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Title:

Building Resilience:
Integrating cultural continuity with social infrastructures
to strengthen communities

This Research Paper is submitted in partial fulfillment of the requirements for the Professional Diploma in Architecture with the Royal Architectural Institute of Canada Syllabus Program.

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

This thesis was inspired equally by those who were brave enough to have immigrated, and their descendants, who were brave enough to hold on to something that might not be so clearly a part of them. When people migrate, their physical bodies should not be the only characteristic of themselves that makes the often-difficult journey. People do not see themselves solely by the way that they appear in the physical environment. Part of one's identity is hidden in their values, beliefs, and traditions. This thesis studies how a group of people might prolong their cultural continuity through their built environment, specifically their social infrastructure. This thesis also explores how this approach to forming spaces and using places might encourage resilience within the greater community beyond that with which they call their own. At a broader scale, this thesis looks at how well-designed public spaces could have positive impacts on the overall character of a community, whether that community is defined regionally, by a specific social group, or a combination of the two.

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To the members of a community here in Canada with whom I share the same ethnocultural identity with. Without growing up with all of you within our social group, and associating ourselves with the cultural values, beliefs, and traditions of our ancestors, this thesis would not exist. Thank you to all the friends that I have made along the way.

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Preface

Thesis Assumptions

The resilience of a community is determined by, among other factors, its social infrastructure, the cultural characteristics of its inhabitants and the built environment. Ethnocultural diversity may also contribute to the resilience of communities, particularly in Canada, a country often defined as a cultural mosaic, and a continuous world leader in refugee resettlement (UNHCR, 2023, p. 39).¹

Thesis Problem

I believe that the lack of social infrastructure found in Canada (Ball, 2020), (Caranci, Orlando, & Sondhi, 2023) coupled with the vulnerability of cultural continuity seen in resettlement populations (Harker, 2001) are leading some communities towards a state of homogeneity. The status of these factors may be contributing to the absence of community resilience within many Canadian cities today.

Thesis Objective

The intent of this thesis will be to study how the built environment could integrate social infrastructure to support cultural continuity for a diverse ethnocultural population; and how this approach might inject continual resilience in communities through multiple generations of cultural change.

¹ Canada received the largest number of resettlement arrivals globally from 2018-2022. Resettlement arrivals increased by 133% from 2021 to 2022. Afghans account for 45% of all resettlement arrivals to Canada (21,300), followed by Syrians (7,600), Eritreans (6,100) and Iraqis (2,600).

Useful Thesis Definitions

<i>Community</i>	[social group] – A group of individuals brought together by common characteristics or interests. [locale] – A group, or groups of individuals living within a shared boundary of a larger district such as a neighbourhood, or a city.
<i>Culture</i>	The shared values, beliefs, and traditions of a social group.
<i>Cultural Continuity</i>	The uninterrupted succession of a community's ancestral shared values, beliefs, and traditions over multiple generations.
<i>Cultural Identity</i>	The perceived characteristics of an individual, or a social group, and what defines them as who they are.
<i>Diversity</i>	[social group] – A neighbourhood made up of different ethnocultural communities. [locale] – A characteristic of being composed of differing programmed elements, such as varied social infrastructures, commercial and residential spaces
<i>Dynamism</i>	The quality of being characterized by vigorous activity and progress; the quality of being dynamic and positive.
<i>Ethnoculture</i>	A term for relating to a person, or group of people's ethnicity and culture, either present or past (ancestral).
<i>Ethnoarchitecture</i>	[neologism] – the study of how architectural principles, designs, and structures interplay with and reflect various cultural identities and practices.
<i>Infrastructure</i>	A required resource that supports an activity.
<i>Resilience</i>	Having vitality, toughness, and the ability to withstand or recover quickly.
<i>Social Infrastructure</i>	Facilities, spaces, and places that are equally public, and prompt social connections. ^{2 3}
<i>Sociality</i>	An instance of social intercourse, or the ability to create a tendency to associate in social groups.

2 Examples of social infrastructure include libraries, playgrounds, and parks among others (Klinenberg, 2019, p. 16).

3 (Latham & Layton, 2019, p. 3).

Thesis Scope

The literary research scope of this thesis embodies the study of community resilience, cultural continuity – with a specific focus on ethnocultures – and social infrastructure, in addition to related research and analysis pertaining to the built environment. The geographic scope of this thesis focuses on personal experiences had within Canada and globally. Case studies and precedents will be applied from local, national, and international exemplars. As a follow-up to the thesis research paper, a future design project (RAIC690B) will be proposed for a yet to be determined site in London, Ontario.

The goal of this research paper is not to prescribe an objective measurement system for defining community resilience. There are simply too many elements that impact a community's resilience to be covered within a reasonable timeframe,⁴ and creating an objective measuring tool has not been proven to be feasible. Instead, this thesis will use a select group of known elements that Matarrita-Cascante et al. (2017) have outlined as defining factors of community resilience to analyze levels of resilience within existing communities.⁵ The elements that will be selected for this study all relate to the two supporting factors presented in Figure 1.

⁴ Through my preliminary research I came across several detail-level secondary ideas that characterized the assumed supporting factors of social infrastructure and cultural continuity. Some of these secondary ideas included ethnocultural diversity, the collective memory of a city, and the accessibility of shared spaces within a neighbourhood.

⁵ See Part 1: The Collected Research: Community Resilience.

Methodology

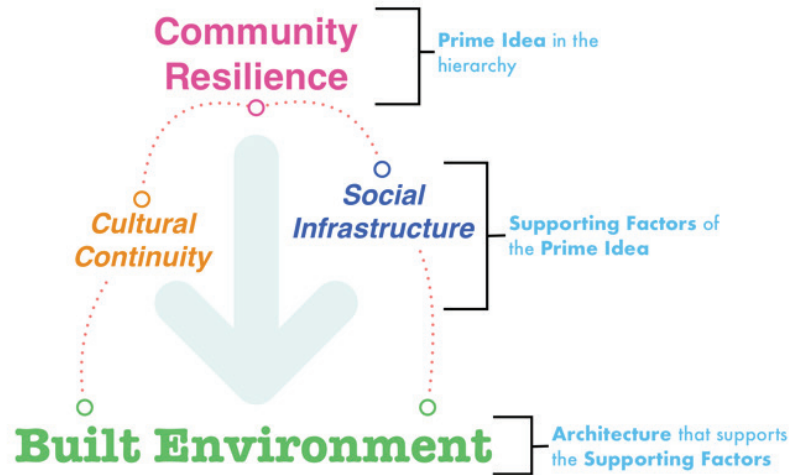


Figure 1 Structuring of Ideas for Building Resilience, diagram

The methodology for this thesis research paper is segmented into three parts: the collected research, the analysis, and the closing observations. The collected research part of this thesis contains the central exploration of existing concepts as they relate to community resilience, social infrastructure, and cultural continuity. An analysis of the literature and theory review will uncover strengths and weaknesses in the current understanding of the prime idea and two of its assumed supporting factors selected for this study. Afterwards, I will examine the findings of this research to separate topics for further discussion.

The analysis part of this thesis consists of historical and critical analysis of communities within London, Ontario, throughout Canada, and abroad. The analysis will focus predominantly on aspects of the prime idea and the two assumed supporting factors. Through in-depth analysis, I will catalogue common characteristics between community resilience, social infrastructure, and cultural continuity. These commonalities will establish a set of ‘fundamental elements’ that are deemed to be highly supportive towards the character of community resilience. I will be referencing previously understood characteristics and new characteristics derived from my synthesized research, with a pre-architectural analysis in mind.

By assessing the fundamental elements of community resilience, social infrastructure, and cultural continuity, a set of design criteria will be established. I will then examine what role the built environment has within each of these elements as it relates to the design criteria, through the application of an architectural analysis. This analysis will determine ways in which the built environment might either help or harm the resilience of a community. The analysis will also explore how a city has changed over time, its current state, and how a city is projected to change in the future.⁶ The outcome of the analysis will build from the synthesis of the literature review to establish exemplar architectural relevancies. A list of architectural elements that incorporate aspects that integrate the supporting factors into a built environment will be established.

The final part of this paper discusses the impact of this thesis through a review of my provisional findings and three observations that arose from the resulting research, synthesis, and analysis. A proposed program follows, embarking on making a link between the prime idea of community resilience and the built environment, by connecting the two supporting factors of social infrastructure and cultural continuity. Upon completion of the research paper, I plan to propose an architectural intervention to a vulnerable community within London, Ontario, in the hope of fostering a sense of resilience; something all too commonly absent within the greater City today.

6 A secondary idea to cultural continuity is the collective memory of a place, something architect Aldo Rossi defines as the ‘soul of a city’. As the cultural identity of a community changes, the collective memory of the place develops; “[The] city itself is the collective memory of its people, and like memory, it is associated with objects and places,” (Rossi, 1988, p. 130).

Introduction



Figure 2 *Rural Proximity, diagram*

I grew up on a 3.0-kilometre stretch of country road in a rural district outside of London, Ontario. My closest neighbours were approximately 200 meters to the south and west. Every house was – by the municipal by-law’s definition – considered a *farmhouse*; a single-family home street-facing and forward-set on a large rectangular plot of farmland. Although the houses were set on plots of farmland, only one resident on the street truly *farmed* the land. The other residents shared their land with the farmer in exchange for a small lump-sum payment every year. This relationship with the farmer the landowners was symbiotic and, in my opinion, represented an image of a community.



Figure 3 *A view from my childhood home looking across the street, 2015*

Despite the relatively remote proximity between houses, everybody on my street knew one another. There was a total of 13 houses on the 3.0-kilometre stretch of road that I grew up on. The activity on this 80 km/hr, speed-ridden street varied. The children who grew up on my street including my older brother would walk to one another’s homes unsupervised (and without the luxury of a sidewalk), sharing amenities such as pools, hoses for drinking water, sports equipment for playing, and later in my youth, video games as well as simple access to the internet. As children growing up in a rural community our shared communal spaces were

intrinsically public and private. Each of our parents' homes – and the resources they provided us – were representative of social infrastructures.

However, the social group that I identified most with had little to do with regional adjacencies. Rather, this social group held its ties through a common ethnocultural identity. The social infrastructures that supported this specific social group were very private, but that did not matter to me at the time. These social infrastructures aided in establishing long-lasting connections that still hold true to this day, and for many members of this ethnocultural social group, the programming of these spaces and the relationships that were formed through their programming have helped define a social identity for its community members.

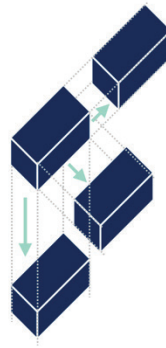


Figure 4 *Urban Proximity, diagram*

I spent my early adult life in a six-storey apartment building in the ByWard Market, an urban neighbourhood of Ottawa, Ontario. I lived 2.4 meters above one neighbour, 2.4 meters adjacent to another, and 2.4 meters across the corridor from a third. This was a typical low-rise multi-unit apartment building with 56 units set up along a double loaded corridor that also contained a single shared amenity space – the laundry room. To the detriment of all the tenants, this room was located in the windowless basement.

Nobody knew anybody. If ever it appeared that there was a connection between two tenants, it was always based on the distrust of one another. You would be hard-pressed to loan your laundry detergent to a tenant who had just moved in; after all, did they even live there, or was the request for detergent part of an ulterior motive? Shared spaces were uncomfortable when filled with your neighbours, and private spaces were as mysterious as the tenants who resided in them; heavily guarded by solid wood doors with peep holes and multiple deadbolts.



Figure 5 *My first home in Ottawa, a three-storey heritage apartment building with living experiences not unlike the story of my second apartment in Ottawa, 2015*

The song lyrics, “My name is Luka... I live on the second floor... I live upstairs from you... Yes, I think you’ve seen me before... If you hear something late at night... Some kind of trouble, some kind of fight... Just don’t ask me what it was,” reflect what is all too common in traditional multi-unit housing; community without a *communal* connection (Vega, 1987). Living in these conditions, I felt as though I had no clear connection to a particular social group and felt somewhat absent of a social identity.

My personal experiences with these highly contrasted community settings led me to embark on the research problem identified in the Preface section of this thesis research paper. Having felt that I’ve always been a part of a community independent of my neighbourhood’s characteristics, an ethnocultural identity has continually played an important role in my life. The resilience of this community that I identify most with is deteriorating, however, the buildings that were built to host the traditional activities of this community appear robust and intact, unaffected by the demise of their current program, and strong enough to survive for the next group of occupants to engage and make use of their spaces.

It is my belief that a neighbourhood’s desirability is characterized foremost by the resilience of its communities. Resilience is defined as having vitality, toughness, and the ability to withstand or recover quickly, among other descriptors. The field of social infrastructure

is increasingly being recognized as an important element that helps to define a community's resilience, as well as a prominent subcategory of architecture that contributes to the public life of cities (Klinenberg, 2019). The availability and accessibility of social infrastructure plays an important role in sustaining a community's resilience (Ball, 2020; Caranci, Orlando, & Sondhi, 2023), along with more traditional elements such as the shared values, beliefs, and traditions of the inhabitants (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

Some of these traditional elements are changing rapidly for specific groups of people – immigrants and refugees – who have uprooted from their homeland and now residing in Canada, find themselves in a diverse ethnocultural environment. As a *cultural mosaic*, Canada's own definition of culture is constantly evolving. Often, immigrants of similar countries migrate to cities with established ethnocultural communities.⁷

All immigrants are inherently seeking to become members of a community. Those ethnocultural communities that have amassed a large enough population, have supported their cultural traditions by creating community spaces – often built structures – to practice their customary beliefs and social forms together. The built environment is one of many aspects of social infrastructure, and perhaps, the most tangible. Unfortunately for these immigrants, their traditional cultural practices appear to deteriorate by the second or third generation of descendants (Pew Research Center, 2013).⁸ The decline of an ancestral culture is seemingly inevitable, but, what about their physical buildings, or the communities that are fostered through them?

All immigrants are inherently in search of a new home. Immigrants face countless new challenges in Canada,⁹ most notable in today's economy, securing a safe place for living and

7 Among many resources listed within this paper, a quote from sociologist Ray Oldenburg characterizes this statement best, “The various ethnic groups that came to America characteristically banded together in communities of mutual assistance in order to survive and become established in the new land,” (Oldenburg, 1999, p. 272).

8 Based on two separate surveys conducted in 2011 & 2012; Around 30% of landed immigrants of Hispanic and Asian decent identified as ‘American’, while their descendants (second generation) exceeded 60%.

9 The IRCC Annual Report to Parliament on Immigration provides key highlights and related information on immigration to Canada. The report also recounts the successes and challenges in welcoming newcomers to

raising their families (Fonberg & Schellenberg, 2019). Canada's housing market is currently structured in a way that inheritance has become the likeliest model for homeownership (Mirdamadi & Khalid, 2023), while some have labeled Canada's current housing model as replicating a 'Victorian-Era inheritance culture' (Better Dwelling, 2023). How attainable is homeownership for immigrants, refugees, and their descendants within Canada's current housing structure? What impact does achieving homeownership have on the resilience of a community, or the continuity of a culture?

In Canada, those communities that appear the strongest and most resilient also appear to be the most culturally diverse. Conversely, those communities that appear the weakest, with deteriorating resilience also appear to be the most culturally homogeneous. With over 1.3 million immigrants moved to Canada since 2016, and the immigrant population of Canada exceeding 23% (Statistics Canada, 2023), I believe that the level of ethnocultural diversity within a community is a key contributor to characterizing the community's resilience and reinforcing Canada's cultural identity. I believe the resilience of ethnocultural social groups in Canada play a direct and important role in determining the resilience of physical neighbourhoods through their collective and active engagement within the greater community. Without resilient social groups (such as the various ethnocultural social groups seen in Canada), I believe the overall resilience of a neighbourhood is weakened.

What is resilience meant to mitigate against? Social and physical communities face many different challenges. Social communities often struggle with cultural assimilation, social isolation, and xenophobia. Physical communities struggle with climate change, health pandemics, housing and real estate costs, and so on. For the purposes of this thesis, resilience will be treated as something that mitigates against the broad spectrum of challenges both social and physical communities may face. The intent of this thesis will be to study how the built environment could integrate social infrastructure to support cultural continuity for a diverse ethnocultural population; and how this approach might inject continual resilience in communities through multiple generations of cultural change.

Canada. See IRCC. (2023). *2023 Annual Report to Parliament on Immigration*. Immigration, Refugees and Citizenship Canada. Cat. No. Ci1E-PDF. ISSN 1706-3329. IRCC 3545-10-2023.

Part 1: The Collected Research

Literature and Theory Review

The literary research scope of this thesis embodies the study of community resilience, cultural continuity – with a specific focus on ethnocultures – and social infrastructure, in addition to related research and analysis pertaining to the built environment. Supplementary to each literary resource is a graphic made up of up to four rings, signifying which main ideas of this thesis were referenced or discussed within the resource.

The following works were a useful resource for this thesis; however, they were found to be lacking in commentary pertaining to the ideas of cultural continuity, social infrastructure, or the built environment as supporting factors of community resilience.

Shahal Ahmed

Beyond an Eyesore: Re-Imagining Scarborough's Strip Malls as a Network of Public Spaces (2021)

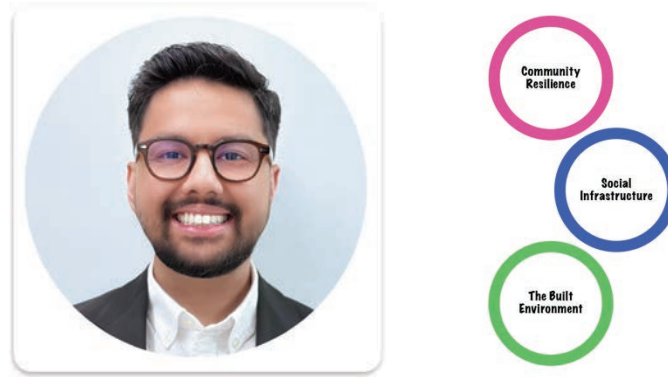


Figure 6 Portrait of Shahal Ahmed (Ahmed, n.d.)

In this thesis, Shahal Ahmed examines the idea that prototypical strip malls are the lifeblood of a pluralistic society in Scarborough, Ontario. The author presents the existing situation of strip malls in this community, a proposed situation with an emphasis on pedestrianism, and a future situation where these prototypical spaces form a connected network to promote gathering for daily use and events. Ahmed believes that the reinvention of prototypical strip malls can create better activity hubs within Scarborough, a district of Toronto, Ontario. The current primary tenants of strip malls within this city are run by first- and second-generation immigrants with various ethnocultural backgrounds.

Ahmed believes the strip mall, though currently poor in its design, is technically a social infrastructure. The drawback is that these places are car centric. Ahmed proposes architectural interventions that would create what he calls 'hubs'; blending two or more separate strip malls together to allow for better small-scale circulation between the various storefronts within a strip, and even across the busy vehicular throughfare of Lawrence Avenue. Ahmed's proposal for a piazza to take up most of the parking space that fronts the busy street adds a layer of pedestrianism to the primarily vehicular urban context. The integration of community space is key, since social infrastructure is in its best form, public space.

This thesis addresses the importance of community resilience built from a pluralistic social infrastructure network that is the run-of-the-mill strip mall – when proposed alterations are made to its built form. Ahmed’s objective in his thesis to inject vibrancy within a community through a series of unique interventions to a standardized building typology is aspirational but does not apply any emphasis to cultural continuity or diversity in social infrastructures, focusing primarily on places of commerce – something that will later be discussed as one of a variety of social infrastructure categories.

Doug Saunders

Arrival City: The Final Migration and Our Next World (2011)

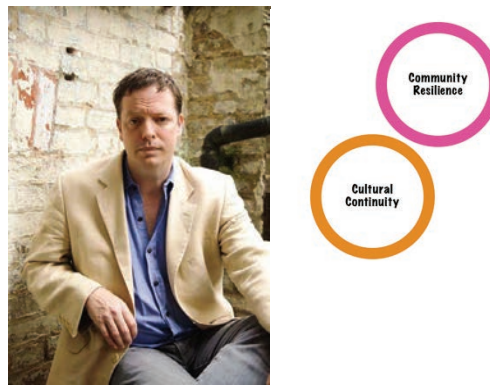


Figure 7 *Portrait of Doug Saunders (Worth, n.d.)*

In his book titled *Arrival City: The Final Migration and Our Next World*, author Doug Saunders identifies the spaces between rural and urban centers as the *arrival cities*; transitional spaces and places where he believes the next great economic and cultural boom will rise, or quite possibly where a ‘great explosion’ of violence will occur, dependent on our ability as a society to engage with the arrival cities (Saunders, 2011, p. 3). Saunders says that arrival cities are found all over the world. They are often known for other, more demeaning names, such as slums, shantytowns, or urban villages. Arrival cities are also the immigrant neighbourhoods of the world, ethnic districts such as Chinatowns, Little Indias, and the like. The author coins the term *arrival city* in attempt to unite these places because he feels that the common names used to describe these neighbourhoods misrepresents their dynamic nature and their role as transitional environments for the migrating population (Saunders, 2011, pp. 18-9). If amply supplied with

appropriate social infrastructures, Saunders argues that arrival cities devote themselves to “... establishing a homeostatic relationship between village and city,” (Saunders, 2011, p. 29).

Social infrastructures are not studied within this book although it appears that the author has some awareness of their functions in creating communities that promote inclusion among mixed ethnocultural neighbourhoods. Another take-away from this reading is that it should not be looked at as a damaging trait that second- or third-generation immigrants disconnect from their ancestral heritage, but rather as a part of the process of the world in which we live in today. This part of the process is a sign of progress for individuals, but it does not show progress for a culture, and surely it can only harm the resilience of a community without there being any plan in place for this radical change in any given neighbourhood, or *arrival city*. As Jacobs warned us about, high turn-over rates will impact the neighbourhood in harmful ways (Jacobs, 1992).

The following expansive works have helped develop my understanding of the current situation and how the two supporting factors, along with the built environment, individually relate to community resilience. The objective was to identify the important ideas in each of these works as they relate to the prime idea and supporting factors of this thesis, and to apply them collectively through a set of programmatic elements and design criteria for an envisioned work.

Stewart Brand

How Buildings Learn: What happens after they're built (1995)



Figure 8 *Portrait of Stewart Brand (Michel, 2020)*

“Grand, final-solution buildings obsolesce and have to be torn down because they were too [over specified] to their original purpose to adapt easily to anything else,” (Brand, 1995, p. 28).

Author Stewart Brand discusses plenty of intriguing topics in *How Buildings Learn* (1995), ranging from his review of Frank Duffy’s analytical breakdown of the standard building systems, to building maintenance and the dissecting of vernacular architecture. Brand believes that architects are at fault for solving the current problems presented to them with singular solutions, rather than loose solutions that allow more flexibility for the great unknown, the future use of a building (Brand, 1995). “A building is not something you finish,” writes Brand, “[it] is something you start,” (Brand, 1995, p. 188). The important take-away that has been referenced for this thesis is Brand’s notion of ‘Low-Road’ and ‘High-Road’ buildings. Brand’s review of these two building categories, as defined by the author, sheds light on the potential for a prosperous ‘second life’ of buildings if they are designed to meet the forecasted needs of future users.¹⁰

Brand’s observational criticism of High-Road buildings aptly applies to the current state of highly use-specific ethnocultural community buildings seen within London, Ontario, and across North America. The end-result is not promising, as I have witnessed the closure of

¹⁰ See Chapter 3: “Nobody Cares What You Do In There”: The Low Road (Brand, 1995).

numerous formerly prominent cultural centers in London since my childhood. I now fear that the ethnocultural community which I am a part of will soon see its buildings be turned over to new ownership as well, and more than likely be destroyed.

The upsetting realization in Brand's telling of the High-Road buildings is that good infrastructure is being prematurely destroyed. If observing this through the lens of cultural continuity, the design of the building may be a factor in the demise of the ethnocultural community that founded the building to begin with. Focusing on the initiative to create a Low-Road building that is host to ethnocultural activity may or may not strengthen the cultural continuity of a community – something to be studied within the analysis of this thesis – but it will surely provide a greater opportunity for the building to have a second life for the next user groups to follow, and hopefully result in continued community resilience.

Jan Gehl

Life Between Buildings: Using Public Space (2011)

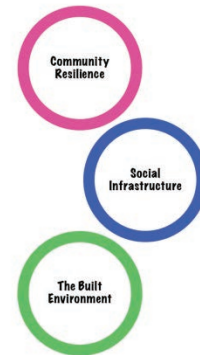


Figure 9 Portrait of Jan Gehl (Henningsson, n.d.)

“If children can see the street or playground from their homes, they also can follow what is happening and see who is outside playing. They are more often motivated to go out and play,” (Gehl, 2011, p. 113).

In *Life Between Buildings*, architect Jan Gehl discusses the significance of quality urban outdoor public spaces that allow designers to create better places for the inhabitants. Gehl examines what measures equate to good public spaces by breaking them down into subcategories of necessary, optional, and social activities. Gehl expands on this examination further by reviewing the relationship between the adjoining buildings and the outdoor spaces (Gehl, 2011).

Gehl also discusses the importance of assembly in public space. He touches on ideas of invitation, integration, and segregation, among other characteristics of design for encouraging (or discouraging) assembly. As it applies to this thesis, Gehl’s rhetoric on assembly ties in greatly to the idea of social infrastructure being a supporting factor for community resilience.

Jane Jacobs

The Death and Life of Great American Cities (1961)

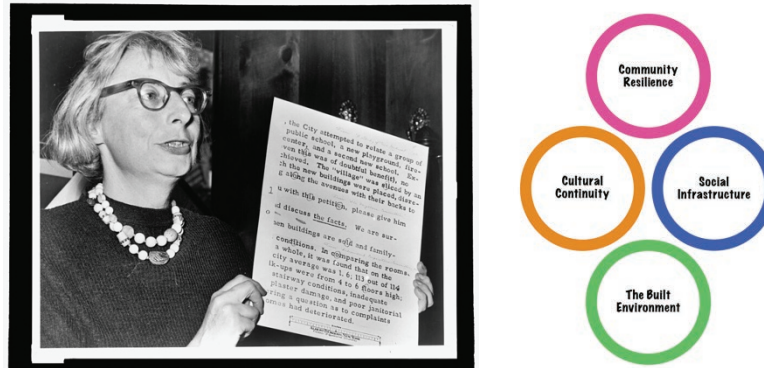


Figure 10 Jane Jacobs at a press conference (Stanziola, 1961)

“You can’t make people use streets they have no reason to use. You can’t make people watch streets they do not want to watch,” (Jacobs, 1992, p. 36).

Jane Jacobs’ famous commentary on the state of urban development in America is an excellent resource for a critical review of the state of urbanism in the 1960s, and still holds true in many ways today. There is some nostalgia within the writings of *The Death and Life of Great American Cities* (1961), as our society has changed in many ways since the days when this book was written. Safety is Jacobs’ primary concern, as she begins with discussions on the use of sidewalks, starting with safety. “A well-used city street is apt to be a safe street. A deserted city street is apt to be unsafe,” Jacobs writes (Jacobs, 1992, p. 34). Learning from Jacobs remarks on safety, a private park or an interior courtyard does little to satisfy the air of safety within a neighbourhood. Private parks may be aesthetically pleasing, but they do not translate to adequate social infrastructures. Jacobs also discusses the importance of diversity of use-spaces, something that ties into the ideas of good neighbourhood design through planning for diversity in social infrastructures.

Eric Klinenberg

Palaces for the People (2019)



Figure 11 Portrait of Eric Klinenberg (Klinenberg, n.d.)

“The openness and diversity that flourishes in neighbourhood libraries was once a hallmark of urban culture; in fact, the most influential theories about what makes city life culturally distinctive emphasize the pleasures as well as the challenges of dealing with difference on a daily basis,” (Klinenberg, 2019, p. 46).

Social Sciences professor Eric Klinenberg’s book suggests a way we as humans can move forward beyond a life filled with racial, religious, and cultural lines. Klinenberg believes that these figurative lines drawn by today’s society are polarizing the United States in such an extreme way not seen since the Civil War. The author believes that a better future entails a society that relies not only on shared values, but shared spaces. In this book, Klinenberg shows how social infrastructure is helping to solve some of the most pressing societal challenges today. Klinenberg argues that the rise of people living alone is one of the most significant demographic changes in modern history. Klinenberg believes that one solution to this problem could be to invest in social infrastructure by building places that promote active lifestyles and public interactions (Klinenberg, 2019, p. 134).

Building from Klinenberg’s arguments, I believe that social infrastructure could bridge a generational gap and promote public interaction between youth and elderly inhabitants, thus spreading knowledge and potentially the continuity of cultural traditions.

Alan Latham & Jack Layton

Social infrastructure and the public life of cities: Studying urban sociality and public spaces (2019)

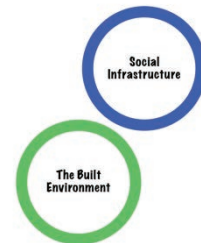


Figure 12 Portrait of Alan Latham (Latham, n.d.)

Figure 13 Portrait of Jack Layton (Layton, n.d.)

“Social infrastructure involves thinking about different kinds of facilities necessary for cities to function as social spaces,” (Latham & Layton, 2019, p. 4).

Building off sociologist Eric Klinenberg’s arguments in *Palaces for the People* (2019), authors Alan Latham & Jack Layton develop the concept of ‘social infrastructure’ by proposing four related threads of social scientific inquiry: work on infrastructure; publicness and public space; sociality and encounter; and the politics of provision. Latham & Layton’s report argues for the further study of social infrastructure. What makes a good City? A complex question with undoubtedly a complex answer. Latham & Layton believe that, “...places where it is possible to make connections with other people, even be part of a community...[as well as] collective public character,” play a formative role in answering the question (Latham & Layton, 2019, pp. 1-2).

The field of social sciences have advanced the definition of ‘infrastructure’, a term that Latham & Layton identify as appropriate to their field of study, seeing as it implies a functioning of systems in the background used to support an activity as the focal point (2019, p. 3). Latham and Layton believe that public spaces need to engage people from different social backgrounds to go about their day freely, without boundaries. They should address an audience and engage them to participate in a common public dialog about the community. The idea of publicness, as Latham & Layton sum up, is multidimensional (2019, p. 4).

This report stresses the importance of diversity, sharing of social infrastructures, and active participation among a wide range of community members within any given neighborhood. For these reasons, among others, this report has become a vital resource for this thesis.

David Matarrita-Cascante et al.

Conceptualizing community resilience: Revisiting conceptual distinctions (2019)



Figure 14 *Portrait of David Matarrita-Cascante (Matarrita-Cascante D. , n.d.)*

In this report, David Matarrita-Cascante et al. examine what defines community resilience, as the concept has had various interpretations in recent years, in part due to its trendiness in academic circles. The authors believe community resilience has been misused/ confused with other ‘notions’ of community and their report aims to clearly define community resilience by reviewing and contrasting the term with other concepts of a community’s character.

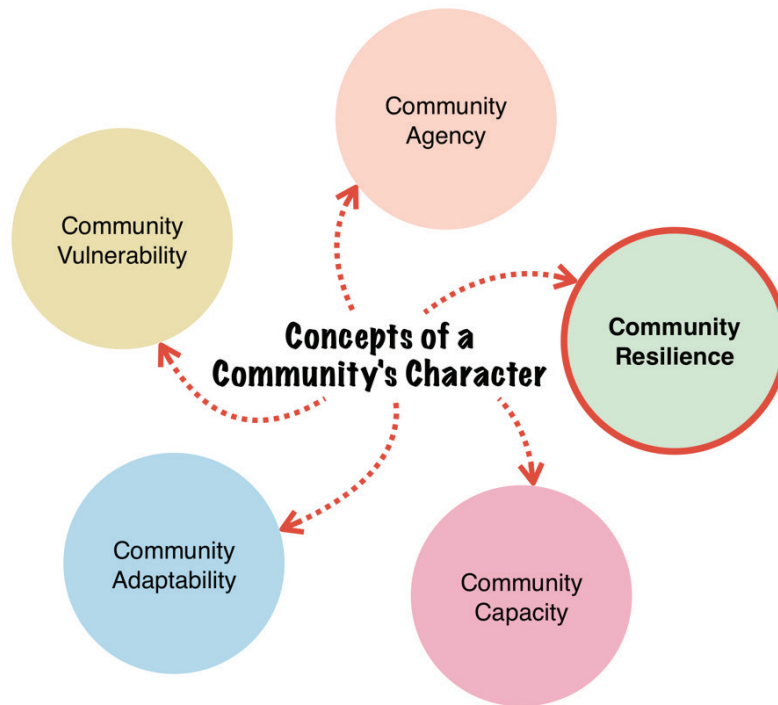


Figure 15 *Concepts of a Community's Character as listed by Matarrita-Cascante et al. (2017)*

In reading through this report, one issue could not be ignored: one cannot deem a community to be successful without considering all the defining concepts of the community's character. Community resilience is the primary concept of a community's character that I focused on in research, as it aptly applied to this thesis. That said, the four other concepts were also studied as it was learned during thorough research that the overall character of a community was weakened significantly without a homeostatic balance between each of these concepts. Matarrita-Cascante et al.'s report was used as a resource predominantly for the concept of community resilience and its defining factors.

Ray Oldenburg

The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community (1999)

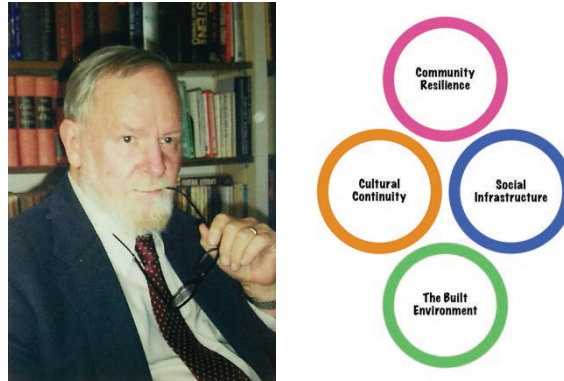


Figure 16 Portrait of Ray Oldenburg (Oldenburg, n.d.)

