

**THE TOWER AND THE FIELD:
EVOLVING A MODERNIST BUILDING TYPOLOGY**

by

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

at

Dalhousie University
Halifax, Nova Scotia
March 2017

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ABSTRACT

This thesis is an analysis of vertical inhabitation, looking at recent revolutions of the built form, focusing on the modern 20th century residential high-rise as a typology. The towers are a product of theories for mass housing developed during the modern era, specifically the idea of placing a tower-in-the-park. This typology became an ubiquitous building form during 20th century urban expansion, particularly in North American.

Decades after their original conception, these towers have become socially and physically isolated from their context within the city. This paper will investigate and attempt to develop a methodology for evolving the modern, residential high-rise typology, in order to define an informed model for the future of these towers.

The site identified in this study is located in Scarborough, a neighbourhood in the periphery of Toronto, ON. Defining a method to evolve these tower sites will establish a clear direction for the narrative of the Tower and the Field.

ACKNOWLEDGEMENTS

The completion of this thesis would not have been possible without the unwavering support from my friends, family and faculty members. I would like to thank Niall Savage and Diogo Burnay for their constant support and guidance during this process. The conversations with Niall were a source of inspiration and direction during this arduous process, and a significant contribution to this document. Diogo's insight into the essence of what I was attempting to accomplish gave me confidence in my work, and solidified my intention for this exploration. Thank you both. I would also like to thank Jonathan Mandeville for his contribution to this project in its early phases.

To my peers, your support and friendship over the last four years have been indispensable. I will cherish the relationships I developed at this school, and consider them to have become life-long connections. My success over the last four years is entirely owed to your support. I would like to recognize one individual for her contribution to my life over the past year, my sanity it entirely owed to your selfless support. Thank you so much for always being there for me.

Finally, I would not be where I am today without the support from my family. Thank you for believing in me, and for putting up with me. Bonnie Peebles is a true saint.

CHAPTER 1: INTRODUCTION

The Mid-Century High-Rise

The modern concrete tower dominated the landscape of post-war residential development, popularized by influential theorists of the 20th century. Beginning with Le Corbusier's adaptation of Russian Architect Moisei Ginzburg's *Narkomfin Building* (1932) in Moscow, to develop his own theories of modern living, realized in the Unité D'Habitation's design principals (Baltanás 2006, 113). The rhetoric of modernism in architecture expanded in the 20th century, gaining traction with the emergence of Team 10 through their influence in architectural education. Rosemary Wakeman defined this period as, "a stepping into the future of urban life. Slum districts came crashing down. Sleek high-rises and highways replaced them. Modernism was the common visual language symbolizing urban



Representation of existing condition of the towers.



Photo of typical building type.



Photo of typical tower site.



Photo of typical tower site.



Photo of typical tower context.

transformation" (Wakeman 2005, 401). A new vertical language had emerged, one of an internalized way of living, whose function and program existed entirely focused within the walls of each dwelling. This vertical typology expanded through multiplication thereby defining the condition of the tower by its surroundings, resulting in a form that thrived in dense urban centres while its isolated counterparts struggled to develop an identity.

There are two aspects in which the bold magnificence of New York skyscrapers cannot be questioned. The great isolated tower that thrusts itself into the clouds and is surrounded by open spaces or very low buildings, so that its shadow does no injury to neighboring buildings, may in the hands of an artist be an ennobling structure. Secondly, The mass effect of a mountain of building, that is recognized as one of the great wonders of the world as an artificial creation. (Koolhaas 1994, 119)

The multiplication of the tower in the horizontal plane, insulated by a vast stock of low lying detached housing, could replicate neither of these conditions. Trapped in a landscape of horizontal sparseness, the vertical form disassociated from its context, existing as an individualized destination for residents only. The isolated tower in the horizontal plane became a selfish structure that disregarded the needs of its surroundings as well as its inhabitants. Simultaneously, the dense fabric of towers in urban centres began developing a language of collaboration despite their mono-programmatic nature. The chaos of human activity that emerged in these dense conditions encouraged the appropriation of place, and allowed a societal expression of culture necessary in developing a clear identity of place. Shifting back to the isolated tower, we must ask the question: how can this process be reproduced in developing a new typology?

The isolated concrete tower's domination of the North American landscape resulted in a uniformity that was incapable at addressing societal and physical context. The principals for a reimagined tower typology must improve its conversation with its context. In this case, a developed understanding of the cultural and physical landscape in Toronto should be established. To better accommodate organic growth of community in support of present residents, fading modernist infrastructure must be adapted to facilitate its appropriation. The intention is to understand how the *Tower and the Field* can better facilitate life in its present reality; how can organic intervention be facilitated through a flexible built environment to achieve optimum diversity.

The physical characteristics of the tower in the field are defined by an inventory of spaces (unused parking lots and fields surrounding the towers) that can be located under the umbrella of *terrain vague* spaces, which occupy increasingly valuable land of unrealized potential. Alan Berger outlines the importance of valuing these lots as an ingredient for future development of cities in his book *Drosscape*. He aptly identified the 21st century city as a network of "vacant strips alongside roadways, seas of parking lots, unused land, dumping grounds, seemingly endless stretch of setbacks and perimeters framing housing communities (Berger 2006, 24). The *terrain vague* spaces surrounding the towers will provide the canvas in which the theories developed in this thesis can be tested. Severing the disconnection between site and tower, city and site by reimagining the field and inhabiting the horizontal plane.

The culmination of this thesis will establish a method for the future adaptation for these towers in order to redefine the *tower in the field* typology. The result being the birth of a new typology that responds to the aforementioned deficiencies of the existing tower. The prescribed method is intended as a blueprint for the future of this ubiquitous tower type, the result being a new type that presents a clear identity of place, can facilitate the production of a social space and works to fight the isolating nature of the existing towers.

Thesis Question

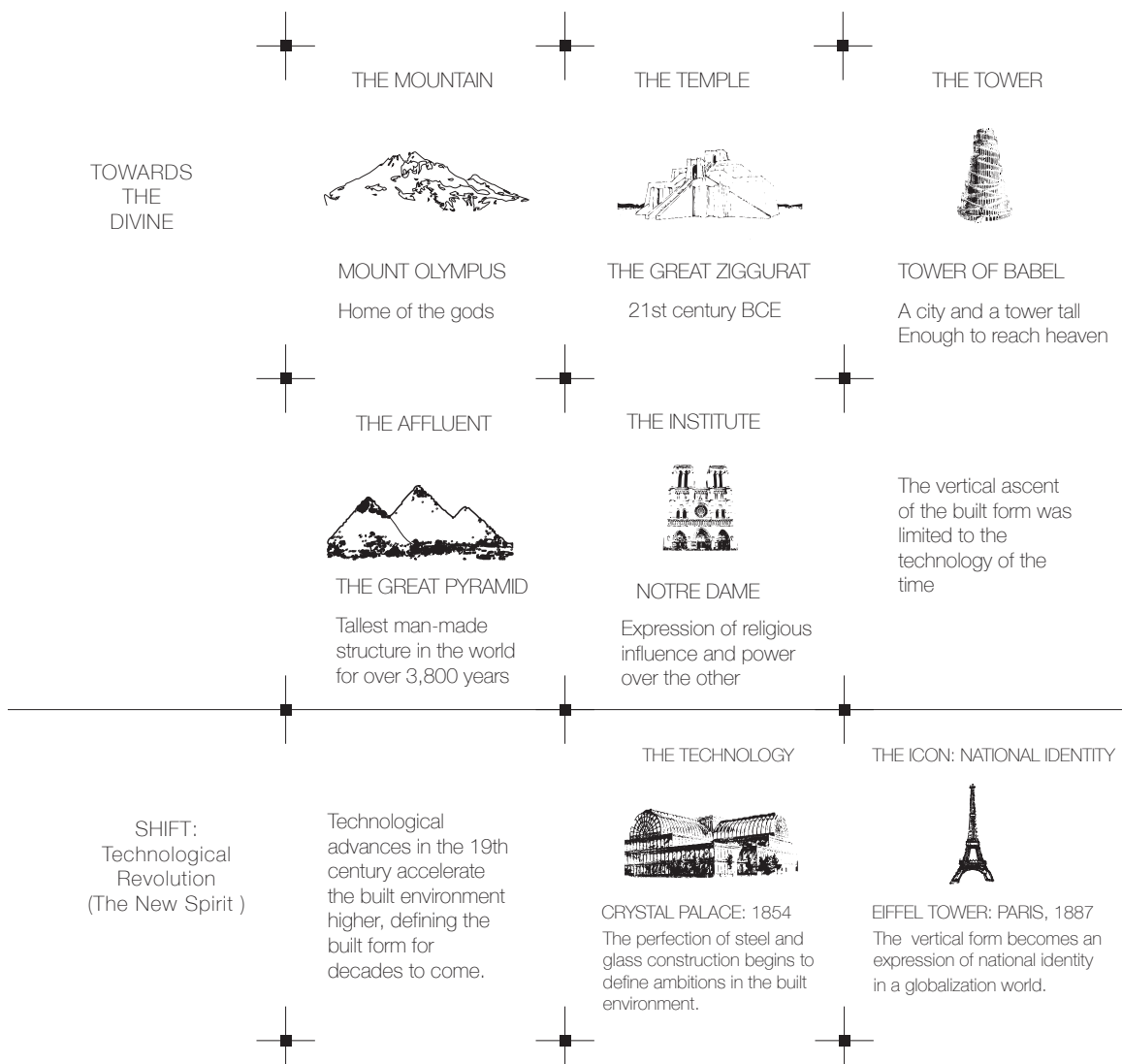
Can the isolating Tower in the Field typology, whose manifesto was to remove the resident from the earth, be adapted to reengage with its context, and redefine itself in the 21st century as a socially informed entity?



Photo of typical tower, and site for this thesis.

CHAPTER 2: FRAMING THE TOWER

This chapter will outline the history of where this building type came from, what the current conditions are, and where the tower has gone since the decline of modernism. We will investigate the progression of verticality in the built environment as a method of deconstructing mankind's urge to build vertically, and how that ambition was amplified in the 20th century, resulting in the vertical forms we identify with today. The following is a descriptive timeline outlining the history of height in the built environment.



Timeline outlining the history of height in the built environment.

THE SKYSCRAPER:
Redefining the City

The modern skyscape, a product of new building techniques, would come to define the identity of the modern city. Our perception of the city being informed by the dense fabric (urban core): Chicago, Manhattan... Toronto.

THE FORM: BUILDING



HOME INSURANCE BUILDING:
Chicago, 1884 - 1931 (demolition)

Generally thought of as the first realization of the modern skyscraper to use a structural steel frame.

THE FORM: CITY



THE CHICAGO TOWER

Cities like Chicago and Manhattan became the testing ground for this new form.

THE SKYSCRAPER
IN THE CITY

"There are two aspects in which the bold magnificence of New York skyscrapers cannot be questioned. The great isolated tower that thrusts itself into the clouds, so that its shadow does no injury to neighboring buildings. Secondly, The mass effect of a mountain of building, that is recognized as one of the great wonders of the world as an artificial creation."
- Rem Koolhaas

THE MOUNTAIN



MANHATTAN SKYLINE

THE ISOLATED



EMPIRE STATE BUILDING
MANATEE: 1931

The tower in the city continues its momentum through the zeitgeist of the 20th century. Establishing itself as the primary form of the modern city. Its origins (Manhattanism) grew out of a resistance to the autocratic planning of the city. This manifesto for the tower was perverted becoming the tool for architects to develop their great experiments of the 20th century.

THE BLOCK DRIVEN
TOWER



ROCKEFELLER CENTER:
MANHATTAN, 1930

THE SITE DRIVEN
TOWER



FLATIRON BUILDING:
MANHATTAN, 1902

UTOPIAN FUTURE
THE UNREALIZED:
A misinterpretation
of the Organic

A great epoch has begun. There exists a new spirit. Industry, overwhelming us like a flood which rolls on towards its destined end, has furnished us with new tools adapted to this new epoch, animated by the new spirit. Architecture has for its first duty, in this new period of renewal, that of bringing about a **revision** of values. We must create the mass-production spirit. The spirit of constructing mass-production houses. The spirit of living in mass production houses"
- Le Corbusier, 1931

THE EXPERIMENT:
TOWER IN THE PARK



PLAN VOISIN:
LE CORBUSIER 1922

THE EXPERIMENT:
SKY CITY

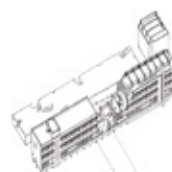


THE MILE HIGH ILLINOIS:
FRANK L. WRIGHT, 1957

COLLECTIVE LIVING:
The Birth of Our
Typology

The modern building typology was beginning to be mutated through the hands of 20th century theorists. One of the most influential was its adaptation for collective living (socialist living).

THE SOCIAL CONDENSER



NARKOMFIN BUILDING:
MOSCOW, 1930

THE SOCIAL CONDENSER:
Defining the Typology



UNITE D'HABITATION:
LE CORBUSIER, 1947-1965

UNITE D'HABITATION:
Model for Collective Living

THE TOWER IN THE PARK



Stacking housing liberated the site, allowing the plan to provide open green spaces for resident interactions.

SOCIAL INTERSECTIONS



The city within: The street in the sky, the rooftop playground. Places for encounter were defined within the building

DIVERSITY OF UNITS



Verity of size and type of units allowed the building to accommodate a diversity of inhabitants (socially inclusive).

THE SPREAD
Modern Influence in Toronto

Modern architecture and urban planning swept through Toronto like many other north American cities. Tower neighbourhoods (regulated), creating dense, socially segregated neighbourhoods. The tower typology spread out across the landscape (unregulated) in the fringe of the city. Tower neighbourhoods in Toronto: Regent Park, Thorcliffe park, Flemington Park, St James Town

THE REGULATED
Tower neighbourhood



ST. JAMES TOWN: 1960's
19 High-rise buildings
Population - 17,000

THE UNREGULATED
Isolated Tower (thesis site)



DECLINE

"Modernist urban renewal rapidly disintegrated in the face of its own rhetoric. According to critics, it did more to destroy historic urban centers than wartime bombardment. It produced a heartless urban uniformity, a landscape of brutalist modern structures, and a disillusioned world of private consumption and **social isolation**"
- Rosemary Wakeman

THE SPARK



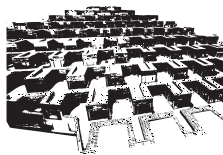
PRUITT IGOE:
St Louis, 1954 - 1972 (demolition)

When Charles Jencks announced in 1977 that the demolition of Pruitt-Igoe represented the death of modern architecture, he invoked an interpretation of the project that has today gained widespread acceptance.

MOVING FORWARD
Rethinking Verticality
B.I.G Time

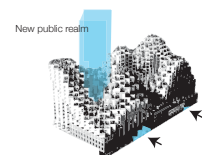
The stacked inhabitation has proclaimed itself as the undeniable way of the future. In this spirit, the next wave of experiments have commenced. The Bjark Ingels group is a leader in this conversation, redefining the vertical form a continuation of the landscape. Developing a new conversation about context.

BUILDING AS
LANDSCAPE:
Re-imagining the Yard



MOUNTAIN DWELLING:
Copenhagen, 2008

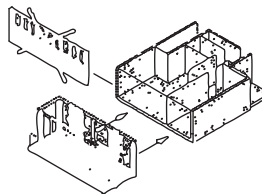
BUILDING AS
LANDSCAPE:
Engaging with context



HABITAT 2.0:
Toronto, coming soon...

MOVING FORWARD
Adaptation

"Never demolish, never remove or replace, always add transform and reuse"
- Lacton and Vassal



The French firm has begun work on adapting these buildings by replacing facades and activating the ground plane



The Toronto based firm ERA architects has begun working on rezoning these tower sites to encourage new use of the "park"

Reaching Higher

Stacking spaces is a well defined strategy in the built environment. Historically vertical development has been defined by the technology of the time, which restricted vertical aspirations, until recent technological shifts. The perfection of construction techniques utilizing steel and reinforced concrete in the 20th century have seemingly removed previous restrictions, thus giving birth to our modern conception of verticality in the built environment, namely the modern sky-scraper.

Towards the Divine

The ambition to build vertically, striving to achieve greater heights than what came before, and has strongly influenced the evolution of the built environment. The glorification of height can be linked to the significance elevation has played in expressing spiritual enlightenment (bringing man closer to god). Predating structure was landscape, the spiritualization of the mountain is very significant to the expression of human spirituality. Mount Horeb in the Sinai mountains is considered God's mountain in Judaism and Christianity, Mount Olympus, home to the gods and an ultimate expression of control (Erwin and Fritz 1989, 7). The mountain informed early built forms like the Ziggurat or "heavenly mountain", which later influenced elevated temples and the Tower of Babel (Erwin and Fritz 1989, 8). The expression of height in religion reached its apex in the soaring spires of the Gothic church in France as early as 400 A.D. (Erwin and Fritz 1989, 7).

Expression of Influence

Elevation manifested in the human psyche not only as a representation of the pursuit of enlightenment, but also as an expression of political and cultural superiority. The Tower of Babel, one of the earliest conception of an inhabited tower, emerged from the pursuit of asserting power and political superiority. The expression of power through height in the built form has continued to influence structure, limited only by the building technology of the time. Through the industrial revolution of the 20th century emerged advancements in material and construction, mainly reinforced concrete, iron and steel, that seemingly removed vertical limitations, manifesting in the form of the skyscraper. Through this liberation of structure architecture soared, signifying man's final disconnection from earth.

The Icon: National Identity

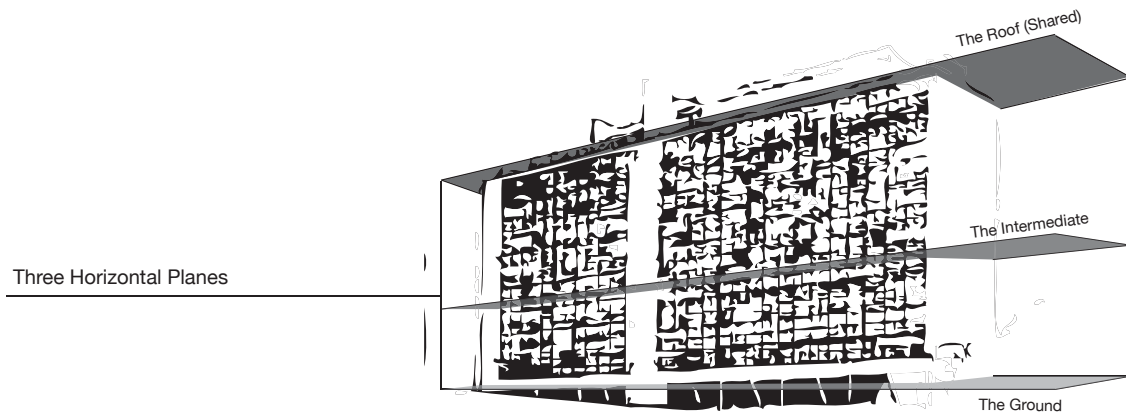
The expression of power and influence through the built environment can also be linked to nationalism. National identity is personified in iconic structures, providing citizens a tangible symbol of connection to place and country. These national monuments represent the ultimate expression of the wealth for a nation; in the 20th century, this meant building vertically. In 1889 using newly available building materials, Alexandre-Gustave Eiffel's tower in Paris was one of the first monumental structures to far exceed the height of church towers (Erwin and Fritz 1989, 8). This vertical revolution cleared the way for the glass, concrete and steel towers that dominate our perception of height today. The shift towards modern had begun.

The Modern High Rise

Inception

The modern concrete tower was a product of the glorification of a new modern mode of living, or a new spirit as defined by Le Corbusier; a spirit of technological advancements. Le Corbusier was a major proponent of the emerging ideology, he saw this movement as a reaction to the new spirit defining the industrial age, demanding a rebirth of architecture based on function and a new aesthetic based on pure form (Le Corbusier 1931, 2). He developed 3 reminders to architects: MASS: Primary forms are beautiful forms because they can be clearly appreciated SURFACE: A mass is enveloped in its surface, a surface which is divided up according to the directing and generating lines of the mass. Plan: The plan is the generator. Without plan, you have lack of order and wilfulness. The plan holds in itself the essence of sensation (Le Corbusier 1931). A new form of living emerged, in the form of mass produced housing, from an optimistic vision of an efficient and modernized future. Lack of contextual consideration left new ideology vulnerable to misinterpretation as the modern movement was embraced in post-war reconstruction (Europe) and expansion (North America).

Corbusier actualized his theories of modern high-rise living in his model for Unité d'habitation, which he developed after visiting the soviet communal housing project, the Narkomfin Building in Moscow, which was designed by architect Moisei Ginzburg and completed in 1932 (Baltanás, 2006). The model included different unit types that could



A diagram showing the 3 planes of Unité D'habitation

accommodate varying family sizes, and different functions. A realization of the model exists in Marseille, France. The building includes 337 apartments of 23 distinct unit types of multi-floor units and was the first to make use of a modular system, which was used for everything, from dimensions of parameter to small interior elements (Baltanás, 2006, 181). The design was repeated in four more buildings with this name and a very similar design. The other Unités were built in Nantes-Rezé called in 1955, Berlin-Westend in 1957, Briey in 1963, and Firminy in 1965. .

Developed as an idea of a “social condenser”, the intention of this model was to layer program to create social intersections within the building (Baltanás 2006,181). The original ambition of this model, which was to provide an improved mode of living for the modern man was mutilated in its universal application, and by the disregard for original intent. The future of the tower in Toronto should externalize this idea of social condensation to address the urban context, layering program to create social interaction within community. The layering and diversification of program can work to activate the ground plane, and grow vertically to infuse the existing structures with public space. The misinterpretations by developers of this model for the tower did not incorporate Corbusier’s intention to include public space within the towers.

