards material goods. The abandonment of buildings also falls into this category, as many older buildings are torn down in order to construct shiny new buildings. The majority of Sudburians prefer to be undiscerning to this condition, however there is a small population who contradict the typical tendencies and appropriate these artifacts and infuse them with use, meaning and value.

¹⁴ Jackson, Peter. "Local Consumption Cultures in a Globalizing World." Royal Geographic Society, University of Sheffield, April 2004. p.170

Chapter Two: Sudbury: A Globalizing City

The history of Sudbury's growth and development has been a result of Globalization's furtive filtering into the city. The settlement of Sudbury was in large part due to the construction of first national rail network, the Canadian Pacific Railway. Construction of the network took place from 1881 to 1885, physically uniting Canada from coast to coast by linking central political, agricultural, and commercial cities in Canada.¹⁵ The abundant pine forests in the Sudbury area forecasted prospect of prosperity within the lumbering industry and the construction of the CPR continued from the east to the Sudbury area from 1883 to 1885. During this time the construction workers lodged in temporary rough log shanties made from materials at hand. In 1885 construction moved onwards west and Sudbury as a settlement was survived by the entrepreneurs of the lumbering industry. The CPR made it easy to "penetrate new areas and to transport lumber" and for the first quarter of the twentieth century, lumbering was an important and prosperous industry. The mining industry is an integral factor in the morphology of Sudbury. The Canadian Copper Company was formed in 1886, today it is one of the world's largest international mining company known as INCO/CRVD with mines located across the globe. Early mineral exploration in the Sudbury basin proved successful and by 1901 the first ore samples were shipped to international buyers from a mine near Sudbury.¹⁶

Due to the problems and expense of refining nickel, it was not until after **1890**, when Americans were persuaded that nickel-steel was the best material for armour and armour plate for building

¹⁵ <http://www8.cpr.ca/cms/English/General+Public/Heritage/A+Brief+History.htm>

¹⁶ <http://www.inco.com/about/history>

warships, that mining in Sudbury was considered viable. Over the next twenty years nickel and copper production steadily increased and with it Sudbury's prosperity and faith in a more permanent future.¹⁷

With the advent of WWI, the prosperity of the city depended on the flux of the mining industry, more specifically the overseas nickel demand for military armour plating. The production for the war effort overseas sparked a number of changes in Sudbury and created boom conditions. Sudbury became the Nickel Capital of the world, a status maintained to this day. The city was given a new importance, generating an increase in population, employment, housing needs and proper infrastructure. "Despite the demand for more housing, the (short lived) Queen Anne revival went into decline. Ornate structures were too expensive and time consuming to construct, characteristics which were not in keeping with the immediate needs of the era. Nor was the Queen Anne style replaced with a newer design; Sudbury simply continued to build simple frame houses."¹⁸ It wasn't until after the Depression (1929-30) that demand increased and new smelters were built all over the Sudbury area. In mid 1930's appropriation and refining of the ore escalated due to increased overseas demand from Japan and Germany. During the 1940's haphazard dwellings built by miners became the norm for residences and as a result, INCO built two company towns, Copper Cliff and Lively. Continuing this trend, INCO developed five more company towns around the outskirts of the city, which were owned by

¹⁷ Best, Janna. "The Architectural Imagination" Thesis for Masters of Humanities: Laurentian University, Sudbury, August 2000. p.52

¹⁸ Kelly, Michael. Inventory and Guide to Historic Buildings in Sudbury. Laurentian University, Department of History. 1978 p.6

INCO up until 1986. The developments demonstrated an exercise of power and standardization. The towns which were similar to those built all around the world for INCO reflected that of post-war subdivisions. The houses were maintained by INCO, taxes were paid and occupants paid approximately twenty dollars per month to the company. The properties were allocated to employees based on their position within the company. For example, a manager would live in a house with much more square footage than a miner. "The largest growth occurred in the city itself, as the mining companies provided limited opportunities for growth in the towns which sprung up around the mines."¹⁹ By this time, the two transcontinental railways, the CPR and CNR intersected through Sudbury, making the city an even more important commercial distribution center. Due to the establishment of the mining facilities, Sudbury's industrial prosperity attracted many European immigrants and sparked a growth of ethnically segregated neighbourhoods which still remain today.

During the 1950s and 60s there was a large amount of urban growth in the city, however, it developed in scattered and uncoordinated strips here and there along existing roads.²⁰ This development signified a new car culture in Sudbury, which is still to this day plays a central role in the morphology of the city.

The settlement pattern which resulted at the end of this period was quite different from previous eras. A large central city, Sudbury, housed over 60% of the Region's population, and became strengthened as the commercial focus. Surrounding communities

¹⁹ Regional Growth Alternatives, Third Ed. Department of Planning and Development: The Regional Municipality of Sudbury. Sudbury, ON. December 1975. p.6.

²⁰ Ibid, p.6.

along the Nickel Rim contained planned and compact company towns, having good community facilities.²¹

This era of Sudbury's development resulted in an outward growth from the center due to industrial prospect and exploitation of the Nickel Basin.

A major annexation and amalgamation accompanied by the building of new subdivisions, new streets, new water and sewage mains, and new schools have all attributed to the outward growth of the city. Now the time has come for Sudburians to look inward – inward at the blight and slum conditions caused by early haphazard growth which are threatening property values and public investments.²²

It seems ironic that this statement which was made in 1963 is still echoed today and is reflected in the importance given to the growth and development on the outside of the city. Contemporary globalization is perpetuating this unsustainable type of growth.

Although The Greater City of Sudbury has matured into a diverse regional center of innovation and applied research in many fields, including mining technology, environmental restoration, specialized product development, healthcare and astrophysics research²³ Sudbury's growth and development is still dependant on and driven by an unprecedented global mining boom fueled by expanding economies in Asia and exploration for new and significant deposits of minerals. In an effort to guide the economic and urban development, the city recently published two lengthy documents, the GSDC Strategic Plan and an Official Plan. Both of the documents' main agendas stem from perspectives on

²¹ Ibid, p.7.