“When youth abuse a facility with graffiti or do other damage, adults are inclined to wonder what’s wrong with these kids. Rarely do adults ask themselves what’s wrong with the facility,” (Oldenburg, 1999, pp. 280-1).

Sociologist Ray Oldenburg coined the term ‘Third Places’, and ‘Great Good Places’ in this book, terms that appeared to be referenced throughout my research on social infrastructure. These are all the places where people tend to gather in society to simply hang out and socialize. Oldenburg believes that these places are the heart of a community’s social vitality and host to ‘grassroots democracy’. These ‘Third Places’ are now considered by some to fall under the category of social infrastructure, though many of Oldenburg’s exemplar places are privately held and maintained. Within this book, Oldenburg discusses the reason for so many failing ‘Third Places’ – they are shutting out the youth.¹¹ This sentiment is echoed by Jane Jacobs in *The Death and Life of Great American Cities* (1992), where Jacobs believes that youth learn by being active amongst the adults.¹²

This book relates well to the prime idea and supporting factors of this thesis. The examination of ‘Third Places’ can be applied to social infrastructure studies well, and the reference to sociality carries through to the narrative of community resilience and cultural continuity strongly as well.

¹¹ See Oldenburg, 1999, Chapter 13: ‘Shutting Out Youth’.

¹² See Jacobs, 1992, Chapter 4: ‘The Use of Sidewalks: Assimilating Children’.

Henry Tsang

White Riot: The 1907 Anti-Asian Riots in Vancouver (2019)



Figure 17 Portrait of Henry Tsang (Tsang, n.d.)

“Culture in the neighbourhood is not only derived from ethnicity, cultural hearth, and charity, but has been uniquely fostered from within, tied to a long legacy of organizing.” (Tsang, 2023, p. 174).

White Riot (2023) evolved around a project titled *360 Riot Walk* by artist Henry Tsang. The artist describes the project concurrently as a documentary, a mapping project, and a work of art. As a documentary, the project tells the story of the 1907 riots and the rise of anti-Asian sentiment in Canada. As a mapping project, the project traces the founding of the Asiatic Exclusion League’s Vancouver chapter, a community whose founding principles range from hate to racism, and discrimination among other negative undertones. As an artwork, the project is an immersive video that interacts with the participants and the real-world environment they move through (Tsang, 2023, pp. 23-4). Tsang’s work presents a walking tour of a historical act of racism in a predominantly Chinese and Japanese neighbourhood of downtown Vancouver through images and text. The main objective of this book, which now runs parallel with a physical tour, is to contribute to the demise of racism, though Tsang notes, racism can probably never be fully exterminated (Tsang, 2023, p. 21).

The research on Tsang’s project and the accompanied essays within *White Riot* (2023) helped to inform some of the key direction and considerations for the study of community resilience and cultural continuity for this thesis.

Community Resilience

Introduction

The following sections of the thesis research paper investigate properties of the prime idea – community resilience – and two of its assumed supporting factors – social infrastructure and cultural continuity. To uncover all the supporting factors of community resilience is simply too tall a task for this thesis. There are far too many known factors that support community resilience, and its study encompasses research in a broad array of disciplines from economics and sociology to environmentalism and geography. For the purposes of this paper, the supporting factors selected were intended to concentrate on the thesis Research Problem and Objective.



Figure 18 *Prime Idea: Community Resilience, diagram*

If community resilience is the primary objective, the study of the two supporting factors focuses on properties that could attribute to the presence or lack thereof of community resilience within any given neighbourhood. The final section of Part 1 of this paper will examine the built environment, and selected properties that may apply to the prime idea and supporting factors simultaneously or in unison, with the supporting factors acting as a conduit for achieving greater community resilience.

Notions of a Community



Figure 19 *Comradery through shared values and beliefs, 2018*

When we think of community, more than likely the first image in our minds is of a collective group of individuals sharing in one another's values and beliefs, resulting in a unified whole. This image could also be described as a collective feeling of comradery within a social group. Community can also be defined as a group of people sharing and co-operating with one another in a physical boundary within a greater district such as a neighbourhood. In the latter, personal values and beliefs may differ, however, the members of the geographic community still identify as a collective – the commonality is through their being and presence within a given locale.



Figure 20 *Community through physical boundary connections, 2015*

In their research paper titled *Conceptualizing community resilience: Revisiting conceptual*

distinctions (2017), Matarrita-Cascante et al. provide clarity to the term ‘community resilience’ by defining the term itself and describing different concepts of a community’s character. Matarrita-Cascante et al. claim that the term ‘community resilience’ has been misused and confused with other concepts that describe a community’s character such as agency, vulnerability, adaptability, and capacity.¹³ These other concepts of a community’s character tend to describe aspects of a community’s wellbeing and local development, each having their own distinguishing characteristics (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 106).

Concepts of a Community’s Character

In no particular order, the following subsections provide a brief description of four concepts of a community’s character as identified by Matarrita-Cascante et al., with the fifth concept – community resilience – being given its own standalone section to follow.

Community Capacity

Definition: **Community Capacity:** A process in which residents, non-profits, government institutions, and for-profits (interested in community development) work together to secure and mobilize local and extra-local resources destined to solve existing community problems.¹⁴

Community development frequently relies on the examination of community capacity. Matarrita-Cascante et al. say that community capacity is often used in community development in the context of “...disadvantaged/disempowered communities,” (2017, p. 110). To conceptualize community capacity, Matarrita-Cascante et al. say that two aspects must be acknowledged; the ‘structural’ assets of a community (a static condition), and the ‘interactional’ abilities of a community as seen through social relationships (a dynamic process) (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 110).

¹³ See **Figure 15**.

¹⁴ Matarrita-Cascante and Edwards (2016, p. 15), as cited in Matarrita-Cascante et al. (2017, p. 110).

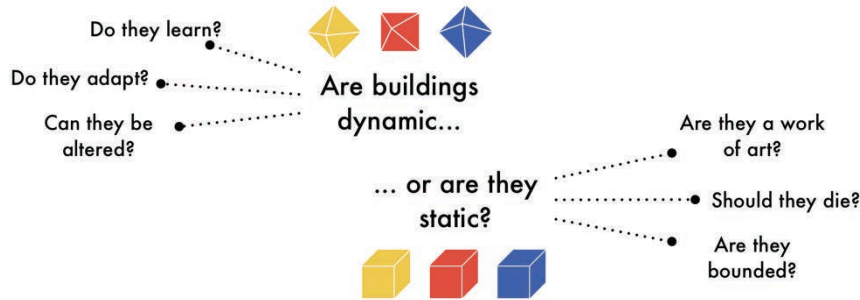


Figure 21 *Static and dynamic conditions of the built environment, diagram*

Community capacity is enhanced through either institutional program-based interventions, or by project developments led by the community's citizens (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 110). This thesis focuses on the former, with the assumption that the community's citizens desire to support and strengthen their specific community's capacity. The problem statement of this thesis is based on the idea that there will be turnover of a community (in the case of this study, a community defined by shared ethnocultural values, beliefs, and traditions).

The intent of community capacity is to explain the existence of resources within a community, and the way a social group manages and secures these resources (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 111). For this reason, community capacity is all about problem solving within a local community setting. Matarrita-Cascante et al. believe that community resilience requires the existence of resources, development, and engagement, traits that are all characteristics of community capacity. They believe that a community cannot encompass resilience tendencies without having community capacity (2017, p. 115).



Figure 22 *Community members working together to solve existing community problems, 2024*

In large part, community capacity relies on the preparedness of a social group to commit themselves to sustaining their shared community. For an ethnocultural community, the people themselves are the main engine for the success or collapse of their cultural continuity. Outgroup drivers will do very little to sustain continuity of another culture without their being some known and valued return onto them.



Figure 23 *Cree students at their desks with their teacher in a classroom (Library and Archives Canada, 1945)*

On June 11, 2008, former Canadian Prime Minister Stephen Harper issued a formal apology on behalf of the Government of Canada and all Canadians for the Indian Residential School System. Within the apology, Harper spoke of the two primary and offensive objectives of the Residential School System, “...to remove and isolate children from the influence of their homes, families, traditions and cultures, and to assimilate them into the dominant culture,” (Government of Canada, 2008). In the case of the Indigenous culture, outside drivers were

restricting the community's capacity for cultural continuity. As a result, many Indigenous languages are now gone, and many cultural and spiritual practices are lost (Wilson, 2018, p. 57).

Community Adaptability

Definition: **Community Adaptability:** Possessing the quality of being highly usable in multiple scenarios.¹⁵

Matarrita-Cascante et al. acknowledge that the term *adaptability* can be conceptualized in many ways (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, pp. 113-4). The authors argue that community adaptability is “latent”, while community resilience is observed only after a crisis (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 117).

As mentioned previously in the Thesis Objective, this thesis aims to demonstrate how the built environment could integrate social infrastructure to support cultural continuity for a diverse social group, resulting in resilience for the two communities – the social group (the ethnocultural community) and the locale (the geographic community). Although Matarrita-Cascante et al. believe that community resilience is only observed post-crisis, I believe that this does not detract from the Thesis Objective, but rather, it emphasizes the importance of why we should be exploring how the built environment can encourage resilience in times of crisis.

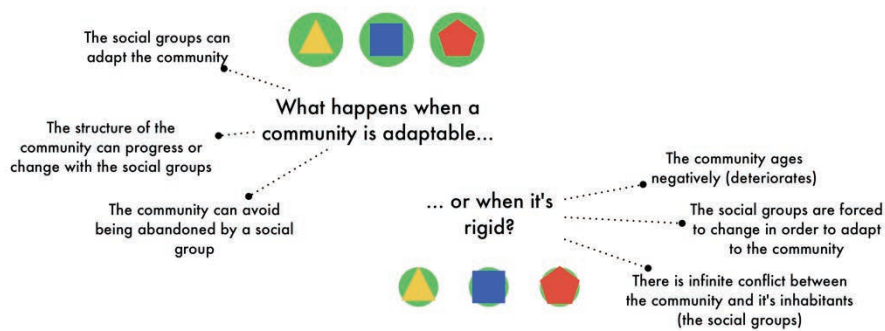


Figure 24 *Adaptation and Rigidity of a Community, diagram*

¹⁵ Matarrita-Cascante et al. list other factors of adaptability which include flexible resources, acceptance of an experience with uncertainty, and social learning, among others (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 115).

Historically, adaptability is mainly seen as a study that relates to a community's ability to change when the conflict of climate change is present. This body of research would fall under the study of environmental resilience. The discussions on adaptability for this thesis research paper speak on the adaptability of a community (either the social groups or neighbourhood). A community adaptive response involves either the community's anticipation of a coming change or reaction to a change that has occurred. Nevertheless, both responses involve a creative process (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 114).

Matarrita-Cascante et al.'s observation on community adaptability has immense value for my research as I want to uncover what happens when a social group's cultural continuity collapses, while the infrastructure built for the social group remains in place, and how this affects the geographic community.

Adaptability needs to be understood in terms of what Loring et al. call "adaptive significance", which is a descriptor for why some communities respond to change in ways that are adaptive to progress and improve themselves, while others remain rigid by using fewer effective methods of reactionary change (as cited in Matarrita-Cascante et al., 2017, p. 114). "For Abedin et al. (2014), adapting is 'a two-way process, which initially requires the recognition of changes and then responding to the change through adaptation' (p. 117)," (as cited in Matarrita-Cascante et al., 2017, p. 114).

For a lot of ethnocultural communities who have immigrated, the initial acknowledgement to recognize change tended to be either overlooked or disregarded, quite possibly as a negative and degrading thought. This may have been a contributing factor to why so many cultural centres have come and gone as I've been witness to within my lifetime.



Figure 25 Marconi Club of London soccer fields (2019, left) turned into housing (2022, right) (Google Maps, 2024)

In discussing alcohol and drug abuse, Goodman et al. (1996, p. 36) propose some of the key characteristics that define community adaptability as a community's readiness and capacity to "...structure, initiate, refine and sustain an organized response," (as cited in Matarrita-Cascante et al., 2017, p. 114). I believe the same approach should be applied to defining community adaptability for cultural continuity, or the design of social infrastructures.

Some have argued that adaptability should incorporate creativity, innovation, and imagination, while others believe it depends on a community's local knowledge and its culture (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 114).

In applying these beliefs to this thesis, the culture of a social group can support an adaptive response to cultural change. For this to be possible, I believe there would need to be at least two cultural identities within said community: the first being the social group's ethnocultural identity, and the second being the geographic community's cultural attitude living within the greater community and only for a limited time relative to the lifespan and growth of the city at large.

Community Agency

Definition: **Community Agency:** A notion of community closely tied to interactional social processes of both individuals and a collective, and their resulting attitudes and behaviors.¹⁶

Matarrita-Cascante et al. believe that community agency is the most defining characteristic of community resilience. As described by Matarrita-Cascante et al., community agency is the ability in which a community can foster relationships within a specific social group. The primary focus of community agency is on the relationships within specific social groups (2017, p. 116).



Figure 26 A group of fans gathering in a parking lot prior to a soccer match, 2018

Matarrita-Cascante et al. note that ‘agency’ can be individual or collective. In their report titled *Conceptualizing community resilience: Revisiting conceptual distinctions* (2017), the focus of agency is as it pertains to the collective, a community. Community agency is essentially a collective’s ability to enhance the wellbeing in a given locale (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 111). This has significance in the study of how an ethnocultural community could enhance the wellbeing of the larger community, or neighbourhood in which the social group resides.

Agency, as described by Brown & Westway, is the proof that citizens are not powerless, rather, they have the ability to be active agents of their surrounding developments (Brown & Westway, 2011, as cited in Matarrita-Cascante et al., 2017, p. 111). If community agency

¹⁶ (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 112).

speaks of the characteristics of the people, how can social infrastructure supplement their social processes to establish a foundation for community resilience? One thought that comes to mind could be by providing a social infrastructure that encourages qualities of collective action and debate.



Figure 27 *The modern-day lyceum, a bar or café (The Carleton Tavern, n.d.)*

The collective actioning of community members, also termed as the ‘ability’ of said community members, is the process of achieving “synergic outcomes” that show the community to act with greater efficiency collectively than the sum of its individual parts (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 111).

A community, when gathered, is stronger than the same community if its members were measured individually. This is why I believe social infrastructures that draw from ethnocultural ideas are needed to provide cultural continuity. A social infrastructure (through sociality) will bring community members together. If the social infrastructure is designed with the intention to collect members of an ethnocultural community together, it will provide them with an opportunity to achieve greater cultural continuity via their community agency.

“An environment that fosters democratic interaction and purposive dialog between community members is listed as a priority across different literatures..., suggesting that communication and cooperation sits at the heart of community agency,” (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 111). In summary, Matarrita-Cascante et al. state that community agency is closely tied to interactional and social processes. They suggest it should be

perceived as a constant process aimed at achieving the capacity and/or ability to establish more resilient communities (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 112).

Community Vulnerability

Definition: **Community Vulnerability:** A notion that characterizes the preparedness of a community in the event of a disaster.¹⁷



Figure 28 *Former Albanian Community Centre of London & St. Thomas (Google Maps, 2023)*

Community vulnerability tends to be used in the context of risk mitigation and preparedness for disaster-risk research, climate change and social sciences (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 113). What community vulnerability tends not to look at is the vulnerability of an ethnocultural community, or that of a social infrastructure. Nicole Lurie, a scholar at RAND Corporation who previously served as former United States President Barack Obama’s assistant secretary for preparedness and response, said that during her tenure in the federal government her team recognized the importance of social infrastructure as it pertained to community vulnerability. “[We saw] how much better people do in disasters, how much longer they live, when they have good social networks and connections. And we’ve had a pretty big evolution in our thinking, so promoting community resilience is now front and center in our approach,” (Klinenberg, 2019, pp. 188-9).

¹⁷ Matarrita-Cascante et al. deem community vulnerability to be an “elusive” concept of community (2017, p. 113).

Although community vulnerability at its present understanding might have little to do with cultural continuity or social infrastructure, I believe that both factors could benefit from understanding the important connection between the notion of vulnerability and the prime idea of community resilience. By doing so, perhaps we can start to ask questions such as ‘What makes an emigrated ethnocultural community vulnerable?’, or ‘How can we create social infrastructures that mitigate their vulnerability to collapse over the lifetime of the social groups they serve?’.

Resilience

Resilience is a newer concept being studied in academic circles. The study of resilience in academia initially focused on applications of ecological systems, later being replaced by socioecological systems, and more recently the focus has been on the study of social resilience. Social resilience focuses on “...understanding the response of human systems to change,” (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 106). The term ‘resilience’ is multidimensional and interdependent, as well, a term that Matarrita-Cascante et al. deem to be multi-scalar, covering the singular individual to the greater collective of a community or region (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 106).

Matarrita-Cascante et al. conceptualize ‘community resilience’ as a sub-concept of social resilience, something of great relevance for community development, such as “...the willingness of communities to take responsibility and control of their development through the development of responsive strategies towards change,” (Wilson 2012, as cited in Matarrita-Cascante et al., 2017, p. 106). By reference to several attempts at defining the concept, Matarrita-Cascante et al. believe that community resilience should be discussed in context of change, and not static notions. Additionally, the change should be considerable, and exclude everyday changes that communities are always influenced by. Resilience, Matarrita-Cascante et al. believe, needs to be conceptualized as a process that emerges after a change occurs, not a process to restrict change. “...Community resilience is about the ability to overcome stress,” (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, pp. 106-7).

That said, resilience is not solely a reactive response; it can also be a pre-emptive one (Wilson, 2012, 2013, as cited in Matarrita-Cascante et al. 2017, p. 107). Community resilience must acknowledge the importance of its context. Contextualization of resilience, Matarrita-Cascante et al. argue, is linked to the ‘stressor’, something that is either human-driven or natural. A specific stressor will define the consequence inflicted on a community, as well as inform the community what should be engaged in as a response to said stressor (2017, p. 107). In the case of this thesis, the stressors are human driven. They involve migration, shifting demographics (for several reasons), downturns in economic activity, and the depletion or complete lack of social infrastructure.

Lastly, when conceptualizing community resilience, Matarrita-Cascante et al. stress that community resilience must indicate those factors that lead to resilience while also recognizing the importance of context. Within their research paper titled *Conceptualizing community resilience: Revisiting conceptual distinctions* (2017), the authors outline those factors which they have attributed to describing the resilience of a community, which I have summarized in the diagram below (p. 109):

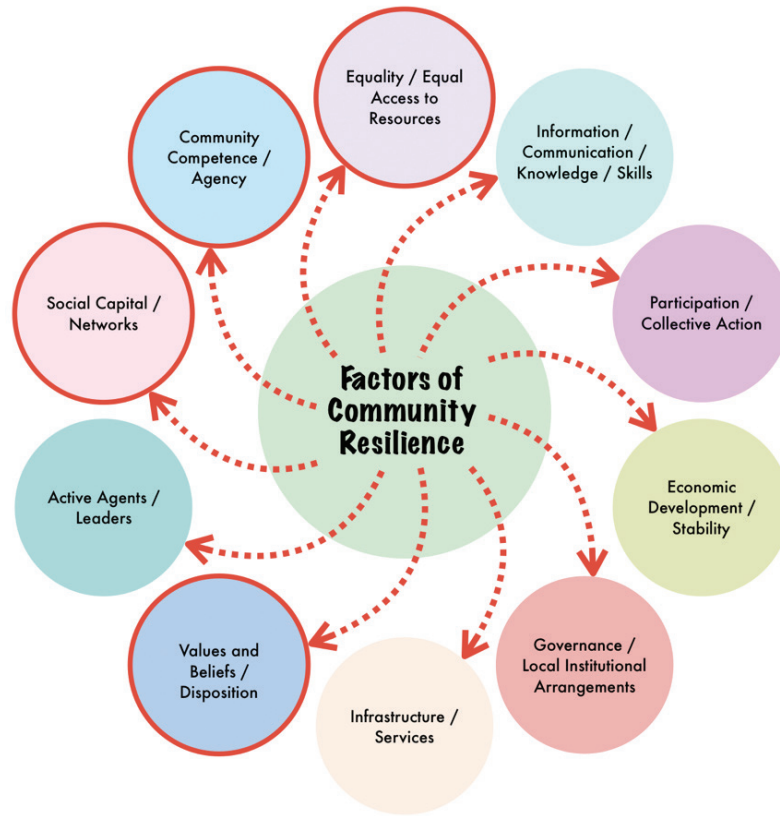


Figure 29 Defining factors of resilience, as listed by Matarrita-Cascante et al. (2017, p. 109)

The presence of all the factors will result in higher resilience within a community (Magis, 2010). As mentioned in the introduction to this section of the thesis research paper, there are simply too many supporting factors of community resilience to cover them all. The factors which I will focus on for this thesis are circled red in the above diagram, and most strongly associate with the selected supporting factors of cultural continuity and social infrastructure.

The phenomena of resilience as it relates to its supporting factors is indeed simultaneous. “The disruption of one can cause a ‘ripple effect’, highly influencing a community’s resilience (Wilson, 2012, as cited in Matarrita-Cascante et al., 2017, p. 109). In

her report titled *Community Resilience: An Indicator of Social Sustainability*, Kristen Magis infers that resilient communities learn to cope with, adapt to, and shape the change that occurs around them (Magis, 2010, p. 412). Matarrita-Cascante et al. say that most of the literature surrounding community resilience has dedicated its focus to theoretical discussions of the phenomena instead of objective measurements of community resilience (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

What is resilience meant to mitigate against? Social and physical communities face many different challenges. Social communities often struggle with cultural assimilation, social isolation, and xenophobia. Physical communities struggle with climate change, health pandemics, housing and real estate costs, and so on. As stated in the Introduction of this paper, for the purposes of this thesis, resilience will be treated as something that mitigates against the broad spectrum of challenges both social and physical communities may face.

It will not be the goal of this thesis to outline an objective measurement system for defining community resilience. Rather, this thesis will use some of the elements that Matarrita-Cascante et al. have outlined as defining factors to analyze levels of resilience within existing communities that are discussed throughout the thesis research paper.

Factors of Community Resilience

*Definition: **Community Resilience:*** A notion that seeks to explain a community's ability to respond to shock. Its conceptualization requires the understanding of the nature of stressors and communities, and of the ways of steering away from a stressed state.^{18 19}

In Matarrita-Cascante et al.'s report, the authors provide clarification to the term 'community resilience', an often misused and confused term that the authors feel has yet to be adequately defined (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 105). The authors provide an update to the definition of the term, part of which I have used as reference while writing the definition above. It is important to note that community members do not control all the conditions that affect them, however, they do encompass the ability to affect many of the conditions that can increase their own community's resilience (Berkes & Ross, 2013, p. 13).

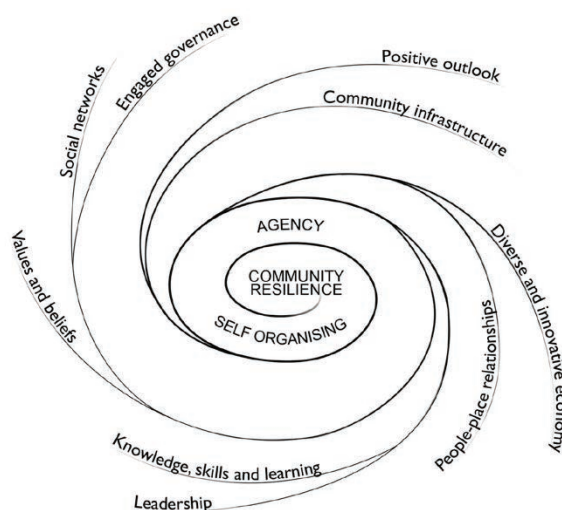


Figure 30 Community Resilience as a function of the strengths or characteristics that have been identified as important, leading to agency and self-organization (Berkes & Ross, 2013, p. 14).

18 (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

19 Matarrita-Cascante et al. have suggested ways in which the various notions of community resilience are interrelated. Common among them are the social pressures that take place and the role that "community" has within each (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 118).

Monitoring for community resilience has been something Fikret Berkes & Helen Ross have investigated recently, as they also felt that community resilience has received little attention from the social and economic sectors (Berkes & Ross, 2014, p. 787). In their report titled *Research Approaches for Community Resilience*, Berkes & Ross list several aspects of resilience that could be assessed with simple indicators to help monitor any given community's resilience. Some of these aspects include:

- Persistence
- Problem solving
- Leadership
- Social networks
- Engaged governance
- Social resilience attributes (Berkes & Ross, 2014, pp. 798-9)

Berkes & Ross hope that by learning how to monitor resilience we will become more apt as a society to build resilience within our communities (Berkes & Ross, 2014, p. 799). The following subsections briefly expand on four of the ten factors of community resilience selected for analysis as they relate to this thesis study.

Social Capital / Networks

*Definition: **Social capital / networks:*** Strong and meaningful social relationships and connections (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

Buikstra et al. categorize social capital as a subcategory of *community capital*, alongside cultural capital and legacy, human capital, and political capital (Buikstra et al., 2010, p. 997). Maclean et al. marry social capital together with community networks as both encompass the social processes and activities of people and social groups in any given locale (Maclean, Cuthill, & Ross, 2013, pp. 149-50).

Gathering appears to be the point of focus here. Without strong or meaningful reason to gather, social capital is weak, and networks are reduced in scale and impact within the neighbourhood. A simple example could be seen in the practice of engaging in food and drink. There could be a large lineup of vehicles that stretches out onto the road for inhabitants of a community waiting at a local drive-through coffee shop to get their morning fix; from one

viewpoint a sign that business is booming, but in terms of how this would be judged against the social capital of a neighbourhood, there is a sense of reduced meaning and connection here.



Figure 31 *The convenience of drive-throughs: anti-sociality (Adobe Stock, n.d.)*

Imagine a similar situation where inhabitants line up for their morning coffee, this time extending onto a neighbourhood sidewalk, for this coffee shop does not entertain the automobile. Here, patrons of the coffee shop divulge in morning conversation amongst one another before they start their workday. A sense of heightened social capital is seen here, as networks are also formed from recurring guests of the coffee shop often choosing to sit in and socialize with their fellow community members. Networks expand in this scenario as new people move into the neighbourhood, and everyone feels a sense of community in this environment... and in this social infrastructure.



Figure 32 *Locals socializing as they wait for their orders outside Sidetrack Café, London, Ontario, 2024*

Community Competence / Agency

Definition: **Community competence / agency:** The existing ability to learn and work together to achieve an overall good community for all.²⁰

Community agency is expanded on earlier in this research paper under the section *Notions of Community: Community Agency*. In essence, competence can also be described as having both efficiency and success. In context of a social group, community competence is having the ability to progress and prosper. Thus, this resilience factor entails possessing the ability to change.

Equality / Equal Access to Resources

Definition: **Equality / equal access to resources:** The existing ability of all community members to gain access to and utilize community resources.²¹

Researcher Kristen Magis believes that community resilience is about the existence of resources, and the development and engagement of said resources, not excluding the actions required to manage the resources (Magis, 2010, p. 402). Magis writes that community resources are dynamic in that they can be depleted or even destroyed. They can also be developed or expanded, all of which contribute to the greater community's ability to respond to stressors (Magis, 2010, p. 410).

Equality in a community has a lot to do with inclusion, both of a particular social group that may inhabit the community, or the 'outsiders' that make their way through it. Equality is also about fairness. One hypothetical example viewed within the realm of social infrastructure could be seen in an elevated reflecting pond, filled with koi fish and the sounds of running water, surrounded by seating, and bordered by buildings on three sides. The only access to this peaceful oasis is seen on the fourth side, made up of a series of large risers. Equality is absent where there are no universal design principles applied to this hypothetical social infrastructure.²²

20 (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109). See also *Notions of Community: Community Agency*.

21 (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

22 "Universal design is a framework for the design of places, objects, information, communication, and policy to be usable by the widest range of people in the widest range of situations without special or separate design," (Milstein, 2011).

Values and Beliefs / Disposition / Pluralism

Definition: **Values and beliefs / disposition:** The existing codes of conduct aiming to achieve an overall community wellbeing.²³

Part of the values and beliefs factor of community resilience is monistic in the above definition. Pluralism should also play a role in the values and beliefs / disposition of a community if we are referring to one that also holds the three aforementioned factors. Not only so, but the Thesis Objective has also set out to support the values and beliefs of a diverse social group with the goal of supporting cultural continuity for the ethnoculturally diverse population.

In the closing lyrics of one of Bob Dylan's lesser-known tracks, *The Ballad of Frankie Lee and Judas Priest*, from the album titled John Wesley Harding, Dylan sings, "So when you see your neighbour carryin' somethin'... Help him with his load... And don't go mistaking Paradise... For that home across the road," (Dylan, 1967). Dylan and his lyrics - somewhat dependent on the era being discussed - are often linked by religion. In the case of the above quoted lyric, Dylan provides both a synonym of sorts for the tenth commandment as well as a common understanding among those who hold religious beliefs – helping others without one's own requite is the right thing to do. These examples are often identified as characteristics, or values, of members who make up a resilient community.

When speaking about the need for diversity at an economic scale for small-scale manufacturing, Jacobs believes that diversity is necessary to allow these small-scale operations to exist through a support network where they rely on other small-scale manufacturing operations. Jacobs says, "City diversity itself permits and stimulates more diversity," (Jacobs, 1992, p. 145). I believe the same can be said for neighbourhoods classified as 'ethnic'. The more **diverse** an ethnocultural neighbourhood, the more programmatically diverse neighbourhoods will emerge.

23 (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 109).

Gathering, Together

Public Gathering Places

“The only predictable social consequence of technological advancement is that [we] will grow ever more apart from one another,” (Oldenburg, 1999, p. xxviii)

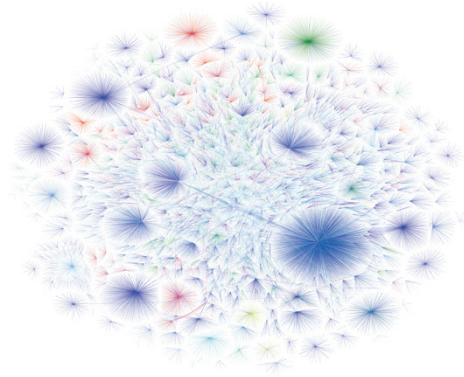


Figure 33 *Raw Image of the Internet, attempt 1 run 19971109.1040 (The Opte Project, 2021)*

Sociologist Ray Oldenburg brings up a good point about the importance of what he dubs *third places*; without them, a neighbourhood fails to “nourish” the kind of relationship and diverse human contact that often characterizes the “essence of a city” (Oldenburg, 1999, p. xxviii).

Latham & Layton carry this one step forward in their analysis of the value provided to a community through engaged social infrastructures. “The social connections and socialities that are built and maintained through accessing social infrastructure have real material benefits and consequences; they generate a “social surplus”—encouraging trust, civility, encounter, and common purpose (Amin, 2008)” (Latham & Layton, 2019, p. 8). Latham & Layton continue, “For social scientists, working with social infrastructure opens up a number of avenues of critical inquiry. Perhaps the most obvious is studying the spatial distribution of the provision of facilities,” (Latham & Layton, 2019, p. 9). I would argue that this applies equally - if not more – to the study of architecture and urbanism.

If the social infrastructure is designed with only a narrow demographic in mind, the result would undermine the primary idea of social infrastructure say Latham & Layton (2019, p. 9). “Cities need social infrastructure. Cities need places like libraries, parks, schools, playgrounds, high streets, sidewalks, swimming pools, religious spaces, community halls, markets, and plazas not only because of their practical utility but also because they are spaces where people can socialise and connect with others,” (Latham & Layton, 2019, p. 9). All the places Latham & Layton name as examples are part of a framework for public gathering spaces. It is simply not enough to supplement a community with private social infrastructures.

Klinenberg says that libraries are the superlative example of built social infrastructure. They offer ‘social cohesion’ among their guests who might otherwise keep to themselves (Klinenberg, 2019, p. 36). Libraries create connections between unique sets of people because they sponsor so many shared activities for children, and by extension, their caretakers (Klinenberg, 2019, p. 36). With libraries offering ‘social cohesion’, what other kinds of social infrastructure offer likewise results for social groups of diverse ethnocultural backgrounds to practice their traditional values and beliefs?



Figure 34 *Events held by the Rebuild Foundation (Sampson, n.d.)*

Theaster Gates, a celebrated local Chicago-based artist and professor, convinced the University of Chicago to purchase an abandoned block of buildings on a once prominent commercial street near the campus, located on the south side of Chicago. Gates wanted to integrate the students and adjacent community, something that hasn't been seen at the prestigious University since its inception, in part due to racial barriers and criminal activity. Gates envisioned the rehabilitation of the decaying buildings into a new "Arts Block" that would include galleries, studio spaces, and community rooms. The first objective was to provide spaces that support the missing social infrastructure in the south-side community of Chicago. The next objective was to have these spaces become destinations for the student population, who have stayed on campus for their own safety, for better or worse. In the end, the Arts Block was a resounding success that has become a community space that supports both community groups. As a result, the arts block became a social infrastructure that encompassed feelings of security within a troubled neighbourhood and a community with a less than storied history of segregation and discrimination (Klinenberg, 2019, pp. 101-4).

Later, Theaster Gates formed the *Rebuild Foundation*, “...a platform for art, cultural development, and neighborhood transformation,” (Gates, 2019). On his website, Gates writes that the project “...support[s] artists and strengthen[s] communities by providing free arts programming, creating new cultural amenities, and developing affordable housing, studio, and live-work space. [The] mission is to demonstrate the impact of innovative, ambitious and entrepreneurial arts and cultural initiatives. [The] work is informed by three core values: black people matter, black spaces matter, and black objects matter,” (Gates, 2019). The *Rebuild Foundation* “...leverage[s] the power and potential of communities, buildings, and objects that others have written off” (Gates, 2019).

Using Theaster Gates’ Rebuild Foundation as an example, public gathering places are perhaps used to their fullest extent when they are flexible. The idea of creating a space that ‘develops culture’ is inspiring as it shares resemblance to the ideas of cultural continuity and in the case of Rebuild Foundation, to social infrastructure too.