There exists no intermediate street, no roof garden; just a sea of uniformity that internalizes the resident’s perception of his surroundings. The resident views his surrounding through the lens of disconnection, glaring out on the surrounding landscape, an ocean of his peers,

with no platform for engaging with them.

This exploration of a new socialist building type of stacked homes and communal living may be the most influential architectural experiments of the 20th century. Particularly when you consider the scope of this thesis. As this building type multiplied, mutated and imposed itself on the modern city, its lack of context identified itself as the barrier it could not overcome.

Decline

Modernist urban renewal rapidly disintegrated in the face of its own rhetoric. According to critics, it did more to destroy historic urban centers than wartime bombardment. It produced a heartless urban uniformity, a landscape of brutalist modern structures, and a disillusioned world of private consumption and social isolation (Wakeman 2005, 401).

The development of a blueprint for the future of the tower in the field can only be constructed by understanding the tower's narrative; its history, occupation and decline. Interpreting the factors that have been identified as the culprits for the failures, while respecting the original optimism from which they emerged.

An article by Rosemary Wakeman provides a critical interpretation of the affects of the modernist movement on urban life, and mass housing. According to Wakeman, the movement was heavily linked to the desire to clear urban blight and initiate urban renewal



A photo showing the demolition of Pruitt Igoe in 1972 (Wikimedia, 1996)

in post-war European and American cities. She critiques the authority of the modern movement, and outlines the detrimental effect it had on destroying communities (Wakeman 2005, 401). The critique of modernism is well documented and widely accepted, but what Wakeman contributes to this rhetoric is the unrealized opportunity in modernism. She argues that modernism was imposed on cities, and there is opportunity for creative adaptation in modernism that has not yet been realized. Organic community development demands individuality that was not afforded by modern uniformity. Wakeman believes that the appropriation of modernism by community is the natural response to its isolating effects, and the inevitable future for modern cities (Wakeman 2005, 402) This progression to accommodate local demands justifies the adaptation of this modern style to better suit current conditions.

Fallacy of Failure; The Story of Pruitt Igoe

Pruitt Igoe was a notorious modernist low-income housing project in St. Louis Missouri. The project is often cited by critics of the modernist movement as an exemplary example of the misguided notions of modernism. “When Charles Jencks announced in 1977 that the demolition of Pruitt-Igoe represented the death of modern architecture, he invoked an interpretation of the project that has today gained widespread acceptance.” (Bristol 1991, 163). The project was created under the United States Housing Act of 1949, which funded slum clearance and urban revival in cities (Bristol 1991, 163). It is located on a 57-acre site adjacent to an existing black ghetto, and was one of several tracts that had been targeted for slum clearance under the postwar redevelopment plan (Bristol 1991, 163). The buildings of Pruitt Igoe are clear examples of the prototypical model for the modern tower, the buildings borrowed ideas from Unite as *social condensers*. The elevators in these buildings serviced every third floor of the buildings, intending to create space for social interaction. As the project began to deteriorate, these spaces became zones convenient for criminals to commit petty crime. It is important to recognize that the state of Pruitt Igoe can not be attributed as architectural failure, but a result of complex social processes.

As a result of an overestimation of population growth in St Louis the project had a very low occupancy rate that affected the ability of proper management of the buildings (Bristol 1991, 163). The project was a product of the process of *tabula rasa*, clearing out what had been defined as a slum, only to be replaced by a larger one. Preexisting social and

cultural conditions will exist regardless of the built form, in this case, the issue of social and racial segregation were the catalysts that truly brought down Pruitt Igoe. Segregating communities and disconnecting from their larger communities resulted in a feeling of isolation.

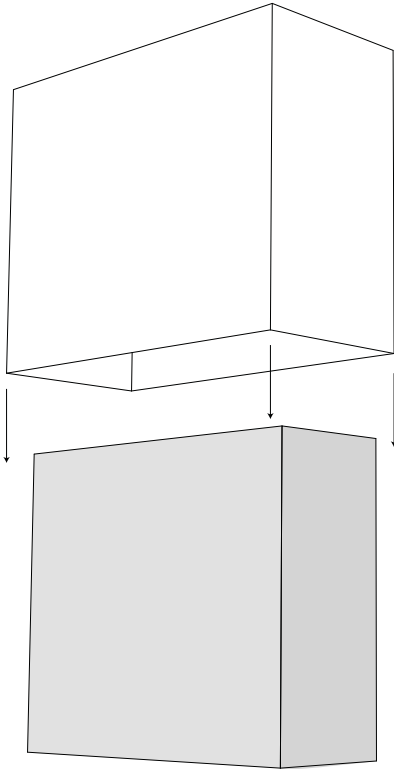
Placing the responsibility for the failure of public housing on designers, the myth shifts attention from the institutional or structural sources of public housing problems. Simultaneously it legitimates the architecture profession by implying that deeply embedded social problems are caused, and therefore solved, by architectural design. (Bristol 1991, 163)

What if the failure of these modern buildings was not an architectural failure at all, but a consequence of the social divisions that segregated communities in the 20th century, mainly differences of race. When demographics are segregated and disconnected from the spirit of the greater whole, of course there will be consequences. How a city decides who will live where is not a process that is within the control of the architect, however it is a condition that the architect can respond to.

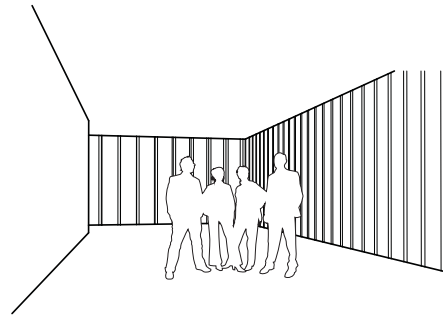
Shifting to present day Toronto, the towers in the city's periphery share a concerning amount of similarities to the social issues that affected Pruitt Igoe. They completely isolate their occupants from the larger city. However due to the number of these towers in Toronto, as well as other North American cities, demolition is a dangerous recommendation.

Looking Forward

The story of vertical inhabitation is currently sliding into its next chapter, in response to a craving for a stronger connection to place and community. This new chapter has been split in two directions; a rethinking of future building through new construction, and a appropriation of past infrastructure through adaptation. Wakeman believes that the appropriation of modernism by community is the natural response to its isolating effects, and the inevitable future for modern cities. With the estimated cost of repurposing a tower being 3 – 6 times lower than building new, the repurposing of the tower is inevitable (Druot, Lacaton, and Vassal 2007, 63).



A new exoskeleton for the building.



Creating new opportunity for public and private space.



A rendering of what these spaces could look like.

Adaptation

Never demolish, never remove or replace, always add transform and reuse (Druot, Lacaton, and Vassal 2007, 17)

The french firm Lacton and Vassal has begun work on the adaptation of the mid century concrete building, recognizing a social need to reinterpret these towers for current conditions. They observed what was happening to these towers across Europe, stating that “the social and ethnic segregation of today results in high unemployment levels and criminality” (Druot, Lacaton, and Vassal 2007, 15). They argued that the inheritance of modernism must by no means be seen as something complete or finished out, but like every other building or urban fragment can be appropriated by its successors (Druot, Lacaton, and Vassal 2007, 17). They recognized that these towers could be seen as a resource for cities to meet growing housing demands. Their large unit sizes (right now demolished apartments are 15% larger than ones being built now) provide opportunity for these towers to accommodate a larger verity of family types, more typical of the Unite

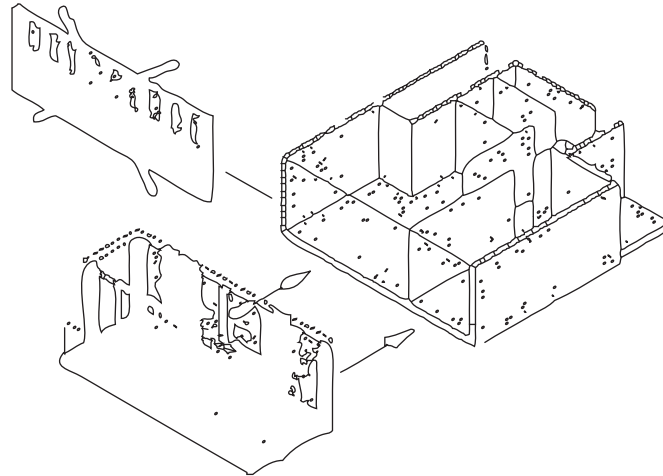


Diagram showing the addition of a new facade and outdoor space to an existing building.

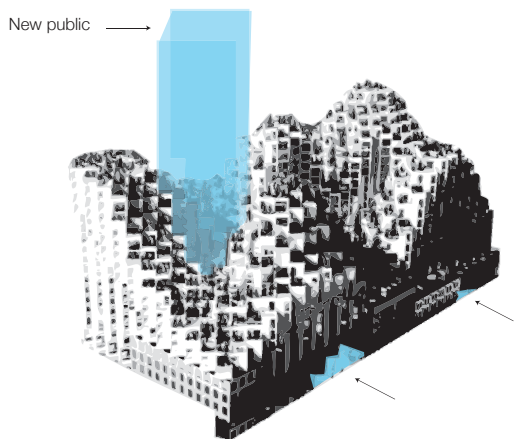
model (Druot, Lacaton, and Vassal 2007, 23). Current condominium towers typically have smaller units of 1 or 2 bedrooms.

Their approach to renovating these towers is categorized by a “liberation” of the facades, replacing them with full glazed wall, and a reclaiming of the ground floor by introducing commerce to a once vacant plane.

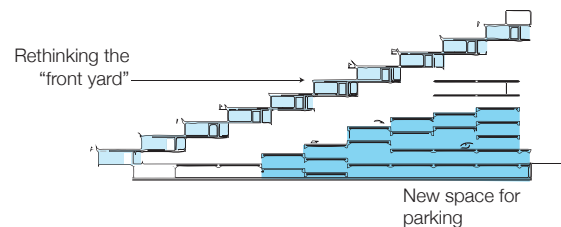
One danger to this model that should be stated is the destruction any cultural appreciation of these facades that could be fostered if left to garner significance. In David Leatherbarrow’s book *On Weathering* he outlines the significance of the aging of materials to the architectural identity of a building, and the role that process played in the cultural appreciation of architecture. He aimed to “revise the sense of the ending of an architectural project”, celebrating the continuous metamorphosis of the building is a part of the realization of its eventual identity” (Leatherbarrow 1993, 16) . If the natural processes of weathering of building materials are a component of the construction of the identity of a place, then what are we saying as a culture when this process is violated? If we destroy, cover, or replace a building’s facade, its face, then how can a material appreciation ever be cultivated. Perhaps the brick, and concrete material of these building could be celebrated as a significant product of 20th century theories of pure materials, in addition to complimenting the existing brick culture that predated these buildings in

Toronto. Yes, the facade demands intervention, it does not perform to current energy and comfort standards, so why not use this to the advantage of the buildings. The renovation of these facades are often treated as a building boo-boo, slapping on a band-aid in the form of a new skin. Why not amplify this solution to extend past the facade, preserving the original intention of the material, while creating new space for the resident and addressing the poor performance of the buildings.

Rethinking Verticality - Shifting Uniformity B.I.G. Time



B.I.G.'s proposal for a new urban landscape in downtown Toronto



A section of B.I.G.'s Mountain Dwelling

The Bjark Ingels Group is making large steps in redefining the city's relationship with how we inhabit the vertical realm, by reimagining strategies for infusing public space into what has typically been an insular building type. When you compare this to the original socialist manifesto of the social condenser, the intention does not seem so strange. Sculpting the building into a landscape is simply a new approach to developing public space, however there does appear to be a level of excitement surrounding this new spirit, time will be the ultimate test. The Mountain Dwelling in Copenhagen, Denmark is of particular significance to this thesis, because of how the building addresses issues of infrastructure (parking), the building's suburban nature, and that it is a social housing project. The building turns its face away from the adjacent rail network, placing parking where there are no units hungry for light. The units for living cascade over this new space for parking, providing a landscape that afforded each unit a formal back yard where residents could interact with ease, shouting "howdy neighbour" as they go about their gardening. Where the tower has

always failed to compete with its horizontal brother (the suburban house) The Mountain Dwelling excels, returning the outdoor retreat back to the vertical dweller.

As we shift our focus back to the existing tower, and its surrounding green canvas, primed for intervention, one could envision a future where the field could become the tower's greatest ally. This could be done by lifting the field, infusing the plague that is the parking lot, and activating the space through diverse public programming to reengage the tower communities with their landscapes.

CHAPTER 3: FRAMING THE SITE

This chapter will justify selecting a site to test this thesis in Toronto, Canada, and the subsequent analysis of the physical and cultural conditions of that site. This is essential in developing a holistic understanding of the conditions that influenced the method for the future development of the towers.

A Ubiquitous Type

The tower in a field is one of the most common building types of 20th century, defining the built environment of cities across the globe. The context of these towers was linked to another consequence of the zeitgeist of the 20th century, namely the migration of urban residents from urban cores to their peripheries. A result of this migration was that new residential construction was shifted in these periphery zones, resulting in the suburban context of the tower in the field.



A map showing urban centres across Canada (Wikimedia, 2007).

Typology Distribution Across Canada:



Toronto



Montreal



Calgary



Vancouver



Halifax

Typology in Toronto

Toronto has a special relationship with these towers. ERA architects, in collaboration with the University of Toronto recently published a study on mid-century concrete towers in Toronto the results are listed below.

- The Toronto area contains the second largest concentration of high-rise buildings in North America - 1,925 Apartment Towers developed in the post war boom (between 1945 and 1984) as well as an additional 1,155 lower rise apartment (5-7 storeys) of the same time period. Together, these post-war apartments contain 496,591 units and make up 17% of all housing in the region, 20% of all housing in the Greater Toronto and Hamilton Area, and nearly a third of all housing in the City of Toronto.
- Apartment Towers are a major component of the GGH's (Greater Golden Horseshoe) housing stock. There are 1,925 Apartment Towers in the GGH. Collectively these towers are home to approximately one million people.
- Apartment Towers represent one-third of the GGH's rental housing stock, and 48 per cent of the City of Toronto's rental stock.
- Apartment Towers are very closely linked to areas of social need. Seventy-seven per cent of all Apartment Towers in the GGH are found in Census Dissemination Areas considered to have high or very high social need, while only 12 percent of towers are found in areas considered to have low or very low social need.
- Apartment Towers in the GGH are generally found in clusters. In the GGH, 89 per cent of all Apartment Towers are found in clusters of two or more, and 62 per cent are found in large clusters of five or more. The largest of these Apartment Tower clusters contain more than 10,000 households.
- Apartment Towers are generally situated on large land parcels of 1 hectare or more. This is a legacy of open space ratios that were encouraged to achieve the "tower-in-the-park" configuration, with 80 to 90 per cent of the site area left as open space. The total land resource in the GGH on which Apartment Towers are situated is 2,198 hectares.

- The first example of modern apartments in Toronto was the City Park Apartments near Maple Leaf Gardens (1954), built in conjunction with the subway. Peter Dickinson's award winning Regent Park South (1958) was built soon after
- Following the second world war, modern apartment buildings became the most popular form of housing during Toronto's post war growth. Privately developed and key feature in a series of modern planned high-rise neighbourhoods.
- Promoted as a more responsible land use than single-family homes, fields for pasture rapidly changed to fields for towers in the two decades between 1960 and 1980. First major projects of this type were the planned communities of Thorncliffe (1955) and Flemingdon Park (1959)
- Built from "flying form" made construction incredibly easy and fast and cost effective. Made of concrete shear walls spaced at 6 m meant easy adaption for apartment configuration. Limited by distance to stairwell and height (about 36 stories).
- The tower in a park was seen around the world; popular in European post war housing shortage and reconstruction. In soviet union represented nearly all new housing from mid 1960s onward. In America used as social housing. In Toronto popular with mix of income range.
- By 1966, at peak of Toronto's first mass housing boom, nearly 40% of the city's housing stock, and 77% of housing starts were modern apartments. Nearly 33,000 high-rise units were built in 1968 alone.
- The master planned approach of Thorncliffe and Flemingdon didn't take hold in most cases, the post war communities that followed were based on a series of principals developed with the intention of creating "complete communities". In most case were developed on a site by site bases.



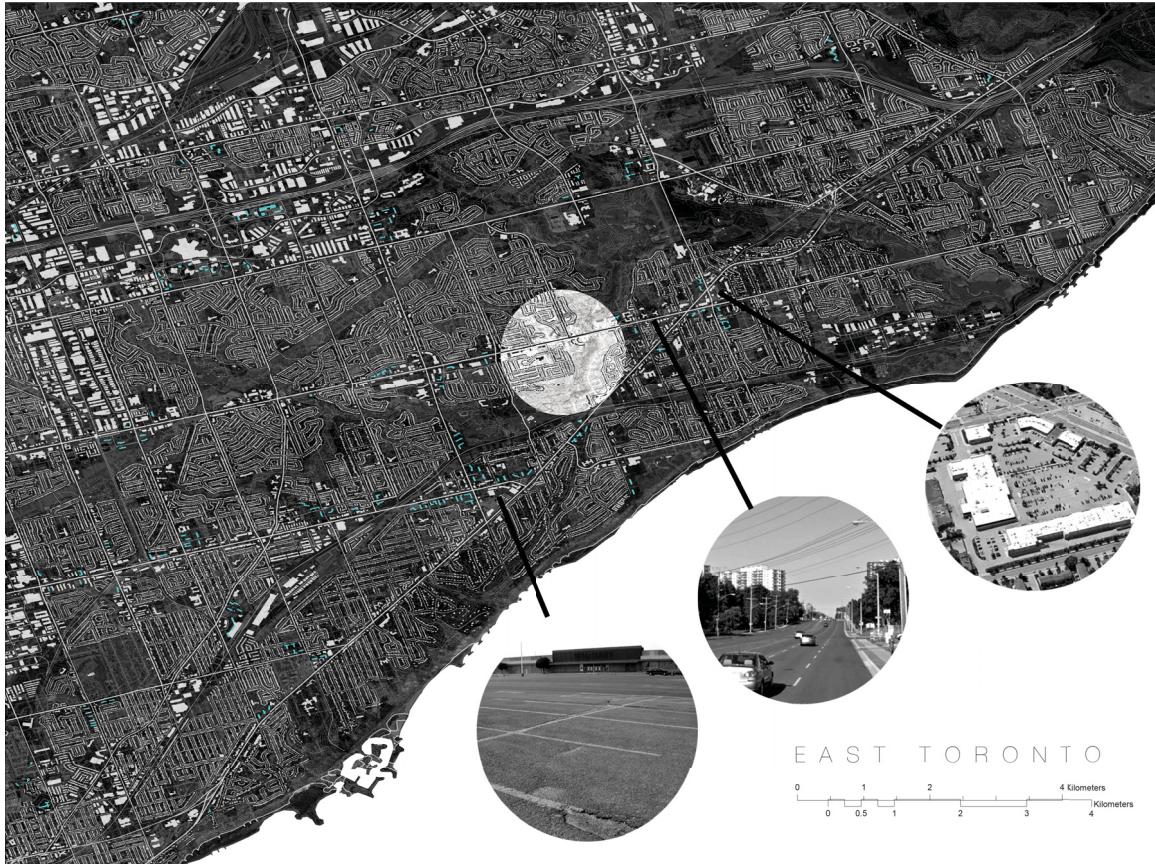
Map of Greater Toronto Area showing location of site in relation to urban centre and transportation network (base map from City of Toronto 2016).

The Rhetoric of the 20th Century: Toronto

A great epoch has begun. There exists a new spirit. Industry, overwhelming us like a flood which rolls on towards its destined end, has furnished us with new tools adapted to this new epoch, animated by the new spirit. Architecture has for its first duty, in this new period of renewal, that of bringing about a revision of values, a revision of the constituent elements of the house. Mass-production is based on analysis and experiment. We must create the mass-production spirit. The spirit of constructing mass-production houses. The spirit of living in mass production houses (Corbusier 1931, 127).

The city of Toronto emerged from the great promise of the modern 20th century city; a new spirit. The industrial spirit of production produced the house machine; the machine for living, climaxing in a landscape of suburban uniformity. The historic districts of cities, the tested and matured districts, were targeted as outdated and out of tune with this new spirit.

A generation's dream of modern living, free from the industrial grip of the polluted 20th century city, is fading into the zeitgeist of a society craving a stronger connection to place. The great experiment of the modern city has revealed its greatest inadequacies in addressing human need, and demands reconsideration. Recognizing that the tower is a predominate building type from this time, it is essential that we begin to look at how the



Map of Scarborough, a peripheral neighborhood of Toronto, showing the urban fabric of these newly realized neighborhoods, and the distribution of the *tower in the field* building typology in this neighborhood, which are strung along major roads. Typical of these new zones, Scarborough is dominated by a massive arterial road network, and shopping centres surrounded by oceans of parking (base map from City of Toronto 2016).

tower can adapt to better suit this shifting ideology.

The city experienced rapid expansion during this period of modernism, hence the undeniable influence of the 20th century rhetoric on its urban form. This expansion was not unique to Toronto “the postwar era saw a greater alteration in the appearance, structure, and skyline of cities than perhaps any other period in history” (Wakeman 2005, 401). The pace of the reconstruction of urban theory left little time for the issues of modern town planning to present themselves, resulting in urban crisis of a serious scale. Ironically, Le Corbusier (one of the loudest voices responsible for rethinking how cities were being designed) was well aware that new ideas need time to be perfected “Culture is the flowering of the effort to select. Selection means rejection, pruning, cleansing; the clear and the naked emerge of

the essential (Corbusier 1931, 138). Zooming in on the tower, time has passed, and culture has passed her judgment. The tower in the field in the fringe has been rejected, and exists today as the undesirable, housing for the city's new and poor residents (undesirables). The time has come for adaptation, for change!