²² A Study for Urban Renewal in Sudbury, Ontario. Sudbury Planning Board and Project Planning Associates Ltd. Corporation of the City of Sudbury, Ontario. 1963.

²³ Coming of Age in the 21st Century: An Economic Development Strategic Plan for Greater Sudbury 2015, June 2003 p. 3

globalization and aim to reposition the city even more so within globalized networks of commodities, technologies, knowledge and people. The plans both state that, "Globalization creates unexpected and sudden changes that upset stability and tradition" and that "increasing global turbulence requires community leaders in Greater Sudbury to embrace new ways of thinking and working together to create prosperity."²⁴

An overview and understanding of the Official Plan becomes a tool to challenge existing modes of production within the city and to exercise new and better ways to shape the morphology of the city. When you recognize the political intentions of a specific place and tie them into the capitalistic intentions, the morphology (infrastructure, developments, land use) of the city becomes quite clear; the veil is removed and the smokestack's haze lessened. In Sandra Leacock's book, *Cosmopolis II: Mongrel Cities of the 21st Century*, she calls for urban plans "to become less oriented to the production of documents and interactive, centered on people", and also "to become transparently political, opening up about the values and visions it stands for and defends."²⁵ The city's focus on creating prosperity is, as a result breeding boring architecture and ugly urban spaces, which was never the case before globalization. The dispersed and immense retail centers, suburban developments and massive employment centers are connected by infinitely long arteries and service corridors. They cater to the middle and upper social class, while the more intensified clusters within Sudbury

²⁴ Ibid p.3

²⁵ Sandercock, Leonie. "City Songlines: A Planning Imagination for the 21st Century," *Cosmopolis II: Mongrel Cities of the 21st Century*. Continuum, 2003: p.209- 210

are craving to be transformed. Instead new land is always being gauged away to build new consumer ready subdivisions. Sudbury is at the pinnacle of a construction boom; its fuel being an unprecedented rise in new and innovative industries (beyond mining) in the city. As a result, it is becoming more and more interconnected within global commodity flows as a younger and more sensitive group of people are migrating to Sudbury. However, Sudbury's urban space continues to be molded by capitalist industrial development and reflects an ensemble of exchange-values. It is time to expand the political horizons and creative capacities of urban planning and work towards an audacious planning practice. "This is the capacity to imagine a different story, a different outcome, a different way of being or relating."²⁶ In order to transform the production of space within Sudbury's urban landscape the architect, the urban planner and the politician must be bold, loud and dare to break the rules.

²⁶Sandercock, Leonie. "City Songlines: A Planning Imagination for the 21st Century," *Cosmopolis II: Mongrel Cities of the 21st Century*. Continuum, 2003 p.218

Chapter Three: Lefebvre's Hard City

To discuss how space is conceptualized, organized and constructed as a result of contemporary globalization, it is necessary to weave together intersecting spatial ideas of Henri Lefebvre and contemporary theories of globalization. This chapter focuses on Lefebvre's spatial triad of *perceived*, *conceived* and *lived* space, the production of abstract and differential space in dialogue with Steven Flusty's notion of hard and soft space. At the same time, examples of these spaces (from Lefebvre's text and those found in Sudbury) are put forth in order to portray the material implications of spatial production and globalization.

In The Production of Space Henri Lefebvre examines 'spatiality' as a way of registering, deciphering and mediating between material (real) and mental (ideal) space. He maintains that the physical and social sphere in which we all live and the categorical, ordered and coded spaces (such as the abstract mathematical Euclidean space) evolve as multiple and partial arrangements of each other. They embody a dialectical character whereby, "each of these two kinds of space involves, underpins and presupposes the other."²⁷ He analyzes the historical production of space through fields of power, domination and struggle and discusses how space is propagated by elites in order to achieve and maintain dominance, thereby distorting the use of space that would flow from people's natural experience of it. For Lefebvre a multiplicity of spaces always exist through a simultaneity and superimposition of spatial practices and

²⁷ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p.14

codes. These practices and codes correspond and conform to their material underpinnings, which over time begin to generate and perpetuate the production of space.

These social/spatial codes which exist among us today are what Lefebvre calls 'Representations of Space' and are one of three components to Lefebvre's Conceptual Triad, the others being, 'Spatial Practices' and 'Representational Spaces' or described otherwise as Perceived, Conceived and Lived Spaces. He develops this triad in order to help discuss the production of space as an emergence, rather than a pre-existing given.

'Spatial practice' refers to the production and reproduction of social relationships, which in turn generate society's space. It is here that social space emerges as a product, where spatial relations are determined by how people live and act. Spatial practice can be envisioned as a procession of everyday spatial practices in a specific social space and reflects a materialist point of view. These spatial patterns of daily and urban routines are what Lefebvre describes as 'Perceived Space'. It is the space of society, of social life and it incorporates social actions. (26) The social practice of consumption best illustrates spatial practice in the City of Sudbury. Consumption, because of its ubiquity in everyday life, its massive economic importance and even more so it is such an integral and obtrusive part to the late 20th modernity has evolved as the main driver of growth for the city. (Whether it the form of a shopping mall, supermarket, or tourist attraction.) Furthermore, consumption as a social practice resides within what Lefebvre believes to be an 'Illusion of Transparency'. The illusion refers to

the misconception/false impression that modes of production within the contemporary spatial realm are luminous, credulous, and innocent. However for Lefebvre, this assumption is faulty; it is disguised by its own assumptions and obscured by historical and political forces. This illusion which is ever so present in Sudbury reifies social space into a pre-given empirical object, as opposed to an ongoing historical and political transformation within contemporary capitalism. In Sudbury popular residential and commercial architectural typologies are designed and built from templates – an architectural language that symbolizes developers' capitalistic motivations. Architecture in this sense has lost the presence of craft and qualities of space have been masked by the convenience of free parking and the persuasion of having one's own backyard. It is clear, therefore, that a spatial code is not simply a means of reading or interpreting space: rather it is a means of living in that space, of understanding it, and of producing it.