The importance of Diversity



Figure 35 *Portrait of William McDonough (Chierago, 2020)*

“When diversity is nature’s design framework, human design solutions that do not respect it degrade the ecological and cultural fabric of our lives, and greatly diminish enjoyment and delight.” (McDonough & Braungart, 2002, p. 143).

Considering McDonough & Braungart's quote above, how much has the narrow programming of some social infrastructures diminished the enjoyment and delight of what would be expected in a pluralistic society? Political scientist Robert Putnam famously attributed the demising health, happiness, education, and economic productivity of Americans to the collapse of community and diminished participation in civic organizations. In his book *Bowling Alone* (2000), Putnam's principal concerns were that of families 'retreating' from public life – sports leagues and community groups – in favor of the privacy of their living rooms (Klinenberg, 2019, pp. 12-3). Putnam's observations are eerily opposite that of my own personal experiences growing up in rural London, Ontario.²⁴

Sociologist Charles Cooley describes a person's core network of friends and family as their 'primary group', in which said person maintains their deepest and most enduring bonds. As is often the case, the primary group tends to mirror the individual, both ethnically and racially speaking. Even in diverse communities, Klinenberg notes, most individuals seek out people who are like themselves. However, the 'secondary group' is greatly diverse, made up of people who are casual friends, colleagues, and associates. This group of people tend to spend a significant amount of time in a person's life, whether interacting with secondary group members in local clubs, taverns, cafés, or in the workplace. Most local interaction, Klinenberg notes, takes place with members of the secondary group (Klinenberg, 2019, pp. 147-50).

We may prefer to seek out people who are like us, but the design of our communities, and particularly our social infrastructures, can provide a deeper bond between us and our secondary group, assisting in the pleasantries of a pluralistic society within Canada. The secondary group tends to be our strongest opportunity for diversity, and so it is the places where we meet and interact with this social group that should be the focus for building resilience.

It may also be worth looking into how primary and secondary group interactions take place in the 21st century in our communities, where interactions are often either at work, at home, or socially over the internet. While many professionals remain in a state of work-from-home post-pandemic, how are the interactions with secondary groups impacted by this? From my own experiences, working from home has resulted in less socialization between myself and

24 See *Preface: Introduction*.

my colleagues, perhaps something the employers might like, but no doubt something that can be isolating for staff.²⁵

By the 1960's, South Side Chicago became clearly segregated between the Caucasian blue-collar workers, the Mexican migrants, and the African Americans. Sociologist William Kornblum studied the social dynamics of this neighbourhood at that time, and he found that, although there were clear delineating lines between the communities that housed these various ethnocultural groups, their social divisions did not carry into the factories and those similar social environments (Klinenberg, 2019, p. 149). What was it about the work environments that led these groups of people to set aside their social divisions?

Kornblum noticed that places like the local taverns, athletic fields, and various political clubs became places where the differing ethnocultural groups came together to converse, commune, and compete (Klinenberg, 2019, p. 150). Klinenberg believes this had something to do with community agency, as he writes, “[u]nion newsletters and local newspapers helped the residents of South Chicago imagine their community; the neighbourhood social infrastructure allowed them to build it,” (Klinenberg, 2019, p. 150).

Not only did social divisions not carry into the workplaces of this neighbourhood, but they were also absent in the neighbourhood's social environments. Which interventions of the built environment embrace a diverse cultural continuity? Perhaps it is the interventions where there is already co-existence among the various ethnocultural social groups.

25 Isolation due to physical distancing during the COVID-19 pandemic has been found to impact psychological distress, especially for older adults (Gorenko, Moran, Flynn, Dobson, & Konnert, 2021). Klinenberg also notes that social infrastructure can affect who lives and dies during a pandemic due to the isolation experienced by the aged population that may be at high risk of severe infection in contracting a disease, or sheltered from a severe heatwave (Klinenberg, 2019).

Social Infrastructure

Introduction

“In short, social infrastructure refers to the networks of spaces, facilities, institutions, and groups that create affordances for social connection,” (Latham & Layton, 2019, p. 3).



Figure 36 *Fans gather on a patio to catch a glimpse of the big game, 2018*

Social infrastructure can affect community resilience in a variety of ways. Latham & Layton echo Eric Klinenberg’s sentiment that social infrastructure matters, expanding on the opinion that it is important for social infrastructure to be studied further by exploring and explaining how places described as social infrastructures matter in varying, often unpredictable ways (Latham & Layton, 2019, p. 9). Latham & Layton argue that there is an unfilled role for social scientists in making sense of how social infrastructures are used, and why they matter (Latham & Layton, 2019, p. 9). I would further their argument by acknowledging the same important role is absent in the study of architecture.

The value of social infrastructure is not immediately visible; often it is only noticed once it is taken away, or once something goes wrong (Latham & Layton, pp. 9-10). Latham & Layton say that the overarching point about the designing of urban spaces by thinking with social infrastructure “...broadens and deepens understandings of the kinds and qualities of social life that exists in cities,” (Latham & Layton, 2019, p. 8).

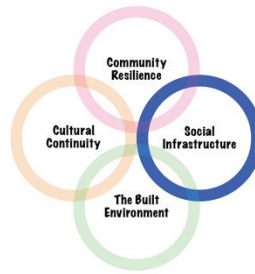


Figure 37 Supporting Factor: Social Infrastructure, diagram

Why do we need Social Infrastructure?

Health

Promoting healthy lifestyles through physical exercise in public spaces are one of the ways governments are encouraging multigenerational interaction along with elderly civilians. “The most ambitious attempt to promote cross-generation interaction through outdoor play comes from Finland,” Klinenberg writes, where a playground manufacturer has partnered with local governments to create what they term ‘three-generational play spaces’, (Klinenberg, 2019, p. 138).



Figure 38 Lappset playground, promoting ‘three-generational play spaces’ (Lappset, 2024)

Social infrastructure can be a provider of physical health just as much as it can be a provider for mental health too. In a recent report, Hazlehurst et al. examined how time spent outdoors, particularly in nature, has been associated with mental health and wellbeing benefits. Their studies examined relationships between park access and inhabitants, and the health and wellbeing of children and their parents specifically (Hazlehurst et al., 2022). Park space is often identified as a social infrastructure. Understanding that there are health and wellbeing benefits to these spaces, perhaps there is an opportunity to study how a park space can provide healthy resilience in a community, or within an ethnocultural social group.

Artist Henry Tsang makes a similar observation; “Physical proximity to appropriate services is extremely important to many people, often due to their poor health and reduced mobility, as well as the feelings of security, safety, and support that proximity and accessibility provide,” (Tsang, 2023, p. 170). Tsang’s observation begs the question, can we create a community that can sustain resilience using social infrastructures that promote health and wellbeing of its community members?

To the surprise of many observers, recent interviews with open drug addicts listed the lack of a social fabric as one of the primary reasons for an individual’s drug abuse (Klinenberg, 2019, p. 120). The social fabric absent in these people’s lives is not solely of the built environment, but also of their core network of friends and family in their primary and secondary groups. A recent study from a Harvard graduate student found that communities with a strong social capital – defined by factors of density, civic organizations, and voter turnout – were more likely to be shielded from the opioid crisis than comparatively fragile communities (Klinenberg, 2019, p. 120).

Referencing an earlier section of this paper,²⁶ it can certainly be seen that social capital could help those who are battling addictions, as a strong social capital within a community can provide resilience among the community’s social groups. In the case of the opioid crisis, a strong social capital can also provide social groups with a healthy and supportive environment to live in.

26 See Part 1: *The Collected Research: Community Resilience - Factors of Community*.

Sociologist Eric Klinenberg points out that the opioid crisis is not the only health crisis in the United States, nor even the biggest. The most urgent problem facing communities today is the lack of healthy foods, affecting primarily African American neighbourhoods (Klinenberg, 2019, p. 125). The US Department of Agriculture uses the term ‘food desert’ to describe urban areas where people have limited access to supermarkets or large grocery stores (Klinenberg, 2019, p. 126).

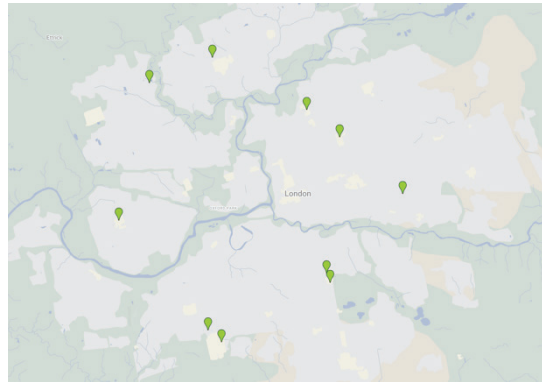


Figure 39 *Big-box grocery stores in London, Ontario as of 2024, map*

What parts of London could be considered a ‘food desert’? Most notably, the center of the city at the fork of the Thames River as shown in the image above (known locally as Central London, or Downtown) lacks any close access to one of the major big-box grocers. This has become the primary argument for locals as to why they would never live in the urban center of the city. If we want to encourage less use of personal automobiles, and a healthier lifestyle for the individuals of an urban community, we should afford them with the essential amenities required to survive within walking distance of any given neighbourhood.

A recent profile of London’s neighbourhoods was released by the City of London’s Planning Division, which highlighted population changes from the last four city census’ for future use by City Planners.²⁷ Within the profile for Central London, the neighbourhood has seen a steady decline in population over each year that a census was collected since 1996. A stark dissimilarity to the city’s overall population change, which has seen continuous growth since 1881. More comparably to the neighbourhood profile statistics, from 1996 to 2011 the

²⁷ See (City of London, 2024).

city's population has increased by 12.4%, whereas the Central London neighbourhood during the same period has decreased in population by -5%. Seeing the neighbourhood as a 'food desert' no doubt provides insight for the sudden decrease in population.

According to the American Public Health Association (APHA), community gardens foster interactions between multiple generations of inhabitants, directly resulting in less social isolation, greater civic participation, and neighbourhood attachment (Klinenberg, 2019, p. 128). Klinenberg argues that the rise of people living alone is one of the most significant demographic changes in modern history. He believes that public policies that provide caregivers could help address the problem, however, a far more beneficial solution would be to invest in social infrastructure by building places which promote active lifestyles and public interaction (Klinenberg, 2019, p. 134). Looking at Klinenberg's observation, I believe that social infrastructure could bridge the generational gap and promote public interaction between youth and elderly inhabitants, thus passing down knowledge and potentially increasing the likelihood cultural continuity, one of the factors that I believe will support community resilience.

Safety

"The dire situation at Pruitt-Igoe was not due to the characteristics of the people who lived there, but to the project's physical infrastructure," (Klinenberg, 2019, p. 58).

Safety is the primary concern for Jane Jacobs, as she starts her infamous book, *The Death and Life of Great American Cities* (1992) with discussions on the use of sidewalks, firstly focusing on how they attribute to safety. "A well-used city street is apt to be a safe street. A deserted city street is apt to be unsafe," Jacobs writes (Jacobs, 1992, p. 34). Jacobs believes that a successful neighbourhood must always possess three qualities; firstly, the neighbourhood must clearly delineate between public and private spaces; secondly, there must be eyes on the street; and lastly, the neighbourhood must be active enough to encourage people to use the sidewalks, and prompt people in the buildings to actively watch the streets (Jacobs, 1992, p. 35). It is not enough for an unsafe neighbourhood to attempt to create 'locality' through the design of private parks or courtyard spaces. The streets of a city are the system that manages the strangers, and it is the responsibility of the streets to ensure safe passage through the neighbourhood for those people who, by their sheer presence, make a place safe (Jacobs, 1992, pp. 35-6).

Jacobs' arguments contradict the contemporary urban designer's and architect's thinking of creating courtyard spaces inside of the built environment. These semi-private or often completely private spaces do little to heighten the safety of the community. Rather, they focus on the safety of the specific users of said spaces. Additionally, these spaces tend not to follow the most primal characteristic of good social infrastructure – being public. To this point, Jacobs also warns us of the forced control of how individuals would use such public spaces. “You can’t make people use streets they have no reason to use. You can’t make people watch streets they do not want to watch,” says Jacobs (1992, p. 36). We may desire for a park, or a street to be a safe place for activity, but Jacobs believes that this could not be articulated by the urban planner. I would argue that it quite possibly could be. We know now that there are several factors that define a community’s resilience. Perhaps applying design principals to address the factors of community resilience could allow us to design safer places.

Jacobs argues that public parks in her time were much less safe a place for free-ranged children than the sidewalks themselves; at least the sidewalks in her community of Greenwich Village, New York were abundant with random adult interaction. Enough adults on the streets and in the presence of the community’s children provided a sense of guardianship and protection, allowing children to assimilate (Jacobs, 1992, pp. 74-78). Adults having their presence felt in public, even if they are disassociated with the children roaming the streets, will provide the protection needed for everyone to feel safe.

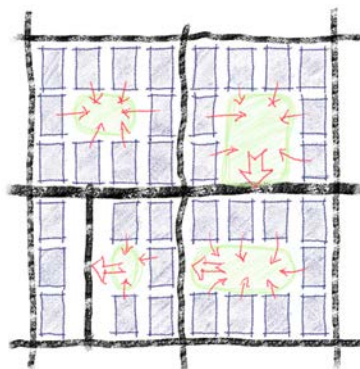


Figure 40 *Common types of courtyards, diagram*

One common approach to keeping children safe and off the streets stems from the Garden City planning methodology, which implemented ‘interior enclaves’, or courtyard systems in the urban landscape. This same methodology was applied in Radiant Garden City planning schemes and is still seen throughout urban designs today. “The trouble with this scheme...” Jacobs articulates, “...is that no child of enterprise or spirit will willingly stay in such a boring place after [they reach] the age of six. Most want out earlier,” (1992, pp. 79-80). We should consider how a courtyard design approach hampers a child’s ability to explore the neighborhood and discover and gain trust with adults. Also, how is the seclusion of a courtyard facilitating, or hindering the continuity of a culture?

Jacobs, realizing the importance of social infrastructure prior to the term being commonplace, recommends that children need access to a variety of opportunities for learning and play, not just the sidewalks of their neighbourhood, but accessible sports facilities for exercise and physical skills too (Jacobs, 1992, pp. 80-1). At the same time, children need places for unstructured play to, as Jacobs puts it, “...help form their notions of the world,” (Jacobs, 1992, p. 81). Jacobs understood the value of social infrastructure decades ago. Perhaps now is the time for us to recognize the value too and integrate social infrastructure in our existing urban fabric to the same extent as we’ve implemented street parking or LED lighting to previously developed neighbourhoods. Social infrastructures are safe places for people of all ages.

Identity

As touched upon earlier in this research paper,²⁸ the social connections and socialities built and maintained through social infrastructure have significant benefits for both the individual and their affiliated social group. By generating social surplus, social infrastructures allow us to build a collective identity amongst our neighbours.

28 See section *Part 1: The Collected Research - Gathering, Together*.



Figure 41 *Ice skating on the Rideau Canal, Ottawa, Ontario, 2018*

Good social infrastructure can provide a tangible identity to communities and the social groups that call them home. Think about the Rideau Canal. Back when I lived in Ottawa, whenever I had the opportunity to host friends from out of town in the winter months, the first ‘tourist destination’ I would take them to would be the Rideau Canal. It offered an experience unlike any other in Canada and across the world for that matter. The Rideau Canal as a skating rink was a tangible reflection of the identity of the inhabitants from Ottawa. The Canal offered a place to see first-hand the diversity of the city, and participate in its winter traditions through food, drink, and exercise. Unlike most tourist destinations, the Canal was different in that it was shared equally by the locals and tourists alike.

The beauty of the Canal as a social infrastructure is that its use didn’t melt away with the seasons. When friends would come to visit me in the warmer months, the Canal acted as an anchor to several ‘third places’, as well as a multi-use path adjacent to either side, that stretched across the heart of the city. Along this path, a similar story could be told as with the Canal as a skating rink; both locals and tourists alike would share the spaces that linked to the path and were founded in the ideological notions of Ottawa as the capital of Canada – welcoming and inclusive.

Inclusion

Online colleges and universities have struggled to overtake traditional brick-and-mortar schools due to their lack of social experiences which are traditionally seen in physical campuses. Klinenberg believes this is due to their lack of accessible social infrastructure. Students and teachers of online post-secondary institutions fail to build personal relationships and career networks (Klinenberg, 2019, p. 106). Minerva, a newfound online post-secondary school started by a team of education experts, is trying to change the way that online schooling creates connections amongst the students and professors. The social infrastructure provided by Minerva is within the various host cities across the globe, depending on the students' year of enrollment. The libraries, theatres, and cafés of host cities become the meeting places where students can connect and collaborate. Additional connections are made between the students – all of which come from various ethnocultural backgrounds – such as weekly dinners hosted by each student where they can express their cultural identity through food, music, and other festivities (Klinenberg, 2019, pp. 107-10).

Using the already public social infrastructures of cities provides a place for Minerva's students to feel as though they belong as part of a community alongside their fellow classmates. The additional social connections through food, music, and other festivities that help individuals identify with their ethnoculture is a plus. This becomes less about the cultural continuity and more about the resilience of the student groups, which lead to the success of Minerva's online format.

According to Klinenberg, despite higher crime rates, teenagers from past generations had more freedom to roam around their neighbourhoods and public spaces. They also had more unstructured time in school and less 'surveillance' from the adults (Klinenberg, 2019, p. 43). Nowadays, the only public spaces where teens can gather in large numbers with their peers is online. Part of having teenagers make connections face-to-face rather than online is giving them spaces to freely move through without surveillance and constant monitoring from the adults. According to Klinenberg, the internet has become the core social infrastructure for young people because they have been deprived of access to other social infrastructures where they can build meaningful connections (Klinenberg, 2019, p. 43). Sometimes social infrastructure is harmful to a community's inhabitants. Online social infrastructure can promote

connections between groups of people or individuals from vast distances across the world, however, the time spent online will take away from face-to-face connections that traditionally would be rooted locally. The seemingly higher level of inclusion in an online social network tends to weaken connections that are formed within communities locally.

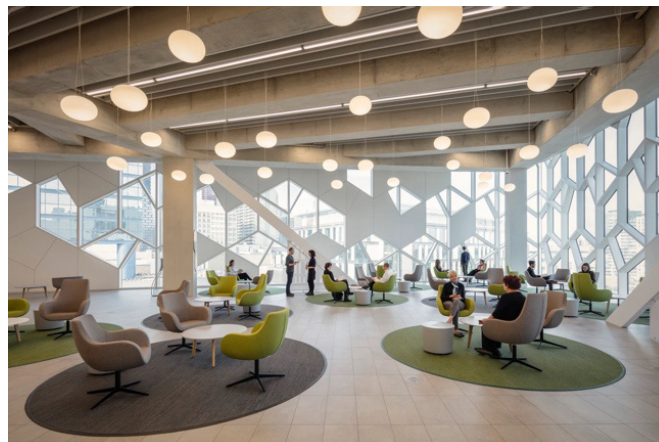


Figure 42 *Seating groups at the Calgary Central Library (Snøhetta, 2018)*

Part of the reason why libraries are the epitome of built social infrastructure is that they are open, accessible, and free (Klinenberg, 2019, p. 44). Another key reason, Klinenberg notes, is that they create special places, or zones for different age groups. Klinenberg observes that the more traditional ‘third places’, coffee shops, bars, and restaurants, are all market-driven social settings that are not necessarily affordable to all, and often carry time restrictions (Klinenberg, 2019, p. 44). Zoning spaces within a social infrastructure, and not segregating groups in public spaces is vital to the success of the built social infrastructure of a library. Nothing can be more inclusive than a public space that is free to access. Klinenberg believes that the library as a social infrastructure can still perform as an inclusive and diverse environment as it has in its heyday:

The openness and diversity that flourishes in neighbourhood libraries was once a hallmark of urban culture; in fact, the most influential theories about what makes city life culturally distinctive emphasize the pleasures as well as the challenges of dealing with difference on a daily basis, (Klinenberg, 2019, p. 46).

Social infrastructure is about more than looking beautiful, it has to offer us protection as well. Klinenberg writes that programming is another element of social infrastructure, and that it can be inclusive or exclusive, inviting, or hostile (Klinenberg, 2019, p. 155).



Figure 43 *Irregularly shaped basketball court in Dubrovnik, Croatia, 2023*

Daniel Burdsey investigated how amateur soccer played on a public field could become a site to negotiate racism and multiculturalism amongst a diverse community (Latham & Layton, 2019, p. 7).²⁹ Sports activities, even if they do bring out competition and differences, can also be seen as a lightning rod for progressive thinking and inclusion. Athletic fields are a unique social infrastructure. Klinenberg writes, “[the] great anthropologist Victor Turner referred to such places as ‘anti-structural’, because they allow people who might otherwise be hostile to one another play together in an experience that he calls *communitas*: a liminal moment when all participants have the same social status and forbidden social bonds are suddenly encouraged,” (Klinenberg, 2019, p. 167). Klinenberg observes that sports help divided groups see commonalities amongst themselves, and lead to further meaningful relationships off the field (Klinenberg, 2019, p. 167). A recent British study found that there were significant correlations between measures of sporting participation; the report concluded by observing that this not only benefited the individual, but also created opportunities for civil renewal by

²⁹ See Burdsey, D. (2009). Forgotten fields? Centralizing the experiences of minority ethnic men’s football clubs in England. *Soccer & Society*, 10, 704–721. <https://doi.org/10.1080/14660970903239925>

providing skills that were employed elsewhere within the community (Klinenberg, 2019, pp. 171-2).

Part of the task for this thesis research paper is determining how the programming of social infrastructure can hit on the notes of inclusion and invitation for the diverse ethnocultural social groups within a neighbourhood. Some of the largest tech-companies in Silicon Valley implement grand social infrastructure within their campuses, however, these spaces are private. Worst of all, they take away from local public social infrastructures such as family-owned cafés, restaurants, and public parks (Klinenberg, 2019, pp. 214-6).

There is an air of irony that the largest tech companies of Silicon Valley; Google, Facebook, and Apple, invest in private social infrastructure, while the tech products and services they provide take their users further away from public social infrastructures. I don't believe this will result in an enhanced community resilience, despite any propaganda about 'bringing us closer together' that these tech companies might push on us. I believe the connections being formed through online services such as social media are detrimental to the resilience of a community in the physical realm and will lead to reduced physical social infrastructures and diminished cultural continuity.

What Defines a Successful Social Infrastructure?

Sociologist Ray Oldenburg coined the term used for commercial establishments such as cafés, diners, barbershops, and bookstores as *third places*. These are places where anyone is welcome to gather and linger regardless of what they've purchased (Oldenburg, 1999). Oldenburg's examples are now more commonly categorized as social infrastructures in sociology circles. Klinenberg lists examples of spaces and places that define social infrastructure such as "...libraries, schools, playgrounds, parks, athletic fields, and swimming pools... sidewalks, courtyards, community gardens, and other green spaces..." (Klinenberg, 2019, p. 16). What makes these social infrastructures succeed or fail? For starters, we've already established that they must be inclusive, accessible, and perhaps most importantly, they must be interesting.



Figure 44 *The High Line, by James Corner Field Operations (Baan, n.d.)*

“One of the most influential trends in urban and regional planning,” writes Klinenberg, “...involves converting old hard infrastructure, like discontinued rail lines and shipping docks, into vibrant social infrastructures for pedestrian activities,” (Klinenberg, 2019, p. 21). The most prominent of these examples would be The High Line, in New York City, by James Corner Field Operations.

Latham & Layton make the argument for the need to study the politics involved with providing adequate social infrastructure (2019, p. 8). There are several ways in which social infrastructure can be more, or less successful through the provision from a political perspective. Abundance, diversity, maintenance, accessibility, responsiveness to the community’s needs, and being democratic in nature are all dimensions which can characterize a social infrastructure’s success (Latham & Layton, 2019, p. 8).

Highly Active Spaces

Other places that aren’t necessarily destinations for the greater public can also be designed to necessitate connections amongst specific social groups. One example would be school playgrounds.³⁰ Social infrastructures can be publicly provided facilities, or they can be private. When they are private, they are unknown to others, and may come off as exclusive or

30 See Wilson, H. F. (2017). On geography and encounter: Bodies, borders, and difference. *Progress in Human Geography*, 41, 451–471. <https://doi.org/10.1177/0309132516645958>

unwelcoming. When they are public, if designed poorly, they will often go unnoticed, or, used by what William H. Whyte insensitively calls *the undesirables*.³¹

In his analysis of large scale plazas in New York City, Whyte observes that many of the plazas were intentionally designed to be bland and uninteresting, with the idea that businesses feared attracting people to large public spaces as they believed it would also lead to the attraction of *undesirable* people (the homeless, addicts, etc.) (Whyte, 1980, p. 60). This fear led on by a paranoia is a superb example of highly active spaces not being able to define a successful social infrastructure. In this example's case there is design in the discretion of the plaza owners whether they desire to have their already highly active space benefit from hosting a social infrastructure.

At the end of his observations, Whyte learns that by stripping down the plazas to their bare bones, there is little activity for the common person to enjoy the social infrastructure of the prototypical plaza. As a result, *the undesirables* take over. Whyte identifies that the best way to handle the problem of *the undesirables*, is to make the social infrastructures attractive to everybody else (Whyte, 1980, pp. 60-4).

31 See *The Social Life of Small Urban Spaces* (1980) Chapter 6: The “Undesirables”.



Figure 45 *Berczy Park, designed by Claude Cormier (Industryous Photography, 2017)*

Categorizing Social Infrastructures

As it has been mentioned previously, social infrastructures are not only open public spaces such as the plazas or garden walks elevated above the busy streets of Manhattan. Latham & Layton take effort into categorizing social infrastructures into groupings for further analysis. The groups (also referred to as ‘types’) are public institutions, commerce, recreational activities, religion, and transit (2019, p. 6). To develop a highly used area, a neighbourhood or main street should provide opportunity for all categories of social infrastructures.



Figure 46 Types of social infrastructure, diagram (Latham & Layton, 2019, p. 6)

There are two revisions in the form of additions that I propose to make with regards to Latham & Layton's categorization of social infrastructures. Firstly, there is currently no grouping of social infrastructures that relate to residential infrastructure. Many multi-use residential complexes integrate public, and semi-public programming that could be defined as social infrastructures. Also, simple single-family habitats, through their design, could facilitate social infrastructure programming. For instance, the design of open-air porches such as those seen throughout Wortley Village, in London, Ontario. I've spent some time in *the village*³² house sitting or visiting friends, and even lived in the quaint neighbourhood for a short time. My experience in the warmer weather months as I reclined outside on the front porch was nothing short of welcomed public interaction with passersby. Brand writes of porches, "[from] the 1840s onward, porches became a highly popular add-on... The porch was an outdoor room, simultaneously intimate and public," (Brand, 1995, p. 161). In this example, and many others, residences can behave as social infrastructures by soliciting sociality in a public setting.

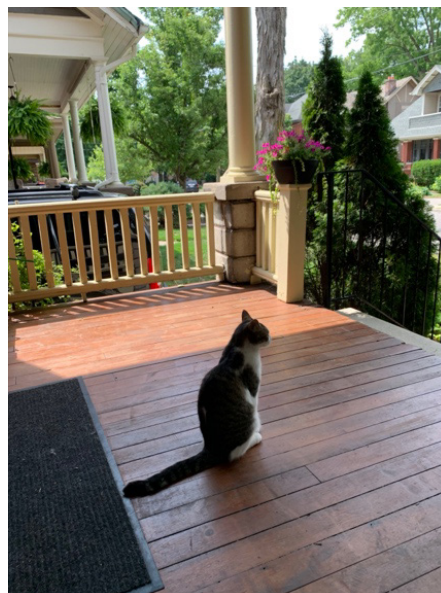


Figure 47 *View from a village porch with repeating porches in the distance, 2022*

Secondly, I believe that the religious category is partially incomplete, and absent of something based on its title. Religions are becoming less popular as a practice to partake in

32 Common local slang for the Wortley Village neighbourhood.

within my lifetime, and projecting into future generations.³³ Therefore, I believe cultural social infrastructures should be a standalone category onto itself. An argument can certainly be made that there are more people within Canada who see themselves having an ethnocultural identity rather than a religious one. Religions are part of a culture's character, so it could even be argued that religion should be a sub-category of culture, particularly as it relates to the grouping of social infrastructures. Places of worship have a social significance in that they often function as a route to civic participation for many immigrants (Latham & Layton, 2019, p. 7). All the while their physical structures are home to all sorts of activities that support community resilience.

The Importance of Sharing Spaces

Sociality

Definition: Sociality – An instance of social intercourse, or the ability to create a tendency to associate in social groups.



Figure 48 Social intercourse at the Centre Pompidou, Paris, France, 2016

33 Young adults under the age of 40 are less likely to be religious, or identify with a religion, a growing trend that is actually identified as a global trend across different faiths and ethnocultures (Pew Research Center, 2018).

More often than not, social infrastructures support a primary function other than sociality, however, Latham & Layton note that the sociality they provide us with is compulsory for the social infrastructures to manage to provide their primary function (2019, p. 3). Echoing something that will be repeated throughout this research paper; Social infrastructures must be publicly accessible, or else their true purpose is neglected.

Jacobs, realizing the importance of social infrastructure prior to the term being commonplace, believes that children need access to a variety of opportunities for learning and play, not just the sidewalks of their neighbourhood, but accessible sports facilities for exercise and physical skills too (Jacobs, 1992, pp. 80-1). At the same time, children need places for unstructured play, to, as Jacobs puts it, "...help form their notions of the world," (Jacobs, 1992, p. 81). Jacobs understood the value of social infrastructure decades ago. She saw the sidewalks of traditional neighbourhoods as valid forms of social infrastructure, but inadequate for all of life's lessons, particularly those learned in our formative years.

In her chapter titled 'The use of neighbourhood parks', Jacobs analyses the successful and failing characteristics of five original parks designed by the City of Philadelphia's founder William Penn. Her commentary of Rittenhouse Square's reasons for success to this day stand out; "In short, Rittenhouse Square is busy fairly continuously for the same basic reasons that a lively sidewalk is used continuously: because of functional physical diversity among adjacent uses, and hence diversity amongst users and their schedules," (Jacobs, 1992, p. 97).

The arguments for the importance of diversity are scattered throughout this research paper. Diversity yields us benefits in many ways, through culture, social infrastructure, and programming to name a few. Diversity of the supporting adjacent programming is important to the success of a social infrastructure, as Jacobs analyzed in her observations of Rittenhouse Square.



Figure 49 *Rittenhouse Square, Philadelphia, PA (Fischetti, 2024)*

Jacobs preaches for diversity, both social³⁴ and economic (Jacobs, 1992, p. 101). Without diversity found in the users of the municipal parks (social infrastructures), and diversity of the adjacent built environment, in particular the programming of use-spaces, parks will be filled with blight.

I believe that Jacobs' evaluation of social diversity in this case is correct, but also incomplete. The diversity of users from an ethnocultural perspective plays an equal, and in some ways greater importance to the success of this particular social infrastructure. Framing the design of the park space as inclusive by acknowledging different populations and their potential usage of the parks can enhance the experience of social infrastructures for the greater population and advocate for supporting a diverse community.

Jacobs continues her review of parks by sorting between components that classify 'generalized' and 'specialized' park space (Jacobs, 1992, pp. 107-11). Places that support live music, fishing, other sporting play such as tennis or basketball, or swimming pools all fall under the category of 'specialized' use spaces. Both generalized and specialized spaces provide us

34 When Jacobs refers to *social* diversity, she talks about the diversity of users from a perspective of occupation. "City parks or playgrounds cannot be continuously populated by mothers alone, any more than by office workers alone," (Jacobs, 1992, p. 98).

with sociality. In some ways, specialized spaces might restrict the diverse sociality I believe is a necessity in Canada. There is a negative aspect to these social infrastructures when they stand alone – they offer little room for diversity of use, and thus, shorten their time of activity throughout the day, week, and year. However, specialized park spaces do carry some positive aspects; they provide direct reason for community members to visit the spaces.

Latham & Layton believe that social infrastructures can be an important resource for the economically or socially marginalized populations (2019, p. 7). Commercial spaces, though sometimes perceived as exclusive, can become safe spaces for some social groups such as the LGBTQIA2S+ community. The environment this particular social infrastructure provides can facilitate “...community life, welfare, and wellbeing,” (Latham & Layton, 2019, p. 7). Social infrastructures as places for community life, welfare, and wellbeing all have characteristics of sociality.



Figure 50 *Peace Week at Gillett Square (Gillett Square London, 2017)*

Gillett Square is a unique social infrastructure that is host to all types of activity that possess community life, welfare, and wellbeing. With a wide range of events over any given month, Gillett Square provides seemingly spontaneous sociality within its community members and the social groups that come to visit. Libraries are no different. They, along with the librarians, can create sociality for many people of diverse cultural and economic backgrounds. Klinenberg states, “[their] core mission is to help people elevate themselves and improve their

situation. Libraries do this, principally, by providing free access to the widest possible variety of cultural materials to people of all ages, from all ethnicities and groups,” (Klinenberg, 2019, p. 37). Libraries should be accessible and available everywhere, even in the age of the internet, they should remain an essential social infrastructure within any city today.

Jacobs argues that neighbourhoods at their basic concept imply singularity and self-sufficiency (Jacobs, 1992, pp. 116-7). Jacobs continues the defense of her arguments by suggesting only three kinds of ‘neighbourhoods’ are useful: the overall city, the street neighbourhoods, and districts of a large size (approximately 100,000 people or greater) (Jacobs, 1992, p. 117). Jacobs believes the city that wants to promote any kind of successful neighbourhood should aim to foster lively and interesting streets, tie together the fabric of the neighbourhood with the streets as continuously as possible, use parks, squares and public buildings to intensify the fabric’s complexity, and lastly, emphasize the functional identity of areas that are actually large enough to function as districts (Jacobs, 1992, p. 129). Fostering lively and interesting streets is the end goal. How can we achieve this? I believe by designing social infrastructures that spur sociality amongst a neighbourhood’s community members is a good start. What better way to encourage sociality than to tie in characteristics of cultural continuity in said social infrastructures? This way, we can bring together a community’s diverse demographic.