As the 20th century family was presented with a means of departing from the impurities for the industrial city, and migrated to the fringe of metropolis, the shape of the city would forever be changed. The criteria of this new standard resulted in an urban planning strategy that favored the categorization of land, and the development of one dimensional districts. Demands of suburban planning, in respect to land consumption and public infrastructure, have stretched the capability of cities to service their fringe zones. "Suburbia offers poor facilities for meeting, conversation, collective debate, and common action – it favors silent conformity, not rebellion or counter attack. So suburbia has become the favored home of a new kind of absolutism: invisible but all-powerful" (Mumford 1961, 505). These neighborhoods are dominated by centres designed for vehicular access, intended to be splendid places for commerce and amenity for the nuclear family. Family now had one stop shopping for increased ease, another machine of efficiency.

As efficient as the centres promised to be, they were equal in their ability to destroy life for the adjacent streets of these neighborhoods. "Monopolistic shopping centers and monumental cultural centers cloak, under the public relations hoo-haw, the subtraction of commerce, and of culture too, from the intimate and casual life of cities (Jacobs 1961, 4). The centres removed commerce from the remaining streets, which were left to starve, incapable of developing a life and identity of their own. It is these streets which are now home to the decaying towers, providing so little for their residents, specifically those whose access to the vehicle is limited, namely children and the poor.

The vehicle's influence is undeniable when looking at these tower sites. The car was a tool for urban planners to facilitate the release from the demonized industrial city and glorified by many urban theorist. The vehicle was the key to unlocking the sites for the towers, however they became more than a key, but a dominator. Sites, which were originally intended as open park spaces for residents were obliterated by patches of asphalt. Arrival to these towers was a monotonous ritual of highway - parking lot - elevator - unit. In



Image of the street adjacent to the site.



Image of arrival to a tower site: defined by the vehicle

in addition to removing the connection to neighbor, this ritual also forced the neighbor, the friend, the consumer, off the surrounding streets. The result is a series of traffic sewers, dumping passengers at destinations, eliminating the function of the street as a market, a gathering place, and network of activity.

Vehicular congestion is a common plight of the modern city, “a growing number of planners and designer have come to believe that if they can only solve the problems of traffic, they will thereby have solved the major problem of cities (Jacobs 1961, 10). This exists as a residual irony of modernism; the vehicle, the super highway, the motorway were supposed to elevate transportation to a Jetson-esk level of efficiency, however the reality has become a system of an immaculate amount of wasted man-hours spent in the car. Perhaps the answer lies not in the expansion of the motorway, but a reorganization of where we site our daily necessities (work, live, commerce, play).

The existing experience of arrival presents itself as wasted opportunity. If not during this transition from public (city) to the private (home) could one interact with their neighbor then when? By rethinking this transition a new experience of arrival could emerge, one that intersects residents with people and place. Perhaps creating a new path, one that activates the journey from lot, or bus stop, to unit could reintroduce the tower to the street.

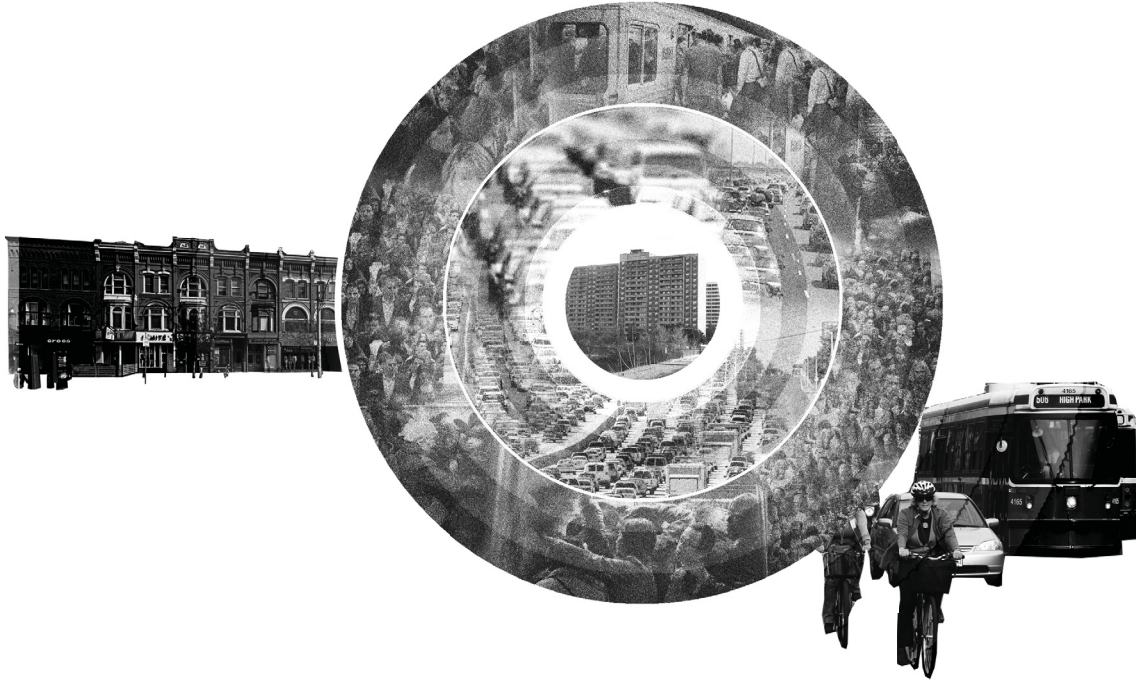


Diagram of the experience of arrival and the disconnection between site and city.

Tower Conditions

The domination of the tower typology in the urbanization of North America has presented the condition in which the type has been embraced, and where it has not. The population density supplied by the tower functions well when the surrounding physical density can support its inhabitants. In dense urban zones the compact fabric supplies the diversity required to support the development of unique places. In Rem Koolhaas's *Delirious New York* he characterizes this condition as a "culture of congestion", a unique experiment of hyper density whose "performance and implications have been consistently ignored and even suppressed by the architectural profession" (Koolhaas 1978, 10). He theorized that the tower typology in Manhattan thrived because its genetic makeup resulted in a fabric that prevented the imposed ideology of a singular voice, and allowed the appropriation of these places by the city dweller. When shifted to locations of low physical density, like that observed in the periphery of Toronto, the typology faltered. Their inhabitants have struggled to adapt to the prescribed nature of the tower and the field, which provides little opportunity for the expression of culture. The population density offered by the tower becomes point loads in the fabric, and disassociated from their surroundings. Evolving the

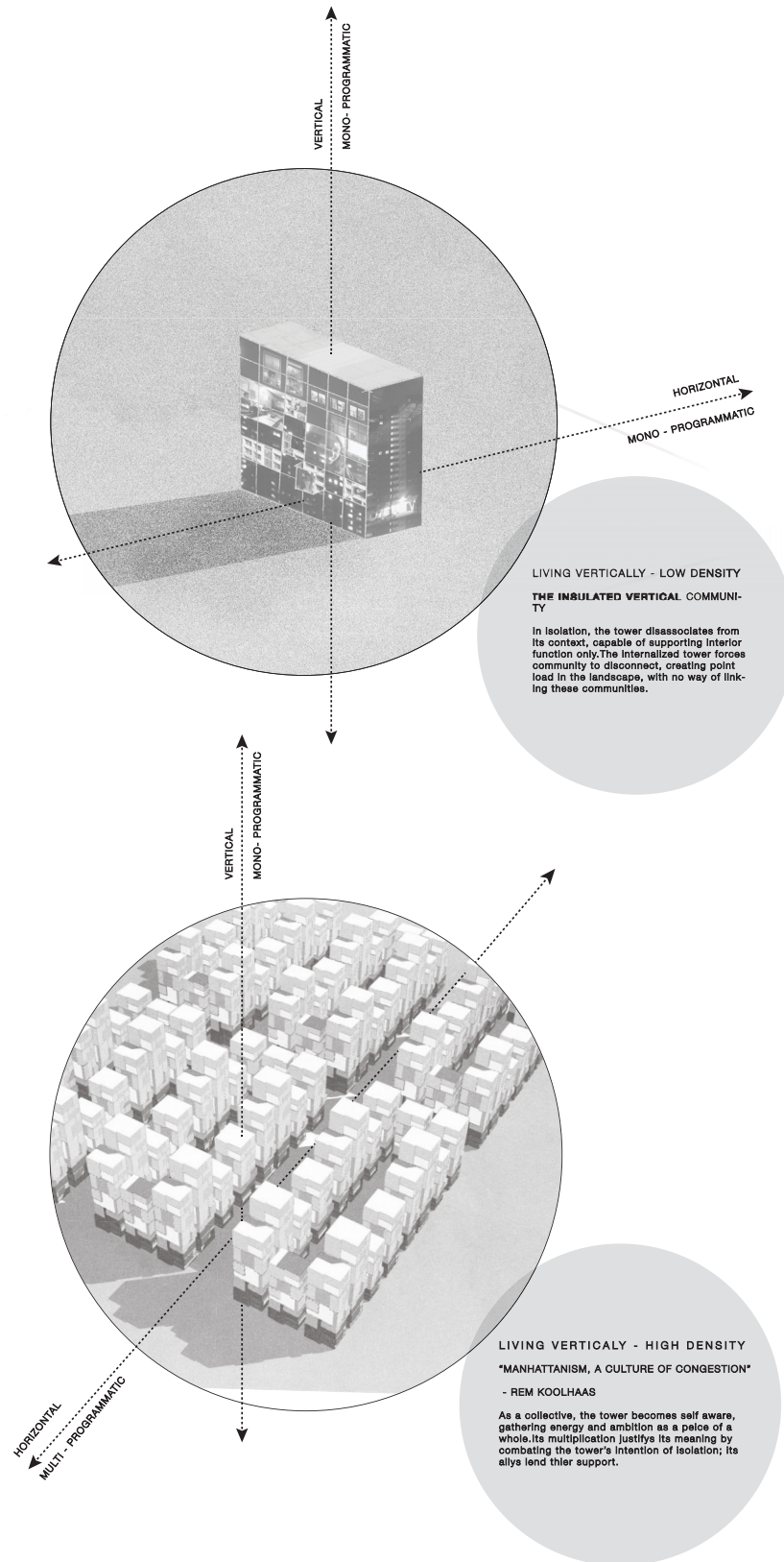


Diagram comparing the tower in different contexts: urban and suburban

tower typology to become more appropriate in this context of low physical density demands a new strategy for their surroundings. Rethinking the “field” presents an opportunity to supply more of the ingredients necessary to developing place. Encouraging diversity of use will address a major deficiency of the suburban tower, when compared to its urban brother.

Tower Conditions in Toronto

Moving beyond urban and suburban and taking a closer look at how these towers have evolved in Toronto, different conditions can be identified. These conditions can be identified by their cultural characteristics, which are a consequence of their physical characteristic; specifically how the towers are organized in the landscape (cluster vs. the individual). Toronto is emerging as an increasingly polarized city, as outlined in continuing research conducted by the University of Toronto and the United Way, there is direct correlation between access to infrastructure, areas of target investment, and prosperity. Areas excluded from these benefits, largely Toronto’s aging post-war communities, are experiencing growing poverty.

Social Isolator

The social insulator is the ultimate tool in the modern city’s unconscious effort to segregate demographics. The initially “glamorous” apartment block quickly lost their appeal, shifting their focus to the city’s poor. The Isolator was a result of a city unregulated; the tower was the developer’s best friend, cheap, fast, and profitable. The idea of a complete tower community quickly melted away in the face of aggressive development. The result was a sea of scattered towers along artillery roads (the mega motorway) in the suburbs; poorly connected from the city, and his friends (the other towers). These sites became destinations only, providing no justification for their existence as a resource for the greater city.

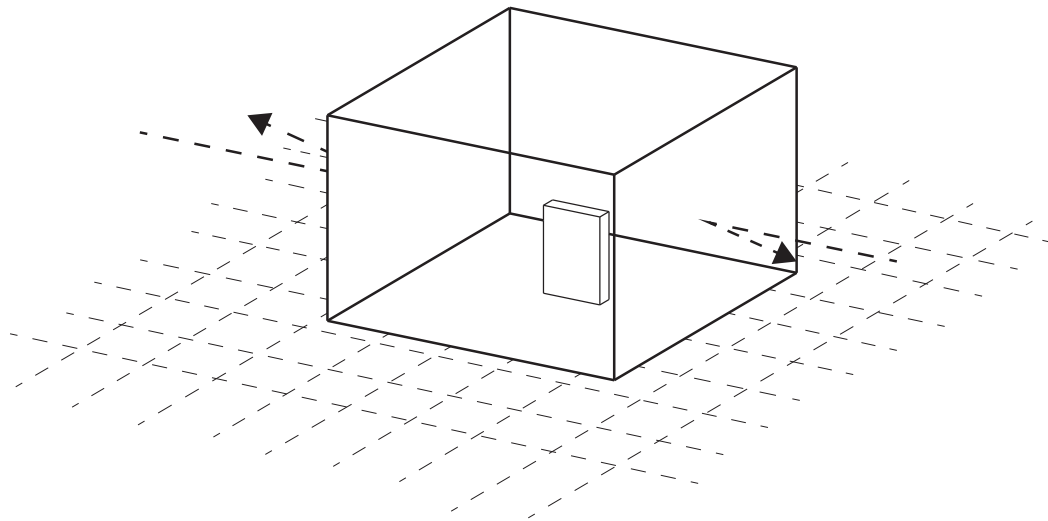


Diagram of the social isolator



Diagram of the social isolator in the landscape

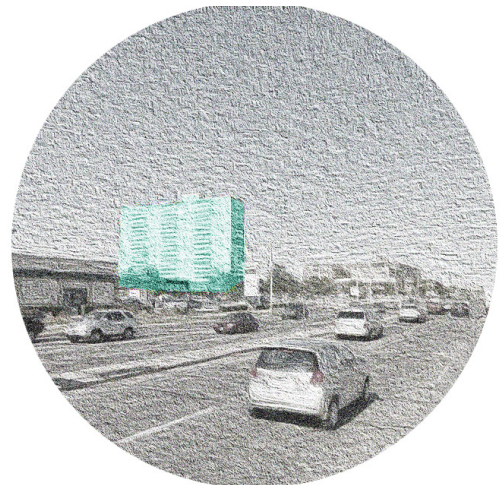


Diagram of the social isolator in the landscape

Social Insulator

When we are in Thorncliffe. We feel like we are in Pakistan or Afghanistan, but when we go downtown we are in Canada (Saunders 2010, 313)

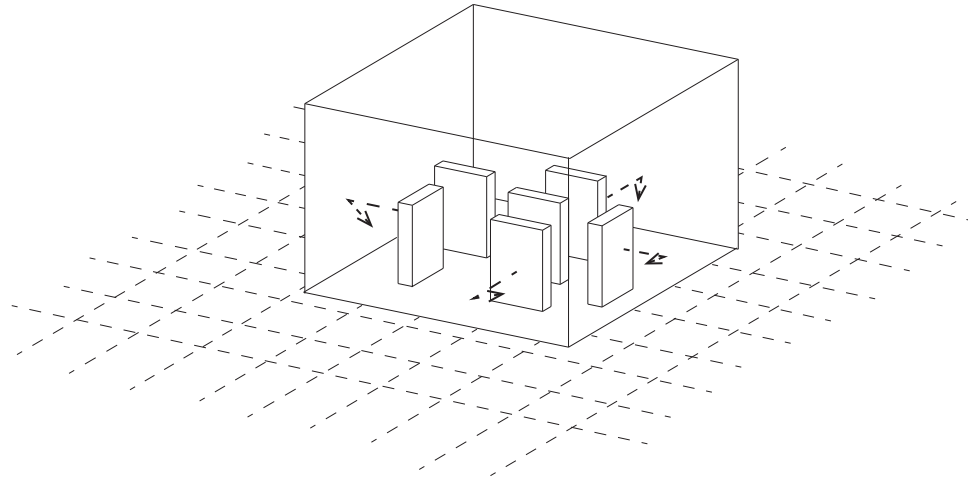


Diagram of the social insulator

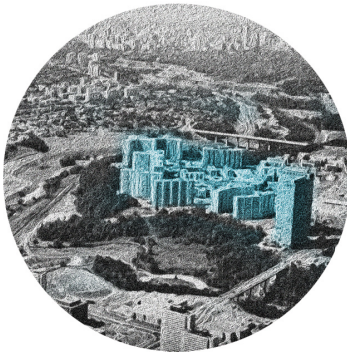


Photo of the tower cluster in Thorncliffe Park



Photo of Thorncliffe Park in relation to the urban Centre

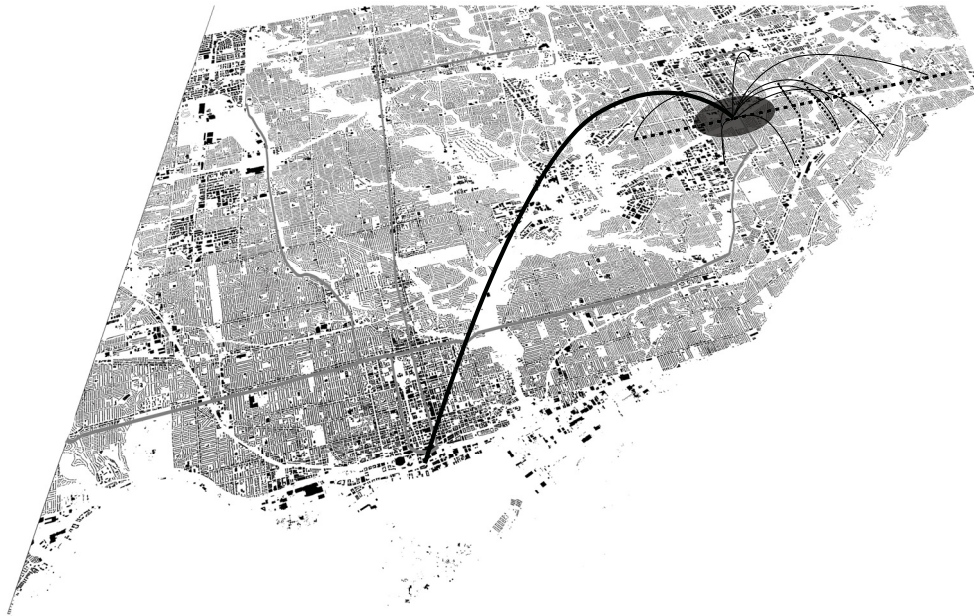
The social insulator is a result of the planned tower neighborhood. These complete neighborhoods offered more diversity in amenities, resulting in more dynamic places. Their distinct identities generated an attraction for incomers desiring a connection to their new strange surroundings. However, these tower neighborhoods became insulated from the rest of the city due to the disconnection from their greater context.

Thorncliffe Park, Toronto

Thorncliffe Park is a tower neighbourhood in Toronto, with a reputation in the city as being an undesirable place to live. An “impoverished ethnic ghetto” with family incomes averaging 20,000 a year and poverty rate of 44 percent (Saunders 2010, 314). The neighbourhood has all of the required ingredients of a socially segregated community, and by every right should be an area targeted by the city for “correction”. However when you zoom into the actual place you find a thriving immigrant driven neighbourhood with low vacancy rates (in fact there is even a wait list) and a strong sense of community. The residents feel like the neighbourhood is their own. This is a result of residents taking ownership of place to define a social space defined by their shared experiences and values (the neighbourhood is very popular with afghani immigrants).

Maryam explains that she lived for a month here in a two-bedroom apartment with her mother, her brother, his wife and their three children – a conventional arrangement in Thorncliffe park, where Afghani families typically fill the living room with a large Persian rug, a periphery of cushions and a couple endlessly refills tea urns, the family sleeping on the floor in the bedrooms (Saunders 2010, 313).

The neighbourhood has developed a support system for its residents of comprehensive social services, designed to ease the transition of arrival, mainly establishing economic stability. To its residents, “Thorncliffe Park is an oasis. Low vacancy rate and waiting lists for residents. People with rural backgrounds have amazingly consistent record of entering the middle class urban mainstream within a generation” (Saunders 2010, 313). Thorncliffe Park also has schools, local shops, and a close proximity to the greater city. When we zoom out to a larger context, Thorncliffe begins to present its shortfalls. As much as the neighbourhood resident feels connected to their immediate surroundings, there exists a greater disconnect to the social realm of the greater city. Once removed from the familiar surroundings of their thriving community, the unfamiliar city dominates, confronting the resident with a place that is unidentifiable. Perhaps a solution is to redefine that experience by identifying a new participant, the arrived(existing city dwellers). Instead of forcing the resident to reconcile with their unfamiliar, perhaps the familiarized resident could be drawn into these seemingly separated neighbourhoods, and establish a stronger social connection.



Map of site in relation to the Toronto's urban core
(base map from City of Toronto 2016).

Social Connector

In Toronto connecting the tower, isolated in the fringe, to the greater city is an important step in connected the inhabitants to their new cultural surroundings. This has been achieved elsewhere through the use of event in order to create an attractor to these periphery zones.