'Conceived Space' or 'Representations of Space' is *conceptualized* space and is connected to a specific framework or an order that is historically, politically and symbolically rooted within a society's mode of production. For Lefebvre, representations of space "have a practical impact, in that they intervene in and modify spatial textures which are informed by effective knowledge and power/ideology... these representations are conceived of not as a particular building or structure but rather as a project embedded in a spatial context and texture."²⁸ Conceived space is the constructed space for which

²⁸ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p.42

people in power are mainly responsible. They are composed of and constructed through professional/scientific practices of architecture, engineering and urban planning, and based on a set of codes, an accumulation of history and knowledge (*savoir*) and constructs of power which are embedded within spatial practices. Lefebvre is declaring the morphology of cities and the architecture in them is reliant on our spatial practices, how we as architects perceive space at this particular moment. Material products emerge from the architect's actions; how we conceive of a space and the space around us, how we comply with it, and how we alter it. He cites the invention of linear perspective during the Renaissance as an architectural, urbanistic and political code which constituted a language common to all of those within that specific time and place. Painters, architects and theorists developed the code of perspective that allowed space to not only be read but also be constructed on the basis of a social practice which was itself the result of a historic change in the relationship between town and country.²⁹ Through this example Lefebvre demonstrates how material spaces are generated as a result of specific modes of production; the way things are informs how we think and, simultaneously, the way in which we remake how things are. Representations of space in Sudbury are dominated by developers' economic motivations, multi-national industrial operations and increasing institutional hybridity between political and capital enterprise. Conceptions of space consistently reflect a set of codes entrenched in Sudbury's economic/productive activities.

²⁹ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p.7

Third in the triad are 'Representational Spaces'. They emerge and develop through an association or even more so an affinity between spatial practices and representations of space. This is also called 'Lived Space' and is dominated by imagery, mythic narratives and symbolic elements. It is a "passively experienced space which the imagination seeks to change and appropriate. It overlays physical space, making symbolic use of its objects."³⁰ Lived Space is at the same time the subjective, unconscious, unvoiced and direct experience of space and the space that humans express themselves in. For Lefebvre, the Sagrada Familia in Barcelona is the ultimate example of a representational space because the architect Antonio Gaudi did not envision nor create an architecture based on accepted doctrines, symbols or categorizations. The Sagrada Familia embodies a "mockery of the sacred, an obscene modern reality" and a "modernized heresy which disorders representations of space and transforms them into a representational space."³¹ Perceived and conceived space carve a narrow path for lived space, making it most difficult to accomplish through professional practices. Representational space in Sudbury emerges not from the architecture designed, regulated and built by those such as architects, urban planners and developers. Instead lived space has a likeness to altered spaces, or what Lefebvre depicts as *differential space*. Deviating from the *abstract space* of set spatial codes such as master plans, zoning bylaws and property regulations; lived space appropriates and liberates those

³⁰ Ibid, p. 39

³¹ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p.232

representations of space and makes offbeat and unexpected use of its objects (houses, public buildings, parks, abandoned buildings etc).

This conceptual triad of perceived, conceived and lived space expresses the production of space as an ongoing transformation, whereby the space we are in and the space we produce is an assembly of the other and not separate in the production of the other. "Each contributes in different ways to the production of space according to their qualities and attributes, according to the society or mode of production in question, and according to the historical period."³² To promote a change from Sudbury's predominate production of abstract space, architects must orchestrate a process of layering of these three spatial moments in order to reconstruct spatial codes and weaken the common and complacent spatial practices that perpetuate the production of abstract space.

³²ibid, p.46

Chapter Four: From Abstract Space to Differential Space

Lefebvre claims the capitalist mode of production is analogous to the production of *abstract space*. It is at once symptomatic and constitutive of capitalist modernity and includes the 'world of commodities', its 'logic' and its worldwide strategies, as well as the power of money and that of the political state. Abstract space is the space of modernism, neo-capitalism and globalism; it divides space for market and labour. For Lefebvre, the work of the Bauhaus is a production of abstract space. It demonstrates how spatial assemblies correspond to the capability of the productive forces and hence to a particular rationality.

The Bauhaus people understood that things could not be created independently of each other in space, whether movable (furniture) or fixed (buildings), without taking into account their interrelationships and the relationship to the whole... In the context of productive forces, the technological means and the specific problems of the modern world, things and objects could now be produced in their relationships, along with their relationships.³³

Their work is a symptom of abstract space and also an appropriation and exploitation of it. He critiques the Bauhaus institution for delivering "a worldwide, homogenous and monotonous architecture of the state" while at the same time he exemplifies it for demonstrating a moment of awareness of space and its production.

Abstract space is fragmented, differentiated, and aggressively expanding social space, and its contradictions disclose the unstable constitution of *globalization*. The spatial contradictions inherent in the global economy have

³³ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p. 124

rendered space mutually homogenous and fractured; a space reductive of difference and a space fragmented by hierarchies and control. This contradictory condition of the world market is generated by the capitalist mode of production and weighs down so heavily upon the whole planet by imposing its divisions of labour on a worldwide scale and so governing the specific configurations of space.³⁴ The logic of capitalist development whereby the labour becomes highly differentiated and specialized by breaking the process into its fine parts so that the organization of work becomes complex and fragmented is incredibly evident in Sudbury. In general, at the turn of the twentieth century Canada experienced a shift from 'petty commodity' (low level of technology, little equipment, low capitalization, manual labour, partnerships/small groups and easy access to markets) to 'capitalist production'.³⁵ However, for Sudbury the mining industry has always been operated by large corporations. In mining and other industries petty commodity production has more often than not been undermined, penetrated and taken over by capitalist modes of production. Historically, it is has been very difficult to diversify Sudbury's economic base and attract secondary industry.³⁶ Its urban development has never been given the chance to breathe because capitalistic development has always held its tight grip on Sudbury's growth. Abstract space is the dominant space of Sudbury's landscape. Its existing urban infrastructure is a result of the historical development of industrial uses. The dictatorial schemes, principles and ideologies inherent in

³⁴ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p. 54

³⁵ Clement, Wallace. HardRock Mining: Industrial Relations and Technological Changes at INCO. Toronto. McClelland and Stewart Ltd. 1981 p.45

³⁶ *Ibid* p.51

Sudbury's abstract space manage its growth and the design of new buildings. Not lately has any architecture in the city been conceived of for its use value or social purpose, but rather the architecture is designed and envisioned for its exchange value so that it can be capitalized on. This tendency is homogeneity, the purging of any existing differences and thus, interferes with the inception of a refreshed landscape.