Cultural Continuity

Introduction

By now we know of culture as it applies to an ethnographic perspective, but there are other ways to see culture too. The term ‘culture’ can be used to define a singular group of people and their views on a particular aspect of human life. For instance, ‘sneaker culture’ is a term that describes those people who enjoy wearing, collecting, or trading shoes as a hobby. This thesis research paper focuses on the term ‘culture’ as it would apply to ethnography. For simplicity in this paper, the terms ‘culture’ and ‘ethnoculture’ are interchangeable. I believe that the continuity of an ethnoculture impacts the resilience of a community in numerous respects. Within this section of the paper, I will explore various aspects of culture and why it is important to sustain cultural diversity within a locale to stimulate community resilience.



Figure 51 *Supporting Factor: Cultural Continuity, diagram*

Values, Beliefs, and Traditions



Figure 52 *Local children who are members of a folk dance & music group, 1996*

Values are important to us. They guide our behaviours and decision making, as well as define our morals as a community within a given culture. There are concepts of values that reside in all cultures, but the way they are reflected within a pluralistic society might differ, these are equality and respect. A monistic society will lead to an ethnoculture that is isolated from others, and therefore may have little reason to see their counterparts as equal or lend out any respect. When we live in a pluralistic society, we can see a co-existence emerging among the various ethnocultural groups, such as in neighbourhoods of diverse ethnocultural cities like Toronto.

Beliefs are the confidence in, or acceptance that something is true or exists. All cultures share in the premise of holding beliefs, whether it is in context of faith, philosophy, or reality. Beliefs may lead to negative aspects of a culture as well, such as the belief that another gender, or culture should be suppressed as it is deemed to be ‘lesser’ than one’s own. However, beliefs do plenty of good too, as they can bring us together in times of distress. One example would be in the aftermath of a tragedy put upon an ethnocultural community, as was witnessed in London, Ontario in 2021.³⁵ A horrendous act of hate was put upon a social group of a particular ethnocultural origin by one individual of another ethnocultural background. In the aftermath of the tragedy, signs of support were placed on private properties scattered throughout the

³⁵ For further reference, refer to the incident of a terrorist attack on the Afzaal Family in London, Ontario.

entire city and all of its diverse neighbourhoods to show signs of support for the harmed ethnocultural community. The city's diverse population was seen supporting one specific ethnoculture as they all shared in the belief that the terrorist attack was wrong. Believing what is right and what is wrong can bring us together.

Traditions are the customs, rituals, and practices that are passed down from one generation to another. Traditions can be culture-specific, and their origin is often blurred between numerous cultures. Perhaps the strongest characteristics of an ethnoculture are found in their traditions, seen in such concepts as their foods, language, and music. Speaking on ideas of tradition, Brand writes, "[tradition] is what you make it. That is, most traditions were once someone's bright idea which was successful enough to persist long enough for people to forget it was once someone's bright idea," (Brand, 1995, p. 143).

In the history of humanity, ethnocultures have made plenty in the way of their traditions to establish subtle differences between each ethnocultural group. These differences helped establish the characteristics that allowed for diversity to exist. Without differences in traditions, there would be little to distinguish one culture from another.

Values, beliefs, and traditions vary between ethnocultures, and this is part of the reason why diversity is beautiful. We should consider ourselves fortunate to live in a place that has become so welcoming of a diverse collective of cultures, so that we can revel in the beauty the different ethnocultures bring with them, as seen in their values, beliefs, and traditions. Imagine how bland life would be without them. Moreover, having the diversity of ethnocultural social groups within a community reduces hatred between counter groups and lends itself to a more resilient community during tough times such as the human-driven stressor of an act of hate such as the one referenced earlier.

Common Characteristics of Cultures

Rituals



***Figure 53** St. Leopold Mandić, Catholic church in London, Ontario, 2019*

In the United States, religious organizations – numbering more than three hundred thousand congregations – are more ubiquitous than all the most common fast-food restaurants, combined (Klinenberg, 2019, p. 188). The important role these congregations provide as built social infrastructures is immeasurable. Not only are religious congregations places of worship, Klinenberg writes, but they also act as important sites for community building (Klinenberg, 2019, p. 188).

Religious organizations offer different cultures the opportunity for each to exercise their beliefs. Diversity in the stockpile of religious social infrastructure helps with the continuity of a given culture. The problem with these specialized social infrastructures is in their lack of flexibility as Low-Road buildings. If there was a way to generalize religious social infrastructures, perhaps we could take the way of the Low-Road, however, this may be too large a task, and would diminish some of the characteristics that support diversity between various ethnocultures.

Food and Drink



Figure 54 Henry Tsang and Kris Barnholden sitting at a table on the street as part of the art project titled *RIOT FOOD HERE*
(Tsang, 2023, p. 53)

Henry Tsang, a visual and media artist by trade, often treats food as a medium for acknowledging deeper topics of culture, gentrification, racism, and violence. *Ten Different Things*, a series of commissioned projects curated by Kate Armstrong, was inspired by Tsang's *The Unwelcome Dinner*.³⁶ When describing his contribution to the series, Tsang's project poses self-reflecting questions such as "What would you have eaten just before you attacked the Chinese and Japanese?... Or what would you have eaten as you watched the angry white settlers attack the Asian settlers on your land?" (Tsang, 2023, pp. 49-50). *Riot Food Here* – an interactive in-person dining experience with Tsang and chef Kris Barnholden – took place in four distinctly unique locations in Vancouver. Each location drummed up its own unique experiences between the artist and chef, and passersby. "Over the course of the four weeks, stimulating dialogical experiences were shared over food that brought in people from various walks of life to reflect on the ongoing struggle, since colonial times, about who has the right to live and eat here," (Tsang, 2023, p. 55).

How can one stimulate dialogical experiences about cultural identity, or community resilience? *Riot Food Here* offered Tsang an opportunity for spontaneous sociality with social groups of differing ethnocultures, and with the context of the dialog being about racism – something that affects all ethnocultures in varying ways.

³⁶ *Ten Different Things* was a public art project that engaged ten artists to "...investigate the role of culture as a critical ingredient in the construct and vitality of the contemporary city," (Tsang, 2023, p. 180).



Figure 55 *Balkan Meza (charcuterie board), 2019*

The indefinable quality that food and drink offer us is the ability to bring people of different ethnocultural backgrounds together.

The food and drink of one ethnoculture tends to be enjoyed by many. For instance, I've frequented Meesai's Thai Kitchen in London, Ontario on numerous occasions. Meesai's was founded by Seng Phongdahara, an immigrant from Thailand. In all my occasions dining in or taking out from Meesai's, I haven't shared a meal with a single person who claimed to have been Thai, nor have I seen Thai people in the restaurant (with the exception being the staff). As of the 2021 Census, only 275 Londoners ethnoculturally identified as Thai, making up just 0.5% of the population.³⁷

The traditional foods served at Meesai's seem to bring in a diverse background of ethnocultures to enjoy in the Thai experience. The restaurant has recently been passed down to Phongdahara's descendants and appears busier than ever. Meesai's restaurant is a prime example of a venue for food and drink that brings diverse social groups together to sustain a physical community's resilience through the programming of a specific cultural social infrastructure.

Language

In terms of cultural continuity as it pertains to immigrants, language is something that

³⁷ (Statistics Canada, 2021).

is often first to wane. As a child growing up in Canada, when I was learning to speak my first language was not English. In fact, my mother spoke very little, often broken English during my early childhood. It was not until my exposure to regional social infrastructures that I began to learn to speak English, though my interaction with toys, games, and the television no doubt helped to introduce me to some English prior to that.

Cultural connectedness is a challenge through multiple generations of immigrant families. There have been studies on the idea of encouraging cultural connectedness through community art projects.³⁸ Perhaps giving home to art could help with the connectedness of cultural traditions, but I believe it would be a greater benefit if we could provide social infrastructures where those with differing ethnocultural backgrounds could feel comfortable having dialog in their language of choice. Nobody *likes* feeling as though they aren't a part of their local community. Without the opportunity to exercise language skills, the knowledge of a language will fade, all to the detriment of a culture's continuity.

38 See (Beauregard, C. et al., 2020).

Ethnoarchitecture: When Architecture Engages with Cultural Identity



Figure 56 *Piegian Indian, Mountain Chief, listening to recording with ethnologist Frances Densmore (Library of Congress, 1916)*

Ethnomusicology, a term coined by Dutch musicologist Jaap Kunst in the 1950s, is a word used to describe the study of music as a reflection of culture.³⁹ This field of study is fascinating as it explores how various characteristics of music (sounds, vocals, instruments, lyrics, etc.) reflect differing cultures around the world. Kunst was adamant that the study of musicology was not complete without the understanding, and study of music in context of its cultural impact.⁴⁰

So far as I can tell, there is no term used to describe a similar study as it relates to the field of architecture. Therefore, I would propose the term ***Ethnoarchitecture*** be used for the study of how architectural principles, designs, and structures interplay with and reflect various cultural identities and practices. Within this section of the thesis, I will briefly cover two topics that would surely fall under the umbrella of Ethnoarchitecture: *Ethnic Villages*, and *Dynamism, Community, and an Ethnocultural Building Model*.

39 See (Kunst, 1951).

40 See (Titus, 2018).

Ethnic Villages

Avoiding Exclusion



Figure 57 *Chinatown in Vancouver (Library and Archives Canada, 1951)*

In speaking about the Powell Street area of Vancouver, Tsang reflects on the importance of social agency in fostering the cultural continuity of the Japanese descendants living in and around the once vibrant ethnic village of Nhonmachi. “Culture in the neighbourhood is not only derived from ethnicity, cultural hearth, and charity, but has been uniquely fostered from within, tied to a long legacy of organizing,” writes Tsang (2023, p. 174). Ethnic villages are seen across Canada from coast-to-coast, in part because of the sheer volume of immigrants welcomed to Canada over the past century, but also due to the perseverance of community members to strengthen and continue their cultural practices in a new land. Musician and activist Kazuo emphasizes the cultural aspect of his own roots, and how they are tied to the design of a social infrastructures found within his community.⁴¹

Ethnic villages are inclusive, although it has been documented – and is still relevant today – that some see these neighbourhoods as a blight in their cities. Monikers such as ‘Chinatown’ and ‘Japantown’ appear in cities across Canada and the United States. White settlers would use these terms to refer to parts of their cities that housed Asian communities, however, these sites were not the sole creation of the ‘outsiders’. Asian settlers constructed these neighbourhoods “...as places of respite and community in spite of the onslaught of anti-Asian racism and other forms of class and race-based marginalization,” (Tsang, 2023, p. 121).

⁴¹ See *Case Studies & Precedents: Oppenheimer Park*.

“These names...” Angela May and Nicole Yakashiro write, “...have become commonplace and appear to many as innocuous and even empowering,” (Tsang, 2023, p. 121). I believe the colonial names of place markers across the city are no better than the derogatory names of neighbourhoods like “Japantown”. I am not alone in this belief, as only recently have we started to see a shifting approach to the nomenclature of streets and neighbourhoods in colonized Canada.⁴²

May and Yakashiro are active advocates of rejecting the moniker ‘Japantown’ in reference to a Downtown Eastside neighbourhood of Vancouver. “We know that the name ‘Japantown’ does things and that the things that it does are violent...” says May and Yakashiro, “...Some may read this and ask what the Japanese Canadian community might lose by rejecting the name ‘Japantown.’ We ask, instead, what we – and so many others – can gain,” (Tsang, 2023, p. 127).

In the introductory paragraphs of *White Riot* (2023), author Henry Tsang briefly discusses the racist history of early colonial Canada towards Asians, in particular the newly emigrated Chinese and Japanese population of Vancouver. Tsang also mentions some of the racial discrimination that took place throughout the 20th century, part of the country’s history that he himself was never taught about growing up in Canada. Some of these discriminatory acts included the Canadian based internment camps that imprisoned Japanese, Italians, Ukrainians, and other Canadians during World War II (Tsang, 2023, pp. 29-31). Internment camps are another type of ethnic village, ones that are conceived of based on fear, hatred, discrimination, and racism of another ethnoculture.

Sociologist Ash Amin argues that the functioning of public and collective spaces depends on the production and maintenance of a sense of trust. Latham & Layton add that this involves both the basic trust between individuals, and further trust in the maintenance and provisions of the social infrastructure facilities themselves (2019, p. 4). Considering Latham & Layton’s observation, social infrastructure may be a channel to limit these negative traits within ethnic villages. Ethnic villages can provide strength in cultural continuity, but they can also lend themselves to discrimination and segregation between various ethnocultures and their social groups.

42 The City of Toronto City Council recently passed a motion to rename historically significant streets like Dundas St. as well as other city assets (City of Toronto, 2023).

Arrival Cities

Perhaps the most powerful statement found in Raymond Unwin's *Town Planning and Practice* (1909) was his realization that "...towns and suburbs are the expression of something in the lives of those who build them," (p. 112). During the period of his writing, Raymond Unwin (1863-1940) recognizes that there is an absence of the attempt towards making the best of a site, one that could benefit the whole community as opposed to the individual (Unwin, 1994, p. 112). With a lack of unity in the total effect of town planning, Unwin advocates that builders, town planners, and architects work together to achieve a harmonious plan that simply does not exist with the current system of planning. Unwin identifies that in past precedents of urban planning, there are unquestionable flaws in the hierarchical system of zoning, but nevertheless, there is at least an understanding of zoning. One of the strongest flaws in Unwin's period is in the municipalities allowing the urban landscape to be shaped by the owners of the land, who without any doubt simply orchestrate the zoning of plots to maximize individual profits as opposed to building a community in the greater scheme. With this approach in mind, very little is done for creating social infrastructures that would respond to the ethnocultural diversity of a community in the first parts of cities that are accepting the immigrant populations.

Author Doug Saunders suggests that the 'final migration' will be complete by the end of the 21st century – the movement from rural populations to urban populations will be complete. Saunders is adamant that this will put an end to the large agrarian families and eventually lead to a reversal of the ongoing population growth (Saunders, 2011, p. 1). With a reduced population growth projected, what impact might this have on the traditional ethnic villages experienced today?

Saunders identifies the spaces between rural and urban centers as the 'arrival cities'; transitional spaces and places where he believes the next great economic and cultural boom will rise, or quite possibly where a 'great explosion' of violence will occur, dependent on our ability as a society to engage with the arrival cities (Saunders, 2011, p. 3). Saunders' defined arrival cities are part ethnic village, but also part regional migratorily hubs.

Saunders' arrival cities refer to the same geographical places that author Joel Garreau dubs *edge cities*. In his book titled *Edge City* (1991), Garreau recounts the history of traditional

communities in America, now at the point of the ‘edge’ of cities. His book discusses the new urban centres that are developed, and in many communities, are still developing on the edge of major metropolitan areas across the United States (Garreau, 1991). The same commentary can be applied to the mid-to-large metropolitan cities across Canada such as is seen in present day London, Ontario.

Saunders documents a landlocked city in China – Liu Gong Li – that was once a village of 70 people, and now, through mass migration and development efforts managed by the government, has become part of the greater city of Chongqing, a population that exceeds 10 million. Saunders believes that Liu Gong Li is not a destination for migrants, but more a stop on their journey through life. The stop serves as a place to raise funds to support past generations (back in their hometowns / villages), and hopefully raise enough funds to further the advancement of their descendants (Saunders, 2011). The finish line in this journey is to bring villagers and their villages into an “urban sphere”; a place that is described as “...the centre of social and economic life,” (Saunders, 2011, p. 10).

Saunders proposes that we see arrival cities as a set of functions; first, as the creation and maintenance of a ‘network’ that bridges the village to the established city; second, as an ‘entry mechanism’ that initiates wave-migration; third, as an ‘urban establishment platform’, allowing the migrants to become financially secure to one day purchase a home or start an entrepreneurial life; fourth, the arrival city provides a ‘social-mobility path’ into the middle- or upper-class, (Saunders, 2011, pp. 20-1). In Saunders’ proposal for the use of arrival cities, the author suggests a ‘churning’ of cultural migrations use these neighbourhoods as temporary levels in their progress towards becoming 21st-century urbanists. Saunders’ view does not appeal to my arguments for a sustained and resilient community. I believe the ‘throwaway’ approach to these arrival cities results in the disengagement of cultural continuity and thus, an absence of resilience within the neighbourhoods.

In telling of the story of Banglatown – Tower Hamlets, London, UK, Saunders observes that the second generation of migrants, if set up sufficiently by all that is provided of the arrival city, are eager to escape its grasp (Saunders, 2011, p. 35). This is where cultural continuity comes into play. Sometimes the members of the culture want to leave, and it shouldn’t be looked at as their abandonment of the community. The desire for a community member to

‘advance’ within a society should not result in the abandonment of a resilient community such as the one that provided the person the opportunity to advance in the first place.

In discussing depopulation of rural areas in Europe, Hernández et al. identify, “one of the most visible material symptoms of depopulation is housing redundancy: the abandonment of houses and residential buildings,” (2022, p. 25). The authors go on to say, “...housing is, simultaneously, material evidence of the rural depopulation and a potential engine that could guarantee the continuity of villages through new and different uses,” (2022, p. 25). The authors clarify that housing and depopulation are linked analytically by community resilience (2022, p. 25). Having vacancy in the arrival cities simply does not support the concepts of community resilience.

Saunders says that the measure of an arrival city’s success is through the flowing population that makes their way into, and out of the arrival city, “...whether they leave the arrival city [as contributors to the life of the city] or stay there, then it is working,” (Saunders, 2011, p. 36). If the arrival cities continue to churn out members of their community, I believe the only way the arrival city can remain ‘successful’ is if the social infrastructure that it provides can support the continuity of culture to maintain a sense of resilience within the community.

Dynamism, Community, and an Ethnocultural Building Model

Definition: dynamism: the quality of being characterized by vigorous activity and progress; the quality of being dynamic and positive.

What for the individual buildings that make up the physical realm of a community, in my study's case, the shared community spaces? How are these buildings being prescribed under the definition of dynamism? I believe a dynamic building model for a designed architecture that is intended to support generations of differing ethnocultural groups must be foremost, by definition, dynamic.

The common misconception is that a community, by definition, has activity. The truth of the matter is that not all communities are created equal. Many communities are docile, underwhelming, underdeveloped, and inactive. If a community were to be described as dynamic, it would suggest that the community is under constant change. Perhaps this isn't such a great thing for a community to be described as,⁴³ however, dynamism does bring with it another trait... progress. It would be redundant to desire a dynamic community in hopes of sustaining and supporting one or more ethnocultural groups of inhabitants. Extracting from Christopher Alexander's discussions with Stewart Brand where Alexander identifies the importance of dynamism in nature (Brand, 1995, pp. 21-3), the following diagram reflects on the dynamics of a community and its inhabitants:

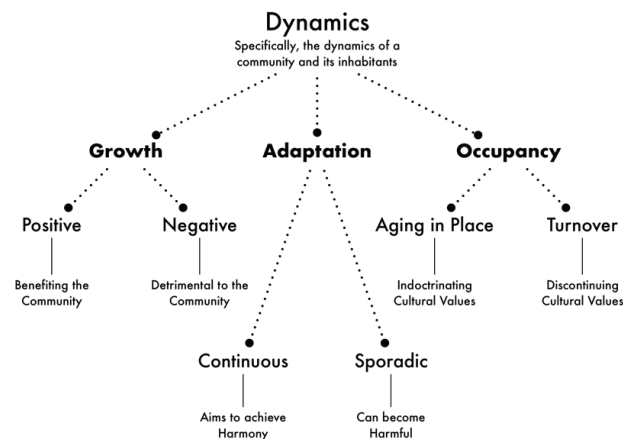


Figure 58 *Dynamics of a Community, diagram*

43 See Part I: *The Collected Research – Arrival Cities*.

The Collective Memory of a City

The way that Jacobs sees it, a neighbourhood assimilates with the ethnic communities that made them home, and not the other way around (Jacobs, 1992, p. 138). Perhaps cultural continuity can be carried through generations by how ancestors shape their built environment. In what way can the built environment be easily altered to tailor to a specific ethnoculture? From what we've seen prevalent in many ethnic villages throughout Canada, monuments seem to play some role in this.



Figure 59 *Chinatown Arch in Ottawa, Ontario (Ottawa Chinatown BLA, 2010)*

Part of fabricating a collective memory of a city requires people to habituate a neighbourhood for long enough a time to leave a distinguishable mark on the urban fabric. Jacobs believes that a self-sufficient and sedentary community will always struggle to develop an enriched strong city neighbourhood:

...wherever ethnically cohesive neighbourhoods develop and are stable, they possess another quality besides ethnic identity. They contain many individuals who stay put. This, I think, more than sheer ethnic identity, is the significant factor. It typically takes many years after such groups have settled in for time to work and for the inhabitants to attain stable, effective neighbourhoods, (Jacobs, 1992, p. 139).



Figure 60 *Community members dance during a street festival in Little Italy, Toronto, Ontario (Little Italy BIA, n.d.)*

Jacobs believes that a good city neighbourhood can ‘absorb’ newcomers – immigrants or the transient population (Jacobs, 1992, pp. 137-8). Jacobs asserts that strong city neighbourhoods are frequently those that are inhabited by ethnic communities. That said, Jacobs rejects the idea that only ethnic communities can foster strong neighbourhoods. She believes that ethnic cohesiveness might have played a significant role in establishing strong neighbourhoods such as the likes of Greenwich Village, however, those of ethnocultural descent cannot be fully credited for “district cross-links” – the undisrupted connection between neighbourhoods of various ethnocultural populations (Jacobs, 1992, pp. 138-9). Here, Jacobs firmly believes in ethnocultural diversity and cultural identifiers of neighbourhoods, however, she rejects the notion that a “cohesive ethnic base” is a necessity for good neighbourhoods to work as social units. Ethnocultural diversity is the key, here we see Jacobs’ view as to why diversity is important, and why it cannot be the be-all-end-all to fixing bad neighbourhoods.

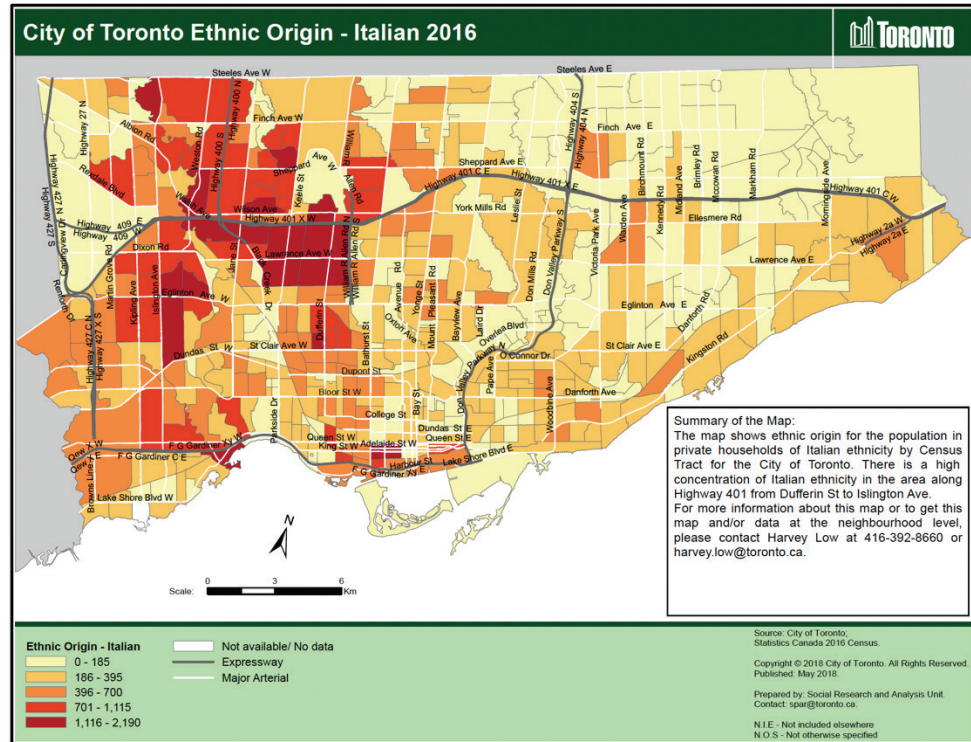


Figure 61 City of Toronto - Ethnic Origin - Italian, 2016 census data (City of Toronto, 2018)

Toronto's historic College Street is still referred to as Little Italy to this day, however, most Italians who grew up there moved out to Toronto's suburbs. The map above indicates the area known as Little Italy with the small scattering of red north of Billy Bishop airport. Most of the Torontonians with Italian origin are seen much further north. Generational shifts impact the neighbourhood as it pertains to the ethnic content (programming of spaces), but not the buildings themselves. The negative view of this is that the community members change, the positive outlook is that the cultural continuity of the community doesn't. The people within the neighbourhood still associate with its cultural roots, even though many of its founding community members have moved elsewhere.

What of its architecture makes the neighbourhood part of the early collective memory of the city? So far, it is the parts that remain vital to everyday life and the enjoyment of those

who visit: the restaurants, the streetscape, the social infrastructure and the nomenclature of the buildings, streets, and place markers to name a few. Although Rossi's idea of a collective memory of a place was conceived by studying ancient cities (Rossi, 1988), as it relates to this thesis, the cultural continuity of an ethnocultural group is not aiming to inject layers of memory in a given city's fabric. The intent is to understand how collective memories are formed through the built environment, so that we can guide them to reflect cultural values, beliefs, and traditions, that can sustain the waves of community members that make their way through a neighbourhood, in support of the people who use the infrastructure and the resilience of the community that hosts it.

Ethnic Ties and Dissipation

Sociologist Ray Oldenburg believes that the best social infrastructures for children are ones where adults hang around.⁴⁴ Oldenburg states that the only places where children and adults seem to hang out and enjoy one's company are the ethnic enclaves. The reason is simply because 'generational ties' matter more to the ethnic groups than to the assimilated locals, Oldenburg argues (Oldenburg, 1999, p. 272). Various ethnocultural groups who have immigrated to Canada have often come together as an ethnocultural community to assist one another in migrating and assimilating into their new homes. When an ethnocultural community grows large enough, and comes together with enough strength and force, they often build places for themselves to congregate. To these ethnocultural communities, their built infrastructures are what keeps them together, and helps them to further develop and strengthen their communities. However, to an outsider these purpose-built places appear closed off, and private. More often than not, they are.

44 Oldenburg shares these beliefs with the likes of Jane Jacobs as well, see Jacobs, 1992, *Chapter 4: The Use of Sidewalks: Assimilating Children*.



Figure 62 *London & St. Thomas Croatian Cultural Centre, a windowless, gated community centre that faces its back towards the adjacent public street, 2024*

The Croatian Cultural Centre of London & St. Thomas is a superb example of this. The north and west facades of this building, which have visibly been through numerous renovations over the years, are windowless but for two small openings at the north elevation (pictured to the left) which are set with a sill height of 1900 mm above the finished floor of the interior, and perennially covered by blinds. This building sits elevated high beside a rural throughfare that connects the major urban centres of London and St. Thomas and is witness to traffic volumes of upwards of 15,000 cars daily.⁴⁵

Oldenburg saw that the formation and eventual dissolution of ethnic clubs like the one mentioned above were inevitable, regardless of their “degree of resistance” to the outsiders of their ethnocultural communities (Oldenburg, 1999, p. 272).

45 City of London Open Data: Traffic Volumes (City of London, 2019)



Figure 63 *London Chinese Cultural Centre, 1701 Trafalgar St. (Google, 2024)*

In telling the story of a Russian Cultural Centre built in the early 1930s somewhere in the United States, Oldenburg documented the storied past of this ethnocultural club, and how it had once welcomed the full array of its community members. As decades passed, the children who learned to play at the club, frequenting the place on numerous occasions within any given week, transitioned into adulthood. Many of them had moved out of town, while other community members simply died off, resulting in a staggering depopulation of the community into the 1980s. The place that once hosted all members of a community, eventually depleted to only hosting the male population of the community who wanted a place to get away from the rest of their family.⁴⁶

Once the following generation of members moved away, the Russian Cultural Centre was on an inevitable course of collapse – at least its founding ethnocultural community was. Oldenburg did not report on the eventual outcome of the social infrastructure itself, however, he did point out that at his last survey, the club itself became assimilated with the greater neighbourhood. Russian murals were painted over with picturesque images of America's harbour scenes, and spaces once functioning as areas for children and adults to play, were now renovated to focus on entertaining the adults of the community (Oldenburg, 1999, p. 274).

Ethnic ties deteriorated, and perhaps the design of the building had less to do with this than its location, and proximity to its founding members and their habitats. This appears

⁴⁶ See Oldenburg, 1999, Chapter 13: Shutting Out Youth

to be the common life and death story of these highly specialized and isolated ethnocultural community centres. Dynamism cannot be achieved in places like this when there is no vigorous activity to support the potential progress of the community. These ethnocultural centres might be better served to become places of inclusion rather than exclusion from the get-go. I believe that having life around the places where these purpose-built structures are erected is a good start. Designing them to be open to the public is even better.

The Built Environment

Introduction

How can the built environment integrate social infrastructure to support cultural continuity for a diverse ethnocultural population? How could this approach bring about continual resilience in communities through multiple generations of cultural change? These were the questions I asked myself throughout the research phase of my thesis.



Figure 64 *Architecture Influenced by the Supporting Factors, diagram*

The following sections of this thesis research paper explore preconceived notions of the built environment such as Low-Road Thinking and revitalization, as well as touching on the impacts of gentrification as it relates to community resilience, and aspects of intercultural habitation – also referred to as pluralism. By observing critical commentary from others, such as Henry Tsang’s commentary in *White Riot* (2023), I will explore if ethnocultural neighbourhoods are contributing to cultural continuity, or community resilience. I will also explore other directions that the built environment has taken to incentivise cultural practices that have traditionally resulted in developing enhanced resilience within communities.

Adaptation

Low-Road Thinking



Figure 65 *Moshe Safdie's Habitat '67, a perfect exemplar of a High Road building, 2015*

Brand observes that most of the world's work – as it pertains to architecture – is done in something that he dubs “Low-Road” building (Brand, 1995, p. 24). This observation is undeniable. For example, how often do you come across a Habitat '67 in your daily routine moving through your city? I believe that Low-Road buildings are conducive to building something that appeals to the continuity of culture, and it is this stable continuity that is a key ingredient in the recipe of community resilience.



Figure 66 *A detached shed positioned beside a home in Picton, Ontario*

When thinking about Low-Road buildings, a great example is pictured above. This shed protects its internals via two large wooden hinged doors with inset glass to allow for some natural light to penetrate the enclosure. What could possibly be masked by these doors? Well,

seemingly just about anything from a parked car to a pottery studio. This is the beauty of the Low-Road building; it allows for adaptation.

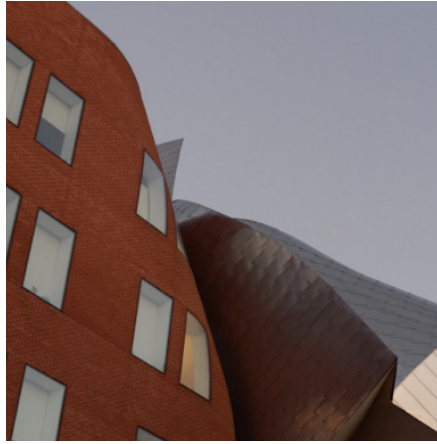


Figure 67 *Peter B. Lewis Building by Frank Gehry, Cleveland, Ohio; a commercial building with little room for adaptation, 2016*

Brand notes that commercial buildings must adapt quickly, and often with radical transformations. This is why they are often built in a way that encourages metamorphism (Brand, 1995, p. 7). Usually, this translates to commercial buildings that are built with similar characteristics as is seen in the detached garage example. For the most part, this is also why we often see the Low-Road buildings start out as commercially programmed spaces, though commercial spaces are not necessarily always built with a Low-Road mindset. Take into consideration the commercial buildings designed by Frank Gehry. They are iconic and act as landmarks within any city they are placed in, however, they do tend to be buildings that are ‘complete’ when they are open, rather than buildings that begin a life journey once they are completed. The irregularities in plan of Gehry’s buildings do not lend themselves well to adaptation.

Author Stewart Brand believes that there is an opportunity waiting for architects who can learn how to design buildings that grow incrementally over time (Brand, 1995, p. 201). Brand notes that economic activity always follows Low-Road activity (Brand, 1995, p. 28). In his description of the Low-Road building mantra, Brand references Jane Jacobs’ *The Death and Life of Great American Cities* (1991, p. 245); “Old Ideas can sometimes use new buildings. New ideas must come from old buildings.” (Jacobs, 1992, as cited in Brand, 1995, p. 28). Brand identifies

Low-Road buildings as being under-researched; “What do people do to buildings when they can do almost anything they want?”, the author asks (Brand, 1995, p. 31). What about Low-Road social infrastructures? Are there ways in which we can design social infrastructures to have attributes that allow for adaptation?

Anne V. Moudon’s *Built for Change* (1986) uncovers her findings based on a landmark study of San Francisco neighbourhoods, and what makes them adaptable in fine measure rather than sudden devastating change / redevelopment – their standardized parcel size (p. 188). Moudon also talks about the success of San Francisco’s Victorian row houses, and why they manage to survive so long through their basic design – utilizing the rectangular plan (Moudon, 1986, p. 65).⁴⁷

Of course, not all the world’s renowned architects lend their abilities to creating High-Road buildings. Take for instance Le Corbusier’s Cité Frugès, an experimental subdivision that included 51 houses and was developed alongside Pierre Jeanneret from 1924 to 1927.