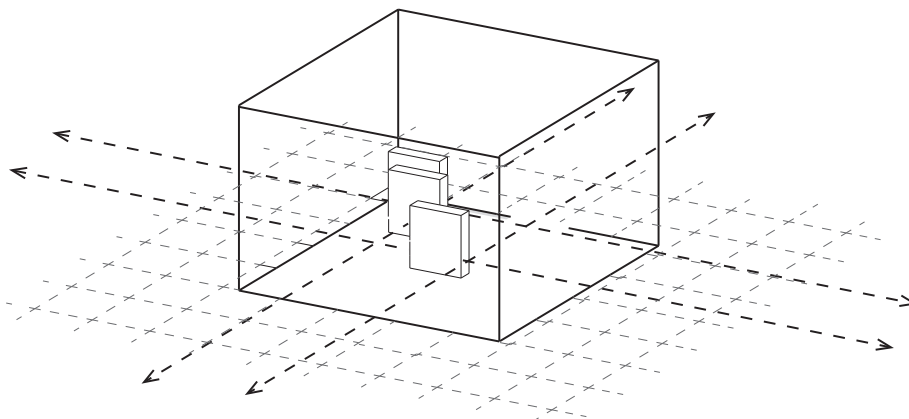


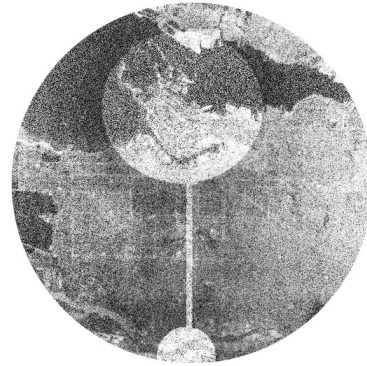
Diagram of the social connector

Richmond Night Market

In Vancouver, Canada the Richmond Night Market achieved this connection through a cultural market; supplying a unique experience for visitors through sharing food and tradition. Similar to the suburban tower, this market is located on the fringe of the city, but is well connected through public transportation. Applying this tactic in Toronto requires that the selected site is capable of becoming an intersection between core and fringe, and is accessible.



Richmond Night Market



Market's proximity to Vancouver's urban core

Pacific Mall

Similar to the night market in Vancouver, Toronto has its own social connector. Pacific Mall is an South Asian shopping centre adapted from a traditional Pacific-Style market, located in Markham. The market provides a compact fabric of informal stalls providing services, food and products. The second level of the market shifts focus, offering access to additional service (Dentist, Doctor...). The informal market functions as the anchor, attracting users from the greater city, consequentially supporting the supplementary businesses that exist there, and their proprietors. As an Asian market, Pacific Mall is the vassal that reconciles cultural segregation, by providing a platform for sharing tradition with the city of Toronto.



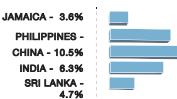
T O R O N T O . O N

Population: 2 576 025
 Immigrant: 1 252 215 - 48.6%
 Non-Immigrant: 1 258 870 - 51.4%

IMMIGRATION DISTRIBUTION



TOP 5 COUNTRIES



TRANSPORTATION



DWELLINGS TOTAL: 1 107

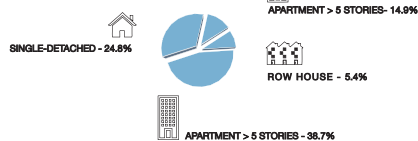


Diagram illustrating immigration distribution in Toronto (data from Statistics Canada, base map from City of Toronto).

Social Conditions in Toronto

The socially isolating nature of these towers, by now, is undeniable. If these towers are going to successfully fight this nature, the group that they are currently isolating should be identified.

In Toronto, aging tower blocks have experienced a shift in demographics over their lifespan. Originally intended as glamorous units for the middle class, they are now home to a socially isolated demographic, the newly arrived, popularized as “the immigrant”. They are also critical to fulfilling an increasing demand for affordable housing in the city, which is becoming infamous for its high cost of living.

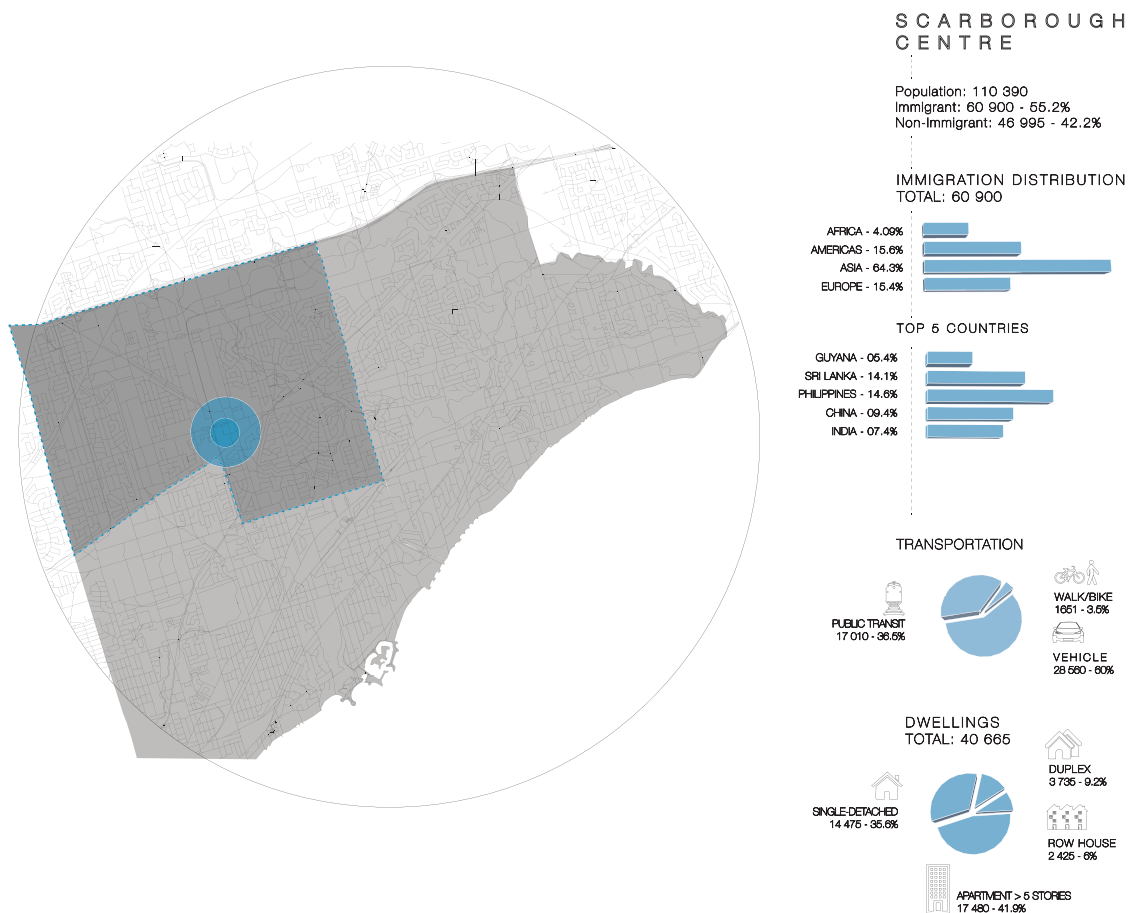


Diagram illustrating immigration distribution in Scarborough: Centre (data from Statistics Canada, base map from City of Toronto).

In the Canadian landscape, Toronto is unrivalled in immigration. The greater Toronto area welcomes more immigrants than any other Canadian city. According to the City of Toronto’s website, half of Toronto’s population (1,237,720) was born outside of Canada, up from 48 per cent in 1996. Due to the high cost of living, specifically in the urban core and along transportation corridors, most new arrivals settle in peripheral zones. Toronto was very fortunate and well equipped in its struggle to house this incoming population, as a result of its inventory of low-rent aging suburban housing towers. The current reality of these towers is defined by a ideological shift in modern cities that relocated wealth towards urban cores, which devalued the suburban apartment. The suburban tower block has now become the landing pad for these immigrant populations arriving in the city, offering affordability and familiarity.

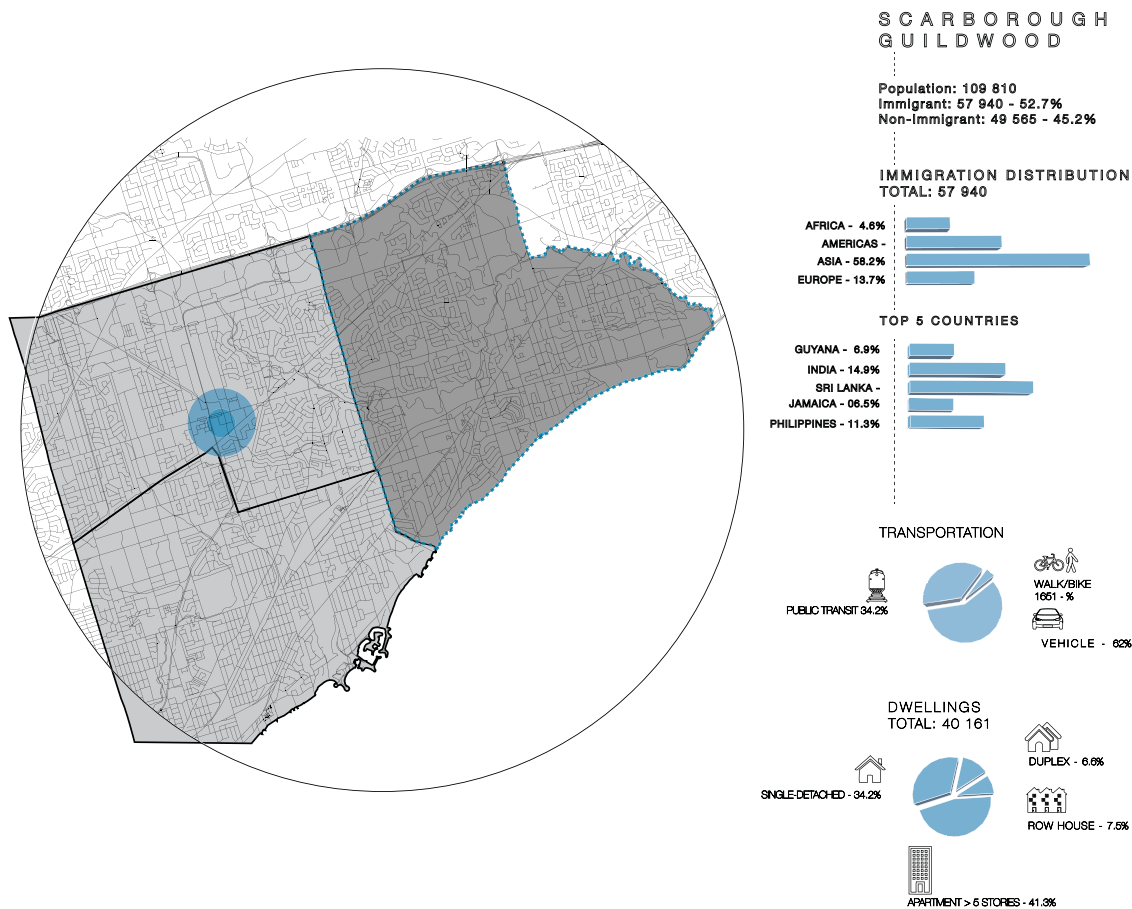


Diagram illustrating immigration distribution in Scarborough: Guildwood (data from Statistics Canada, base map from City of Toronto).

Relocating to a new country is typically a meticulously planned journey. This experience of arrival is the first step in establishing oneself in a new place, which is essential to future viability. In migration exists an inherent struggle to maintain established cultural identity, while simultaneously embracing a new one. In Toronto, the process of establishment is dampened by the smothering realities of the suburban housing that is available for new immigrants. For Toronto’s peripheral zones to thrive they must evolve to recognize underutilized potential of its cultural diversity.

Through adaptation the tower could become the instrument for bridging the transition between arrival and settlement.

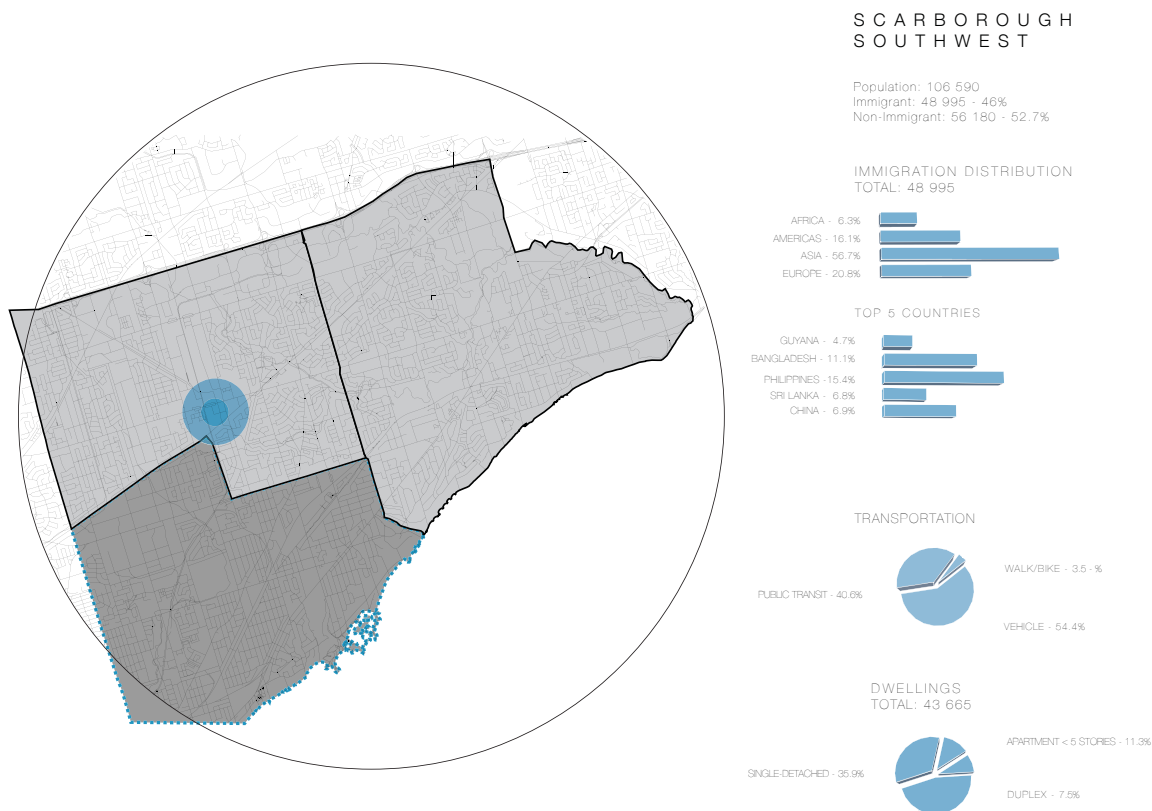
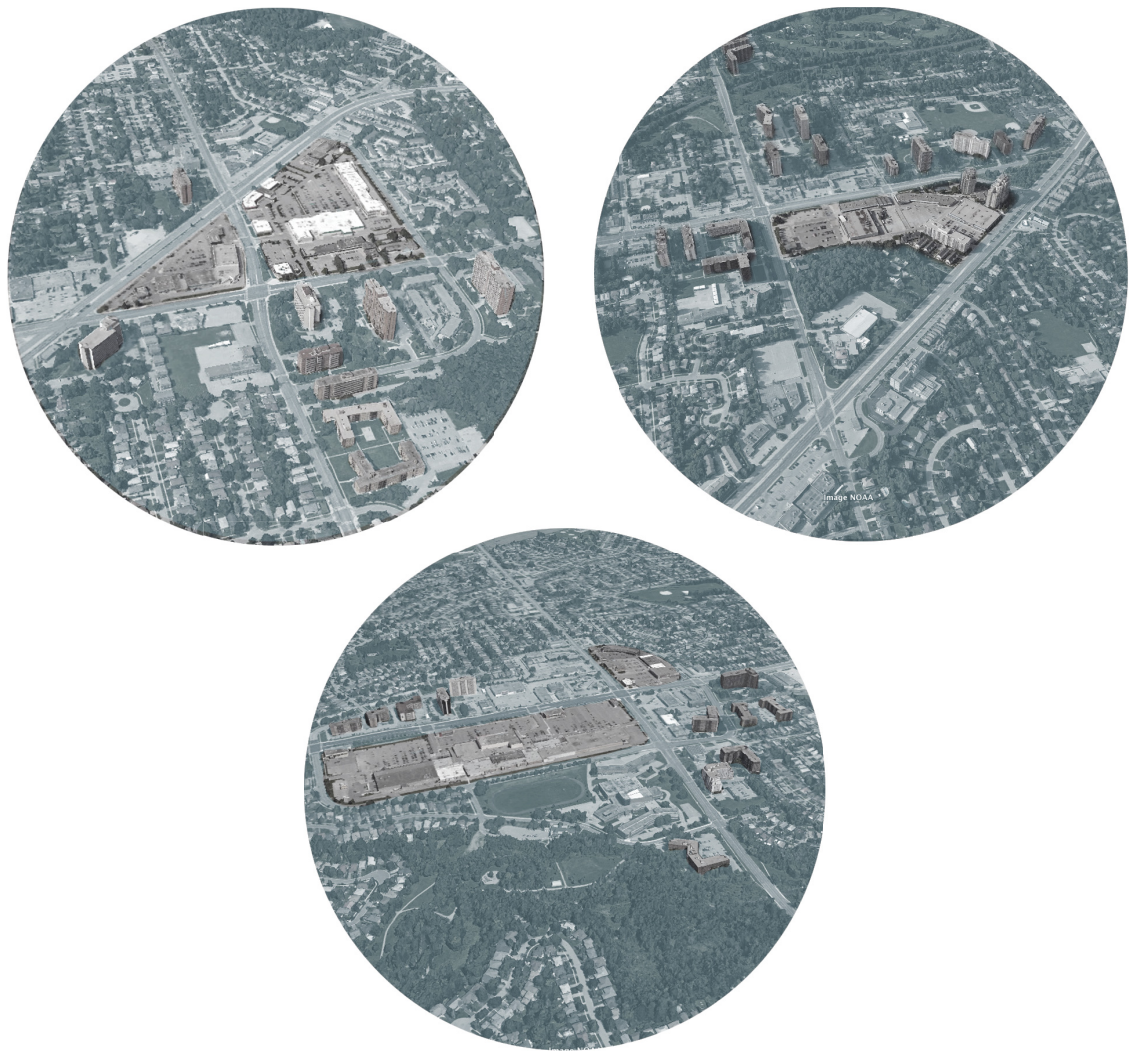


Diagram illustrating immigration distribution in Scarborough: Southwest (data from Statistics Canada, base map from City of Toronto).

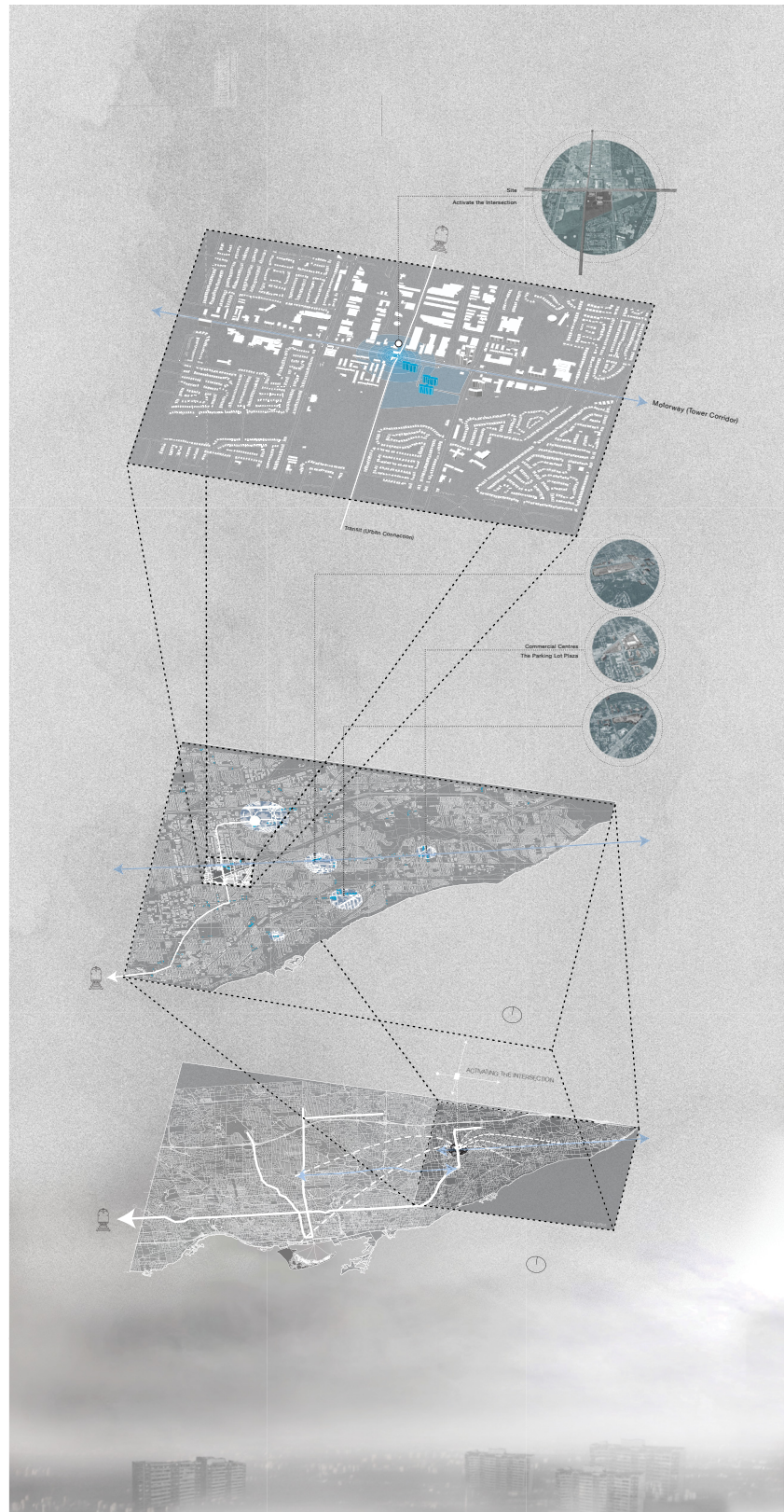
This current condition of the tower is also affected by an erupting friction between the arriving and the established in North America, creating an anti-globalization rhetoric that is polarizing society and adding to the social isolation of segregated demographics. Through this lens, the tower exits as a deteriorating symbol for a generation nostalgic for a romanticized past. Considering the social and physical context of the tower, we must ask how can these sites can evolve to become a symbol of hope, and a tool for reconciling cultures.