Yet despite the pervasiveness of abstract space, Lefebvre claims it "carries within itself the seeds of a new kind of space".³⁷ He is cautious however, and makes clear that a "new space cannot be born (produced) unless it accentuates differences."³⁸ Lefebvre is referring to the space of difference as a space of resistance towards the homogenizing effects of abstract space. It emerges because of conflicts between economic growth and social development, "conflicts which foster the explosion of abstract space and the production of space that is *other*."³⁹ Difference and otherness initiate surprise, counteract repetitive and banal spatial patterns and prevent the everyday from being taken for granted. Differential spaces encompass landscapes produced through alterity, imagination, negation and mediation. In essence, differences in space emerge through contradictory spatial practices and the public's manipulation of existing abstract spaces. Lefebvre encourages the creation of differential space, however because abstract space governs the majority of Sudbury's material landscape, it alienates those who play a role in the production of altered spaces.

³⁷ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p. 52

³⁸ Ibid, p. 52

³⁹ Ibid, p. 391

For architects to design differential space, they must reconcile the conflicts between the hard and soft.

The Heidelberg Project – Detroit's Art Ghetto

.... A Disney Land of Discards

....A Living Canvas

The Heidelberg Project is an art district in Detroit, whose metamorphosis began in 1986. After being torn down twice without notice by the city, Heidelberg today remains home to a number of resident artists and continues to create controversy and stir municipal property and zoning laws. Tyree Guyton (pictured) founded this project, "The polka dot house is my studio. I would look outside my window and there was this abandoned house which I would clean my brushes on. The house began to talk to me. The house began to speak. Then I saw it in my head, like a vision it came to me." ⁴⁰ Guyton drives around the city collecting artifacts that people have thrown away and arranges them on the site to "say something to the world." In a recent CBC documentary on Heidelberg, the spokesperson claimed the project has been an attempt to make parallels between the abandoned objects and Detroit's marginalized groups of people.

⁴⁰ Juxtapose Vol.3 No. 4, Fall 1997 *Welcome to Heidelberg: A Walk through Detroit's Art Ghetto* p.47.

Fig 11: The Heidelberg Project, Detroit

Chapter Five: Mediating Between the Hard and Soft

Cities are made up of both hard and soft spaces, or what Lefebvre would define as abstract and differential spaces. Steven Flusty develops this conceptual vocabulary as a critical tool and clever approach to understanding social and material implications of globalization in cities. He describes the hard spaces as the structures that have the power to put materiality into place. It is the “material fabric of the built environment, the streets and the buildings that frame the life of the city dweller”.⁴¹ In terms of Globalization, this hardness can be characterized as the structuring of the dominant, and reflects the authoritative determination of what terrain is thought to be by politicians and capitalists. It is the top/down, birds eyes perspective of the city and its flows as a “higher-order politicoeconomic circulatory system”⁴²; an infrastructure that encourages (or perhaps enforces) a certain way of living and only does so for a narrow group of people. This hardness is a prescriptive spatial consequence of globalization in Sudbury and it inscribes material conditions that make it difficult to exercise social alternatives, local visions and new material possibilities within a city or community. However, amongst these hard spaces “are a plethora of overlapping and interpenetrating ‘soft cities’, subjectively apprehended cities built of each urbanites experiential perception of the hard city”⁴³ The soft is carved and molded out of the hard city; it is the experience, interpretation and perceptual orientation of the individual. It is an aggregate of everyday activities

⁴¹ Steven Flusty, “Part 1: From the World to the City to the Street, and Back Again”, *De-CoCa-Colonization: Making the Globe from the Inside Out*, Routledge, 2004 p.56

⁴² Ibid p.55

⁴³ Ibid p.57

and the practices that do not necessarily contribute to the hard. Soft space exists in every city; it is how we perceive the materiality of our cities and thus it awaits appropriation, conception, and manipulation. This dual nature and/or tension between the hard and soft however, points to the notion that “a thing becomes what it is not only through how it is inhabited and utilized, but it also informs and is informed by how we act within it.” (Certeau) The hardness of the city only remains hard when its members reinforce these conditions through their daily lives and spatial practice, both consciously and subconsciously. Indeed, soft space is at odds with the overwhelming hardness, urgency, and influence of abstract space and capital development. Because of this, architects and urban planners must seek to soften the hard elements and acknowledge, negotiate and authoritatively mediate between the hard and soft, abstract and differential space. For Flusty, it means recognizing that just as Globalization feeds down to restructure daily life, the practices of everyday life in turn form globalization and, in so doing, feed back up to revector Globalization. Thus, everyday life does not just respond to Globalization, it also redirects it.⁴⁴

It is unfortunate that the public in Sudbury has not been able to rely on professional designers to create *the potential for* differential space. As an architect, creating new spaces through built form is vital to the continued growth of the city. So how can architects contribute to the creation of differential space? To begin this dialogue it is necessary to identify certain characteristics of differential space and soft space. In a seminar on Urbanity at the University

⁴⁴Steven Flusty, “Part 1: From the World to the City to the Street, and Back Again”, *De-CoCa-Colonization: Making the Globe from the Inside Out*, Routledge, 2004 p.59

of Washington in 1994⁴⁵ a list of criteria for differential (or soft) space was compiled, it included:

- Space dominated by users
- A place of festivity
- The space of non-labour
- Creative space for love, being, works, amenities
- Eroticized space
- Space of ambiguity
- Fixed, semi-fixed, movable or vacant
- Compact, highly elaborated places of encounter and transition
- Empty places for play and encounter - unspecified places
- Spaces for minorities and the marginal

These spaces begin to demonstrate the types of conditions necessary to promote the capacity for change. For a social transformation, to be truly revolutionary in character, "it must manifest a creative capacity in its effects on daily life, on language and on space."⁴⁶

⁴⁵ http://hjem.get2net.dk/gronlund/Lefebvreindlaeg_21_3_97v2.html#anchor205216

⁴⁶ Lefebvre, Henri. The Production of Space Oxford, Blackwell, 1991 (1974) p. 54

Fig. 12 Schouwburgliën West 8, Rotterdam

The urban outdoor space was designed as an interactive public space; the lights (red structures) are easily controlled by the public and the plaza ground has different flooring layers which can be removed and replaced to accommodate sporting events, festivals and entertainment events.