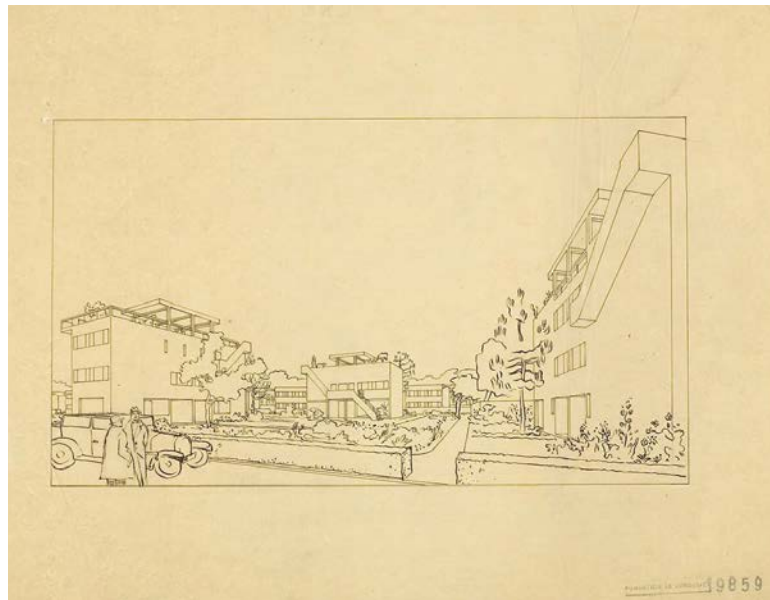


Figure 68 *Perspective drawing of a set of houses with vegetation and silhouettes (Le Corbusier, n.d.)*

⁴⁷ See also Stewart Brand’s *How Buildings Learn* (1995, p. 192) for an expanded commentary on Moudon’s findings.

Phillippe Boudon's *Lived-in Architecture* (1972) dissects Le Corbusier's first ever large-scale project, the Quartiers Modernes Fruges, in Pessac, France (c. 1920s). The project was a 70-unit housing complex where Le Corbusier acted as both the architect and town planner, considering social and economic factors. The goal of the project was simple, to provide inhabitants with low-cost, homogeneous buildings to live in, and empty 'containers' that would be actively filled by the inhabitants' presence alone. Boudon's book explains what happened once people moved in and proceeded to live in the complex over time, and how these people lived with, and against Le Corbusier's intended design schemes, (Boudon, 1972).

It is somewhat ironic to think that even buildings designed by an architect can be adapted by the end user. Whether or not Le Corbusier had this in mind, the outcome for the community resulted in resilience as seen in the lifespan of his buildings, which will be celebrating their 100th anniversary in 2024. Boudon's interviews with the community members of Le Corbusier's project bare a direct resemblance to Brand's Low-Road Thinking. If given the opportunity, people will make what they want of their spaces. As Brand would see it, this is a characteristic of good designing, and I tend to concur.

Displacement of Ethnocultures



Figure 69 *Parade in Chinatown, Vancouver, BC (Crookall, 1936)*

Despite the lack of welcoming from the white settlers, and support from any government, the Chinatown of Vancouver is still survived today, over one-hundred years since its formation. Today, Melody Ma writes, the Chinatown of Vancouver faces a new threat,

gentrification. Gentrification is, as Ma put it, “...a powerful displacing force creating crisis in the [community],” (Tsang, 2023, p. 142). Ma continues, “[Gentrification] is a process of class displacement wherein an influx of wealthy people displaces the existing poor,” (Tsang, 2023, p. 142). Gentrification is not only class displacement, but also cultural dispersion. The gentrification of Chinatown in Vancouver – a recognized national historic site in Canada – is more than just class displacement, Ma writes, it is also about the “erosion” of the neighbourhood’s distinct cultural heritage and history (Tsang, 2023, p. 142).



Figure 70 *Newly built condominium in the heart of Chinatown Vancouver, by W.T. Leung Architects (Segal, 2016)*

Ma compares the current trend of economic and cultural displacement via the building of new, upscale housing and amenities not unlike what was experienced during the historical anti-Asian riots and the government lead ‘head-tax’ on Asian immigrants. Both eras reflect an attempt to gentrify and displace a community and a neighbourhood from the greater city (Tsang, 2023, p. 143). Ma concludes her essay by addressing those critics who believe that economic growth is the natural order that takes place, and the inevitability that destroying Vancouver’s Chinatown will lead to further growth and opportunity for all. Ma writes that these critics, “...don’t underestimate how Chinatown represents our way of life, our cultural identity, and our living heritage and history...” (Tsang, 2023, p. 147).

Many other ethnic villages have already seen their demise through the ‘progress’ that has brought with it a gentrification of local inhabitants in major cities across Canada. Ma’s point about how ethnocultural groups identify with their built environment stresses the importance of cultural continuity through aspects of the built environment, and the harm inflicted on a culture’s continuity when the built environment is faced with rapid change.

Revitalization



Figure 71 100 Kellogg Lane - The Factory, London, Ontario, by matter architectural studio (matter architectural studio, n.d.)

Stewart Brand observed the important correlation between old buildings and tourists in *How Buildings Learn*, stating, “[the] bond between old buildings and tourists is absolute and venerable...Tourists have helped revive or save many a building or neighborhood that was ready to be discarded by locals,” (Brand, 1995, p. 94). What does this mean for the revitalization strategy of an ever-growing municipality in Southwestern Ontario? When considering Brand’s claims that the architect does not build for the future of its buildings, but for the immediate present, should a revitalized urban neighborhood start from scratch, wiping away all that is present and building something so particularly unique that it banks on future generations of tourists to protect itself from destruction? Or should the neighbourhood preserve what is ugly and already being forecasted for demolition in such a manner that has never been done before?

The Factory at 100 Kellogg Lane in London, Ontario, designed by matter architectural studio, is a good precedent to consider when asking these questions. A former cereal processing plant, many Londoners including I can recall childhood memories of the unique smell of

frosted flakes when driving past this large purpose-built plant. The processing plant stopped producing cereal at the end of 2014, after over 75 years in existence, and left a large hole in a sufficiently developed, affordable neighbourhood just east of downtown London. Something so purpose-built as a cereal processing plant would seem destined for demolition as all the characteristics of this large-scale structure seemed to align with the High-Road building model.

However, this was not the case with 100 Kellogg Lane. Revitalization efforts by advantageous investors have turned the former cereal processing plant into a regeneration project the likes of which the city has never seen. Now dubbed ‘The Factory’, 100 Kellogg Lane is home to hundreds of square metres of office space, restaurants, and entertainment, among other programmes. The building has become a tourist destination for out-of-towners, another benefit added to the greater city, and furthering the development of the neighbourhood by providing job opportunities where there once was a gap. The revitalization of this industrial building has supplemented the neighbourhood with social infrastructures, without taking anything away. Gearing a wide array of programming to diverse social groups will undoubtedly ensure longevity of the building’s use, and resilience in the local community.

In discussing maintenance, Brand notes that Europeans build differently than Americans; in Europe, they build more expensive homes that result in less maintenance costs down the road, opposite of the Americans. Brand identifies this dissimilar ideology as a mere difference in thinking... “European families think in generations while Americans are still trying to master decades,” (Brand, 1995, p. 113). Perhaps the need to revitalize neighbourhoods would be less pertinent in our built environment if we built with an ideology like that of the Europeans.

Brand tells a wonderful story of New College, Oxford’s maintenance program. Large oak beams in one of the grand halls of New College (circa 1386) were found to be rotting in the early 20th century. Amid panic and concern in ever being able to replace such unique important structural components of the hall, the College’s Council had contacted their Forestry department for aide at which time they were informed of a maintenance program established decades ago. The Forestry department had been meticulously caring for a group of oak trees

in the inevitable event that the hall's beams would need replacing. As Brand puts it, "That's the way to run a culture," in reference to New College Oxford's the maintenance program's culture (Brand, 1995, pp. 130-1).

The foresight of something so simple seems to continue to be lost in the buildings we are creating today. The next time we build something that is host to a social infrastructure – be it transit, recreational, commerce, religious, habitual, cultural or a public institution – we should start by asking ourselves 'What's going to happen to this place when its use has fallen out of fashion?'.



Figure 72 Vacant office building located at 195 Dufferin Ave., London, Ontario (Hensen, 2024)

Architect William McDonough insists that any new office building he designs be flexible to convert into housing. McDonough regards housing as the most fundamental use of a building, a use that will always be a necessity (Brand, 1995, p. 174). McDonough's approach may not have been adapted by most architects, however, the trend in recent years since the COVID-19 Pandemic has many interested parties advocate for the revitalization of downtowns in metropolitan cities to convert their vacant commercial infrastructure into housing. A similar approach is currently tabled for the office building located at 195 Dufferin Ave. in London, Ontario. The plan is to convert the 8-storey building into 94 residential units. The hope is to bring more residents into the core and revitalize a community that is presently absent of any kind of resilience.⁴⁸

48 During the COVID-19 Pandemic, white-collar office workers were forced to re-locate from their corporate office spaces in downtowns to their homes. Working from home became more than just a trend, as post-pandemic

Abandoned Social Infrastructures

Why Public Spaces Fail

For a social infrastructure to become abandoned, it must have either failed, or been replaced by something else. In the latter case, referencing the story of vacant downtowns mentioned in the previous section, plenty of social infrastructures were abandoned during the pandemic due to government-led public safety restrictions placed on the population. With people working remotely from home, the diner on the corner of a busy downtown street lost its primary customer base, and the take-out coffee shop located on the ground floor of an office tower closed its doors due to the immensely reduced foot traffic it had built its business model around. But what about the social infrastructures that simply failed, unrelated to the events or aftermath of the pandemic?

Brand associates the death of the porch to the rise of motor vehicles (noise on the streets), air conditioning, and the introduction of televisions into every household by the 1960s (Brand, 1995, p. 161). Libraries were at one point – and in many new examples such as the ones discussed within this thesis – the epitome of a successful social infrastructure. What happened to them? Why have so many failed? Schools, Klinenberg says, are organizations as well as built social infrastructure. The way a school is planned, designed, and programmed shapes the interactions that occur in and around them (Klinenberg, 2019, p. 40). However, Klinenberg warns, schools can both integrate and segregate (Klinenberg, 2019, p. 40). Schools have also been failing as a social infrastructure.

According to Klinenberg, despite higher crime rates, teenagers from past generations had more freedom to roam around their neighbourhoods and public spaces. They also had more unstructured time in school and less ‘surveillance’ from the adults (Klinenberg, 2019, p. 43). Part of having teenagers make connections face-to-face rather than online is giving them spaces to freely move through without surveillance and constant monitoring from the adults.

work environments for many industries still rely on working from home, or a mix known as ‘hybrid’ remote work. The result has left downtowns across Canada deserted, and the social infrastructures that were built to account for these workers now struggling to survive. Coupled with the housing crisis during and post-pandemic, many believe there is an opportunity to convert vacant office buildings into residences. The problem for most of these commercial buildings is that they were never designed with the thinking that they would one day convert into residences.

More prevalent than ever, the only public spaces where teens can gather with large numbers of their peers is online.



Figure 73 Popular social media apps form the online social infrastructure used today, diagram

Schools are another architectural typology that, when designed to do so, can act as a social infrastructure for both the children and their parents. Often, in suburban settings, schools tend to restrict social interactions between parents by way of rigorous drop-off / pick-up lanes, and policies that prevent parents from entering the buildings themselves (Klinenberg, 2019, p. 86). The tendency of having parents remain in their vehicles as they drop their children off at the front door, along with the students being guided into the schools immediately to their classrooms directly results in habits that promote isolation. How has the building model of a prototypical suburban school changed to become an abandoned social infrastructure? I've had the fortune to work on a couple of new school builds in my career, and the common characteristic between them is seen in how they deal with the drop-off and pick-up procedures of the children. They always tend to force an order upon the students, and the adults who are picking them up.

In Klinenberg's book he speaks of parents getting to know each other by picking their kids up in the small school yards, almost as if the space is an airlock of mingling and sociability. When I went with my brother-in-law to pick up his daughter from elementary school, vehicles were mandated to snake around a large parking lot one-by-one, as children were radioed from a teacher who was outside to another who was inside, instructing the children to line up in the order of the cars upon arrival. The children would promptly exit the school one-by-one in the

order that the cars drove in. First in, first out - a very handy rule of thumb when organizing your refrigerator or pantry, but a very unsociable method for dismissing children from their schools or sparking social activity amongst their parents. In this story, and for most other newly built schools today, the social infrastructure of the traditional school yard is abandoned.

Avoiding Segregation

I touched on the harmful impacts of gentrification in a previous section titled *Displacement of Ethnocultures*. Segregation has plagued ethnocultural communities in Canada in the past as well. Tsang tells a story of segregation in his book *White Riot* (2023):

However, like the Chinese, Japanese were barred from entering professions and from many jobs. They were barred from living in many areas of the city. Public places such as movie theatres and swimming pools were segregated, and some restaurants would not serve anyone who was Asian, Black, or Indigenous, (Tsang, 2023, p. 93).

Segregation is a problem, and it's always been a part of Colonial Canada. The following subsection investigates ways in which we can avoid segregation by channeling fundamental aspects of social infrastructure within our built environment. By limiting segregation, maybe we can encourage cultural continuity, which will lend itself to supporting resilience for the social groups of a diverse community.

Intercultural Habitation

Intercultural habitation is seen across Canada, from small rural communities like the one that I grew up in, to large metropolitan cities like Ottawa, Toronto, and Vancouver to name a few. Intercultural habitation is how Canada reflects its identity as a nation on a global platform. Perhaps Jane Jacobs summed it up best when she wrote:

...[We] need all kinds of diversity, intricately mingled in mutual support. We need this so city life can work decently and constructively, and so the people of cities can sustain (and further develop) their society and civilization...[Most] city diversity is the creation of incredible numbers of different people and different private organizations, with vastly differing ideas and purposes... (Jacobs, 1992, p. 241).

Cultural historian Ivan Illich says, “[dwelling] is an activity that lies beyond the reach of the architect... because no two communities dwell alike... Each vernacular architecture...is as unique as vernacular speech,” (Brand, 1995, p. 135). This is a valid point and perhaps the best argument for why Canadians should stop exploring concepts of a ‘one-size-fits-all’ approach to housing. Ethnocultures differ in how they dwell, their values, beliefs, and traditions demonstrate this clearly. Intercultural communication describes the communication between two or more individuals from two different cultures. What can intercultural habitation learn from intercultural communication? Well, for starters, it could learn that a good foundation of social infrastructures that encourage social groups from a diverse ethnocultural identity to experience sociality will assist in the intercultural habitation of a neighbourhood.

Sociologists have recently studied how de-industrialization has devastated neighbourhoods like those found in the South Side of Chicago, and how this action resulted in greater segregation of both race and class (Klinenberg, 2019, p. 151). The industrialization leaving the neighbourhood removed the workplace from a community. The point being made here is that regardless of the social infrastructure that was or wasn’t present in the South Side of Chicago at the time, intercultural habitation would not be possible without having the opportunity for social groups of diverse ethnocultural backgrounds to reside amongst one another. To form an ideal intercultural neighbourhood, there needs to be a presence of the fundamental programming of daily life in an urban city – places to work, and places to reside. Where the social infrastructure plays a key role in this is being able to bring those diverse social groups together to find common ground and negate segregation.

Shared Spaces That Encourage Sharing

Chicago based architect Jeanne Gang of Gang Studio practiced turning police stations into social infrastructure hubs to combat the distrust seen in many troubled communities across the United States. Implementing traditional social infrastructure programs adjacent to police stations allowed the community youth to familiarize themselves with local law enforcement, and vice versa (Klinenberg, 2019, pp. 227-30).

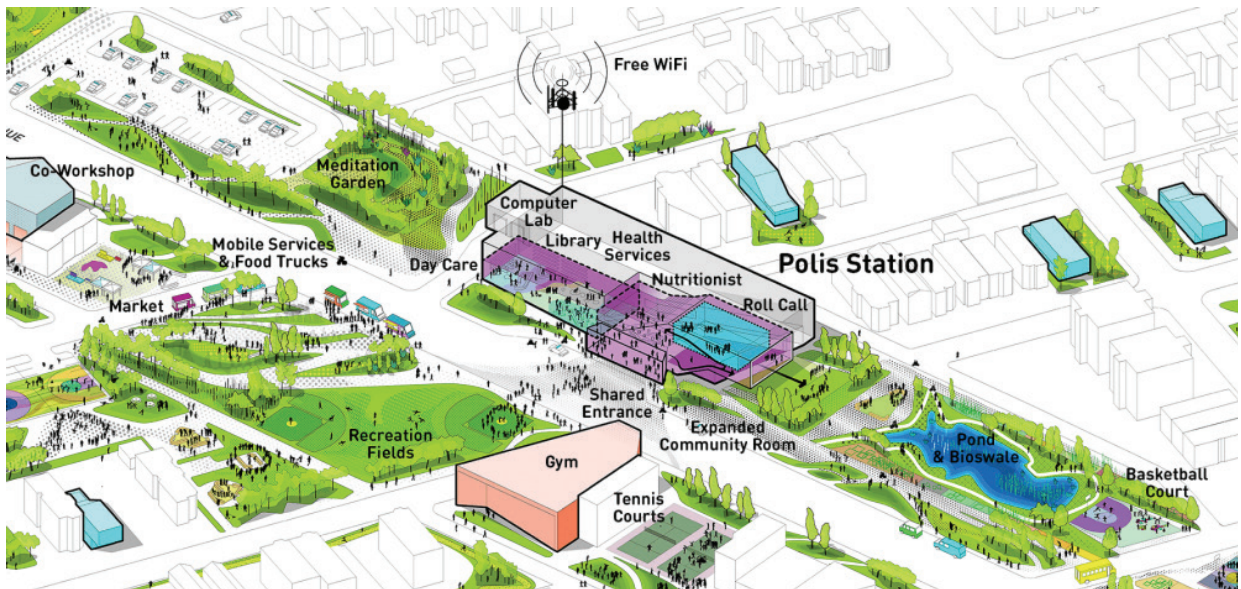


Figure 74 Axonometric Schematic of Polis Station, by Studio Gang “Polis Station is a self-initiated research project that seeks to illustrate the role of design in transforming police stations into spaces for public safety and community benefit,” (Studio Gang, 2015)

The idea of a social infrastructure hub that is surrounded by an element of any municipality's programming is intriguing to say the least. Gang's approach to social infrastructure hubs seems to revolve around a single narrative – creating shared spaces that encourage sharing.

Jacobs also has an interesting take on the common elements of a city and the harmful nature of segregation, this time, speaking of its paths. Jacobs writes, “[sidewalk] public contact and sidewalk public safety, taken together, bear directly on our country's most serious problem – segregation and racial discrimination,” (Jacobs, 1992, p. 71). Jacobs is arguing for righting the injustices facing America at the time (and seemingly more prevalent than ever still). Jacobs wants us to design sidewalks that are safe, and to provide more places that evoke sharing of spaces in neighbourhoods, to combat the onslaught of segregation and discrimination.

Latham & Layton believe that by practically making use of social infrastructures we can make it possible to identify an “ethics of togetherness” (Latham & Layton, 2019, p. 5). I believe that by doing so, social infrastructure can encourage a pluralistic society, starting with one neighbourhood at a time. Latham & Layton continue by writing, “...however, developing the concept of social infrastructure draws attention to a whole range of often overlooked and underappreciated urban spaces – and all sorts of overlooked and underappreciated practices,” (Latham & Layton, 2019, p. 5). I believe that it is the often overlooked and underappreciated spaces that can help us avoid segregation, by supporting intercultural habitation through shared spaces that are designed to encourage sharing.

Part 2: The Analysis

Process Overview

The major focus of the research evolved from the prime idea of community resilience and its two assumed supporting factors, social infrastructure and cultural continuity. Research topics were established and structured as potential links between the supporting factors and the prime idea. The following sections of the paper detail a process that was derived from the synthesis and critical analysis of the research. The objective of this process is to establish a system that is set up to demonstrate important elements that contribute to a successful execution of community resilience as it would relate to interventions within the built environment. An overview of the process that I undertook is written below.

Firstly, a review of the themes for discussion resulted in found commonalities between the prime idea and assumed supporting factors. A ***Pre-Architectural Analysis*** was attributed to each of the themes for discussion. By drawing connections between the themes, a series of ***Fundamental Elements*** which applied concurrently to the prime idea and its assumed supporting factors were discovered. A further analysis of the themes for discussion and Fundamental Elements helped establish a secondary set of themes found in the ***Design Criteria***. These criteria should be considered for future building projects that aspire towards building resilience. The result of this process led to an exercise that involved an ***Architectural Analysis*** which represents a collection of physical programming descriptors that connect the discovered Fundamental Elements with the established Design Criteria. By applying this process, the goal is to present fundamental requirements for an architectural intervention that builds resilience in the community that it serves, both in a social and physical realm.

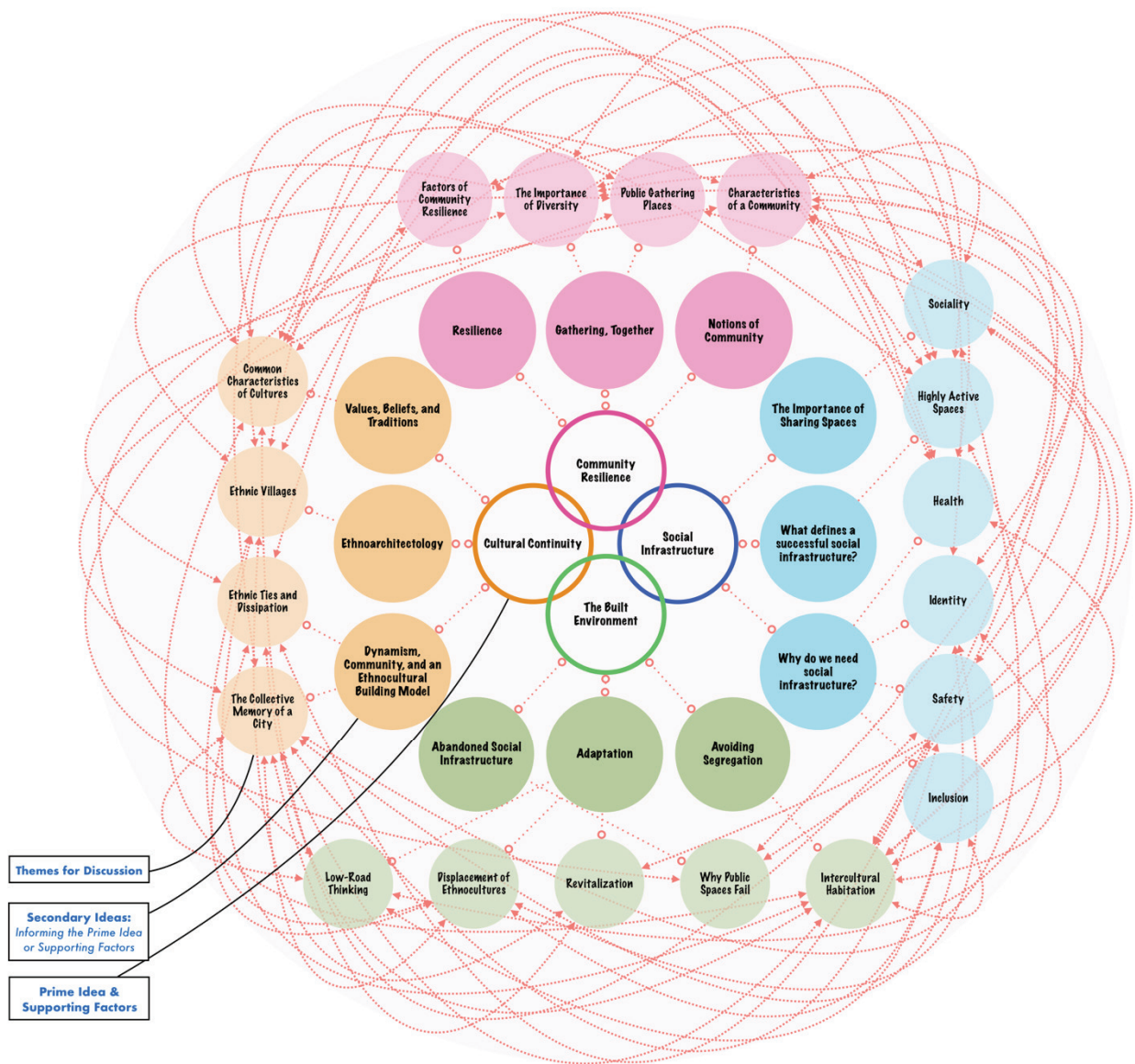


Figure 75 Early structuring of the research, diagram

Pre-Architectural Analysis

The following section of the thesis research paper is a synthesis of what was uncovered during the collected research. The synthesis discusses how the prime idea of community resilience is interdependent with its assumed supporting factors of social infrastructure and cultural continuity. Within the following subsections, a pre-architectural analysis tests the spatial requirements for a yet to be developed architectural program. In the final subsection, personal observations and critical analysis will lead to proposed architectural solutions that bear relevance to the synthesis of the design criteria.

Fundamental Elements



Figure 76 *Pre-Architectural Analysis, diagram*

The pre-architectural analysis will help to formulate a model for the successful outcome of community resilience through the interdependence of its supporting factors. The outcome will help provide a design criterion through the extrapolation, connection, and management of each of the respective elements. As depicted in the above diagram, the removal of a single element of the prime idea or its supporting factors will result in a weakened overall outcome, as each element is directly connected with at least one other, and even more connections are made on the secondary level.

Elements of Community Resilience

As I have demonstrated in detail in the collected research part of this thesis, in order to achieve the end goal of community resilience several factors must be considered. The following elements were highlighted as having a critical impact based on their strong association to the supporting factors and the key factors identified within each element.

Community Capacity:

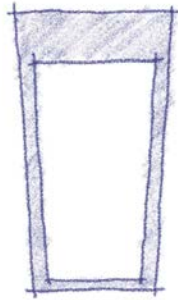


Figure 77 *Community capacity, graphic*

The element of community capacity provides the strongest correlation between community resilience and its supporting factors of cultural continuity and social infrastructure. Community capacity would not exist without the individuals who form social groups within the context of a neighbourhood. It would also not be possible without the structural assets of a neighbourhood, which are often perceived as being static.⁴⁹ At its core, the most important factor that determines a community's capacity for resilience is seen in the community's citizens and their desire to support and strengthen their community.

For this reason, among many others covered in the collected research, I have proposed the need to provide spaces for community interactions and spaces that provide resources for the community. The former is essential for providing opportunities for citizens to gather and interact with one another to identify and develop their shared values and beliefs. Being able to identify as part of a greater community on an urban scale is essential to providing the capacity needed to sustain cultural continuity. The latter is essential for providing a community's citizens reason to gather. Both features are programmatic and could be applied in various scale and magnitude within a given context.

⁴⁹ (Matarrita-Cascante, Trejos, Qin, Joo, & Debner, 2017, p. 110).

Community Adaptability:

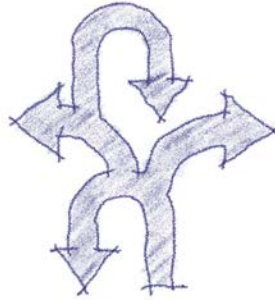


Figure 78 *Community Adaptability, graphic*

Community adaptability is about more than being highly usable, it is also about the anticipation for change, and the ability to react to a change that has occurred. A community's culture plays a strong part in the adaptability of a community as well. The framework of a neighbourhood can plan for adaptation, but it can also hinder it. As we've seen in many downtowns of large metropolitan cities across Canada, at the height of the COVID-19 pandemic the cores of our cities proved inept to adapt to the changing climate of urban life. The same can be said for the ethnocultural hubs, whose High-Road purpose-built structures restrict the potential for adaptation, resulting in failure and abandonment.

I have proposed that the need for providing highly usable spaces is essential to providing an architectural framework for the free adaptation of its community. The spaces themselves can vary in size and shape, however, they should be laid out in such a way that they stimulate adaptation rather than restrict it.

Community Agency:



Figure 79 *Community Agency, graphic*

The element of community agency is directly associated with the element of identity found under social infrastructure. Community agency is forever aimed at achieving capacity within the given community, and therefore these two elements should be perceived as coupled. Social infrastructures that intend to bring social groups together provide a greater opportunity for fostering agency within a given community.

I have proposed the need for providing public spaces that encourage collective action and debate. These spaces should be programmatically defined to function as spaces for select social groups to identify with, however, following the principles of social infrastructure, these spaces must remain public. These public spaces can vary in scale but hold strong resemblance to the element of community capacity.

Community Vulnerability:

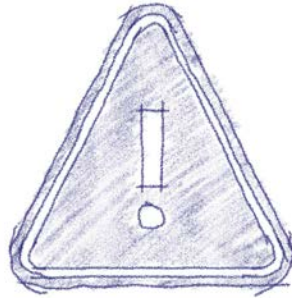


Figure 80 *Community Vulnerability, graphic*

The element of community vulnerability is characteristic of the ongoing battle for survival communities face, either social or physical. The battle is a fight for continuity; This is what resilience is all about. When challenges face a community, their resiliency will factor into whether or not the community will sustain. From a social perspective, the antagonist of an ethnocultural community's wellbeing challenges the community's social groups to come together during difficulties. Relating this to the built environment, having spaces like social infrastructures can help to decrease the vulnerability of an ethnocultural community. These spaces can also encourage gathering, to better support the cultural continuity, and result in continued social and community resilience through constant activity.

I have proposed the need to provide spaces that are prepared for disaster from their infancy. These spaces need constant upkeep and participation from the community in order to create the level of activity needed to sustain cultural continuity and community resilience. Therefore, it is vital that these spaces have adjacency to the people they intend to support, and the people who will support these spaces. The locations of these social infrastructures are critical to the reduction of vulnerability within a community.

Pluralism:



Figure 81 *Pluralism, graphic*

The element of pluralism is reflected most prominently in our social infrastructures, or at least the good ones. Social groups from diverse ethnocultural backgrounds co-existing are part of what makes Canada so desirable. This is not to say that there aren't any problems in Canada though. Social infrastructure, when designed properly, can help to alleviate any negative connotations of opposing cultural groups in a public setting.

I have proposed the need for providing a diverse stock of use-spaces for a diverse stock of social groups. This proposal is strictly programmatic. For instance, a single social infrastructure such as a coffee shop may provide a hub for diverse sociality to form, but that does not imply that if we were to just fill our communities with coffee shops, we would have achieved a pluralistic society. The resilience of a physical community counts on the diversity of its inhabiting social infrastructures, which at their noblest, are interesting places programmatically for Canada's diverse ethnocultural population.

Elements of Social Infrastructure

In the collected research part of this thesis, it was demonstrated how directly social infrastructure affects community resilience. It was also shown how social infrastructure plays a critical role in the success, or lack of success of social resilience found in the supporting factor of cultural continuity. The following elements are highlighted as critical to the formula of achieving community resilience based on their strong association to the prime idea and the co-existing supporting factor of cultural continuity.

Health:

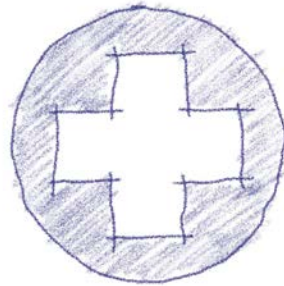


Figure 82 *Health, graphic*

In the collected research portion of this paper, it was demonstrated that arguably the most important element of a social infrastructure's outcome is in its provision of health, both mentally and physically. Providing social infrastructures that support health within the communities they serve also helps to promote cross-generational connectivity, something needed to support cultural continuity.

Arguing for the development of social infrastructures that help sustain a community's resilience, I believe we need to start by providing better spaces that promote physical and mental health. These spaces can be indoors or outdoors, and as we've seen demonstrated throughout this paper, a diversity in stock is essential to promoting this element of social infrastructure. Physical health is seen in places of exercise and play. These places can also be indoor or outdoor, however, to function successfully as a social infrastructure it would be best if these places remained public. The expensive new gym on a main street might tick all the boxes for a specific social group of upper socio-economic class, however, most of the community reaps no reward from the presence of this exclusive club.

Safety:

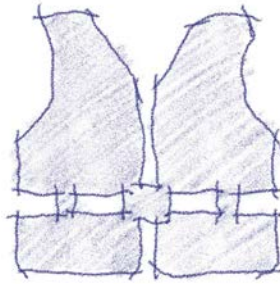


Figure 83 *Safety, graphic*

The element of safety within a community is the most prevalent of the elements that characterize a community's resilience. From Jane Jacobs to Eric Klinenberg, seemingly everyone agrees that for a community to be resilient, the community's social groups must feel safe. Social infrastructures play a pivotal role in determining the safety of a community. As Jacobs had argued against, the creation of private and secluded social infrastructures such as courtyard spaces do little to strengthen the feelings of safety for the greater community. This approach only falsely increases the feelings of safety within the given spaces, and for the select few social groups that can make use of them.

Providing spaces that are safe for all ages, and spaces that are both small and large will help to increase the feelings of safety within a community. Places that evoke feelings of safety are essential. These kinds of spaces need to be openly public, and visible from all angles. This means that the public places need to be highly usable by locals, and not hidden from passersby.

Identity:



Figure 84 *Identity, graphic*

Providing the right kind of social infrastructure can give identity to a community, and through its use, can foster continuity for various ethnocultures. It becomes slightly more difficult to create a connection for community members of a diverse ethnocultural background to identify with one another when the social infrastructures are enclosed in a building, though it is not impossible. For example, there is a diverse ethnocultural following for professional sports teams in Toronto such as the local hockey team, even though the activity of the sport is indoors. The activity itself bears little to no connection to the ethnocultural heritage of most of the supporters, however, the social infrastructure provided brings these diverse social groups together to collectively support their local team.

Providing places to take people is an essential quality for fostering identity of a larger community. These places can be monuments, shared activity spaces, or even natural (or human-made) landmarks such as the Rideau Canal. When people have something to be proud of in their community, they will usually flock to that ‘thing’. The ‘thing’ that they are proud of will also be one of the first places they take someone to that isn’t from their community.

Highly Active Spaces:

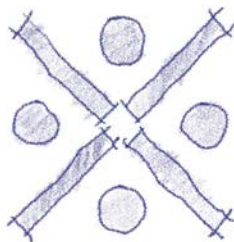


Figure 85 *Highly Active Spaces, graphic*

Highly active spaces are an element that helps determine the resilience of a social infrastructure. Places such as schools can be highly active, but their design may constrict sociality among its community members, as was demonstrated in examples throughout the collected research portion of this paper. Other highly active spaces are seen where there is already high traffic, such as a neighbourhood's prominent intersections or its main street. We know where else likely higher activity would be – where there is housing. I recall the ghost-town feeling when traveling through the Centretown neighbourhood of Ottawa after 6:00 PM in the early to mid-2010s. The central business district of the city was so workplace oriented in its programming that there were simply not enough people who lived there to support social infrastructures after normal office hours. During this time the streets were empty, and everything was closed for that reason. Centretown's streets were quite the opposite during traditional working hours.