Site Selection

The site chosen for this study is positioned at a critical intersection between city and suburb. Due to its proximity to the transportation network the site will be activated through the influence of Toronto's ritualistic daily migration between work and home. The site's position in the city has the potential to establish itself as the hinge between the urban, and the suburban. It could become the spark that initiates the establishment of a network of towers sites. The towers are lined along major arterial roads, spreading out into the landscape in linear steams waiting to be linked.



Illustrations of the community centres adjacent to the tower sites.



Context maps of Toronto and site (base map from City of Toronto 2016).

CHAPTER 4: METHODOLOGY

Whatever space and time mean, place and occasion mean more. For space in the image of man is place. Space experience, is the reward of place experience (Trancik 1986, 12).



Diagram illustrating a social connection between person and place.

To better understand the criteria for developing a new typology for the Tower and a Field, this study will examine the requirements for the new type through several theoretical filters. By examining the realities of life in a tower, and understanding the typology's greatest deficiencies in the production of daily life, a more robust strategy for future development can be defined. The analysis will focus on the social realities of the tower in order to dissect what the physiological, psychological, and practical implications are of life in the socially isolated tower.

Humans share collective desires from their surroundings, these shared requirements span differences of nationality, language, and culture. Recognition of the commonalities present in mankind is essential to adapting a building type that also spans national boundaries, languages and culture. "All men have the same organism, the same functions. All men have the same needs" (Le Corbusier 1931, 136). Understanding what the human requirements are of a space in establishing a connection to place will inform the new type for the tower.

The Practice of the Everyday

In Michel de Certeau's book *The Practice of Everyday Life* he disassembles how people appropriate places through organic practices of the everyday. He analyzes how people individualize culture and alter things, from objects to streets to rituals, to laws, and language, to suit their own criteria (De Certeau 1984, 46). He developed a distinction between the concepts of Strategy and Tactics, linking strategies with institutions and the structures of power who are the "producers" (De Certeau 1984, 34). The "producer" then informs the "consumer" or individual, who act in the environments defined by strategies, by using "tactics" (De Certeau 1984, xviii-xxiii). The repressive nature of modern strategies have inhibited the "consumer" from individualizing place, or more specifically, the tower. However, Certeau argues that "in this repression exists a creative resistance enacted by the ordinary person" (De Certeau 1984, 94). The activity of re-use produces opportunity for ordinary people to adapt imposed strategies by institutions, and recreate spaces that can facilitate individualized rituals.

The metamorphosis of the tower must be sculpted by the observed and perceived tactics of the consumer, in order to develop a more clear representation of societal requirements in the physical realm. This requires a contextual understanding of the social realities that influence the tower at a local level. Meaning strategies of the producer, in this case architect, are informed as an individualized approach, in contradiction to the uniformity of the past strategies. The strategies developed here are informed by the tactics observed in the context of Toronto, and could not be reproduced in another context without the consideration of the local tactics present in that place. In Toronto this approach demands that the producer recognizes the identity of the consumer, in this case the immigrant. The challenges represented by the inherent diversity of the immigrant demand that 1, distinct

cultural identities are not assumed and 2, the commonalities in the process of immigration are identified in order to connect people.

Space and Place

Spaces receive meaning from the “place” and not the space. Space is not place (Relph 1976, 28).

Space

Change life! Change Society! These ideas lose completely their meaning without producing an appropriate space. A lesson to be learned from soviet constructivists from the 1920s and 30s, and of their failure, is that new social relations demand a new space, and vice-versa (Lefebvre 1991, 59)

Feeling connected to place is essential to the production of social spaces. In Henri Lefebvre’s urban analysis *The Production of Space*, he attempts to establish the importance of “lived” experiences and the assertion that geographic spaces are fundamentally social. Space, not place, is a social product, or “complex social construction” based on the societal values that affect spatial practices and perceptions (Lefebvre 1991, 70-78). He analyzes space as three distinct types; “perceived space” of everyday social life defined by the “consumer”, “conceived space” defined by the professional or “producer” and the lived space. Claiming that all should be interconnected so the individual can move from one to the other without confusion (Lefebvre 1991, 38-41). He argued that every society produces its own social space, and that space is a direct reflection of the intellectual climate of that place. Inferring that any “social existence” declaring an identity that is devoid of its own production of social space is incapable of escaping the ideological spheres in which it exists, the sphere in this case being modernism (Lefebvre 1991, 69). The organic production of social space is essential to any society’s expression of their unique social existence, thus its continuum. Through this analysis of social space, Lefebvre was critical of the modernist model in its failure to produce social spaces through its system of repetition; interventions on physical place were insufficient at grasping social identities. “It is obvious, sad to say, that repetition has everywhere defeated uniqueness, that the artificial and contrived have driven all spontaneity and naturalness from the field, and, in short that products have vanquished works” (Lefebvre 1991, 74). The introduction of socially defined space to the socially ambiguous, contextually deprived *tower in a field* is the next step in evolving this repetitive typology in becoming a purer physical representation of their social identities. The production of a social space requires that the user, or in this case tower resident, is

granted the opportunity to imprint their social identity to place, in this case tower site. This demands that place, or the tower, provides flexibility in the physical realm in order for the consumer to adapt place to better represent their social identity.

Place

It seems a commonplace that almost everyone is born with the need for identification with his surroundings and a relationship to them-with the need to be in a recognizable place. So sense of place is not a fine art, it is something we cannot afford to do without (Nairn 1956, 14).

In addition to uniquely defined social spaces, society also demands a strong identity of place, which is defined by social spaces. In *Place and Placelessness* Relph argues that “sense of place and attachment to place are manifestations of a deeply felt involvement with those places by the people who live in them, and that for many such profound attachments to place is as necessary and significant as a close relationship with other people” (Relph 1976, 28). He believes that places are culturally defined, location is “merely an incidental quality of place” (Relph 1976, 29). If place is culturally defined, then a strong identity of place can not develop if cultural influence is suppressed, as it was in the uniform application of the tower typology. As a result, culturally defined places failed to develop, and a landscape of sterile replications of an ideological structure remain. Similar to encouraging the production of a social space on these sites through grassroots intervention, the production of a strong identity of place must be defined by a stronger cultural influence. This is possible through the adaptation of the tower to allow the infiltration of the cultural values of the site’s user, in this case the immigrant. In this context the expression of culture adapts new meaning, for the culture of a place, in this case a Canadian city, is defined by the culture of many. Celebrating the significance of cultural diversity, by allowing that diversity to define place, would facilitate the development of a culturally defined space, thus a stronger identity of place resulting in a stronger connection to place. By establishing a connection to place, the tower dweller can begin to take ownership of their surroundings.

Empowering the People

An extension of the shared need to experience a connection to place and space, are the inherent shared needs that connect the uniquely human experience of life. American psychologist Abraham Maslow identified these collective needs in his paper *A Theory of Human Motivation* as a hierarchy defined by the following:

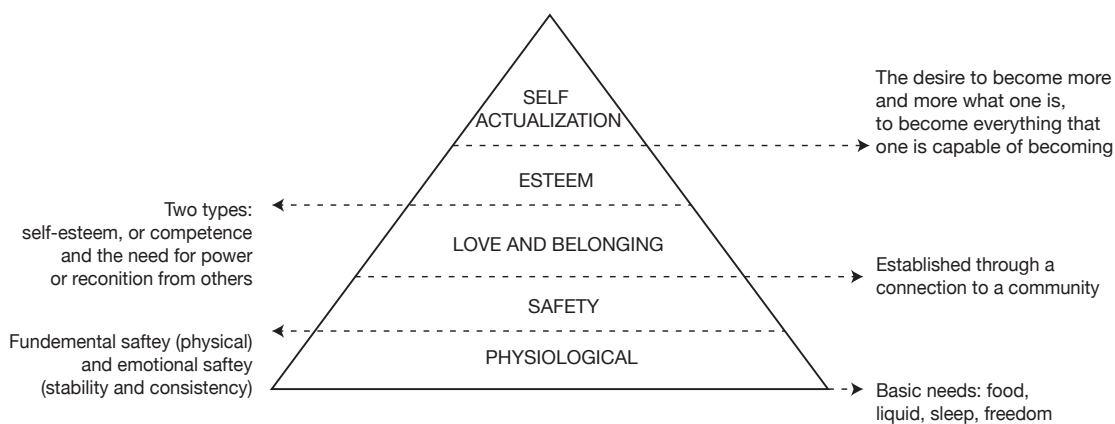


Diagram illustrating the Maslowian hierarchy.

He argued that as long as a person can work to satisfy these needs then there is a move towards growth and a sense of accomplishment (Maslow 1943, 371). It is when these needs are suppressed by a repressive society, or in this case a repressive physical place, that a person becomes ill; satisfying needs is essential to our health, while blocking gratification makes us sick. “In our society the thwarting of these needs is the most commonly found core in cases of maladjustment and more severe psychopathology” (Maslow 1943, 381). The role of a place or social space is to allow an individual to satisfy these needs as a continuous progression, to allow the individual to become more and more. By dissecting the conditions of the tower, it is apparent that the physical place acts as the mentioned “repressor” making its inhabitants ill.

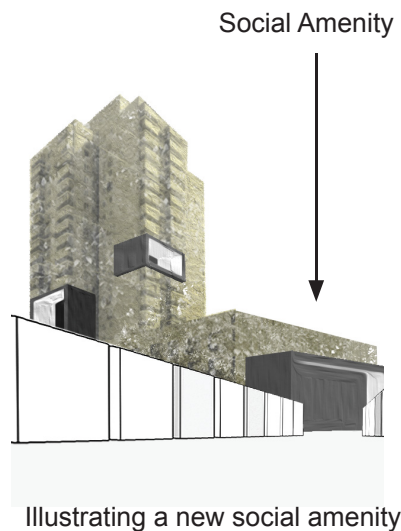
Maslow referred to the four lower needs as “deficiency needs” because their absence creates a tension within us, with lower needs demanding a higher urgency to be met (Maslow 1943, 380-90). The tower exists in Toronto in two conditions, the social insulator or tower neighborhood, and the social isolator or tower site. The social insulator exists as a strong facilitator of love and belonging because of their established cultural identities,

which ignite a sense of familiarity for incomers. The social isolator does little to satisfy this need as a result of their internalized living units, and geographically isolated contexts (the selected site of this study exists as this condition). Thus demanding a reaction in order to develop strategies that address this need.

Both conditions fail at satisfying the next need of “esteem”, as a result of their inability to facilitate economic prosperity. Tower sites function as repressors of entrepreneurial spirit by depriving tower residents of economic opportunity necessary to developing self-esteem, and recognition from peers. Moving forward, a culturally defined place that sculpts the social space must also address the suppression of satisfying human motivation in order to develop a new typology for the tower.

After identifying the ingredients devoid on these sites, a set of requirements can be defined in moving towards a method for the evolution of these sites:

Social Amenity



The current public spaces that exist for these sites are located in the surrounding barren landscape, which we know through analysis are devoid of people (not so social). The spaces that the residents most often occupy are the units within the building, which results in a community that becomes internalized. To foster a connection between residents, a public realm must be introduced through social amenities (spaces or programs that encourage use by all residents). In the case of this test site that amenity has been defined

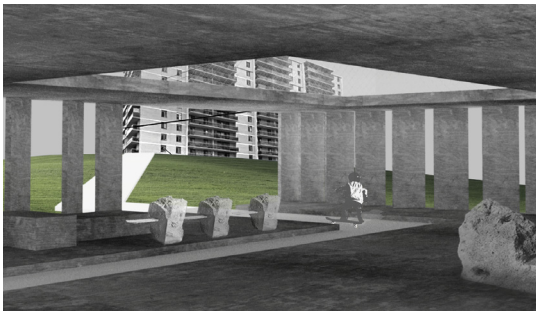
as a public market place, however this program should be flexible in order to adapt to the needs of other tower sites. The program should be driven by the residents, it is most important that the program of the social amenity will connect residents through consistent use.

Economic Opportunity

A mix of commercial spaces must be introduced to these sites. They should operate on a spectrum of accessibility, meaning there must be a range of formality to these space. The informal economy of these sites could look very similar to the market space (inexpensive venues, low overhead). These spaces will be supplemented by high rent spaces, places that could be occupied by larger retailers (grocery, hardware, retail). These venues will function as anchors for the sites, attracting shoppers from larger distances, which would flow into the less formal commercial spaces.

Play

One strategy for connecting people to place and space is encouraging interaction of



Summer



Winter

Illustration of a reimagined experience of arrival that incorporates play.

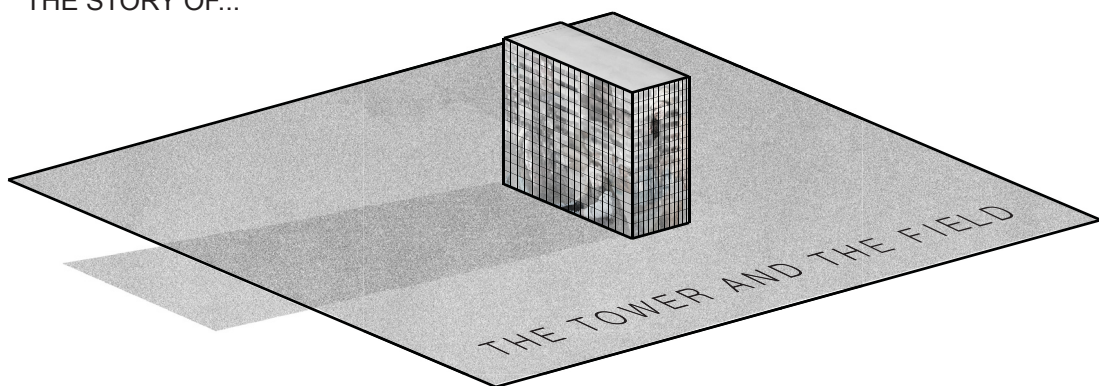
community. A simple way of promoting interaction is recognizing the unifying capabilities present in the non prejudice nature of youth. Establishing an essence of play on these sites would encourage interaction through association, expediting the process of acceptance in community, thus developing a feeling of belonging to place.

CHAPTER 5: DESIGN

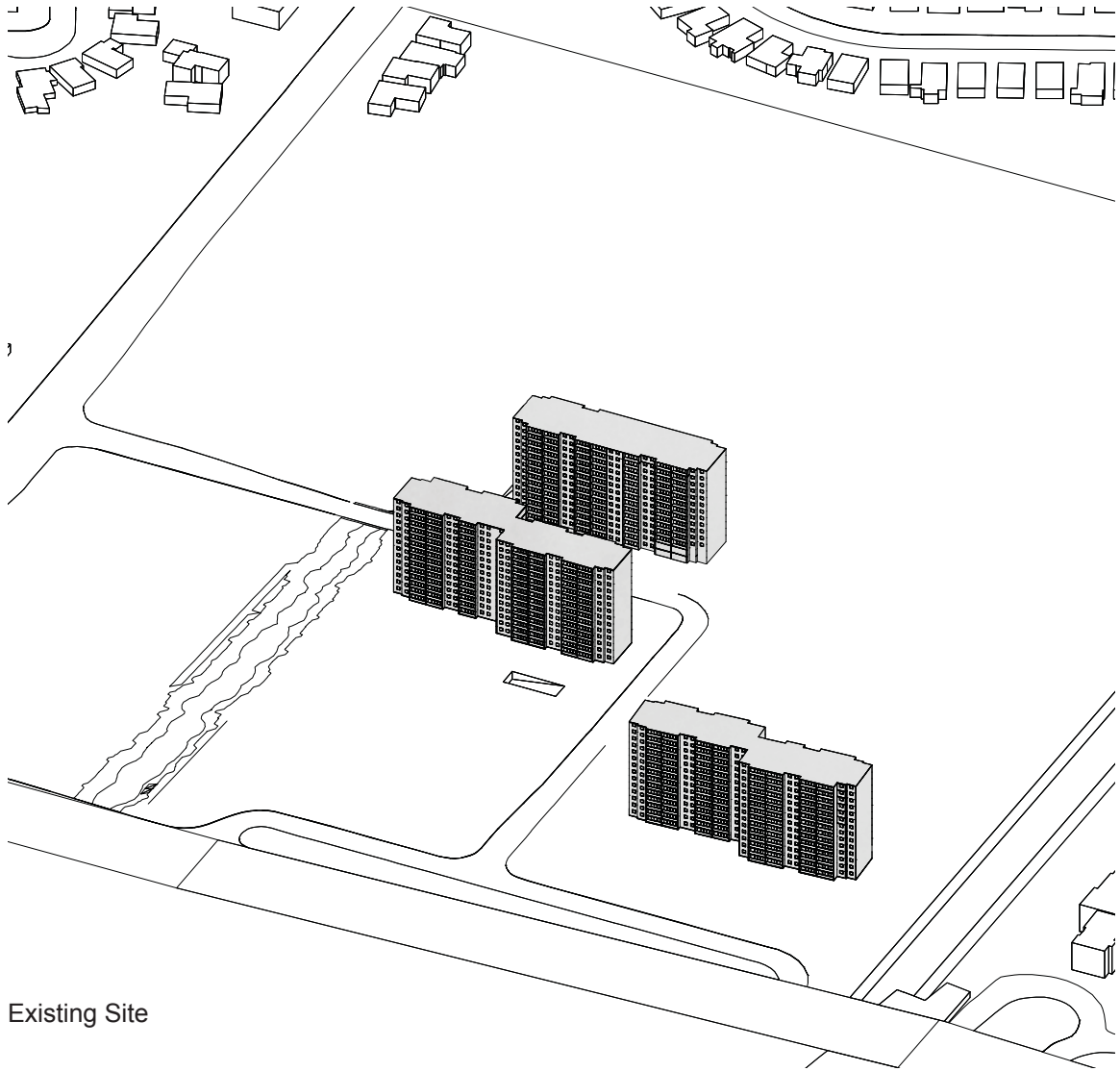
With the investigation of the social, physical and historical context of the tower complete, a tangible method for adapting the tower can now be defined. This method is characterized by a series of strategies that will address the deficiencies of these sites, which will be explained in the following chapter. These strategies are supplemented by a prototype of a tower site with these strategies implemented, the intention being that this prototype can be used as a point of reference for the future development of additional tower sites.

The narrative of this building typology is not as finite as the public discourse has led us to believe, we have simply reached the climax. The villain have been unveiled, and the natural progression of events critical to the defeat of said villain can now begin. The summation of these events, or design strategies, will illuminate the next chapter in this narrative, and present a socially informed tower.

THE STORY OF...



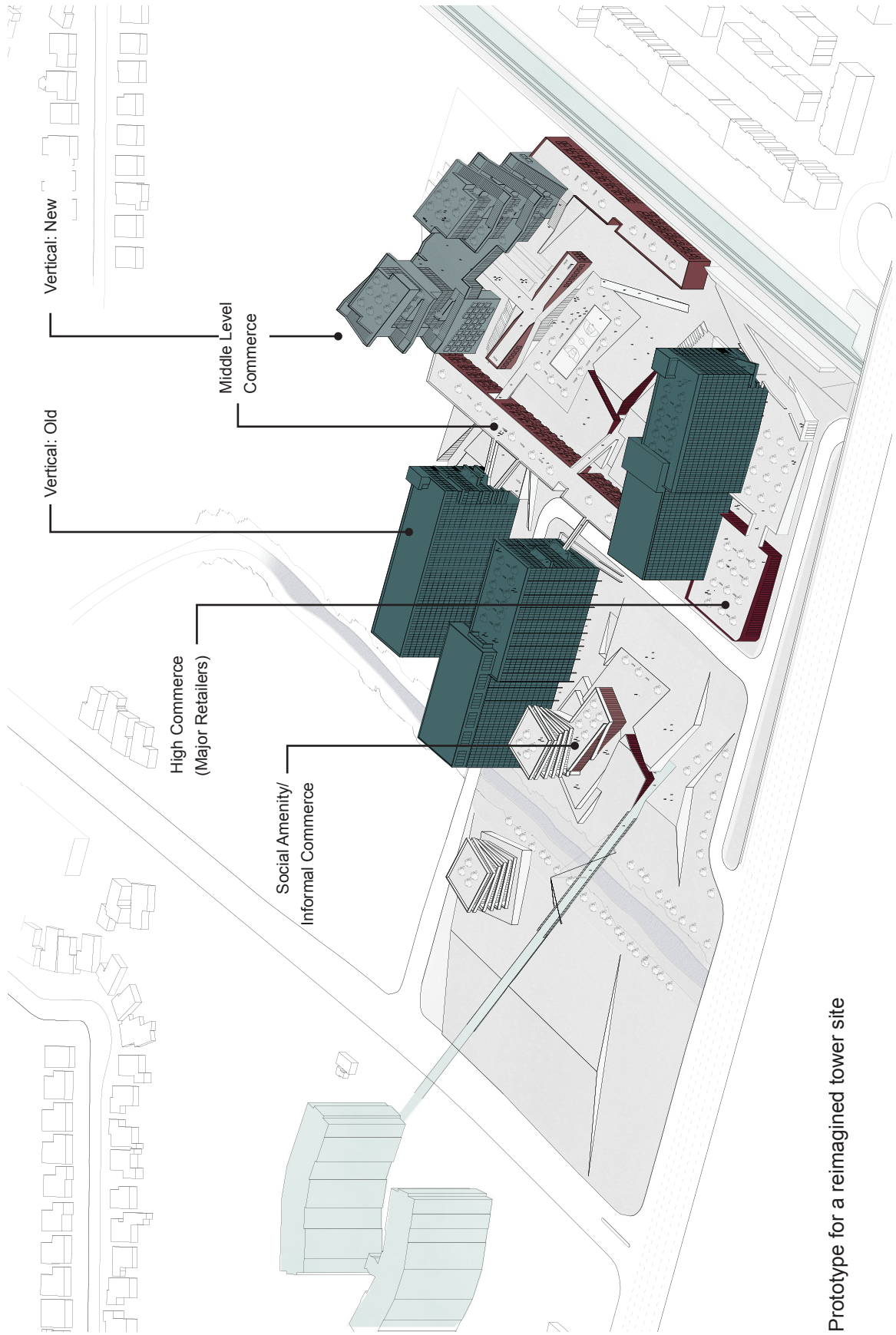
Representation of the initial chapter in the narrative of the Tower and the Field.