Chapter Six: The Multi-Scalar

Lefebvre's concept of abstract space suggests that globalization is a question of scale, particularly the multi-scalar. To recognize globalization and how it affects space and the material landscape of Sudbury, we must consider globalization through a renewed understanding of scale and its scaling processes. Scalar relationships are constructs of a tension between abstract space and differential space.

For Lefebvre, global capitalist restructuring involves a multi-scalar reconfiguration of capitalist spatiality, which is occurring as national organizations reorganize geographical scales and scalar hierarchies. He describes capitalist globalization as an intensely contradictory integration, fragmentation, polarization and re-differentiation of super imposed social spaces. This description makes it obvious that there are a new set of scales that transcend nation-states. However, globalization is often perceived as a top down mediation process from global to local, where the global bears down on the local. The notion of scale as a hierarchy is too rigid as a metaphor and is problematic because it implies that global processes operate within nested scales. Robert Beauregard is also uncomfortable with the idea that scalar relationships are often conceptualized as distinct and/or nested and challenges the concept of the global-local relationship. Globalization is not a one way mediation process, where the global actors always take advantage of local people, communities, landscapes, etc. The local, according to the author is penetrated unevenly; some cities are exploited, some ignored and others are

enhanced by global forces. The author states that while global forces cause some cities to adapt (both positively and negatively) other cities are bypassed altogether.⁴⁷

In an essay on the politics of scale, Eric Swyngedouw uses the term 'glocalization' to explain the relationship between the global and the local. He claims that they are mutually constituted and there are an indefinite number of spatial scales embedded and intertwined within the global and the local. The glocalization process defined by the author does not give precedent to the global or the local, yet focuses on the discursive nature between the global and the local; the interplay and action. The author stresses the abolishment of the global and local as conceptual tools and focuses on the *politics of scale*; the "metaphorical and material production and transformation" of scale through socio-spatial relations.

Scale, in both its metaphorical use and its material construction, is highly fluid and dynamic, and both processes can affect different people in different ways, depending on the scale at which the process operates. Similarly, different scalar narratives indicate different causal moments and highlight different power geometries in explaining such events. Scale is consequently, not socially or politically neutral, but embodies and expresses power relationships.⁴⁸

Socio-spatial relationships represent a struggle for power between multitudes of actors that operate in and between the global and local scale. The cyclical

⁴⁷Beauregard, Robert. "Theorizing the global-local connection", in Paul L. Knox and Peter J. Taylor (eds) *World Cities in a World System* (Cambridge University Press), 1995 pp.232-248.

⁴⁸ Swyngedouw, E. "Neither Global nor local: 'Glocalization' and the politics of scale" in K.R. Cox (ed) *Spaces of Globalization*, Guildford. 1997 p.140

nature of power struggles constructs and reconfigures scales; producing a change in time and space, and furthermore producing a concrete change in history and geography. Swyngedouw points to the way power plays out in socio-spatial terms, claiming that a shifting balance of power is associated with a profound re-articulation of scale. Scale is conceptualized as an arena or a moment where socio-spatial relations are contested. In this sense scale can be seen as a site for action, power and/or cooperation and also as a vehicle to challenge a problem or push forward an idea. Scaled spaces, then, "become the embodiment of and the arena through and which social relations of empowerment and disempowerment operate."⁴⁹

According to the article, natural scales do not exist; scales like boundaries are socially constructed by human agents and are in a constant state of flux. Today societies are living with scales that have already been constructed. The scale question refers to the role of cities as socio-spatial arenas in which contradictions of capitalist development are continually produced and fought out. Inter-scalar relationships and narratives (political, economic, and cultural) are endogenous with the production of social space and the acknowledgment of this allows architects and planners to jump, fix, and/or regulate scales. Scale can be used as a tool and mediator "between cooperation and competition, between homogenization and differentiation, between empowerment and disempowerment."⁵⁰ In order to mobilize social space as a

⁴⁹ Swyngedouw, E. "Neither Global nor local: 'Glocalization' and the politics of scale" in K.R. Cox (ed) *Spaces of Globalization*, Guildford. 1997 p.144

⁵⁰ Ibid p.145

productive force, Lefebvre calls for an ethical production of urban space through the re-interpretation, re-negotiation and re-configuration of established scales. His principle of 'superimposition' and 'interpenetration' of social spaces suggests an understanding of these urban transformations as expressions of a multi-scalar reterritorialization of geographical scales rather than as an intrusion of global flows into local spaces. He makes clear that geographical scales cannot be understood in isolation from one another or as mutually exclusive or additive containers. If you only work at the level of the local or the global you are fixed in something that isn't stagnant. Spatial scales are never fixed, but are perpetually redefined, contested and restructured in terms of their extent, content, relative importance, and interrelations.

Through a critical re-conceptualization of scale, globalization emerges as a product of particular relationships within and between places, and therefore is remarkably subject to intervention. Observed in this light, scale does not have to be so much as jumped, but rather, elided and redefined by means of everyday practice. Space thus becomes a terrain of tensions between the hard and soft that is continually contested and re-forged at multiple scales, by even the most intimate of everyday activities. The space of cities as spatial scales or moments of socio-spatial relations suggests that the production of differential space requires a reconfiguration of established scales, most specifically those constructed by means of abstract space. Architecturally, this is not an easy task – it requires a breaking down and manipulation of political, economic and socially constructed spatial scales, where mediation is the key action.