Here in lies what is needed from an urban / architectural perspective to support the element of high activity: diverse programming of a community and its residences.

Sociality:



Figure 86 *Sociality, graphic*

The tendency to associate in social groups is needed in a diverse ethnocultural community. Sociality supports co-existence behaviours among diverse social groups. I believe that through architectural interventions, providing places and spaces that inhabit means of sociality can be done through the implementation of social infrastructures. It is imperative that these social infrastructures promote a sense of reflection and are geared towards being destination nodes to enhance their use by diverse social groups within any given neighbourhood. This can be done through the strategic placement of social infrastructures within the context of a neighbourhood to encourage new experiences.

Cultural Continuity Design Criteria

The study of cultural continuity led to some surprising outcomes as this supporting factor provided the most cross-connection between all the elements highlighted within the prime idea and the co-existing supporting factor. The following elements were identified as critical to cultural continuity based on their strong association to the prime idea of community resilience and the co-existing supporting factor of social infrastructure.

Rituals:

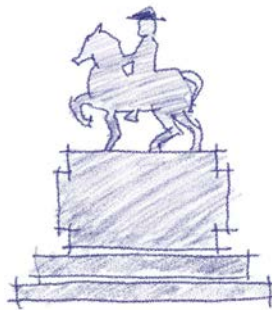


Figure 87 *Rituals, graphic*

Cultures are defined by a collective social group's shared values, beliefs, and traditions. These three characteristics of culture can be summed up as a series of actions and behaviors referred to as rituals. Although each culture differs in their form of ritual, many have common resemblances that can be seen in each culture's traditional social infrastructures. I believe it is essential for neighbourhoods to provide social infrastructures that support the evolving needs of the diverse ethnocultural communities that make up most large metropolitan cities across Canada. To conceive of this, we need to provide places that support acts of collective worship, places for food and drink, and places that instill sociality among the diverse social groups.

Ethnoarchitecture:

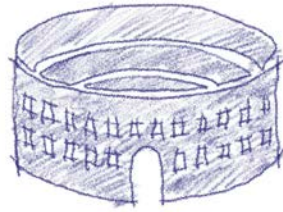


Figure 88 *Ethnoarchitecture, graphic*

The element of Ethnoarchitecture will require the continuation of an ethnic village model, and the forming of arrival cities, however, this will not be useful in the present configuration of these neighbourhoods as is currently seen in large metropolitan cities across Canada. Ethnoarchitecture should allow diverse ethnocultural communities to portray their values, beliefs, and traditions freely and outwardly to the greater community – the city at large. As is often seen in cities like London, Ontario, there are large ethnocultural communities that have little to no representation found in the architectural image of the city.

I believe that by providing a community framework for these diverse social groups to live in collectively we can plant the seed for expanded creativity in the architectural fabric of a city. Examples like the Suomi Koti case study in the following section highlight some of the benefits for the social groups that inhabit places like this, as well as the surrounding community and its diverse ethnocultural make up. Reflecting on another case study – the Cross Cultural Learning Centre – our buildings and urban form must also provide places for newcomers of differing ethnocultural backgrounds to tie into the fabric of the city.

Dynamism:

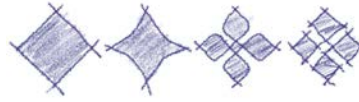


Figure 89 *Dynamism, graphic*

As it was accepted and understood from the beginning of the research, there will inevitably be a point in time when what is currently happening will change. The argument for this paper isn't to build invincibility for one specific culture so that it can withstand all the challenges that it is faced with in a given environment. The argument is to provide a better built environment that will help inflict resilience within a physical community by focusing on the community's diverse ethnocultural social groups. Also, the argument is to provide an architectural framework to allow for dynamic change in use of ethnocultural spaces when a new social group takes ownership of an existing infrastructure.

I believe we need to provide spaces that are flexible in their design, and places that are important and worth preserving. These spaces can vary in size; however, their size may impact whether they have what it takes to make them worth becoming part of the collective memory of a city. Large places might be preserved as landmarks; however, they must still be dynamic in their ability to transform at a moment's notice. Small places might be unique and descriptive of the character of a neighbourhood, but this will mean that there needs to be many of them, and again, they should be dynamic.

Design Criteria

A critical review of the pre-architectural analysis has led to the proposal of three key design criteria that should be considered for future projects with an aspiration of *building resilience*. This design criteria ensures that future communities can design for community resilience using the information extrapolated from the collected research and pre-architectural analysis.

The three proposed design criteria appear fundamentally non-architectural when looked at in isolation. These design criteria are symbiotic and should be considered in their entirety as a model approach for the application of an architectural program that will support both social and community resilience through the application of social infrastructures.

Public



Figure 90 *Public, graphic*

Social infrastructures are all about public spaces. There are five types of social infrastructure: Commerce, Transit, Public Institutions, Recreational and Religious. A sixth and seventh type should be added to this list – Residences and Cultural Infrastructures. Combined, all of these social infrastructures play a critical role in the daily lives of all Canadians and translate globally as well. It is very easy to see some of these types of social infrastructure as being ‘public’ through and through in their nature, such as Transit oriented social infrastructures. Others, like the two additional types I’ve proposed, tend to be private, or, in the case of Cultural Infrastructures, they at least *feel* private. For this reason, I believe, cultural social infrastructures are prematurely failing, and as a result, weakening the continuity of a culture. For us to look at how we can better implement social infrastructures into our communities, it is apparent that we must first understand the necessity of them – for the greater good of cultural continuity and community resilience – is that they are public spaces.

Perennial

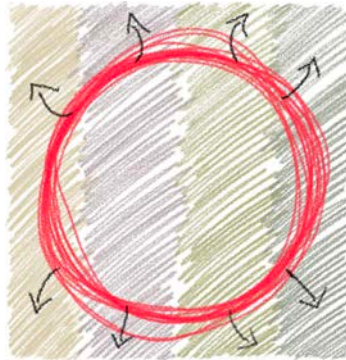


Figure 91 *Perennial, graphic*

We live in a country that, for the most part, has four seasons: Spring, Summer, Autumn, and Winter. This makes it much more difficult for social infrastructures to provide places for sociality throughout the year. Normally, social infrastructures that serve a singular purpose can be in quite high demand during peak seasons (public pools for instance), but alternatively, they can find themselves – both their spaces and activities – being deserted for large parts of the year. This is a problem for social infrastructure in Canada. I believe this also causes issues for the communities that are served by these social infrastructures. In order for us achieve resilience within our communities, we must provide social infrastructures that are dynamic in their form, and multi-functional in their use, with the end-goal being to provide our communities with public spaces that are perennial, and as a result, inflicting perennialism in the continuity of cultures.

Pluralistic

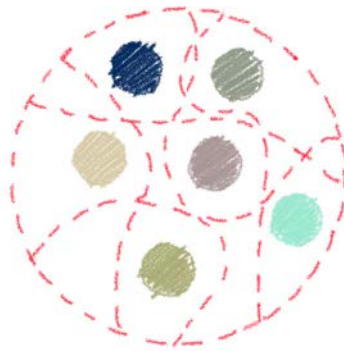


Figure 92 *Pluralism, graphic*

Canada is often described as a cultural mosaic. This merely implies that Canada has many diverse ethnocultural populations spread across the country from coast to coast. Absent from this descriptor is whether these diverse ethnocultural social groups are harmonious in their daily lives as they live besides, work with, eat, drink, and share social infrastructures with one another.

This is where Pluralism comes into play. I believe that by learning from the different ethnocultural groups within our communities, we can strive to provide more support for the diverse ethnocultural social groups that make up our collective communities, while being able to encourage cultural continuity and fostering a sense of belonging for all those who are here, and future newcomers who have yet to arrive. Through the appropriate implementation of social infrastructures geared towards diverse social groups, I believe we can enhance both the social and community resilience within our cities.

Case Studies & Precedents

Case Studies

Although an exact Thesis Design Project is currently undetermined, I have come across a variety of architectural typologies during my research to date. These typologies range in scale from smaller developments such as housing projects and community centres, to larger developments that involve the design of neighbourhoods on an urban scale. The following is a collection of Case Studies I have used as reference during the research portion of this thesis and will continue to reference during the undertaking of a future Thesis Design Project (RAIC690B).

Suomi Koti – Finnish Home



Figure 93 *Suomi Koti, Toronto, Ontario (Suomi Koti, 2023)*

Suomi Koti is a non-profit Senior's Centre located in Toronto, Ontario. Suomi Koti provides multi-level care for seniors of the Finnish community. Architect Seppo Kanerva was responsible for the design of Suomi Koti, inflicting a 'Scandinavian feel' to the Leaside neighbourhood of Toronto. Kanerva was later responsible for numerous other mixed-use multi-unit complexes in the Leaside neighbourhood, continuing with the tradition of supporting an aging ethnocultural community while also encouraging economic stability and commercial support for the tenants and community at large (Leaside Life, 2016). Leonard Sedun was also responsible for the 'Continuum of Care Development' for the Finnish Canadian Community in Toronto, a building that combined Seniors' apartments and low-income housing (OAA, 2022).

This case study is beneficial to my studies as it is a formidable example of a successful multi-unit housing complex with a distinct ethnocultural program that supports a community greater than simply its tenants, while also enhancing the geographic community's resilience. Suomi-Koti provides a small ethnocultural community with a habitat ideally situated within the context of a larger community, its surrounding neighbourhood. When descendants of the first generation of immigrants grow up and move out, how are the buildings they occupied maintained for survival? Suomi-Koti's architecture, and specifically its design excellence has resulted in the building being seen as an 'icon' of sorts within the neighbourhood.

This building's characteristic of design excellence will most likely mean the preservation of the building for future generations will not be left in doubt. For this reason, Suomi-Koti can be identified as the architectural outcome of community resilience.

Kensington Market



Figure 94 *Woman inspecting basket of peaches in Kensington Market (Taylor, 1957).*

In 2005 Kensington Market (Toronto, Ontario) was recognized as a designated national historic site of Canada. The neighbourhood’s heritage characteristics include a storied past as Kensington Market was home to numerous successive waves of ethnocultural communities that had immigrated to Toronto since the early 20th century (Parks Canada, 2006). Kensington Market was noted to be a “...microcosm of Canada’s ethnic mosaic, where many different ethnocultural communities, searching for an affordable home, have each added to the market’s layers of cultural variety, maintained a dynamic, culturally diverse market, and contributed to a vibrant street life,” (Parks Canada, 2006).

A noteworthy architectural characteristic of Kensington Market is that its narrow streets and alleyways which are fronted by highly dense narrow houses are still present today. Many of these houses have been converted for commercial use or renovated to house ground-floor small-scale shops (Parks Canada, 2006). The built typology of Kensington Market’s urban fabric echoes Stewart Brand’s ‘Low-Road’ building philosophy (Brand, 1995).⁵⁰

50 Refer to Chapter 3: “Nobody Cares What You Do in There”: The Low Road (Brand, 1995).



Figure 95 Streetscape of Kensington Neighbourhood, Toronto (Jaques, 1939)

The case study of Kensington Market helped inform my studies pertaining to the coalescing of culture, intercultural habitation, and how this could support the resilience of a community. What makes Kensington Market special is that it has been the setting for generations of multiple ethnocultural backgrounds through the last 200+ years. Kensington Market is a fine example of a community with a strong *collective memory*.⁵¹ This case study helped examine how built environments could act as a baton through multiple generations of cultural change. Kensington Market also highlights the very quick turn-around of prominent regional cultural neighbourhoods.

Kensington Market is the ideal outcome for an urban community. There were ethnocultural communities here, and many have left. The urban community itself remained resilient. In studying Kensington Market as it is experienced today, there is an air of diversity felt and seen throughout the neighbourhood. This was not always the case. The cultural continuity of Kensington Market's historical inhabitants would need to focus on singular ethnocultural groups who have at some point in time called Kensington Market their 'village'. Kensington Market in its current state is where we want to get to, but we must first ask how did a homogeneous neighbourhood get to this point? I believe this happened by providing a variety of social infrastructures for the community, drawing people from diverse ethnocultural backgrounds to the neighbourhood by providing ample amenities for the daily necessities of living.

51 Refer to Aldo Rossi's *The Architecture of the City* (1988), Chapter 3: The Individuality of Urban Artifacts; Architecture.

Cross Cultural Learning Centre



Figure 96 *Cross Cultural Learning Centre, London, ON (Google Maps, 2023)*

The Cross Cultural Learning Centre (CCLC) is London Ontario's leading resettlement agency. The organization helps newcomers to Canada settle into and thrive in their new community within London. Their mission is "...to provide integration services and support to newcomers and to promote intercultural awareness and understanding," (CCLC, 2023). The CCLC was founded in 1960 by a group of 'global villagers' from Western University. Their goal was to share their cross-cultural experiences with those in their new home, Canada. Today, the CCLC has become a registered charity with wide-ranging experience aiding and helping to assimilate ethnocultural migrants from all over the globe to their new home in Canada. Their experience is focused on helping Government Assisted Refugees, Refugee Claimants, and other vulnerable newcomers to settle, integrate, and succeed in the London community (CCLC, 2023).

This case study provides community members with an opportunity to connect with an existing local resettlement program to gauge their thoughts and concerns about resettlement and cultural assimilation, and matters relating to housing those who have resettled here in Canada. Tolerance and the fostering of community agency, say Matarrita-Cascante et al. (2010), removes social barriers that newcomers may experience (as cited in Matarrita-Cascante et al., 2017, p. 112). This is very important and reflects the core values of the CCLC and what they provide to the greater community. This case study's significance to this thesis is in the CCLC's programming, particularly the value they've put on acknowledging diversity in ethnocultures, and ways that new immigrants can sustain their cultural values, beliefs, and traditions while still becoming valued members of their greater communities.

Precedents

Alongside the three case studies, the following precedents were analyzed for their encompassed characteristics and contributions towards strengthening their surrounding community's resilience. These precedents will also become a valuable source of design-directed reference for the Thesis Design Project (RAIC690B).

International

Campo de'Fiori, Rome, Italy

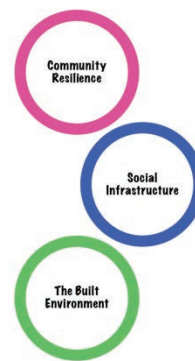


Figure 97 Aerial view of Campo de'Fiori (Google, 2024)

Category of Social Infrastructure: Commerce

When my wife and I visited Rome in 2023, we did very little research finding a good place to stay. A quick mapping out of all the popular tourist attractions within Rome along with wanting to experience the ancient city on foot led us to a spot within Old Rome, at the heart of the city, just north of River Tiber. We arrived early in the morning and a taxi took us as close as possible to our hotel, leaving us to walk the remaining few-hundred feet (whether intentional or not). Lugging our suitcases through the cobblestone streets we inadvertently stumbled into Campo de'Fiori.

That is not to say that this place was foreign to me, as I read about its importance in an urban construct in the past. To my surprise, the scene was bustling with what appeared to be a combination of locals and tourists alike, all intermingling with one-another as they shopped for flowers, foods, and trinkets of all sorts. Our hotel was less than one-hundred feet from the piazza, and we ended up spending most of our ‘in-between’ time there, eating, drinking, and enjoying the scenery of passersby. Although Campo de’Fiori could be seen as a social infrastructure of commerce – it most certainly was in the mornings – the piazza had a special ability about it to transform into something completely different in the evenings.

Once dinner time came to be, my wife and I needed to find a place to eat. One tip everyone gave us before we made the trip was *not* to search for popular places to eat. Instead, mostly everyone we spoke to suggested we just walk the streets until we find a place that piques our interest. Most nights, Campo de’Fiori was that place. With a variety of restaurants offering dining experiences that would rehabilitate anyone’s tastebuds, the piazza offered plenty in the way of entertainment and fanfare as well.

When I think about what made me enjoy Campo de’Fiori, undoubtedly the first thought that comes to mind is the level of activity seen in a public space that, by all accounts, does not house a single ‘tourist trap’ within its boundaries.⁵²

52 Campo De’Fiori is the only piazza within the historic centre of Rome not to host a church or basilica (Turismo Roma, n.d.).

Gillett Square, London, United Kingdom



Figure 98 *Gillett Square in London, UK; necessitating activity (Gillett Square London, 2017)*

Category of Social Infrastructure: Public Institution

The defining quality of social infrastructure is the way that it affords sociality, especially among groups of whom are characterized by their differences (Latham & Layton, 2019, p. 5). A study of the recent remodification of Gillett Square in London, UK has uncovered that the diverse range of materials for seating, recreational activities and the like, has resulted in an increase of both liveliness and even so far as the greater presence of friendliness among the community's members (Latham & Layton, 2019, p. 5).⁵³ Part of the reason why Gillett Square is so successful as a social infrastructure is seen in how the space was designed to work with people, or rather, it was designed to have people work in a convivial manner. For instance, there are a series of storage containers throughout the square that hold several articles for play, however, someone is required to take these articles out for the public, and to put them back once their use is finished. This simple act of storage is what Latham & Layton see as the forced presence of people through necessitating activity (Latham & Layton, 2019, p. 5).

This is brilliant, designing for necessary activity which results in the presence of people co-existing. Similarly to Campo de'Fiori, Gillett Square's value as a social infrastructure is in its dynamic ability to transform uses and cater towards a diverse array of activities. Gillett Square

53 Sendra, P. (2015). Rethinking urban public space. *City*, 19, 820–836. <https://doi.org/10.1080/13604813.2015.1090184>

provides vitality where there once was merely neglect in an atypical urban condition seen throughout London, UK, and similarly in London, Ontario, Canada.

Waterplein Benthemplein, Rotterdam, Netherlands

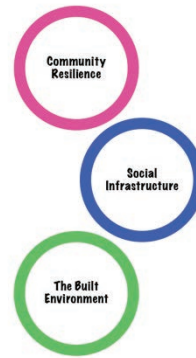


Figure 99 *De Urbanisten's Waterplein Benthemplein, located in Rotterdam, Netherlands (Duivenbode, 2013)*

Category of Social Infrastructure: Public Institution

Rotterdam is a model example of a city that has incorporated social infrastructure that works with their climate planning strategies. Waterplein Benthemplein, designed by the Dutch architectural firm De Urbanisten, is a flood management system that creates a feature space within the social infrastructure of a public plaza, unlike the more traditional management systems that simply store the water beneath the ground and re-direct it elsewhere, without anyone's knowing. Waterplein Benthemplein offers a wide range of social and recreational activities (Klinenberg, 2019, pp. 195-6).

Waterplein Benthemplein symbiotically inhabits social and integral public infrastructure by providing a public place for refuge for the inhabitants of a community, while also acting as an important infrastructural mechanism to manage flooding of the neighbourhood during extreme weather events. Community resilience and Infrastructural resilience wrapped up in one package and presented in form of the built environment.

National

Oppenheimer Park, Vancouver, British Columbia, Canada



Figure 100 *Gathering in Oppenheimer Park during the Powell Street Festival (Scout Magazine, 2013)*

Category of Social Infrastructure: Public Institution

Situated at the heart of the Powell Street Grounds, Oppenheimer Park has been a presence within the Vancouver community for over 100 years. Daphne Marlatt writes that the park is heavily used today, supporting a wide array of functions from sports, arts events, and even prayer and healing ceremonies (Marlatt, 2011). “Culture in the neighbourhood is not only derived from ethnicity, cultural hearth, and charity, but has been uniquely fostered from within, tied to a long legacy of organizing,” writes Henry Tsang (2023, p. 174). Musician and activist Kazuo emphasizes the cultural aspect of his own roots, by referencing the Sakura (ornamental cherry) trees planted in Oppenheimer Park:

In the Issei [first-generation immigrant] heart and mind... that’s a symbol as long as the Sakura exists. The temple is still there, the language school is still there. But they are not as visible in terms of connecting to our roots, but the Sakura flowers have always been in our minds as fond memories of the Issei (Tsang, 2023, pp. 175-6).



Figure 101 *Inaugural Powell Street Festival in 1977 (Wakayama, 1977)*

Oppenheimer Park may well have experienced change in the past century, but the social infrastructure remains highly active to this day, honoring Japanese Canadian history through the annual Powell Street Festival, which had its inaugural event nearly half a century ago. The importance of Oppenheimer Park as seen symbolically for one ethnoculture, and its highly active use by others, makes this public institution an excellent precedent for the Thesis Design Project.

Berczy Park, Toronto, Ontario, Canada

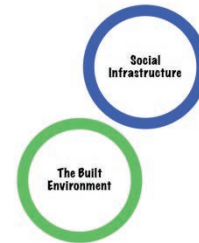


Figure 102 Aerial view of Berczy Park, designed by Claude Cormier (*Industryous Photography*, 2017)

Category of Social Infrastructure: Public Institution

Landscape architect Claude Cormier designed Berczy Park to include ample *secondary seating*⁵⁴ for times of high activity, without obstructing movement within the park space, or giving the impression that the park is inactive. Berczy Park combines design excellence and kitsch to create a highly active social infrastructure that seems to only provide a singular service to the community – an oasis within the dense urban environment of downtown Toronto. Nevertheless, an oasis that incorporates characteristics of biophilia is no doubt a necessity in any modern-day urban environment.

54 Primary seating would be considered chairs or benches, objects designed for the sole intent to seat people. Secondary seating can be in many forms, such as stairways, low walls, fountains, and pedestals. Architect Jan Gehl believes that larger amounts of secondary seating are necessary to avoid giving the impression that the urban space has become “...rejected or abandoned,” (Gehl, 2011, p. 161).

Calgary Central Library, Calgary, Alberta, Canada



Figure 103 *Calgary Central Library, by Snøhetta in collaboration with DIALOG (Snøhetta, 2018)*

Category of Social Infrastructure: Public Institution

The newly built Calgary Central Library designed by Snøhetta in collaboration with DIALOG was completed in 2018. An excellent precedent to reflect on as sociologist Eric Klinenberg has noted that a library's program is the epitome of a built social infrastructure. Canada has begun to take libraries seriously again, perhaps seeing the importance these public institutions have in providing places for diverse social intercourse and community resilience. The Calgary Central Library is one of a few modern libraries that supplement a city's social infrastructure stock. Others that could hold equal weight in precedent are the Halifax Central Library, by Schmidt Hammer Lassen, and Ādisōke by Diamond Schmitt Architects, the new central library of Ottawa set to open in 2026 (a stark contrast to the existing brutalist facility located on Metcalfe Street).

The importance of the Calgary Central Library as a precedent to the Thesis Design Project is its ability to successfully bring together two neighbourhood communities. Physically, the project acts as both a portal and a bridge for the two bounding neighbourhoods of Calgary's Downtown and East Village (Snøhetta, 2018), metaphorically the project acts in similar fashion, a portal to the unknown for its community members, and a bridge between the present and the past through its program.

Local

Springbank Park, London, Ontario, Canada



Figure 104 *Children playing in Springbank Park, 2024*

Category of Social Infrastructure: Public Institution / Transit

Springbank Park in London, Ontario is a public institution and transit oriented social infrastructure through and through. Stretching across the City from east to west and forking to the north at the heart of the city, the Thames Valley Parkway (TVP) is a multi-use path void of vehicular traffic. Towards the west end of the city, the TVP runs adjacent to the Thames River on its south side, carving through Springbank Park. In early settlement history, the park was a destination for urban dwellers to visit the countryside of London via personal vehicles or public

rail transit. Contemporary use of the park sees it somewhat underutilized by most social groups apart from those who identify strongly with their ethnocultural roots. On any given weekday navigating through the park, you will not be surprised to find large groups of European, Asian, and South American immigrants gathering on the large sprawling lawns next to the TVP.

There are ample barbeque pits and park benches scattered along the pathway, with mature trees offering plenty of shade and views of the river. The interesting characteristic about Springbank Park is that it tends to serve mainly ethnoculturally diverse groups, while the cultural demographic of the surrounding neighborhoods is predominantly ‘Caucasian’, made up of mainly British European immigrants. Without these culturally diverse social groups, the park would no doubt be neglected.

For this thesis, it is important to not prioritize the scale or quantity of a public infrastructure. The beauty of a natural environment – even if human-made – cannot achieve its maximum potential without the people who are needed to activate the space. Access to social infrastructure is vital for its success in the public realm, but so too is the density of a surrounding population that could potentially use the space.

BMO Centre, London, Ontario, Canada

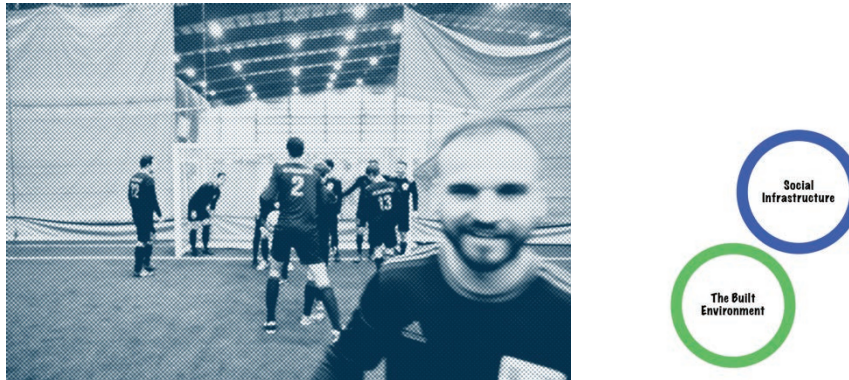


Figure 105 BMO Centre London, 2021

Category of Social Infrastructure: Recreational Activities

The attractiveness of recreational facilities as social infrastructures is that they lend themselves to encouraging diversity in their user groups. The BMO Centre (London, Ontario), like most other public recreational venues of its kind, is not ethnoculturally specific. The connection to the ethnocultures is not based upon the design of the built environment, rather, it is found through its programming. The facility is home to two full-scale indoor soccer fields that use an artificial turf surface. Because of its surface treatment, the facility has been host to a variety of functions and activities, but its primary use remains as an indoor soccer facility. This project is an excellent precedent for the Thesis Design Project as it is accompanied by plenty of personal first-hand experiences co-existing with different ethnocultural groups that I would not otherwise have had an opportunity to associate with. Recreational activity spaces such as this one tend not to discriminate newcomers and are an excellent source of social infrastructure.

Although BMO Centre does good for the social groups that make use of its activities, it does very little for its neighbourhood's resilience. The facility is massive, opaque, and surrounded by surface parking, beyond which it is surrounded by either small scale residential or bound by active train tracks. Perhaps less to the fault of the architecture, and more to the urban planning of the City, BMO Centre is not the kind of place you would want to be at nighttime. Why so? Well for starters, all that surface parking restricts any 'eyes on the streets', divorcing the

adjacent residential neighbourhood from the building, and resulting in ongoing problems with car break-ins and thefts. In general, some people don't even feel safe walking to their cars once the sun sets. Social infrastructures should be safe places.

German Canadian Club, London, Ontario, Canada



Figure 106 Patrons celebrate Oktoberfest at the German Canadian Club (German Canadian Club London, n.d.)

Category of Social Infrastructure: Religious / Cultural / Recreational Activities

In a recorded interview conducted by Naomi Hopson, Jürgen Belle, an immigrant of German descent, tells his story of what it was like to immigrate to Canada from a young age (Belle, 2017). At the time of the interview, Belle was the sitting President on the Board of the German Canadian Club of London, and on his fourth year in term. Belle talks about the importance of the German Canadian Club, and how it was the initial support space that his father looked for when bringing his family to Canada. At that time in the early 1960s, the German Canadian Club provided only recreational activities for its members, specifically a large soccer field where community members could gather to exercise and interact with one another, privately, and in the comfort of their mother tongue.

When asked how the German Canadian community had thrived after all these years, Belle says that the first step taken by the community was to grow their programming, providing recreational activities for all genders and age groups. In discussing the state of the German Canadian Club of London, and in particular the current state of its community, Belle recognizes the downshift in size in today's day, however, he argues that the club itself is seeing success as good as ever before. This success, Belle claims, is in large part due to the club's expansion of activities and hosting events. "You can't just do *German* stuff anymore," Belle says. The club now hosts large gatherings that are not just ethno-centric, such as New Year's parties, Saturday Night dances, and Holiday Markets. That said, the more traditional ethno-centric events haven't gone the way of the dodo just yet, such as their most popular event, Oktoberfest. In closing, Belle asks for those who do not identify with his culture, or any other culture, to come by and simply "experience it" (Belle, 2017).

The German Canadian Club of London is one of less than a dozen surviving ethnocultural clubs in the city. Its importance as a precedent to this thesis is its inclusive nature when it comes to hosting community events. It did not go unnoticed to me that in my lifetime, all the ethnocultural clubs that have closed their doors were ones that I never had the opportunity to see and experience for myself. The German Canadian Club of London appears to be a mainstay through its continued use as a recreational hub and perennial use as a cultural landmark, playing host to the greater neighbourhood as much as its own ethnocultural community.

Architectural Analysis

In order for us to establish or reintroduce the concept of resilience within a community's character, the proposed design criteria must be applied to our built environment. The design criteria identified within this thesis will boost our social resilience and implement a more strategic social infrastructure in our neighbourhoods, resulting in a rejuvenated community resilience.

The following subsection of this paper identifies an architectural approach as a response to the pre-architectural analysis and design criteria synthesized earlier in this paper. This architectural analysis will help establish a program proposal for a design project in a specific site, to be determined in the next stage of the thesis studies.

The architectural analysis was established by connecting the fundamental elements uncovered in the pre-architectural analysis of community resilience, social infrastructure, and cultural continuity, with the proposed design criteria. Alternative to the linear presentation that follows, the architectural analysis could also be categorized into four groups of characterization – program, scale, design, and adjacency. It is not the intent of the architectural analysis to prescribe an all-in-one singular building typology. Rather, the architectural analysis should be used to describe essential aspects of the built environment needed in all neighbourhoods striving to maintain or build community resilience.