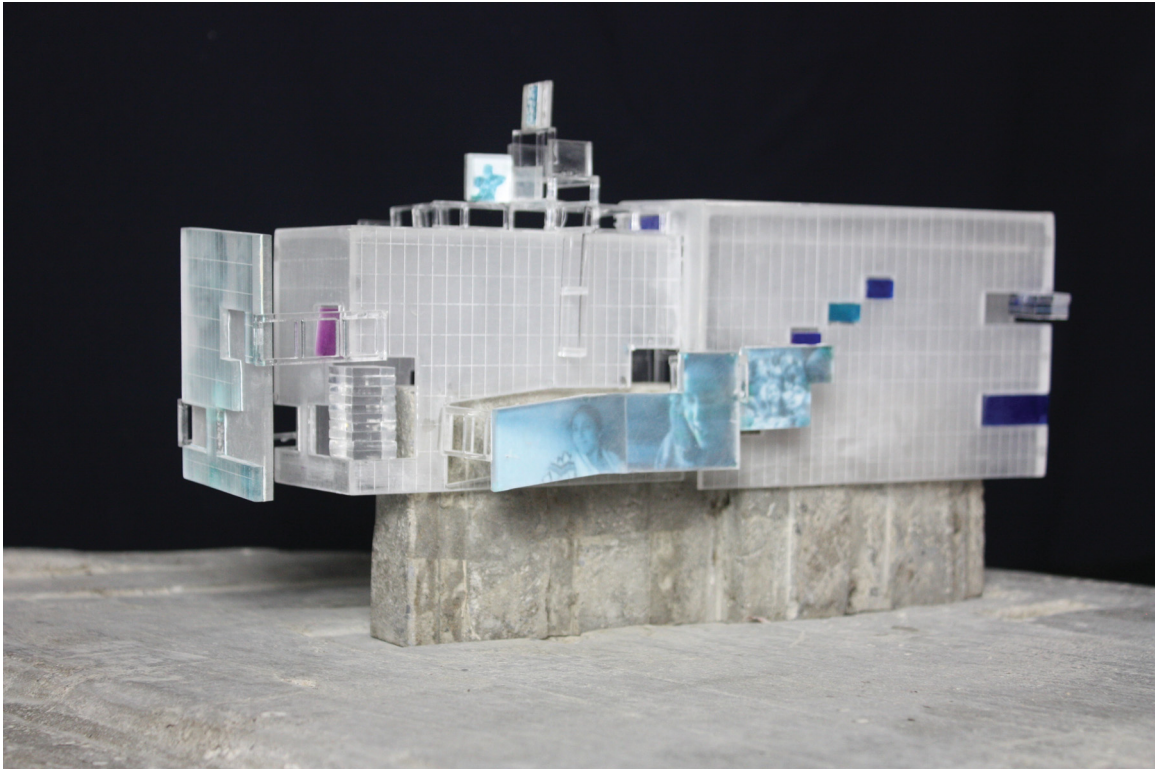
Existing Site



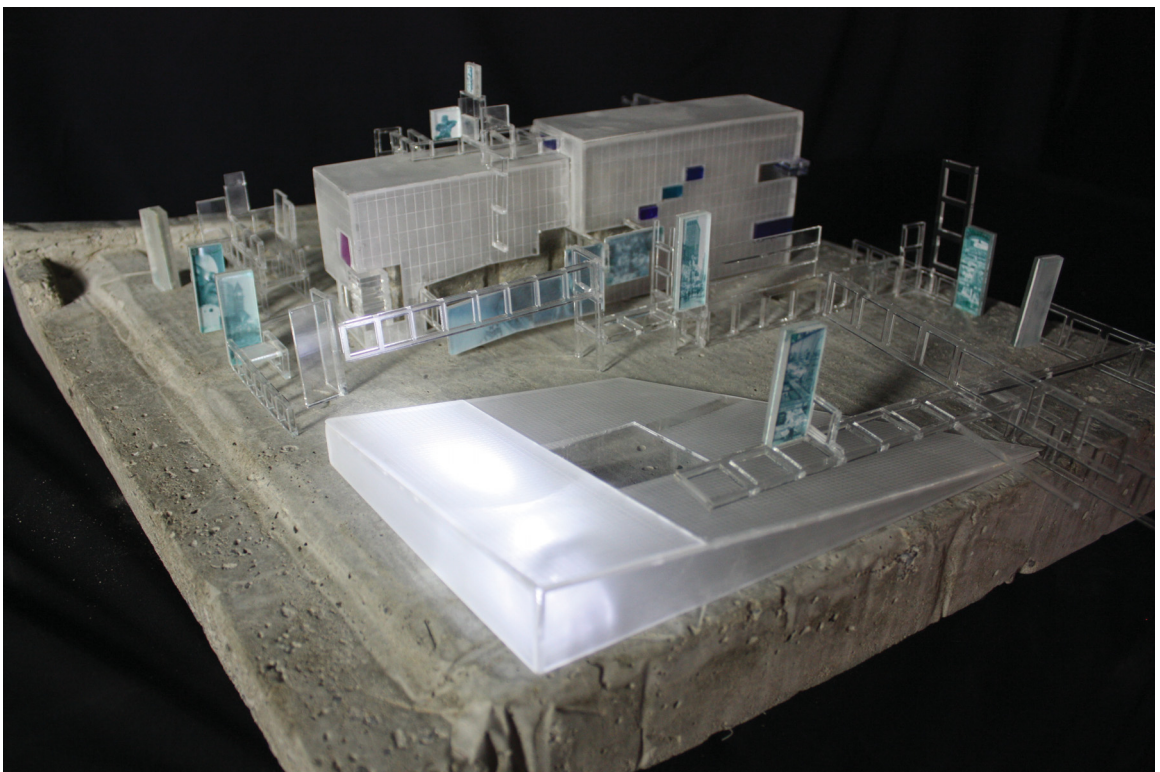
Model of exiting site



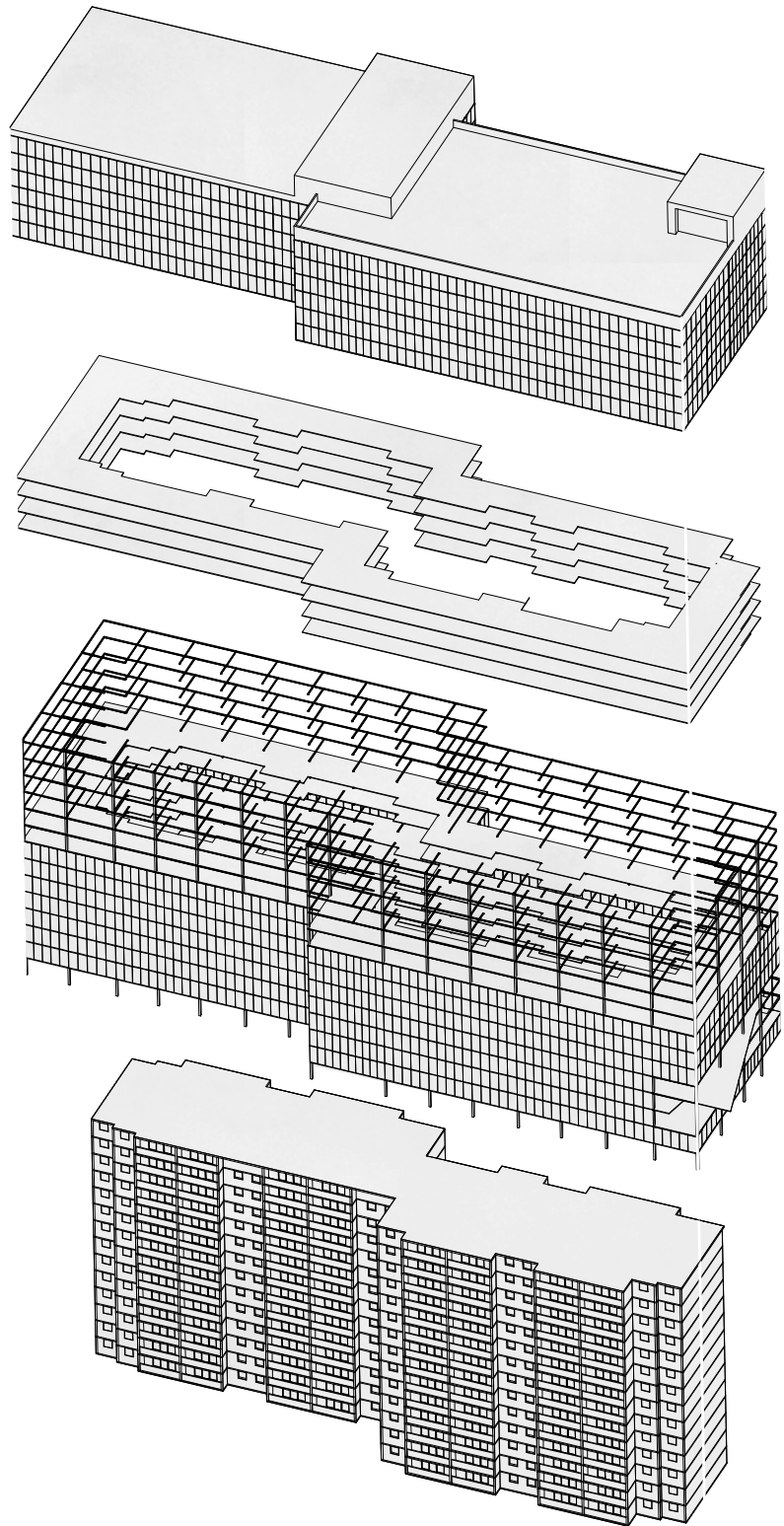
Prototype for a reimagined tower site



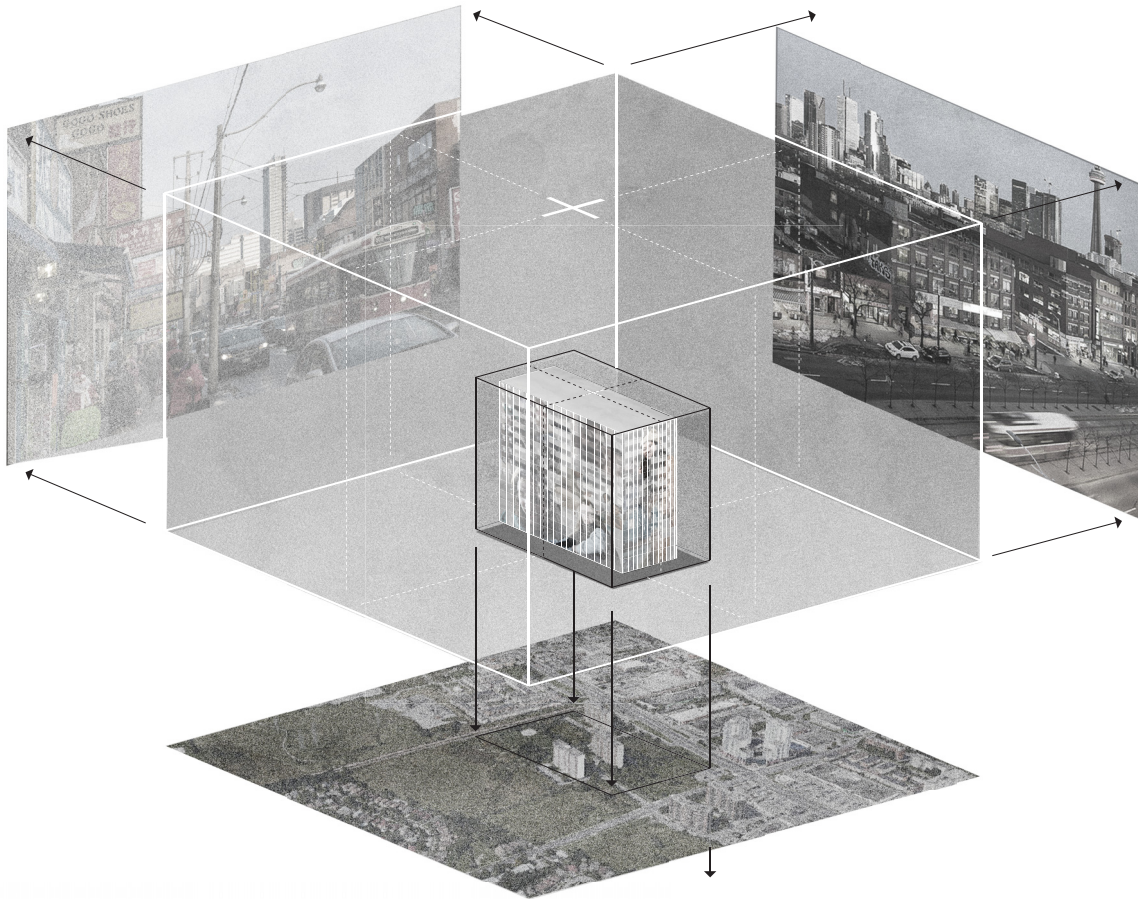
Model abstraction of a new shell.



Model abstraction of a new inhabited field.



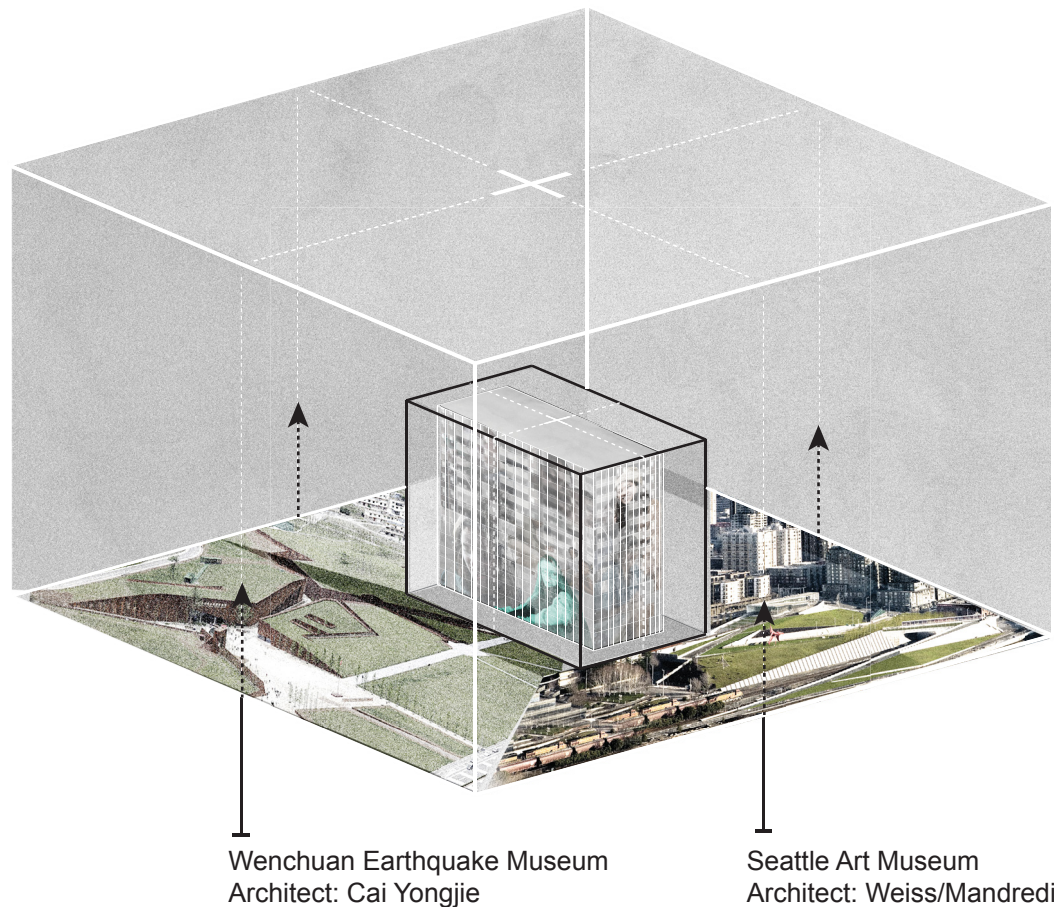
Structural axo showing a prototypical approach for the addition of a new shell for the tower.



A diagram showing the tower's current disconnection from space and place. (Google Earth, 2016)

Defining the Strategies

The isolating nature of the tower is the ultimate antagonist in this narrative, and demands a consideration from each strategy. The new prototype is the protagonist, and must possess the soul of the social connector, presenting itself as the tool to combat this isolation. The following diagrams are a dissection of the social connector, separated into clear strategies for achieving the prototype for the social connector, and new tower typology.



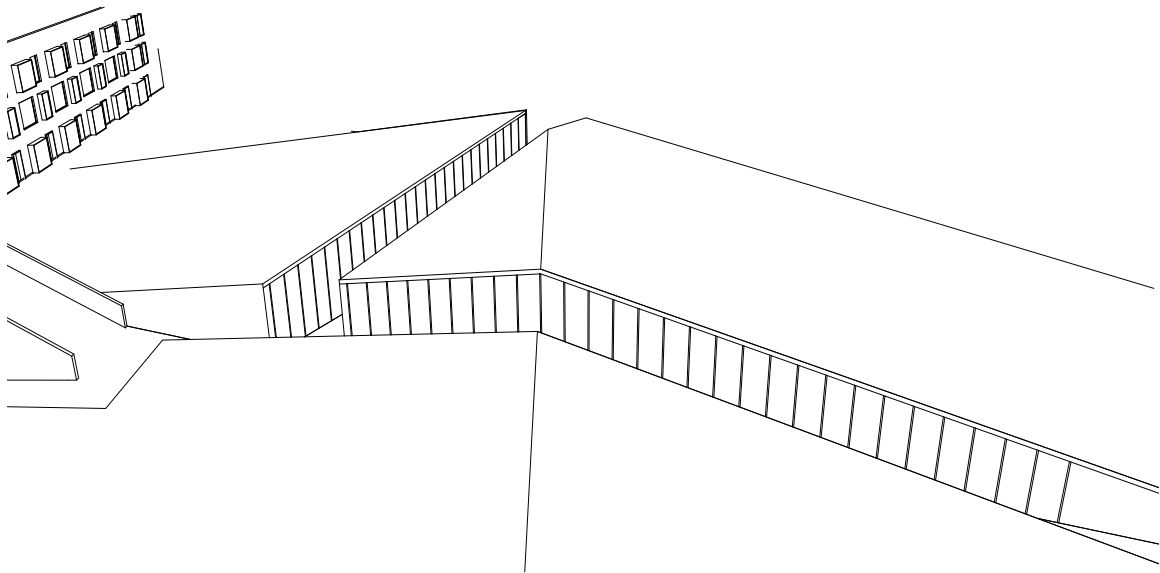
A diagram illustrating a strategy for engaging the field through its manipulation.

The Landscape

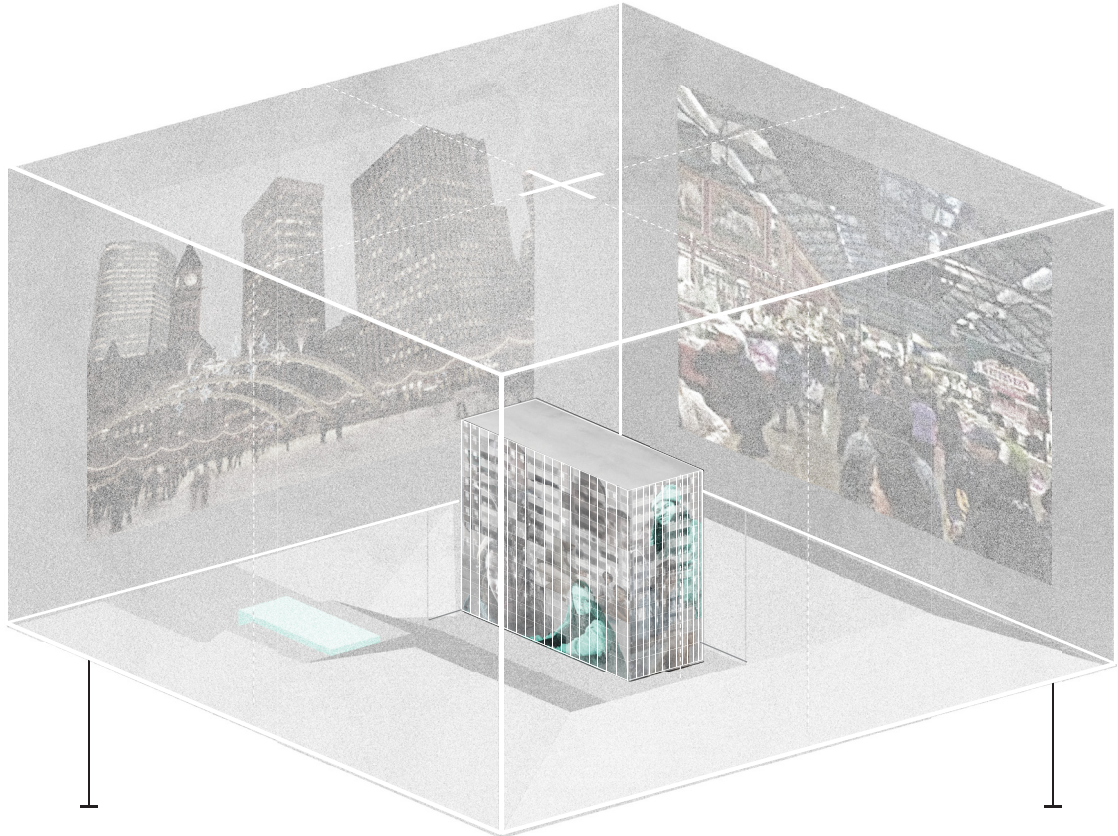
First we engage the landscape by elevating the plane; The field typical to this typology, more often dominated by parking than park, provides an opportunity to develop a new ground plane, one that encourages its inhabitation through the addition of new space below, and programed space above. Through this strategy new spaces for recreation and relaxation can be introduced, reincorporating one of the original intentions of this typology.