Consider the mediation between abstract space and differential space as a reconfiguration of scales; architects must take on the role of the mediator. If the power of differential space is essentially in the hands of the public, then its *potential* should lie in the hands of architects.

Chapter Seven: New Babylon

At the same time as Lefebvre's critique of capitalist space, the Situationists made a different but not unrelated attempt to examine and reject the dominant modes of production and the spatial consequences of capitalism in the industrial age. Evident in the work of the Situationists is their capacity to emancipate the city and its dwellers from the *hardness* of global economic and political structures. The Situationist city demonstrates a renegotiation of scale through the rejection of 'idealistic fixed forms' and 'permanent solutions' associated with traditional town planning. As Sudbury increasingly plays a significant and dynamic role in the appropriation, production and the distribution of commodities in the global economy; its contemporary material landscape remains stagnant and uninspired in this perpetual state of flux. The *space* of flows which make up global networks of multi-national corporations, governmental organizations and developers defines Sudbury's industrial, commercial and residential spaces. The abandonment of the downtown core, the dispersed suburban developments, and the immense power centers demonstrate a certain landscape of globalization that deteriorates the city's rich material fabric. By studying Sudbury's networks, flows and subsequent land use Sudbury's abstract space becomes far more lucid. Within this particular network of the city, the automobile, the single family residence and secure employment are privileged in terms of a city planned through a functional capitalist mode.

For the Situationists, scale is no longer conceived as a fixed hierarchy of geographies, social class or political structures. They profess a concept of

Unitary Urbanism, which aims to “form a unitary human milieu in which separations such as work/leisure or public/private will finally be dissolved.”⁵¹ Abstract and material spaces in the ideal Situationist city are constructed through socially collective ludic practices as opposed to traditional Marxist productive practices. Ludic practices are related to an individual or group’s aimless playfulness as opposed to an individual being defined by their relationship to the processes of capital production. In order to be ‘free’ – to awake the *Homo Ludens* in everyone, scale must be elided, traversed and jumped. “The liberation of man’s ludic potential is directly linked to his liberation as a social being.”⁵² Social space is *assembled* out of the existing **hard** elements of the city, *détourned* in order to reassert choice, chance, interaction and encounter, especially in public spaces. The Situationists aimed to resist abstract space by transforming it into differential space.

The Situationist city sets a precedent for an investigation of how abstract space can inform material space through the renegotiation of scale and an investigation into subverted modes of traditional architectural representation. The future Situationist city conceptualized by Constant Nieuwenhuys, *New Babylon* (1956-74) contributes to the Situationists’ ideal setting for the urban nomad. Although Constant left the Situationist group in 1959 to pursue a more material conceptualization of the city, Constant claims that urbanism is in a state of crisis. The city has lost its most “important function: that of a meeting

⁵¹ Debord, Guy.

⁵² Nieuwenhuys, Constant. *New Babylon*: Exhibition Catalogue. Haags Gemeentemuseum, The Hague, 1974. p.2

place.”⁵³ Through models, collages, diagrams, sketches and text, Constant envisioned and proclaimed a city based on a social model relieved of a utilitarian structure and built upon the *real* desires of the community. In favour of automation and freed from the labourious and repetitive nature of daily work, New Babylon aims to liberate the individual from the constraints of the existing bureaucracy (functionalist capitalism) in traditional city life through social and political transformation. Constant, like the other Situationists claim that the creative act is a social act, and when space and time are no longer socially determined by productive work, social relationships and encounters will be more varied, unpredictable and as such, more emotional.⁵⁴ The construction of situations is the ideal construction of the city.

At its most basic, New Babylon is a temporary, shared residence that is constantly remodeled, transformed and renewed by socially collective interventions (situations). Its material environment is best conceptualized as a network, comprised of sectors; which is the basic unit that “links the chains that make it up.” The pre-supposed and neutral macro-structure houses the more variable micro-structure, which is perceived as an uninterrupted space “traversed by a slow and continuous flux, displacement being but one of the forms of activity within the sectors.”⁵⁵ The physical models of New Babylon built

⁵³ Nieuwenhuys, Constant. *New Urbanism*. Provo No. 9. 1966. p.1

⁵⁴ Nieuwenhuys, Constant. *New Babylon*: Exhibition Catalogue. Haags Gemeetenmuseum, The Hague, 1974. p.7

⁵⁵ Nieuwenhuys, Constant. *New Babylon*: Exhibition Catalogue. Haags Gemeetenmuseum, The Hague, 1974. p.5

by Constant present it as a multi-leveled network of links, hovering over the ground plane and set on widely spaced pilotis.

It is a mainly horizontal skeleton, extending over ten or twenty hectares at some 15-20 meters above the ground: the total height is somewhere between 30 and 60 meters. Inside, one or more fixed nuclei contain a technical center and a service center that is also a hotel reception center with individual rooms. Some of the sectors are provided with sanitary and teaching facilities, warehousing and distribution facilities for articles of everyday use. Others, with libraries, scientific research centers and anything else that may be necessary. The nuclei occupy a part of the sector; the rest, the most important part of New Babylon, is a social space with moveable articulations: the playground of *Homo Ludens*.⁵⁶

Although, in reality New Babylon can never be built, its idea demonstrates how spatial scales and scalar narratives can resist the production of abstract space. Conflict constructs and reconfigures scales; producing a change in time and space, and furthermore producing a concrete change in history and geography. New Babylon represents social activism, the liberation of the other. If spatial scales are indeed sites for action where power, contention and mediation play out, we can see how New Babylon is a landscape constructed through a re-articulation of power relationships and social structures.