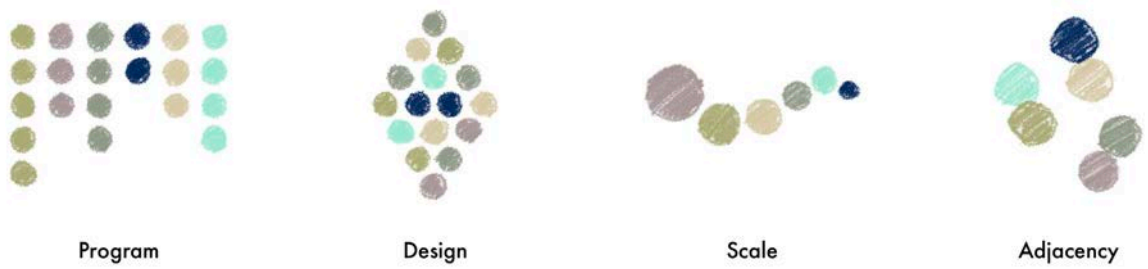


Figure 107 *Characterization of Architectural Elements, diagram*

Implementation of the Fundamental Elements and Design Criteria

Community Resilience

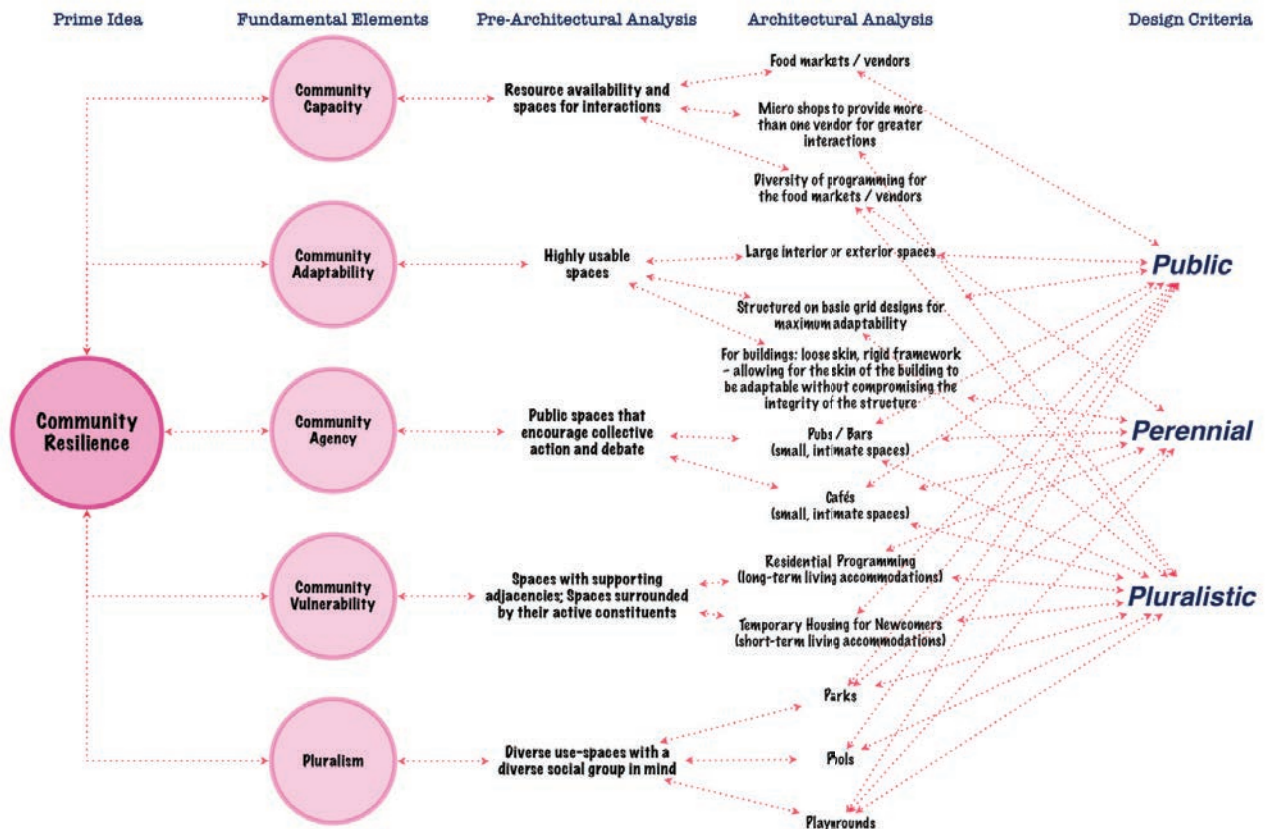


Figure 108 Architectural Analysis of Community Resilience, diagram

Prime Idea **Community Resilience**

Fundamental Element Central Theme Architectural Analysis	<u>Community Capacity</u> Resource availability and spaces for interactions ○ Food markets / vendors ○ Micro shops to provide more than one vendor for greater interactions ○ Diversity of programming for the food markets / vendors ○ Food harvesting
Fundamental Element Central Theme Architectural Analysis	<u>Community Adaptability</u> Highly usable and flexible spaces ○ Large interior or exterior spaces ○ Structured on basic grid designs for maximum adaptability ○ For buildings: loose skin, rigid framework – allowing for the skin of the building to be adaptable without compromising the integrity of the structure
Fundamental Element Central Theme Architectural Analysis	<u>Community Agency</u> Public spaces that encourage collective action and debate ○ Pubs / bars (small intimate spaces) ○ Cafés (small intimate spaces)
Fundamental Element Central Theme Architectural Analysis	<u>Community Vulnerability</u> Spaces with supporting adjacencies; Spaces surrounded by their active constituents ○ Residential programming (long-term accommodations) ○ Temporary housing for newcomers (short-term accommodations)
Fundamental Element Central Theme Architectural Analysis	<u>Pluralism</u> Diverse use-spaces with a diverse social group in mind ○ Pools ○ Parks ○ Playgrounds

Figure 109 Analysis of the prime idea: Community Resilience, table

Social Infrastructure

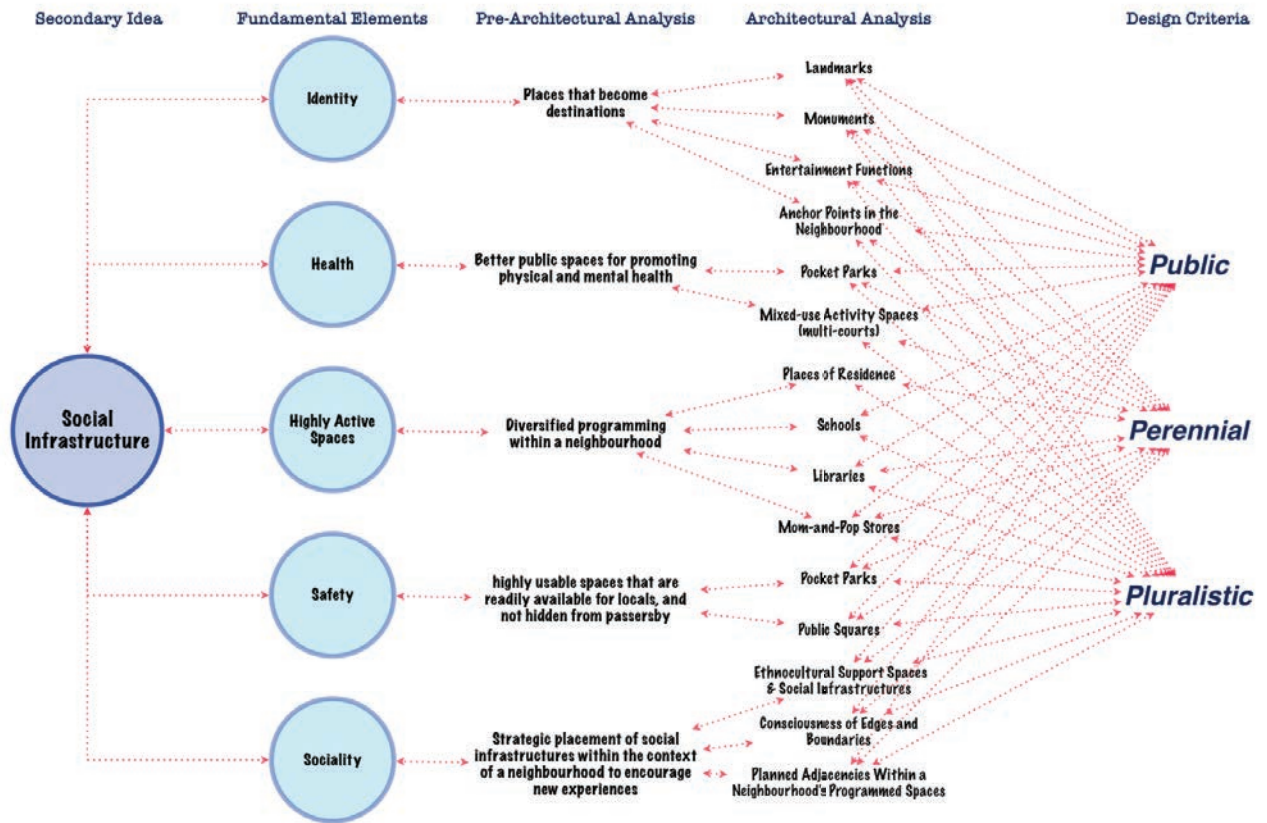


Figure 110 Architectural Analysis of Social Infrastructure, diagram

Supporting Factor **Social Infrastructure**

Fundamental Element	<u>Health</u>
Central Theme	Better public spaces for promoting physical and mental health
Architectural Analysis	○ Pocket parks ○ Mixed-use activity spaces (multi-court sport activities)
Fundamental Element	<u>Safety</u>
Central Theme	Highly usable spaces that are readily available for locals, and not hidden from passersby
Architectural Analysis	○ Pocket parks ○ Public squares
Fundamental Element	<u>Identity</u>
Central Theme	Places that become destinations or place markers / anchor points for a neighbourhood
Architectural Analysis	○ Landmarks ○ Monuments ○ Entertainment functions
Fundamental Element	<u>Highly Active Spaces</u>
Central Theme	Diversified programming within a neighbourhood
Architectural Analysis	○ Places of residence ○ Schools ○ Libraries ○ Mom-and-pop stores
Fundamental Element	<u>Sociality</u>
Central Theme	Strategic placement of social infrastructures within the context of a neighbourhood to encourage new experiences
Architectural Analysis	○ Ethnocultural support spaces and social infrastructures ○ Consciousness of edges and boundaries ○ Planned adjacencies within a neighbourhood's programmed spaces

Figure 111 Analysis of the supporting factor: Social Infrastructure, table

Cultural Continuity

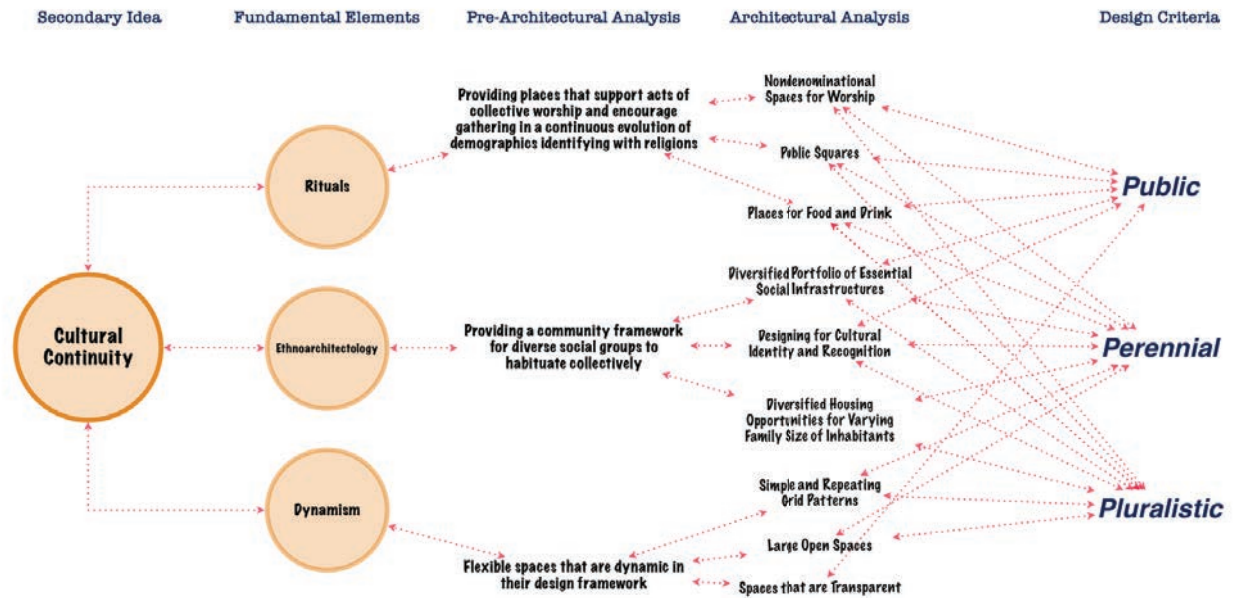


Figure 112 Architectural Analysis of Cultural Continuity, diagram

Supporting Factor **Cultural Continuity**

Fundamental Element	<u>Rituals</u>
Central Theme	Providing places that support acts of collective worship, sociality, and encourage gathering in a continuous evolution of demographics identifying with religions
Architectural Analysis	○ Nondenominational spaces for worship ○ Public squares ○ Places for food and drink
Fundamental Element	<u>Ethnoarchitecture</u>
Central Theme	Providing a community framework for diverse social groups to habituate collectively and reflect their unique cultural identities through the built environment
Architectural Analysis	○ Diversified portfolio of essential social infrastructures ○ Designing for cultural identity and recognition ○ Diversified housing opportunities for varying family size of inhabitants
Fundamental Element	<u>Dynamism</u>
Central Theme	Spaces that are flexible in their design framework
Architectural Analysis	○ Simple and repeating grid patterns ○ Large open spaces ○ Spaces that are transparent

Figure 113 Analysis of the supporting factor: Cultural Continuity, table

Part 3: Closing Observations / A Proposed Program

Provisional Findings

This thesis research paper became an accumulation of a desired outcome defined as the prime idea, and two assumed supporting factors that, from the onset of the research, were not apparent to directly correlate to one another. Community resilience, and the assumed supporting factors of social infrastructure and cultural continuity became the three main themes of the research. During the early research phase secondary ideas helped establish and structure the research to find potential links between the supporting factors and the prime idea. Later, in the analysis stage of the research, commonalities led to a more structured set of ideas referred to as the themes for discussion.

The synthesis and critical analysis of the themes for discussion resulted in found similarities between the prime idea and assumed supporting factors. A Pre-Architectural Analysis was attributed to each of the themes for discussion. By drawing connections between the themes, a series of Fundamental Elements which applied concurrently to the prime idea and assumed supporting factors were discovered.

Further analysis of the themes for discussion and Fundamental Elements helped establish a refined set of themes that were identified as Design Criteria. These Design Criteria were mentioned as critical non-architectural characteristics for future building projects that would aspire towards building resilience. The outcome of this entire process led to an exercise that involved an Architectural Analysis which represented a collection of physical programming descriptors that would connect the Fundamental Elements with the established Design Criteria.

The outcome of this process demonstrated that the two supporting factors of social infrastructure and cultural continuity did in fact share many commonalities with one another. Perhaps more striking were the connections demonstrated in the research and analysis between the supporting factors and the prime idea of community resilience.

For us to bring about resilience in our cities, we must first understand that only good can come from diversity. Diversity in our social groups make our cities interesting. Working to sustain diversity is no doubt a difficult task to undertake. However, I believe that architecture

can perform a central role in fostering cultural continuity through the strategic and informed application of social infrastructures. Social infrastructures themselves must be diversified as well. As is often the case with new developments in Canada, the afforded singular social infrastructures only fill part of the needs of a community and its surrounding neighbourhood. Typical parks for instance are a very important ingredient in the recipe for community resilience, however, isolated by themselves they do very little to support the overall resilience of the greater community. Providing adjoining smaller social infrastructures might be one approach to increasing the stock of these vital support spaces within a given community, so long as they differ from the park. As it was demonstrated in the research portion of this paper, public institutions such as parks by themselves cannot be counted on as a sole provider for an all-encompassing social infrastructure within a given community.

Other types of social infrastructure that fall into the categories of commerce, transit, recreational, and religious, all play a significant role in supporting the resilience of a community as well. Within this paper, two additions to the five standard categories of social infrastructure were proposed – residences and cultural social infrastructures. As it was argued in this paper, when these two categories are strategically implemented into communities, they too can enhance a community's resilience. Not only so, but these spaces can also support the growth and strength of cultural continuity, which in turn boosts the resilience of both the social and geographic community.

The following subsections discuss broader observations that arose during the research, critical analysis, and resulting synthesis, all uncovered while writing the thesis research paper. These observations may become a springboard to further research on the themes of community resilience, social infrastructure or cultural continuity. The final section of this paper proposes a potential program to be considered for a future Thesis Design Project (RAIC690B). The program proposal was created to address the findings of the process performed during the analysis of this paper. This program proposal responds to a specific narrative and is not intended to imply the only avenue available for building an outcome that will foster community resilience.

Observations

Sense of Belonging

The right built environment can allow us to obtain feelings of belonging. We can feel like we belong within the greater community of the neighbourhood, the city, or even on a national scale. The right kind of built environment can also encourage feelings of identity within smaller social and ethnocultural groups. Suzanne Radtke's book *Intercultural Design Basics* (2021) provides insight into intercultural principles of design, typography, and colour theory. This book integrates contrasting ideas on design using various teaching methods. Radtke believes that integrating ethnocultural principals in design will strengthen the community in which the design is set in.

I believe that Radtke's arguments are substantiated by the topics of study undertaken in this thesis research paper. The greater community can be strengthened by the belief that the smaller social groups that make up the overall community feel welcomed and identify with the built environment that surrounds them.

The trouble with this theory is that if it was to be practiced at face value, the result would be not unlike the current ethnic villages seen across our country today. Instead of sectioning off our cities to create these traditional ethnic villages, which eventually – for several reasons – deteriorate in their resilience, we should be integrating ethnocultural principals in the design of our social infrastructures – the spaces and places that are best served when they are presented as being public, and inclusive. I believe that by doing so, the pluralism of a city can truly prosper, and the outcome of this will lead to a greater chance of cultural continuity, and overall resilience within our communities.

Proximity Matters

The proximity between a social infrastructure and its end user is paramount to its overall success and the general vitality of a community. When I think about the social infrastructures that I take advantage of on a daily, or weekly basis, they are the ones that are in close proximity to me. Sure, there is a nicer coffee shop a car ride away, or a better tennis court across town, but the ones that are near me are just so much easier to access that it seems burdensome to take up anymore of my time by traveling greater distances for slightly better social infrastructures. The same thinking can be applied to ethnocultural community centres. I am a member of one, and it's only about a 20-minute car ride away from my home. This amount of travel time is subjective in its length and depends on where you live, but for the city of London, Ontario, 20-minutes in a car can get you from one end of the city to the other. The distance isn't far, but the perception of time relative to say, a 5-minute car ride is vast.

I believe proximity has a lot to do with the failings of ethnocultural community centres, but the publicness of the space matters still. Why would someone travel across town on a Friday night to meet up with some friends in a *private* establishment, when they could visit their neighbourhood bar and run into a diverse group of patrons alongside their friends? The practicality of adjacency cannot be overlooked. This is why adjacency was studied as one of the elements of the architectural analysis in this thesis.

Social infrastructures need to be public, pluralistic, and reasonably accessible to strengthen the resilience of both a social group and physical community. In the case of the ethnocultural community centre noted above, the cultural continuity of an ethnocultural group will eventually diminish without the high activity seen in social infrastructures that are more readily accessible. The proximity to social infrastructures matter, so much so that we should probably think twice before we build another one on the outskirts of town.

Reflections on Community

Upon completion of my research and synthesis one thing has become glaringly clear to me; communities, like the buildings that host them, are ephemeral. One day, the community that I identify most with will eventually vanish. Through writing this thesis, I've learned that there are several key contributing factors that will have led to the community's extinction. Some of the factors are internal to a community, such as the agency within an organization or social group. Other factors, like the success of the social infrastructure that was purpose-built to provide resources for the community, are external factors that will also have played a significant role in the community's demise once it is all said and done.

Considering everything that I have learned throughout the research portion of this thesis, it has become abundantly clear which architectural program most influences the resilience of a community, and that is housing. Without an adequate stock of housing and sufficient population within a neighbourhood, a community's resilience is absent. Culturally, without the critical adjacency between a habitat and the social infrastructures created to support an ethnocultural social group, the continuity of a culture will fail prematurely. Social infrastructures that exhibit means of sociality can foster social and community resilience.

Perhaps the most interesting feature about social infrastructures are that they can provide support for differing ethnocultural social groups and the communities that these individual groups inhabit. As it was determined during the research portion of this paper, social infrastructures work best when they are public. The current framework for social infrastructures that are ethnoculturally based has resulted in exclusionary traits between the various ethnocultural communities that make up Canada's population across our largest metropolises.

I believe that this current framework has developed in this manner in hopes of preserving one's cultural heritage and fighting against the forces of assimilation. By studying and better understanding the importance social infrastructures have in supporting the resilience of the greater communities that make up our cities, I believe that the current framework has been taking the wrong approach. I believe that the social infrastructures that the various ethnocultural groups across Canada have been building to serve their specific cultural communities would serve a far greater role in sustaining social and community resilience if they were approached with a programming methodology focused on being public first and foremost.

In Christopher Alexander et al.'s book *A New Theory of Urban Design* (1987), the authors suggest that each built project should serve a larger goal of 'healing the whole'. (Brand, 1995, p. 209). Jacobs also believes that neighbourhoods should not be self-contained or introverted units of a city (Jacobs, 1992, p. 114). I would echo the sentiment of Alexander et al. and Jacobs and apply this to the built projects that are social infrastructures programmed for ethnocultural communities as well. Each of these projects could serve as an attempt to create resilience within their specific social groups, but they should primarily strive for building resilience for the greater community that surrounds them too. I believe that by doing so, social infrastructure and diverse cultural practices will work symbiotically to support a sustained resilience within our communities.

A Proposed Program

Thinking of the ethnocultural community centre I belong to; it affords me a place to exercise my social skills. A community centre in its most basic form fabricates sociality, and so too does an ethnocultural community centre. Historically, a community centre has been a multi-functional space, housing programs such as gymnasiums, libraries, pools, multi-purpose rooms, daycares, and more. All of these programs were host to public functions. Historically, ethnocultural community centres were rather poorly used for a variety of functions as well, such as bars and cafés, game rooms, reception halls, sports clubs, and restaurants among other programs tied to a specific culture's traditions. All these programs were host to generally private functions. Through the synthesis and critical analysis of the thesis research I have learned that neither of these places can operate to their fullest potential without the community population needed to support them.

A new program needs to be established to support the social infrastructures that in return, support cultural continuity. By doing so, I believe we can improve our communities through building for resilience.

A new typology that combines ethnocultural centres and housing opportunities can blur the lines between these public and private spaces. Instead of the social infrastructure of ethnocultural communities being exclusive, we should focus on making these places inclusive. By doing so, I believe we can promote cultural continuity, and develop greater resilience in our communities.

Part 4 of this Thesis is the accumulation of my Thesis Design Project (RAIC690B). The project centred around the Croatian Community of London, Ontario. The project initiatives originated from realizing the existing programming needs of the ethnocultural community. Cultural ambassadorship, entrepreneurial opportunities, aging in place, and community interactions were all addressed in the programming and final design.

The existing social infrastructures of the ethnocultural community were analyzed against the fundamental elements uncovered within the Thesis Research Paper to address the weakened state of the existing public spaces. Current notions of ethnocultural community centres and traditional social infrastructures were challenged, and a new program was established, strategically addressing the absence of fundamental elements in the existing program. Various neighbourhoods were analyzed across the City to determine which geographic community was at its weakest state. With the hope of injecting resilience via the proposal, the weakest community was selected. Modularity played an important role in allowing future flexibility for current, and prospective tenants. Interactions between building occupants and the greater public realm was emphasized.

The design outcome included a diverse program of small, intimate spaces, with the intent to spark spontaneous social interactions between occupants and the public. This resolution reinforced the Thesis Research Paper's proposal to reinstate a residential component with cultural social infrastructures. More so, the resolution embarked on including an array of categorized social infrastructures, creating what is in essence a social hub, or, beacon for sociality within the geographic community. By doing so, the design aimed to inject resilience within its current tenants, while providing an opportunity to host the next wave of ethnocultural migrants that might happen upon the space, without weakening the resilience of its geographic community.

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Building Resilience

Petar Sesar, ON140046

Royal Architectural Institute of Canada Syllabus Program

RAIC690A & RAIC690B – 2024

Part 4: Design Project (RAIC690B)

Building Resilience:
Integrating Cultural Continuity with Social
Infrastructures to Strengthen Communities

RAIC 690B



Petar Sesar

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Instructor: Stephen Pope

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Term 2: Final Presentation

December 4, 2024

Final Presentation



[Written narrative read as introduction - This image represents the story of a social group that makes up one of many ethnocultural communities in London Ontario. Though this community has been resilient in its past, it is slowly weakening within our lifetime. The past strengths of this community's social infrastructures have allowed for connections to be made between its community members, creating wonderful social spaces while promoting cultural continuity amongst its membership. However, they have also created an exclusive environment, one that fails to support the needs of the greater community, that of the City at large. This image does not represent the social infrastructures that this community currently presides over, as those are strictly private, monistic, and ephemeral spaces catered strictly to the homogeneous social group. This image imagines an architectural intervention that supports the idea for this ethnocultural group to become the caretaker of a new social infrastructure; one that is public, pluralistic, and community driven. This vision also promotes the ethnocultural continuity of its inhabitants, while providing critical social infrastructures that are absent within the specific neighbourhood which it is situated in. The objective of this project is to supplement a vulnerable neighbourhood with a new ethnocultural-based social infrastructure to build resilience for both the social and geographic community at large.]

In order for us to achieve resilience within our communities, we must provide social infrastructures that are **diverse**, **dynamic** in their form, and offer multi-functionality in their use, with the end-goal being to provide our communities with public support spaces that are **perennial**. Most importantly, the social infrastructures that are provided need to remain **public** to better serve the larger community that makes up our cities.



Public



Private



Perennial



Ephemeral



Pluralistic



Monistic

Research - Provisional Findings



Location

London, Ontario

**Primary User Group
(Ethnoculture)**

Croatian-Canadians

Community Membership

+/- 2000 families, made up of +/- 2900 individuals

Active Membership

Church: 1000 individuals, Cultural Centre: 100 individuals

Geographic Outreach

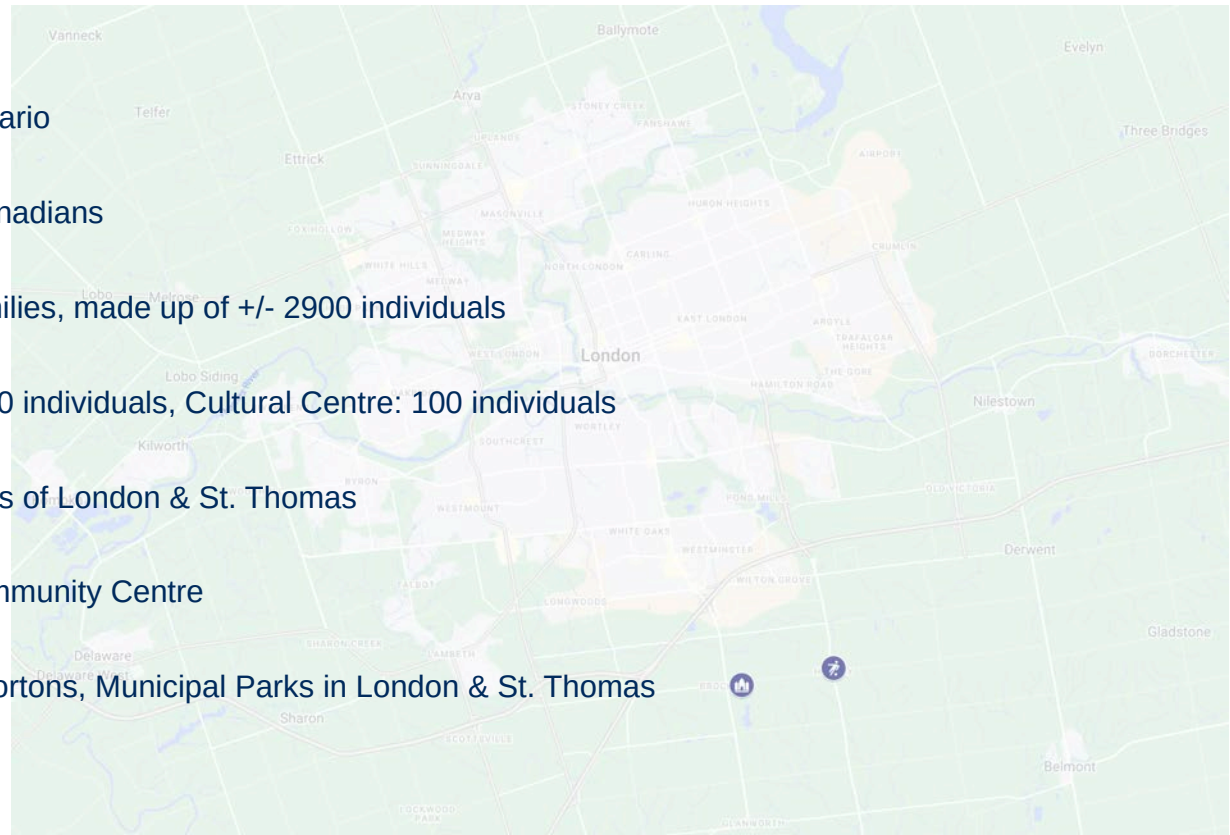
Municipalities of London & St. Thomas

Existing Social Infrastructures

Church, Community Centre

Non-Affiliated Social Infrastructures

Local Tim Hortons, Municipal Parks in London & St. Thomas



Client Group



+ Cultural ambassadorship

- + Public endorsement and pluralistic engagement with community-led perennial activities

+ Entrepreneurial opportunities

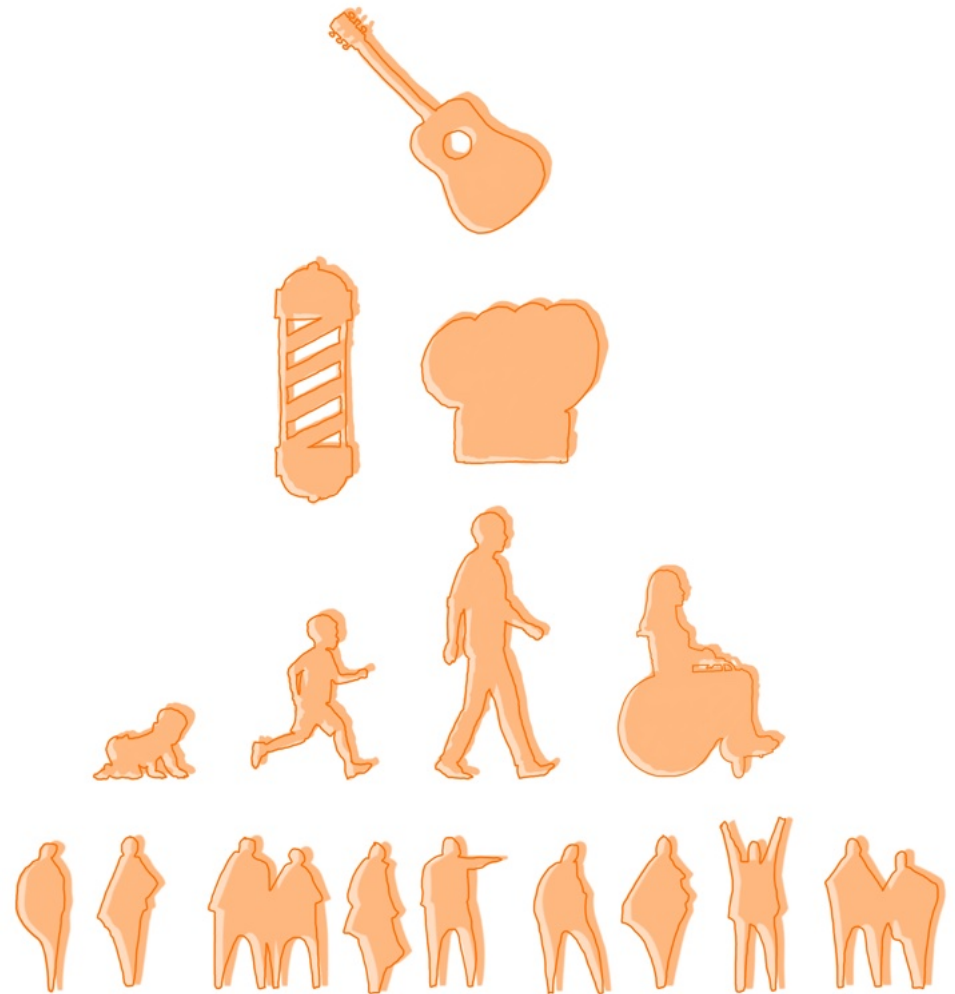
- + Spaces to form social infrastructures that support individual agencies that provide public services and host perennial activities

+ Aging in place / enhancing cultural continuity

- + Supporting elderly community members by providing housing and support spaces which can foster inter-generational sociality

+ Community Interactions

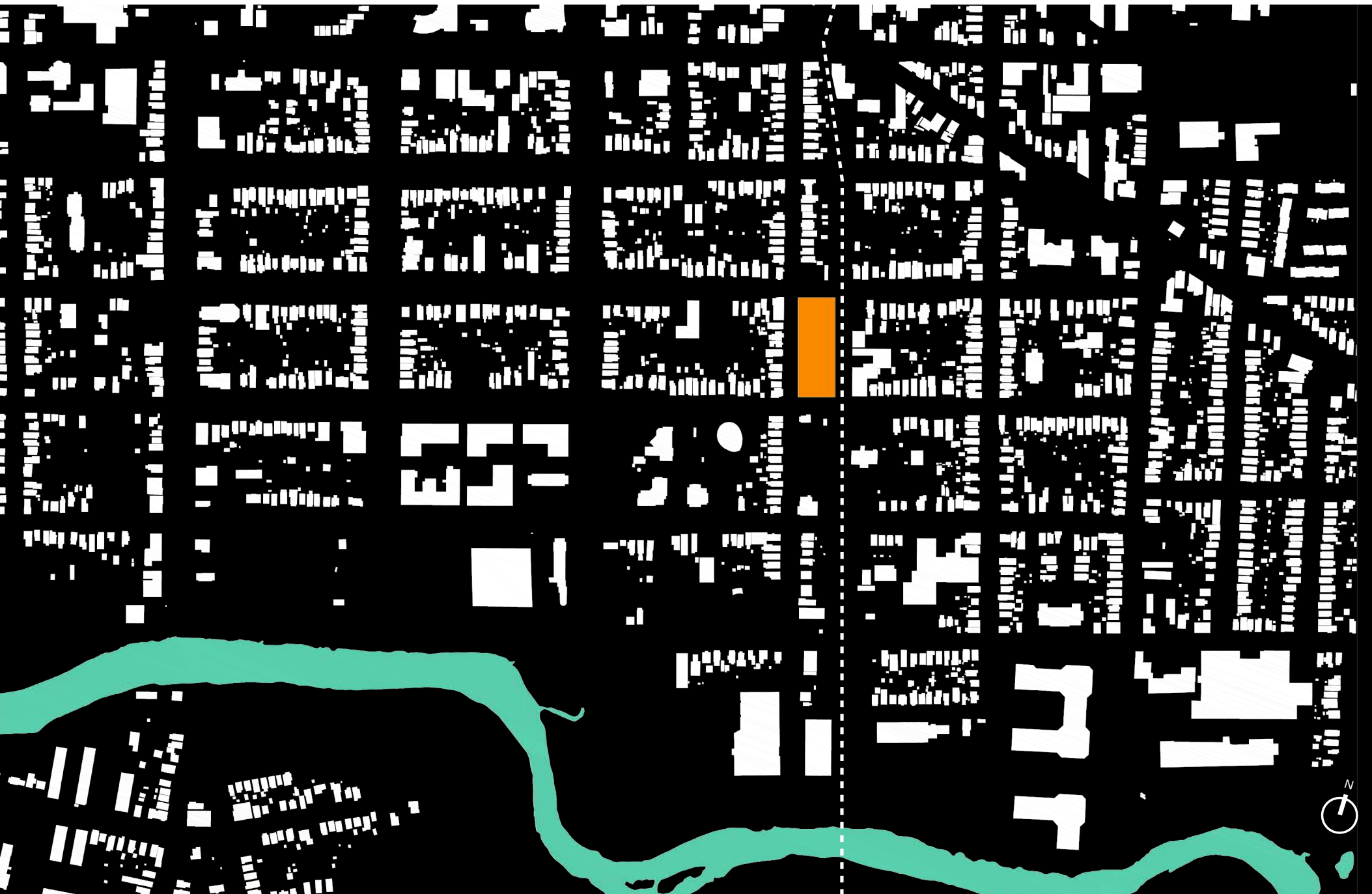
- + Making public use of the amenity spaces offered to the client group to reinvigorate the geographic community for a neighbourhood that has seen an absence in resilience.