Image of Delft University Library using this strategy to produce new public space. (Wikimedia, 2015)



Drawing of the landscape strategy implemented in the prototype.



Nathan Phillips Square (Downtown Toronto)

- Formal town square
- Platform for social intersection
- The playground, the concert venue, the place for even

St Lawrence Market (Downtown Toronto)

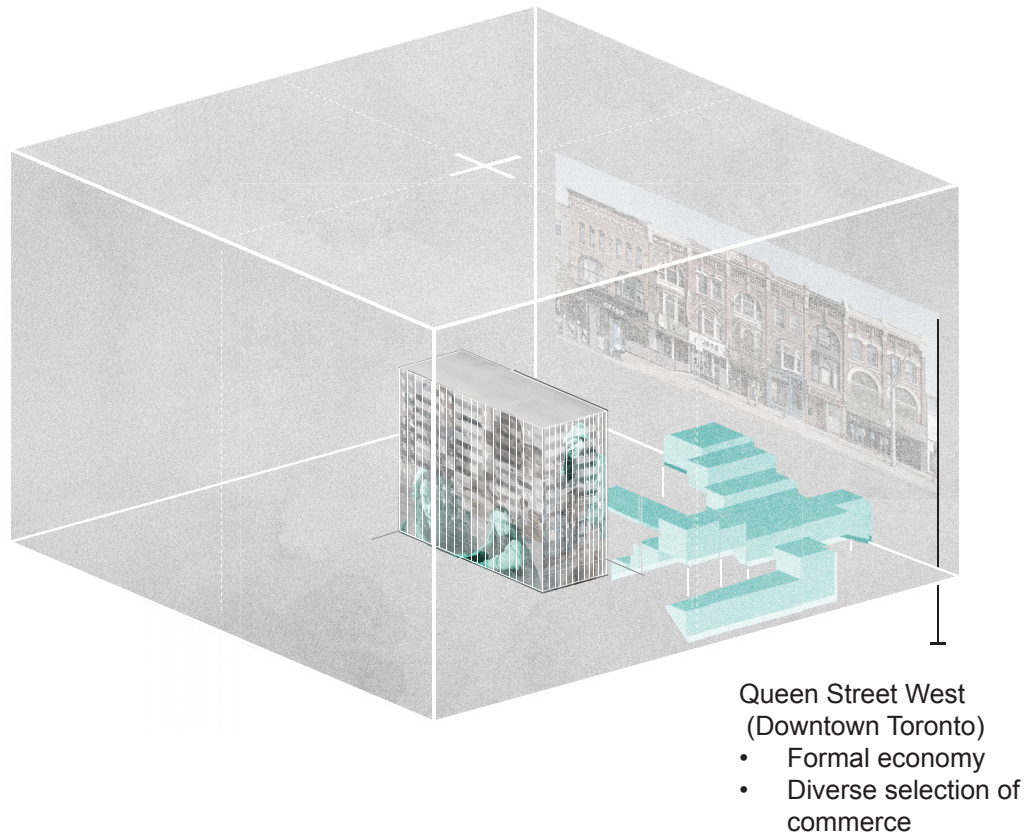
- Informal economy
- Accessible commerce

The Social Amenity

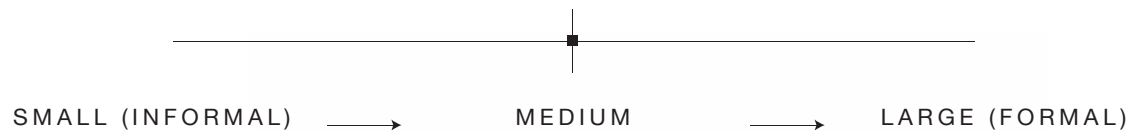
The next strategy for developing the social connector is to develop a space for a social amenity, or shared space (the new public square). One that encourages visitation from non-residents, so these towers can allow the infiltration from the surrounding community. The social amenity's program is flexible, adapting to the specific needs of each tower site, however it must act as an attraction. This is one of the keys to developing the social connector. Spaces designed for recreation or food are typically the most successful at bridging opposing economic demographics. Public spaces programed around food or recreation act as social equalizers, and represent a shared human desire.



Representation of the social amenity



IDENTIFY A RANGE OF SCALE - S,M,L.



Diversify Program

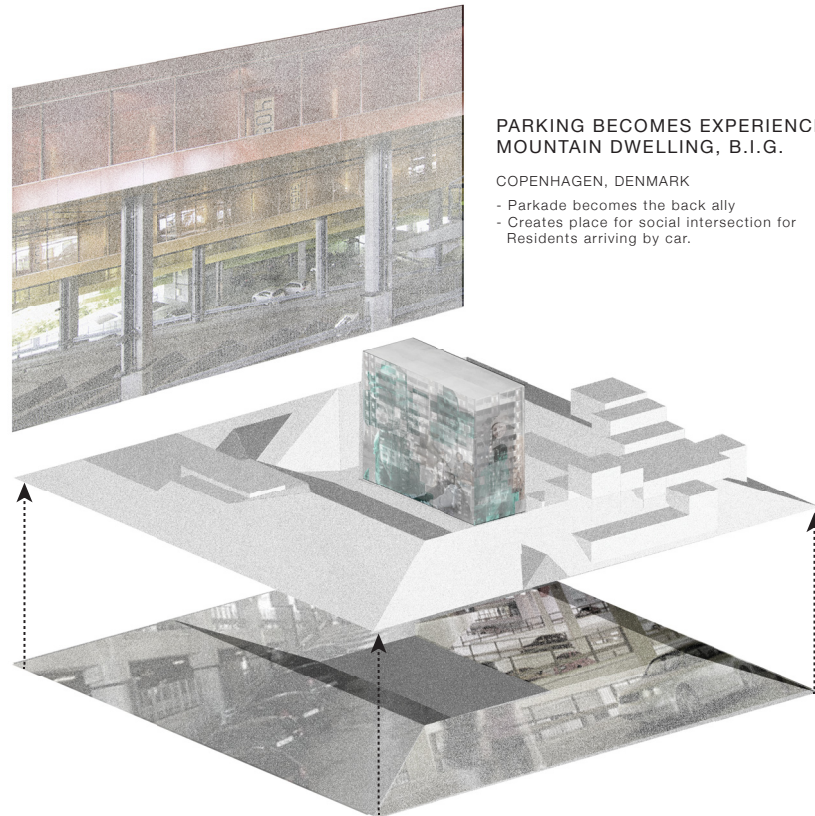
The next ingredient in developing the social connector is a diversified program for the sites. The towers are currently zoned for mono-use, that is, just residential. Removing this restriction would encourage the development of commerce on these sites, allowing them to become more self sufficient, and bridging the gaps between the monolithic shopping centers of the suburban landscape. It is important that these new commercial spaces accommodate commerce at different scales. The informal economy, or market space,

provides access for entrepreneurs, and opportunity for the new arrival to Toronto, in order to fill the economic void that often occurs between arrival and establishment in the transition of arriving to a new country. The gap between arrival of first employment is often much longer than anticipated.

The in-between scale, typically the small business, provides the next stage in encouraging commerce. They also provide the physical volumes necessary from creating a more dynamic street life and an additional attractor for non-tower residents. The largest scale of commerce provides opportunity for major retailers, which lend stability to these micro economies.



Representation of the medium level commerce (small business)



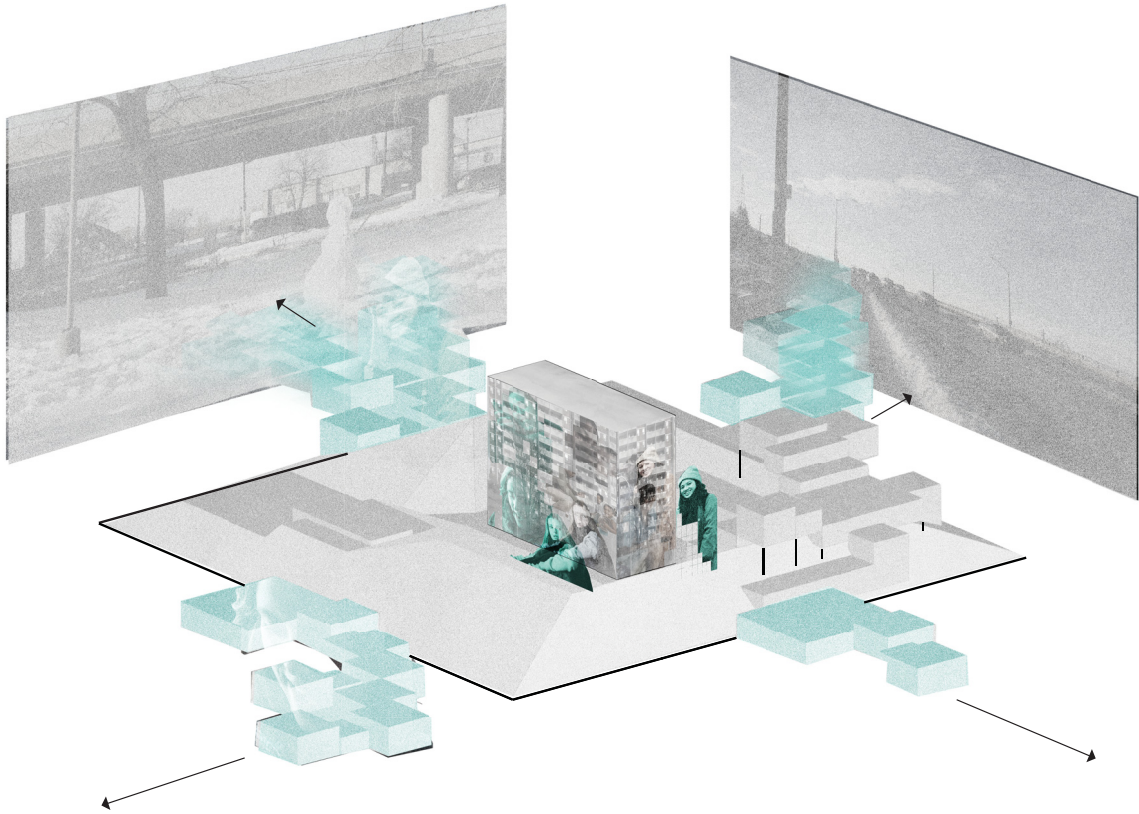
A diagram illustrating a strategy for rethinking infrastructure.

Rethink Infrastructure

The infrastructure required in maintaining these sites, mainly large parking lots, must be reimagined. Relocating these parking fields beneath the newly engaged landscape would remove their burden from the tower sites. In this model, we can develop an alternative to the progression of parkade -elevator - unit model. Providing the resident with a new path through the site, one which encourages the intersection of residents, similar to Unite D’habitation’s spaces for interaction in the social condenser.



Illustration of a new approach to parking.



A diagram illustrating a strategy for addressing the immediate context.

Address Immediate Context

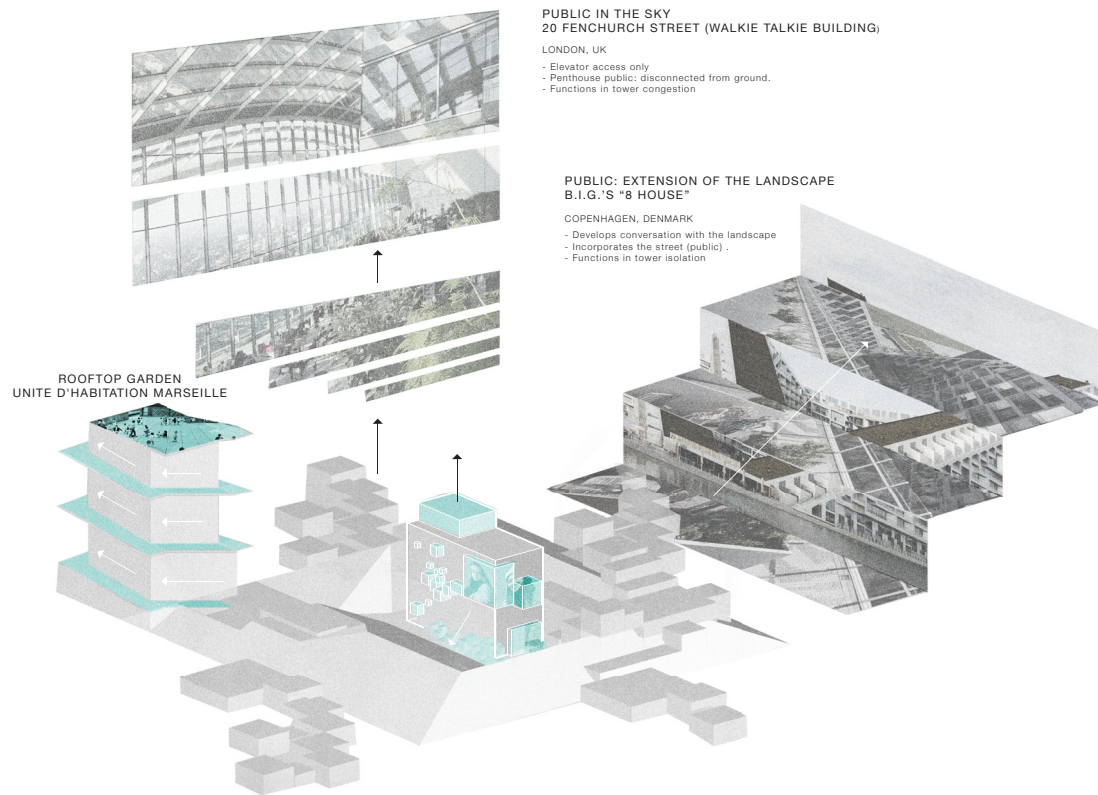
The terrain vague spaces that have been created by these towers have resulted in large voids in the street scape, destroying any possibility for the development of an active street life. To create a more hospitable street the new type must confront the massive motor ways, and instill a sense of calm. The new spaces for commerce can provide this opportunity by dividing these urban voids into more manageable pieces for the pedestrian.



A drawing illustrating a more dynamic street.



A photo showing the current condition of the street.



A diagram illustrating a strategy for engaging the vertical realm.

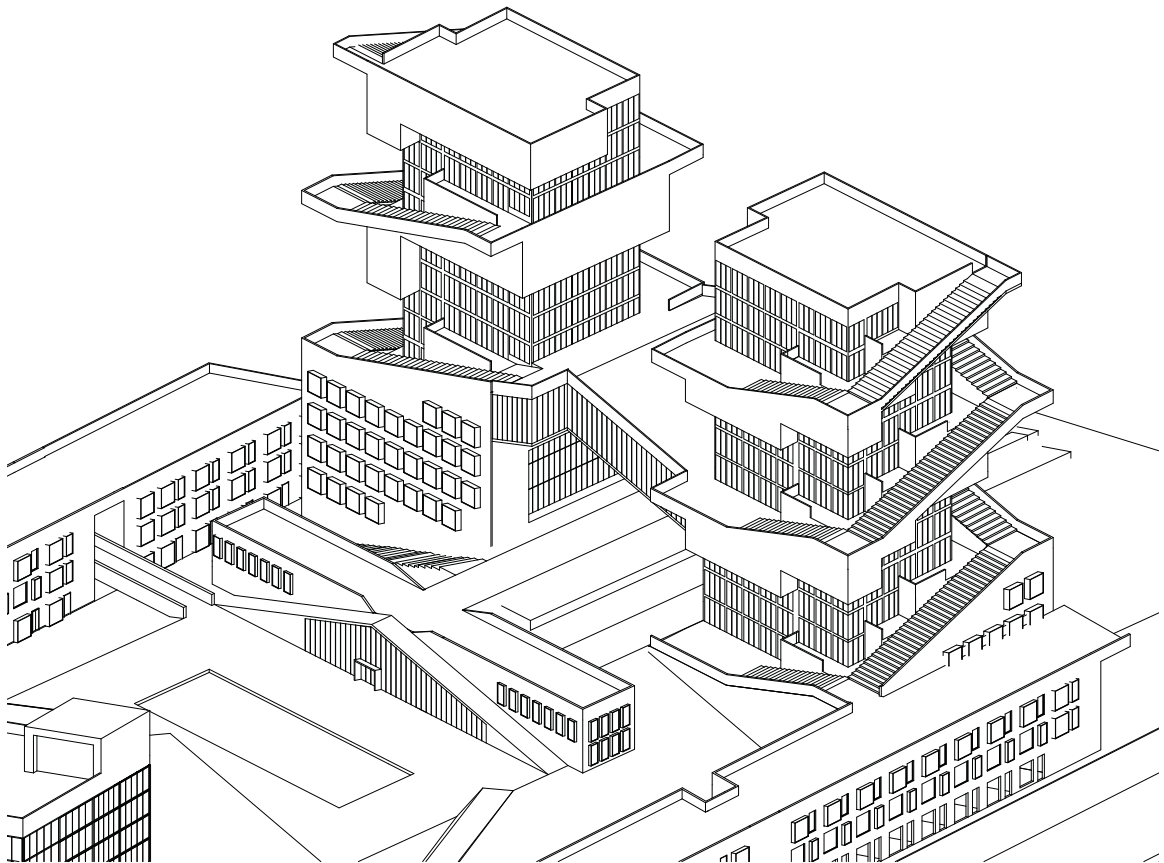
Address the Vertical

Next we look up and address what is in existence but more importantly, rethink what is possible in vertical inhabitation. The existing towers demand an infusion of public space. The public space which was dismissed in the interpretation of this typology's original intention. We can do this using two strategies, the destination, and the journey. The destination is the formal public space, located at the highest point in the project, providing a space for residents and visitors to experience the splendor that this height affords. Second is the journey, a new way of reconnecting the resident with the landscape while providing space for casual social interactions. The towers for living provide an increased density, as well as the opportunity to introduce a new higher income resident to the site. Encouraging a spectrum of income levels could introduce a new perception of these towers from the community.

We now come to the summation of this exploration; a matured tower in the field. The ultimate goal is that the new type that has been defined can spread into the landscape linking these tower sites. Creating a network of more hospitable towers, one which improves its local context, instead of fragmenting it. And one that provides the tower resident a home in the sky which evokes a sense of pride.



Representation of a new view of the field from the tower.



A drawing representing a strategy for engaging the vertical.