⁵⁶ Nieuwenhuys, Constant. *New Babylon*: Exhibition Catalogue. Haags Gemeetenmuseum, The Hague, 1974. p.6

Fig.13, 14, 15: New Babylon,
Mapping, Modeling, Drawing

Chapter Eight: Scalar Negotiations

Architects innately manipulate scale in their designs, whether a conscious intention or not. The Office for Metropolitan Architecture's CCTV building in Beijing, China [2004-2008] and Richard Meier's MACBA building in Barcelona, Spain [1987-1995] demonstrate architecture's ability to reconfigure scalar relationships through built form. The design and manifesto behind the CCTV does this explicitly, whereas the MACBA's reconfiguration of scale evolved after it was built through public use.

OMA has made a very clear effort to redesign the skyscraper so that its form does not claim vertical dominance over the skyline to signify an iconic identity. Its form, programmatic and circulatory qualities characterize it as a new breed of skyscraper. In an attempt to provide 'genuine' newness, OMA felt it was important to experiment with the engineering; in order to liberate the imagination of Chinese engineers and make other things possible in China. The firm did not want to create another prototype of mediocre skyscrapers similar to those in other Asian cities. Koolhaas' effort to challenge the typical global city model where companies fragment their businesses into programmatic parts, which are subject to 'laws' that seem typologically and financially appropriate is evident in the programmatic layout of the building. Instead, having one isolated core with people around it, the CCTV design explores the concept of 'concentrating all activity and every program into a single system where the form, program and

circulation is captured.’⁵⁷ The CCTV breaks from what Sassen described in the Global City Model, where the production of a corporation happens in an industrial part of one city, administrative and management in the financial district of another city and more often than not, the creative aspect in the new urban and hip areas of a city. OMA claims that this new typology of skyscraper maintains a continuous dialogue, where there is a mutual dependence between parts, carried out in one single system of activity and program. Furthermore, there is a loop of communal circulation connecting all management, production and social areas of the CCTV. OMA amalgamated all programmatic parts into one building.

On the other hand, the programmatic use of the MACBA in Barcelona has evolved over time from its sole use as a museum to a building which encourages a multiplicity of functions. The original design of the museum did not foresee nor plan that its primary use would transform from that of a cultural institution to a space for skateboarding, biking and social convening. Although a major tourist and cultural attraction, the MACBA is even more so an everyday ‘hang out spot’ for locals. Throughout all hours of the day the space the building occupies is abundant with commotion, encouraging public activity, celebration and even debauchery.

⁵⁷ Koolhaas, Rem. “Interview with Rem Koolhaas” in *Architecture and Urbanism (a+u)* July 2005 special issue. OMA@work.a+u . a+u Publishing Co. Ltd. Japan, 2005. p.12.

Fig. 17, 18: CCTV Project, OMA

Fig. 19, 20: MACBA, Richard Meier

Chapter Nine: The Flour Mill as Differential Space – Landscape of Alterity

Difference and otherness create Landscapes of Alterity. The Flour Mill Neighbourhood, for many, is perceived as a sort of glitch within the fabric of the city, a neighbourhood that does not belong. Although globalization may not be creating a completely homogenous landscape in Sudbury, it has enticed the political and corporate actors to use many instruments of homogenization. The Flour Mill, unlike many other parts of the city however seems to resist and overcome those homogenizing effects. The neighbourhood has always embodied a power struggle between those who live there and everyone else in the city. Many of the Flour Mill community members have petitioned for public spaces, urban renewal programs, and business improvement subsidies. However, it has been repeatedly neglected by urban plans, avoided by people buying new homes, felt to be inadequate for the majority of 'shoppers' and mainly overlooked and made almost invisible to the mass of Sudburians. The invisible potential of the Flour Mill as a site of differential space resides in how an architectural intervention will engage what Sudbury has produced as the 'other', the excluded and the marginalized spaces and members of the community. The aim of the project is to highlight differential space as an integral part of the city and to facilitate the emergence of differential space by proposing a **'Hub for the Urban Bricoleur'** as a critical design project and intervention for the Flour Mill.

The proposed multi-purpose building is a government funded hub for the recycling and trading of consumer and industrial by-products. It is also an urban flea market and offers 'live/work/create' space for the Bricoleurs in Sudbury. By

studying the city's growth, history, infrastructure and consumption patterns, it has become clear that the city is currently developing at an exponential rate and it is undeniable that globalization is playing a significant role in this growth. The proliferation of abstract space in Sudbury and its increasing global flows of consumption prove that a building of this type is a necessity. Sudbury has become a global hub for industrial, commercial, mining and bio- technologies and it should now focus on starting an industry that creatively develops not only consumer and industrial waste into products, but also creates a market for these materials. The construction of the hub is the first step. The design of the building and the programmatic selection was informed by Lefebvre's call for the creation of differential space, Flusty's insight on the mediation between hard and soft spaces of globalization and Swyngedouw's renegotiation of scale. The implementation of this type of architectural facility within the existing city fabric is intended to play a positive role in Sudbury's inevitable growth; to intervene within the consumption flows. If architecture can cultivate the capacity for change, then at least a platform exists to shift the focus from waste producing industries to developing alternative markets for the by-products, (slag, automotive parts and other people's junk).

The Flour Mill is the most suitable site because it is within the core of the city and is always overlooked as a viable area for new development because of its perceived negative identity. Sudbury's 2006 Official Plan encourages initiatives to enhance the quality of place in the urban environment by adopting high standards of design for public spaces. Furthermore, it promotes the reuse

and rehabilitation of existing buildings in the Downtown areas⁵⁸. The city must focus on the lack of public space in the Flour Mill and actually physically address the number of abandoned and underused buildings which are deteriorating and need attention and inhabitation. The proposal aims to reintegrate and re-contextualize the peripheral spaces and altered sites such as auto-wreckers, flea markets, salvage/junk yards, hock shops directly within the city; while at the same time exercising a responsibility to the 'otherness' and difference. Its program intends to challenge traditional nested scales and create an architecture without hierarchy (authority, historic, political conditions) by combining different types of programs that are seldom united within a single building. Furthermore, the intent is to fragment typical hierarchical distinctions by layering and superimposing diverse programs and occupants, such as space for municipal government offices and council meeting rooms, temporary vendor space, industrial space for the recycling hub, and creative space (ateliers) and public space for all community members. Although there are three distinct programmatic components to the building; the automotive recycling hub, the urban flea market and the space for creative practice, each functions to support the other.

The design of the facility seeks an architecture which challenges the homogenizing effects of globalization and resists the conventions of developers' economic motivations, in an effort to create soft space. The building is intended

⁵⁸ The Greater City of Sudbury Official Plan: People Engaged, Places Defined, Progress Driven. June 2006 p. 37, 141.

Fig. 21

to act a catalyst for public interaction, ethical consumption and to provide space for creative practice.

Chapter 10: Proposed Project

Program Objectives: Automotive Recycling Hub

The **Derelict Car Program** is a current program in place between the Sudbury municipal government and the privately owned auto-wrecker and scrap metals dealer 'Scrappies'. The aim of integrating this program into the 'Hub' is to provide daily work for unemployed, retired, handicapped, junk collectors and even just bored members of the Sudbury community. The subsidized program will provide access to wages, without the person having to make any commitments beyond their daily task. Willing individuals are given quick training on how to disassemble vehicles in turn for cash, rental/vendor space or access to the building studio and workshop facilities. The outlined program will correspond to the pay scale and to the amount or type of work done. For example, for [x] amount of salvaged transmissions, carburetors, etc. participant receives [x] amount of dollars, vendor space or workshop space. Furthermore the site will have a municipally provided used car lot to help private sellers with the sale of their old vehicle (only if it passes an emissions test which is not currently in place in Sudbury). If the car is not in running condition the City of Sudbury will purchase the car in order to encourage the circulation of derelict and abandoned vehicles by facilitating sales, exchange and organization. Scrap metals and non-working parts will be offered to the ateliers to make new spaces, objects, and individual or community/public art with them; to transform their meaning through a re-contextualization, translation and improvisation.

Space Needed:

- Entry for vehicles and drop off point [1]
- Outdoor storage for derelict vehicles [2]
- Indoor warehouse for inspection, dismantling and draining [3]
- Area for running, testing and cleaning of parts [4]
- Storage for parts and inventory [5]
- Area for shipping of parts and scrap metals [6]
- Used car lot [2]
- Municipal offices/administration [7]
- Training area [8]

Program Objectives: Urban Flea Market/Trading Center

There is really no architecture involved in the flea market. They are often held in tents, warehouse type buildings, large sheds, on the streets and in deteriorating and otherwise vacant buildings - which often don't qualify as architecture. This component of the building seeks to create an improvised typology for the flea market and to encourage the trade of goods and artifacts among community members, alleviating consumer pressures to always buy new products.

Fig. 22 Site model indicating proposed location of hub

Space Needed:

- Space for demountable vendor tables [9]
- Storage for items during the week [10]
- Outdoor Flea Market [11]
- Hockshop [12]

Program Objectives: Space for Creative Practice

The aim of the ateliers is to provide space for creative practices; spaces of translation and assemblage, spaces to tinker – a space for the Bricoleur.

Space Needed:

- Woodshop [13]
- Metal shop [14]
- Welding shop [15]
- Studio spaces [16]
- Apartments – rented on a weekly basis [17]

Refer to plans and sections (Plates 7-10) for program layouts.

Fig. 23

Conclusion:

It is clear that industrial capitalism and contemporary globalization have overwhelmed the city of Sudbury with hard spaces. Today, the hard spaces of Sudbury are perpetuated by politicians, urban planners and architects. Their goals to generate economic gain by positioning Sudbury within the global economy intend to alienate those who cultivate and promote alternative forms of consumption. Those who do not fall within what Sudbury has produced as a 'normal way of living' make up Sudbury's Landscape of Alterity and thus are the true facilitators and creators of soft space. Lefebvre points out that those who produce hard space carve a narrow path for the emergence of soft space and for that reason; the implementation and design of the proposed Hub for the Urban Bricoleur in the Flour Mill Neighbourhood seeks to resist Sudbury's typical production of hard space. The re-contextualization of peripheral spaces such as auto-wreckers and flea markets aims to critically intervene within Sudbury's consumption flows and furthermore, aims to provide space for the urban Bricoleurs whom are otherwise neglected. The layering of these different programs within a single building creates an architecture which reconfigures the typical scalar hierarchies that globalization produces. Acknowledging the city of Sudbury as multiplicity of scaled spaces and the proposed site as a scale within global processes, makes it remarkably subject to intervention. The Hub for the Urban Bricoleur is not only composed of a diversity soft spaces but also highlights soft space as an integral component to the hardened city of Sudbury.

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An Evening of
Artful Consumption

Automotive Parts
transformed into a
Dinnerware Set

Plate 1: Dinnerware Set

Plate 2: Spatial Alterity, Digital Collage

View from back of building

View from Notre Dame Ave.

Plate 3: Abandoned Silos and Existing Building for Adaptive Reuse

Plate 4: Site and Building Studies.

Exploring the site through processes of layering

Typology 1: Hub Caps

Typology 2: Windshields

Typology 3: Car Doors

Plate 5: Exploratory Wall Details of Auto Wrecking
Storage Typologies (1:20)

**Plate 6: Proposed Building Sketches
and Massing Models**

Plate 7: Ground Floor Plan

Plate 8

EAST ELEVATION

WEST ELEVATION

Plate 9

SECTION B-B

SECTION A-A

Plate 11: Final Model of The Hub for the Urban Bricoleur

LAYERED

NON-URBAN SETTLEMENTS

COMMUNITIES

Appendix 1: City of Sudbury Living Areas

ZONES

MUNICIPALITIES

DESIGNATED LIVING AREAS

Appendix 2: City of Sudbury Zoning

Appendix 3: City of Sudbury Transportation Networks

COMMUNITY LANDFILLS

AUTOWRECKERS

RECYCLING CENTERS

Appendix 4: City of Sudbury Consumption Patterns