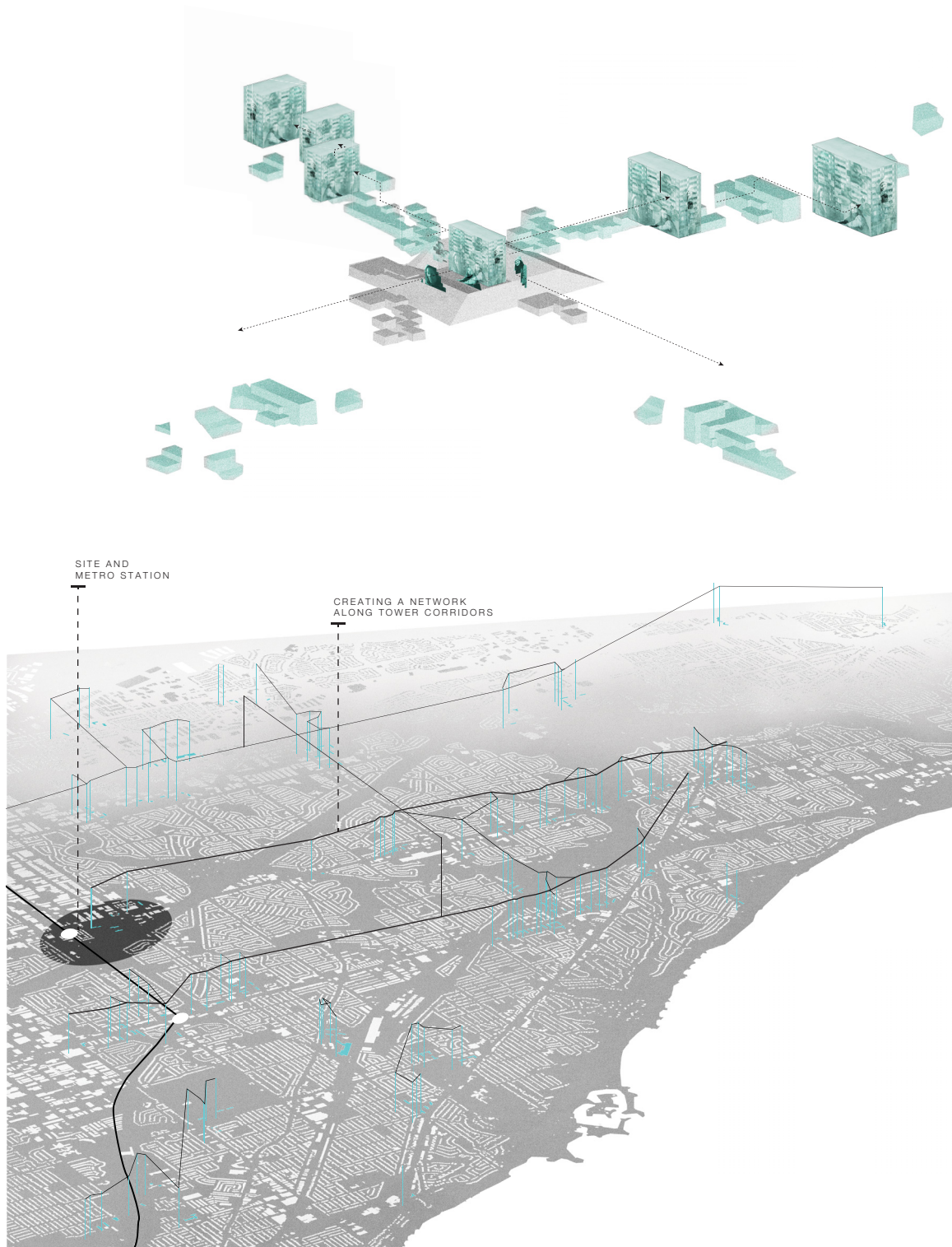
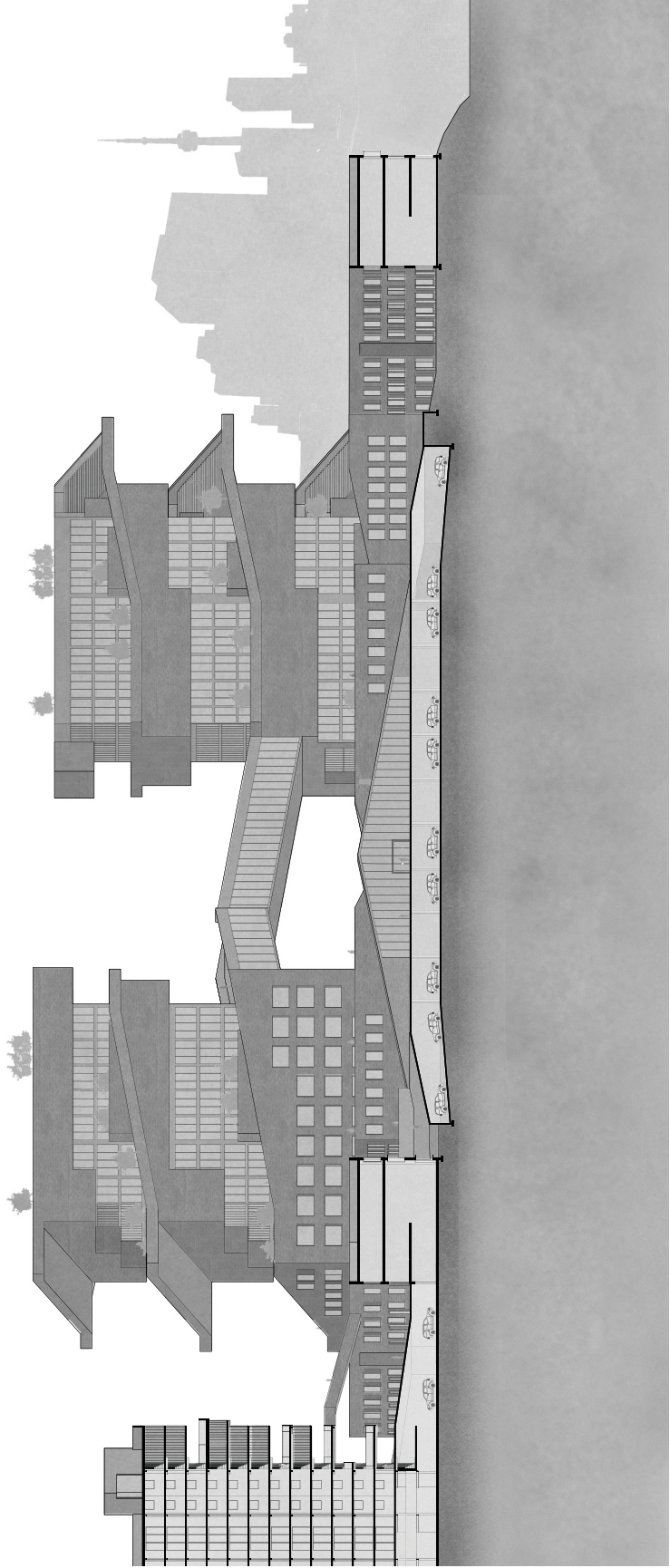


Diagram illustrating the final strategy for the new typology. These strategies can be applied at different tower sites in order to create a network of towers.



Section of site, original scale 1:200

CHAPTER 6: CONCLUSION

The intention of this thesis was to reimagine an existing building typology in order to provide an alternative to its current narrative, which had appeared to be approaching its unfortunate conclusion of complete rejection. The observed state of the towers in this study exist as a relic of a past societal ideology, an ideology of a disconnected state of living, and one that is being shifting away from. This ideology was defined by the rhetoric of modernism, which influenced the shape of the city possibly more than any other period in history. As a product of this movement these tower's influence on the shape of our cities is undeniably significant, thus presenting the justification for their continuation.

As human inhabitation continues to shift towards urban centres, the aging tower presents a tool for increasing density to accommodate urban growth. If city management begins to view these towers as assets for future development of fringe zones, then investment in these sites can be justified as both a fiscal and societal benefit.

I believe in the power of the tower as a integral component for the future of our cities. Developing an appreciation for their positive influence (their ability to accommodate optimum density, and capacity for developing inclusive places for cohabitation) is the only way for these towers to continue their story in the 21st century. Redefining itself as an essential component for future reconsideration of the organization of urban fringe zones.

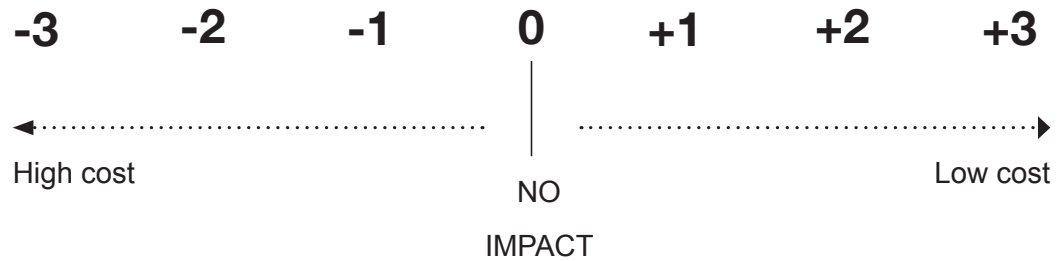
APPENDIX

The following pages are an evaluation of possible facade interventions intended to quantify the best strategy for intervention on the original structures. The three options explored were evaluated using a weighting system that quantifies the impact of each intervention.

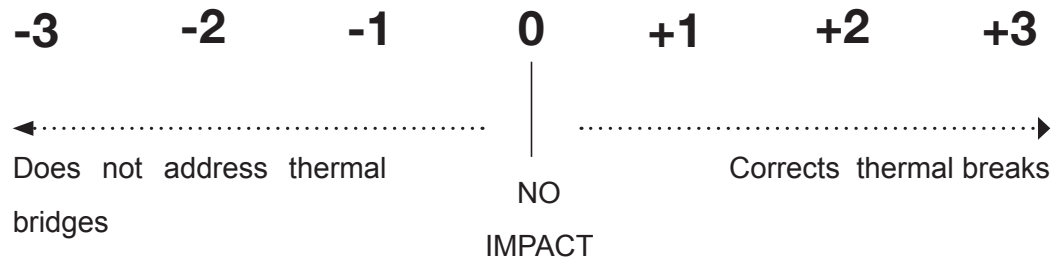
WEIGHTING SYSTEM

Based on 4 pillars of sustainability

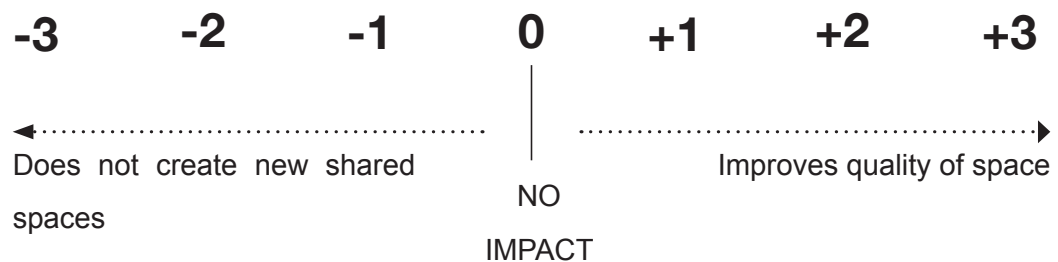
ECONOMIC



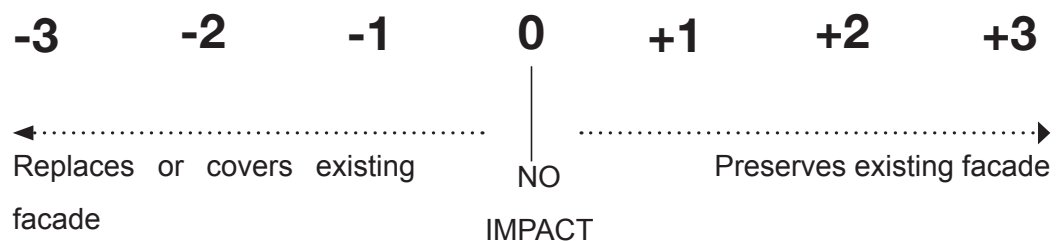
ENVIRONMENTAL



SOCIAL



CULTURAL

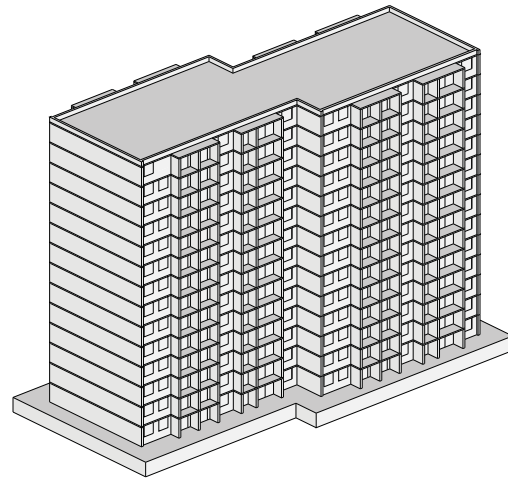


Potential interventions

For each intervention, weight each pillar on a scale of 1-4 to establish the significance of each pillar in respect to the intervention. A higher the rank will determine a greater weight for the system

Example:

1. Economic x 1.6
2. Environmental x 1.4
3. Cultural x 1.2
4. Social x 1



Original structure

Social

- Want to improve quality of interior (light, temperature, air quality)
- Create new social spaces

Cultural

- Assess the significance of original facade (material, construction) to the local identity.

Environmental

- Lower continuity due to excessive thermal breaks.

Economic

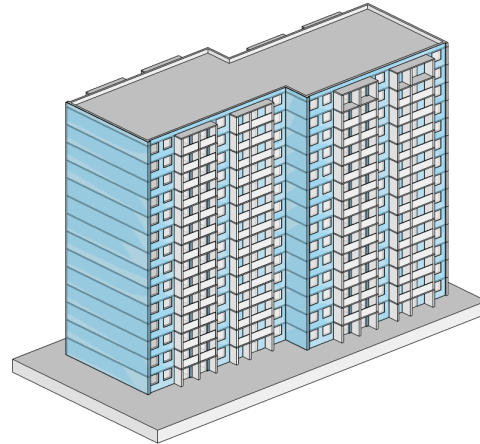
- Want to maintain low rent apartments (minimal intervention)
- Want to improve overall performance of building to reduce operating costs.

OPTION 1.

Apply additional layer of insulation and air barrier to existing facade to lower consumption, and improve internal comfort.

RANKING

1. ECONOMIC
2. ENVIRONMENTAL
3. CULTURAL
4. SOCIAL



OPTION 1. Total impact on sustainability +2.2

Environmental -1 = -1.4

- The addition of a new skin would increase continuity and improve effective r-value at lowest cost. (Maintains low-rent)
- Does not address issue with thermal break of balconies

Economic +3 = 4.8

- Lowest cost to benefit ratio in regards to improving effective r-value.

Social 0 = 0

- Beside improving comfort of thermal atmosphere, there is little social benefit.
- Does not improve quality of interior light.

Cultural -1 = -1.2

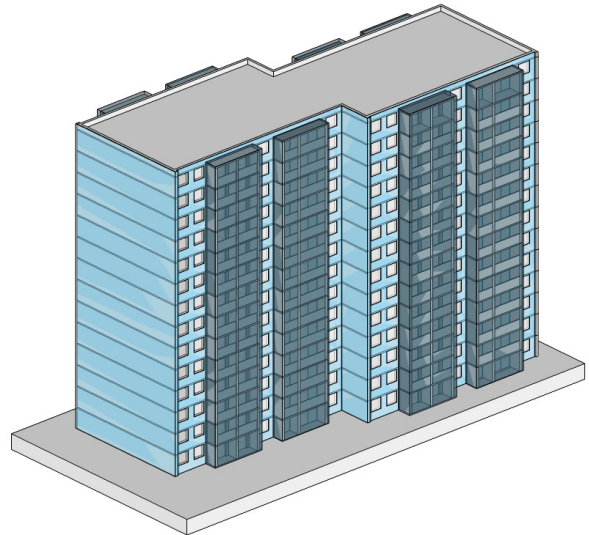
- Removes original material, preventing the appreciation of material's value and cultural significance.

Option 2.

Same approach as option 1, with the addition of a new curtain wall system to inclose existing balconies

RANKING

1. ECONOMIC
2. ENVIRONMENTAL
3. SOCIAL
4. CULTURAL



OPTION 2.

Total impact on sustainability +2.4

Environmental + 3

- Address issue of thermal breaks at balcony, creating a completely continuous thermal barrier.

Social +2

- Improves condition of balcony conditions, adding valuable social space.

Economic -2

- The addition of new glazing to inclose balconies requires the addition of expensive units (windows, or doors) .

Cultural -1

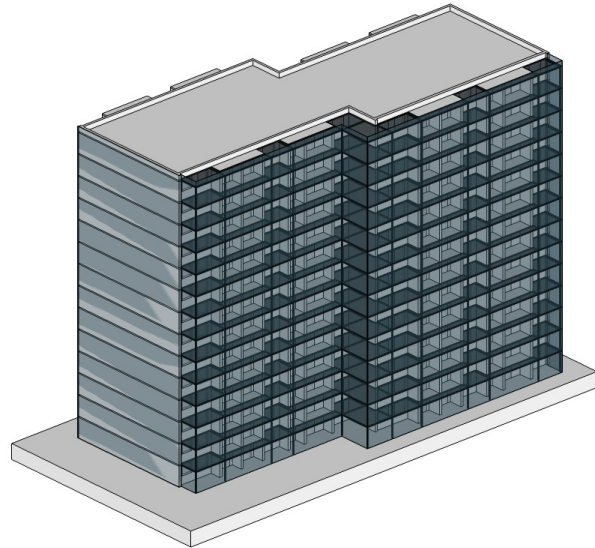
- Removes original material, preventing the appreciation of material's value and cultural significance.

Option 3.

This option will add an exterior steel structure braced on the existing concrete structure. The new structure will create additional square footage to the building, providing opportunity for larger unit sizes and new shared spaces. The new structure will utilize a structural silicone glazed curtain wall.

RANKING

1. SOCIAL
2. CULTURAL
3. ENVIRONMENTAL
4. ECONOMIC



OPTION 3. Total impact on sustainability +8.4

Environmental + 2

- Creates a new continuous barrier while maintains original material
- Requires additional resources (new structure)

Economic -3

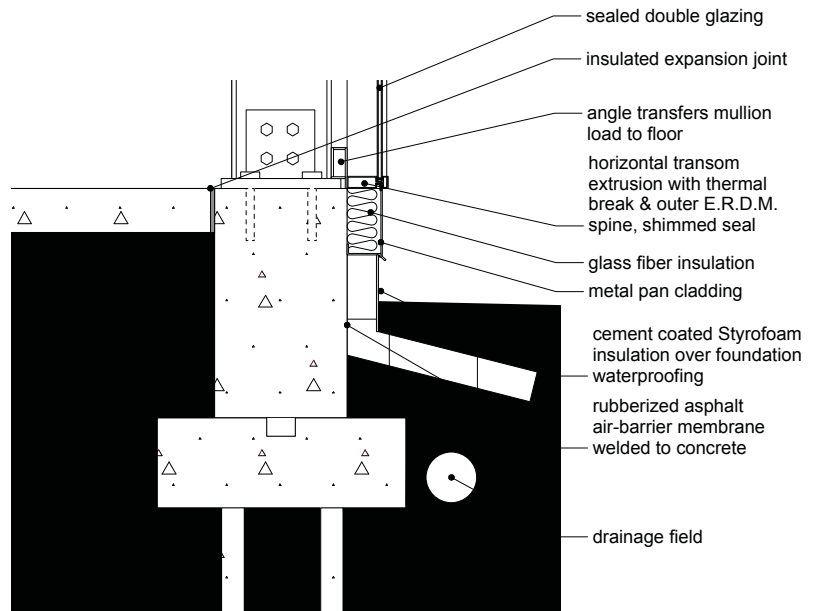
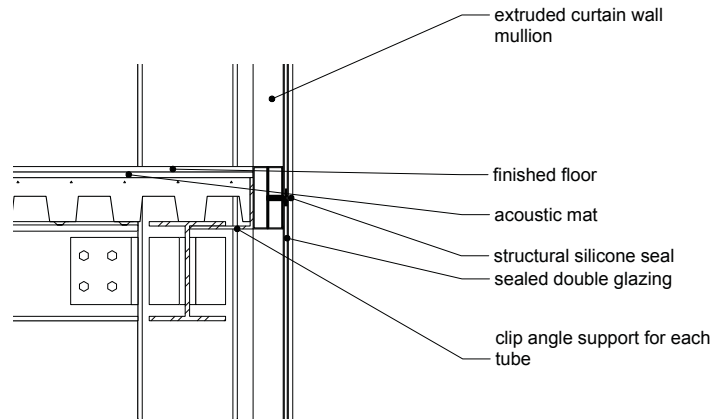
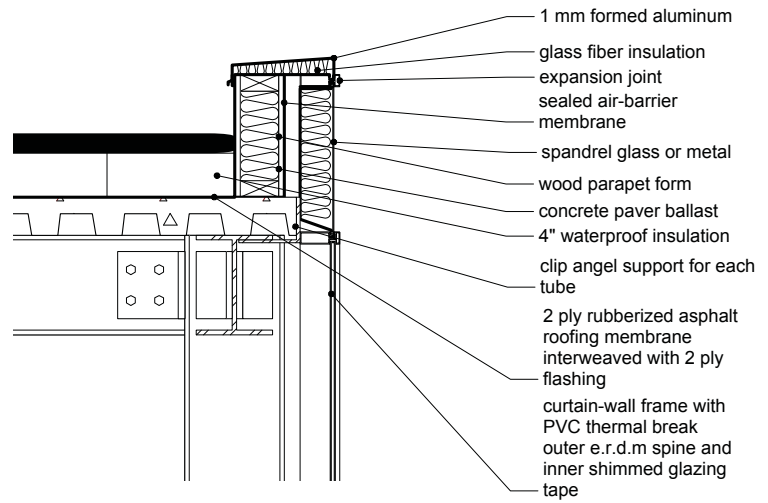
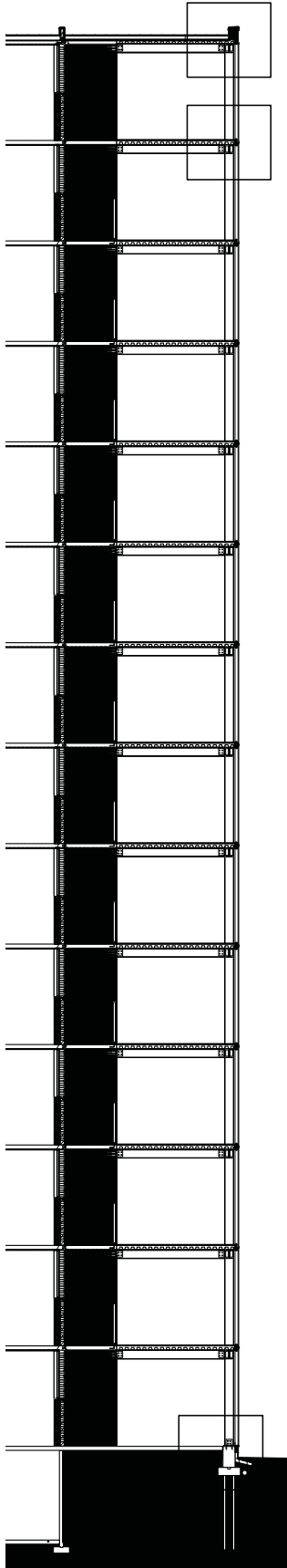
- Significantly higher cost
- Would create economic opportunity for local trades

Social +3

- Would significantly improve the quality of interior space.

Cultural +3

- Would retain, celebrate, and preserve original construction for future appreciation.



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