Design Solutions

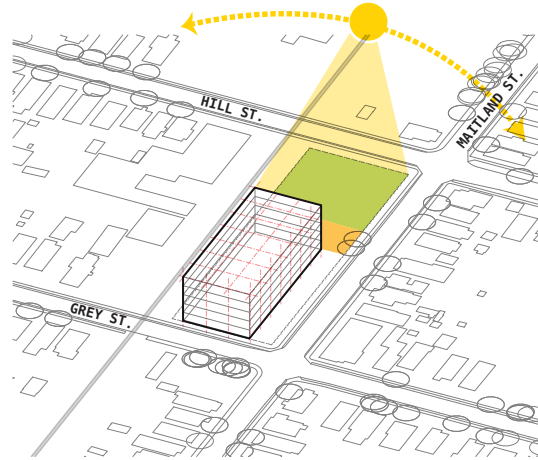






01 MODULARITY

MAXIMIZING FLEXIBILITY FOR
CURRENT & FUTURE TENANTS



02 PLACEMENT

LOCATING THE BUILDING TO MAXIMIZE DAY
LIGHTING FOR INTERIOR & EXTERIOR PROGRAM



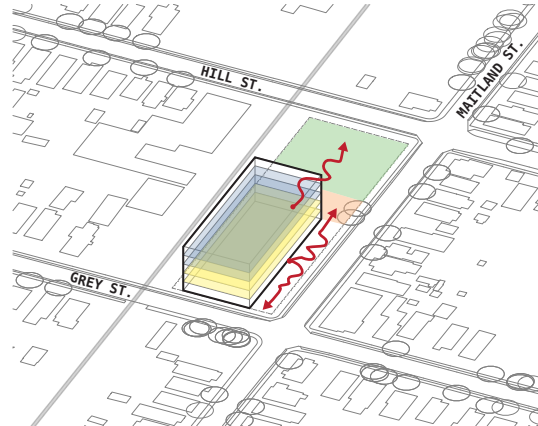
03 ACTIVITY

ACTIVATING STREET AND SQUARE WITH
STRATEGIC PROGRAM PLACEMENT



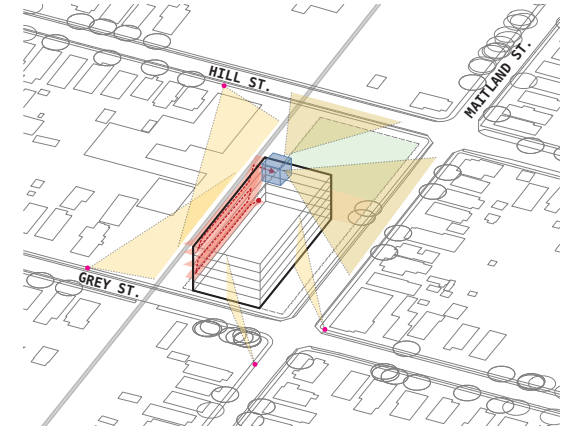
04 DESTINATION

CREATING INCLUSIVE & PLURALISTIC SPACES
FOR THE GENERAL PUBLIC TO VISIT



05 INTERACTION

INVITING INHABITANTS TO SPARK
INTERACTIONS WITH THE COMMUNITY



06 THEATRE

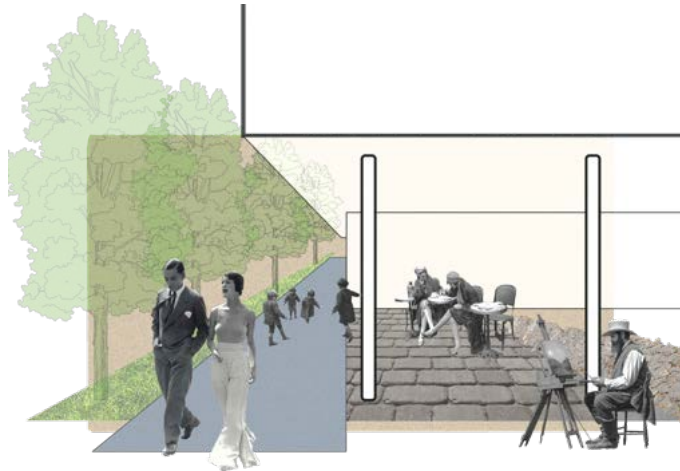
PROMOTING THE DAILY SOCIAL
INTERACTIONS OF THE INHABITANTS

Design Process

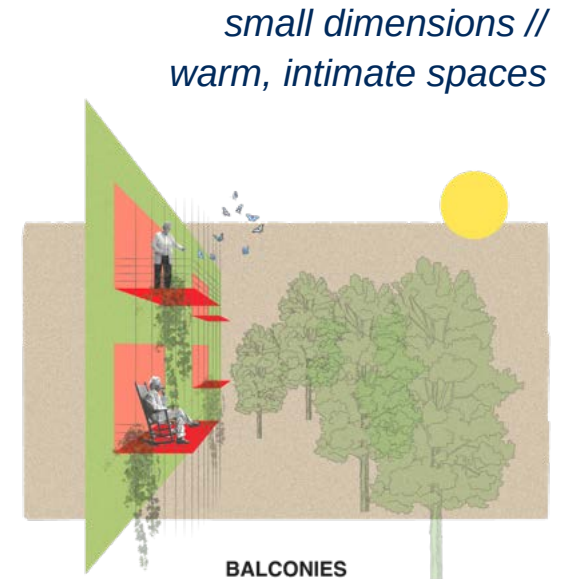




BOCCE COURTS



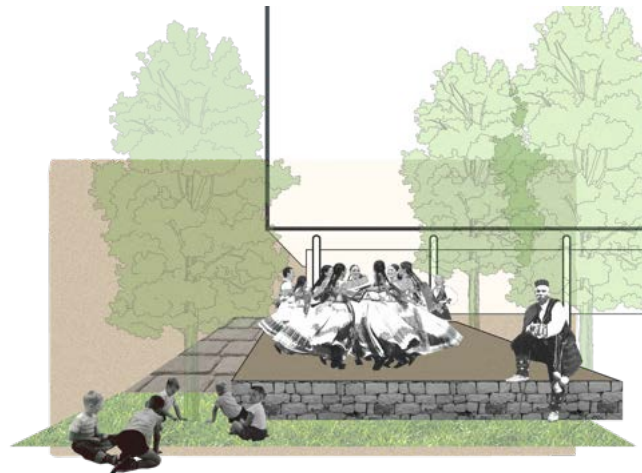
OUTDOOR PORCH



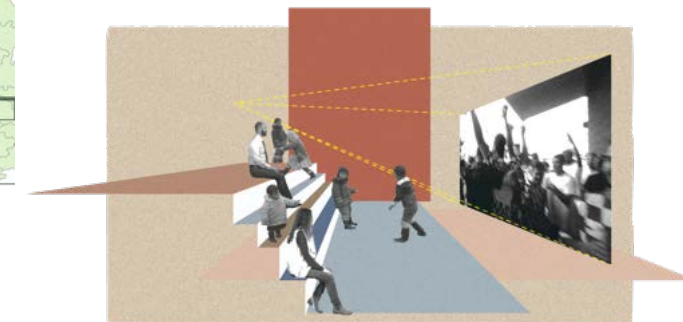
BALCONIES



MARKET



STAGE



ROOFTOP THEATRE

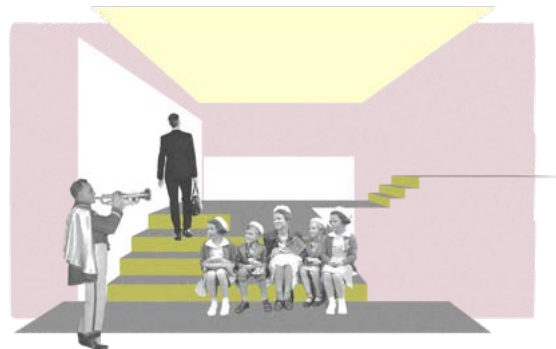
Outdoor Social Spaces



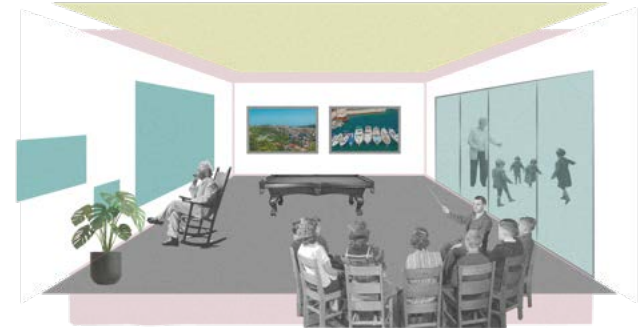
spontaneous social interactions



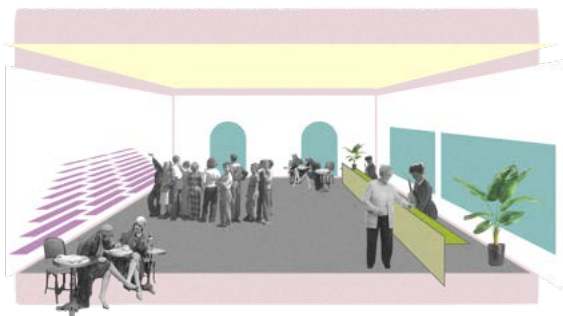
INDOOR PORCHES



SHARED SPACE: FEATURE STAIR



SHARED SPACE: AMENITY SPACES



SHARED SPACE: CAFE / LIBRARY



SHARED SPACE: HALL / WORSHIP

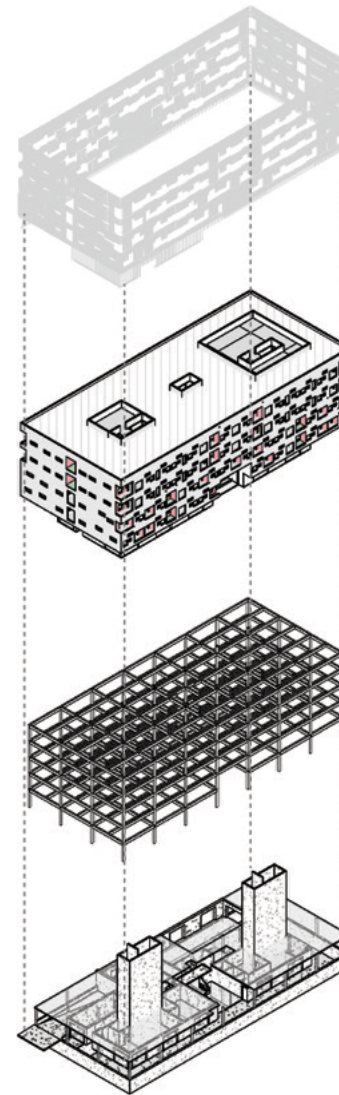
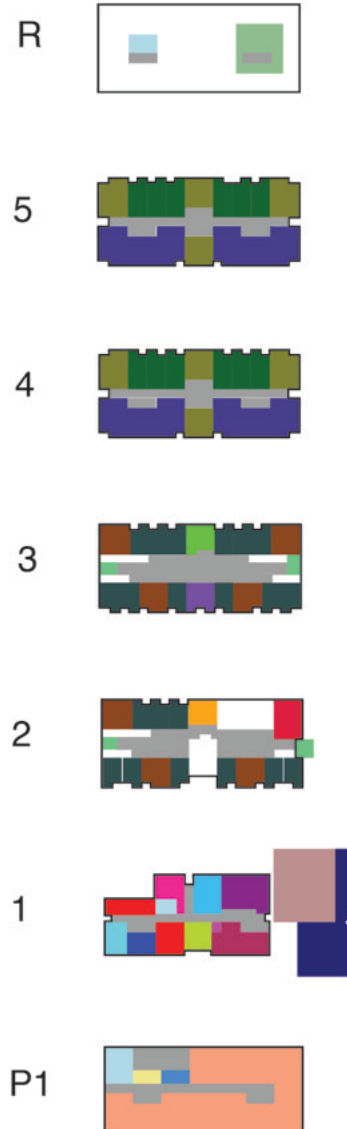


INCUBATOR SPACES

Indoor Social Spaces



- SENIOR: 1-BED SUITE
- SENIOR: 2-BED SUITE
- MARKET: 1-BED SUITE
- MARKET: 2-BED SUITE
- MARKET: 3-BED SUITE
- MARKET SPACE
- PARK SPACE
- URBAN THEATRE
- HALL
- RESTAURANT
- INCUBATOR SPACE
- FITNESS
- MEDICAL
- SOCIAL LOUNGE
- MUSIC ROOM
- DINING AREA
- CAFE BAR
- WORSHIP SPACE
- LIBRARY SPACE
- LOBBY
- ELECTRICAL
- MECHANICAL
- JANITORIAL
- GARBAGE/RECYCLING
- UNIV. WASHROOM
- STORAGE
- PARKING
- BIKE STORAGE
- CIRCULARTION



THIN-SKIN CLADDING

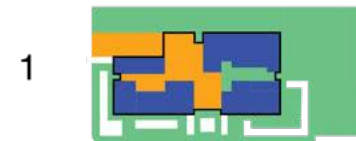
CROSS-LAMINATED TIMBER
FLOORS & WALLS

LOAD-BEARING STRUCTURE
- TIMBER

LOAD-BEARING STRUCTURE
- CONCRETE

Program Distribution and Systems





- PUBLIC
- SEMI-PUBLIC
- SEMI-PRIVATE
- PRIVATE

The building design addresses the ownership of spaces within a communal realm:

PUBLIC:

spaces that are universally accessible to all who wish to enter

SEMI-PUBLIC:

spaces that are visually connected to the buildings without barriers, allowing equal access to those who wish to enter

SEMI-PRIVATE:

spaces that are accessible only to those who can cross a physical barrier, providing some, but not complete privacy

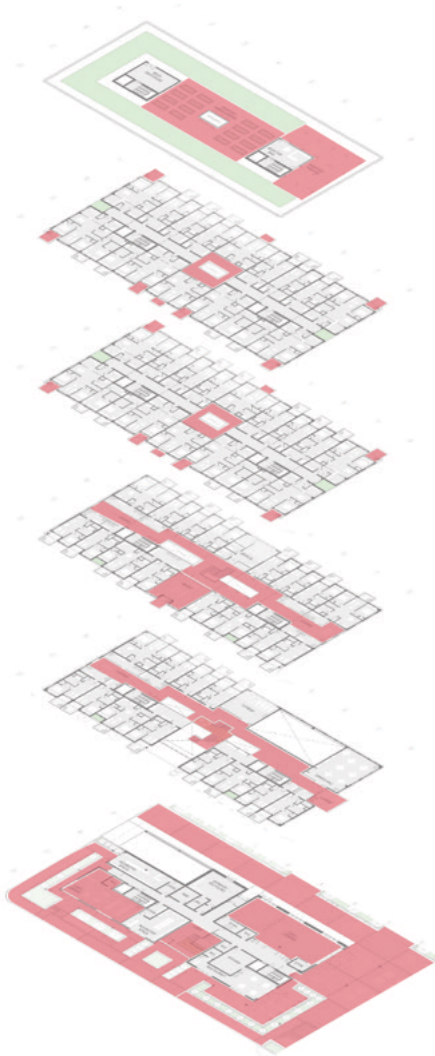
PRIVATE:

spaces that are accessible only to those who can cross a physical barrier and provide complete privacy

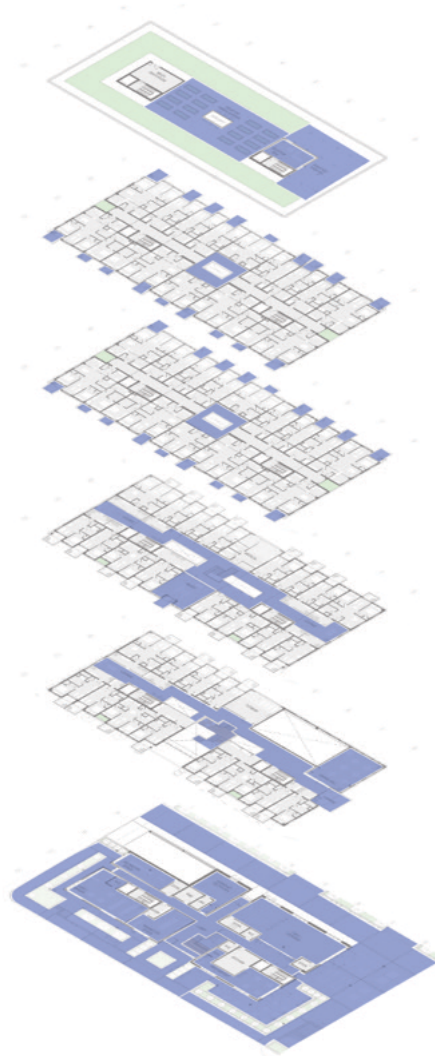
Ownership of Spaces



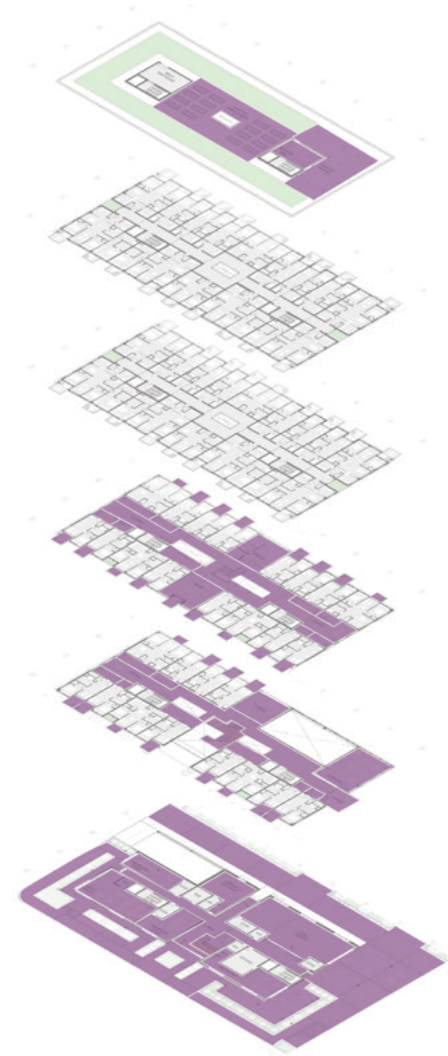
SOCIAL SPACES - CHILDREN



SOCIAL SPACES - ADULTS

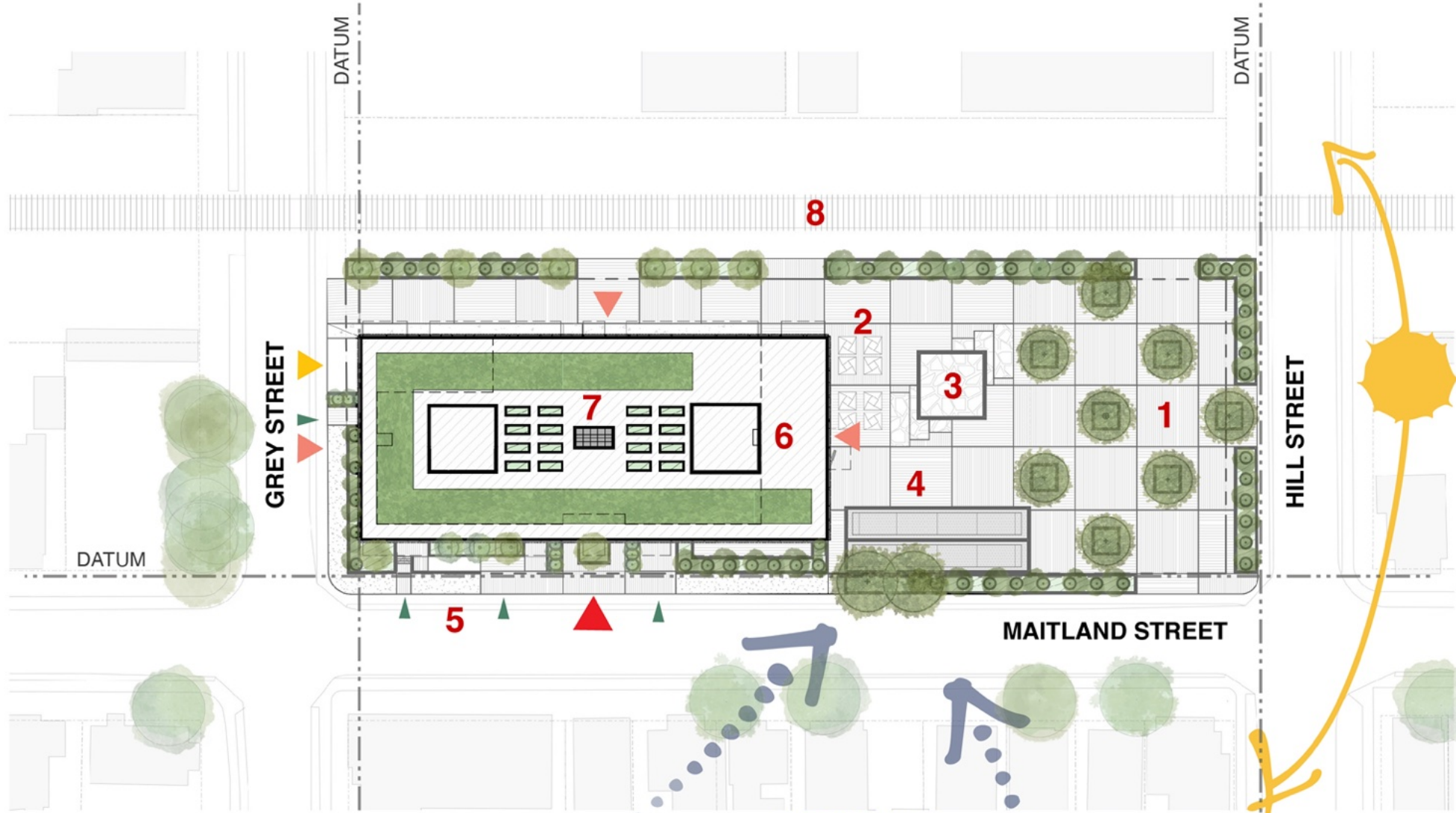


SOCIAL SPACES - SENIORS



Social Spaces By Age Group





Site Plan

- ENTRANCES:**
- ▲ MAIN BUILDING ACCESS
 - ▲ SECONDARY ACCESS
 - ▲ U/G PARKING / SERVICES
 - ▲ SOCIAL INFRASTRUCTURES
- 1 PARK SPACE
 - 2 MARKET SPACE
 - 3 STAGE
 - 4 BOCCIE COURTS
 - 5 EXTERIOR PORCH
 - 6 ROOFTOP THEATRE
 - 7 URBAN GARDEN
 - 8 ABANDONED RAIL LINE

HISTORIC WIND
PATTERNS (NW-SW)

Building Resilience

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Floor Plan - Level 1



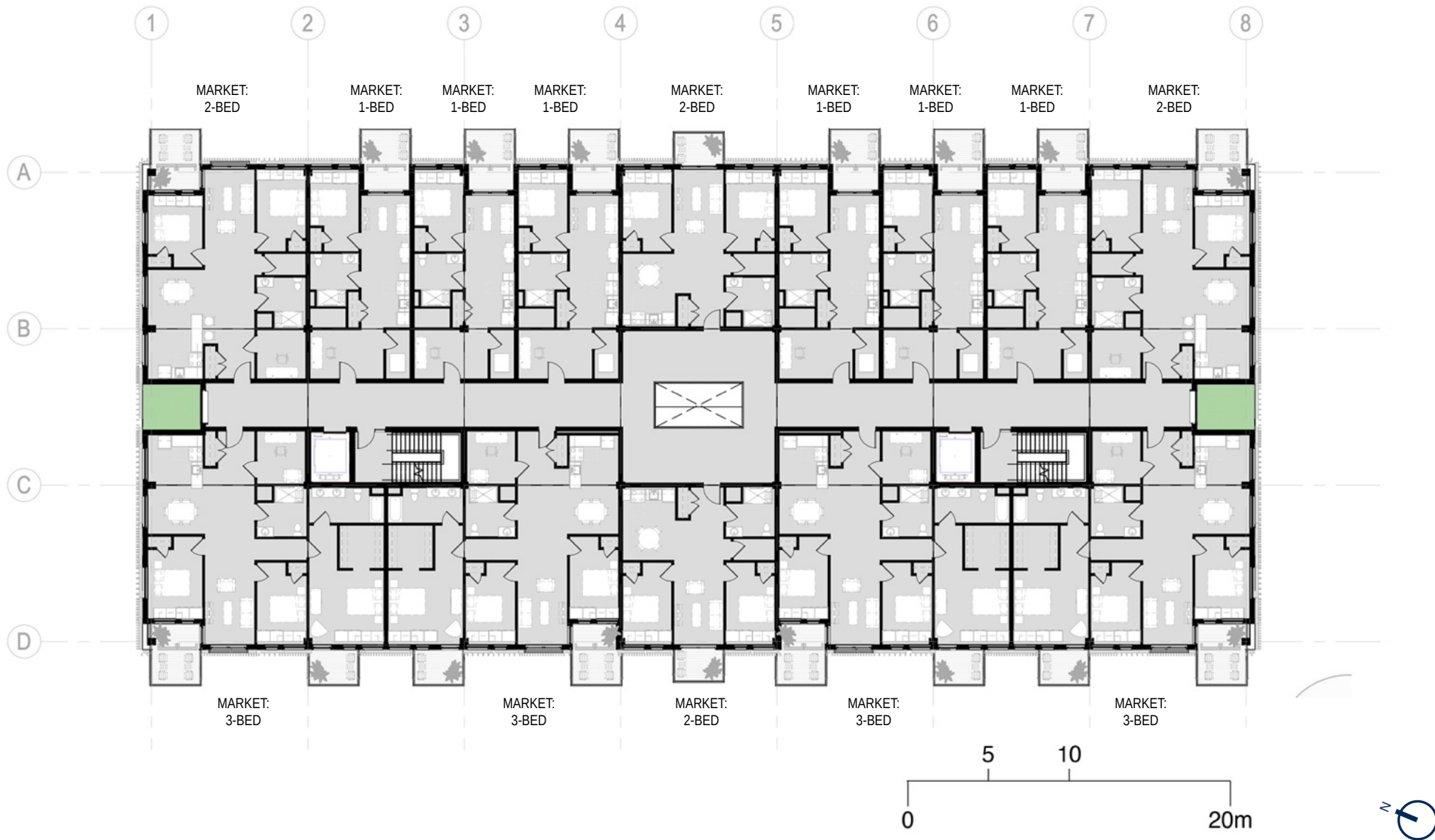


Floor Plan - Level 2

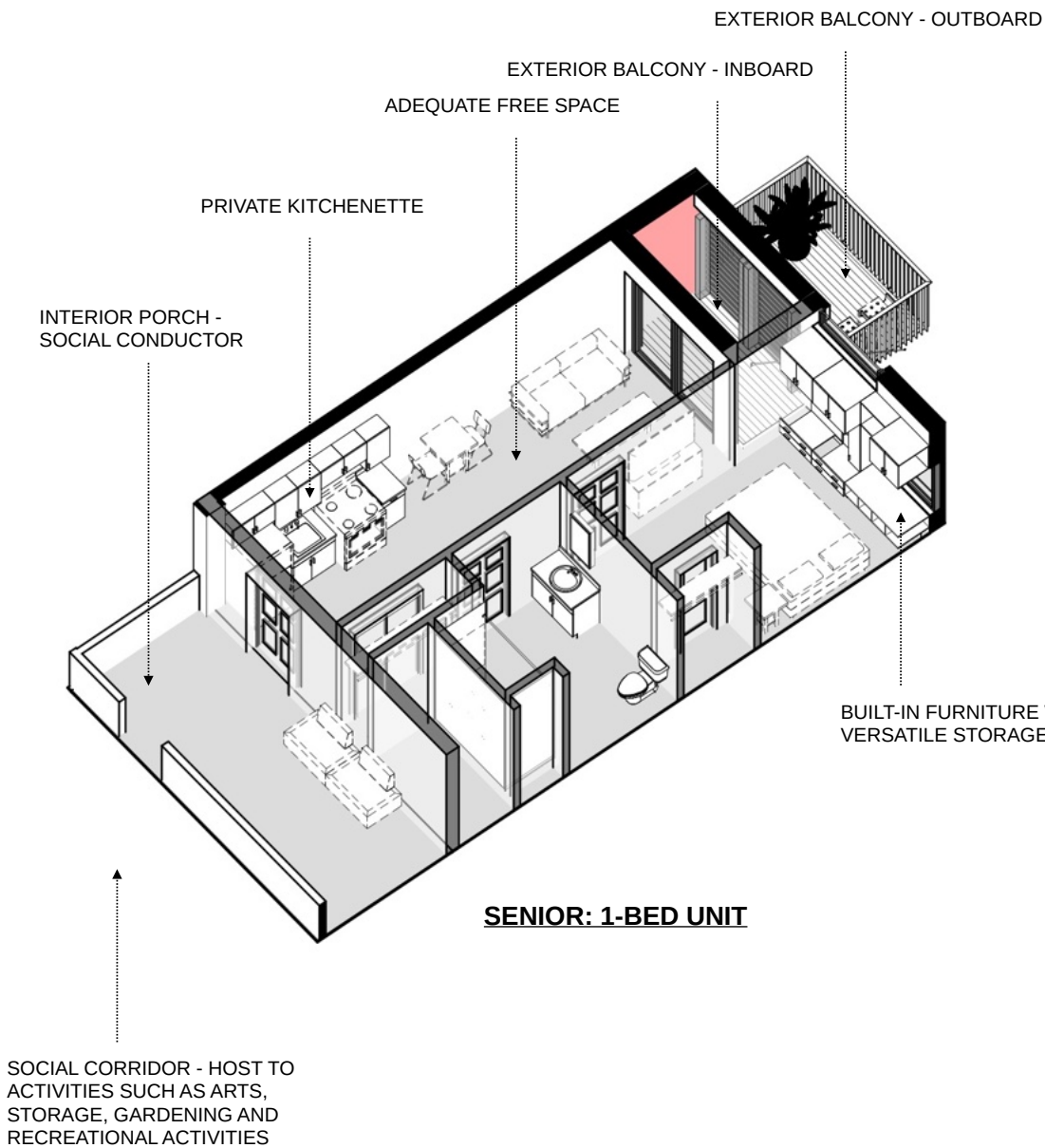




Floor Plan - Level 3



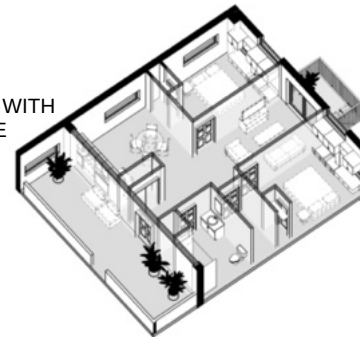
Floor Plan - Level 4-5



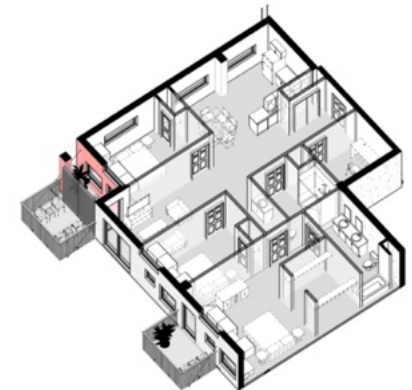
MARKET: 1-BED UNIT



MARKET: 2-BED UNIT



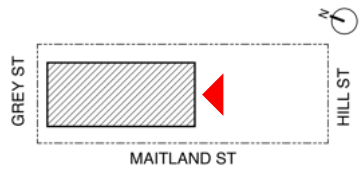
SENIOR: 2-BED UNIT



MARKET: 3-BED UNIT

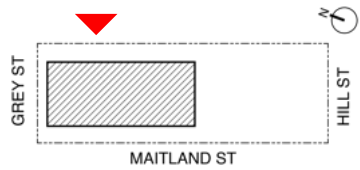
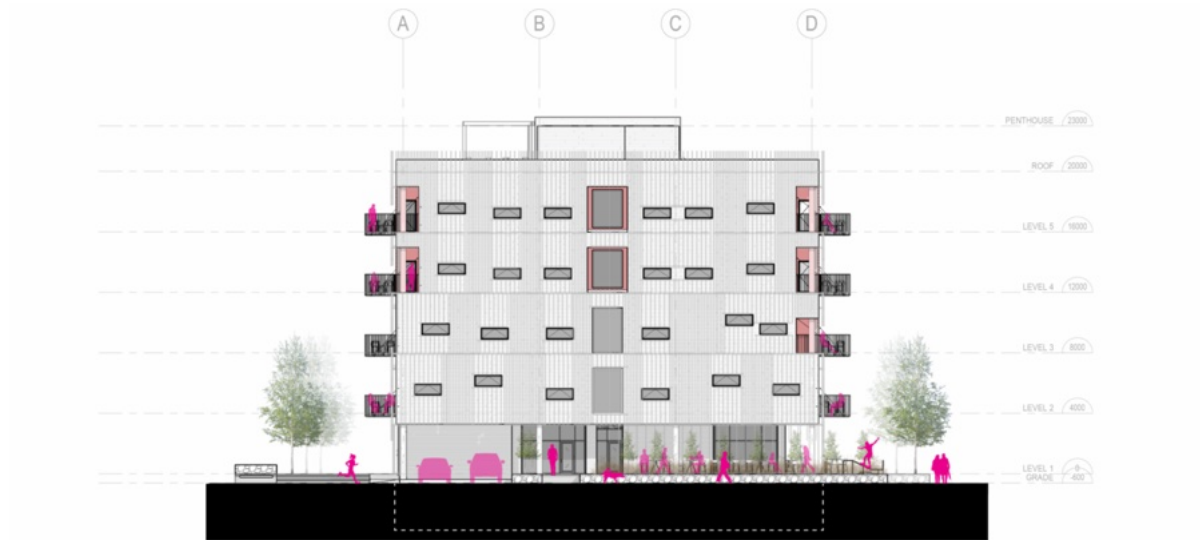
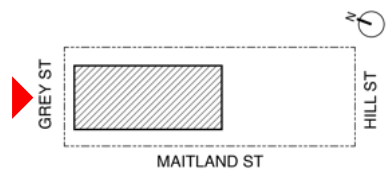
Units





Elevations - South and West





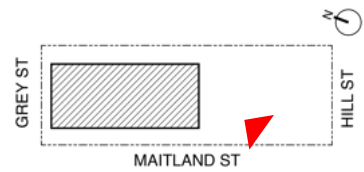
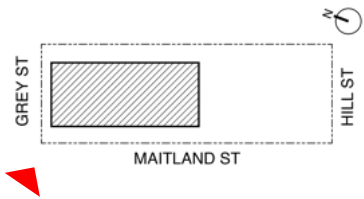
Elevations - North and East



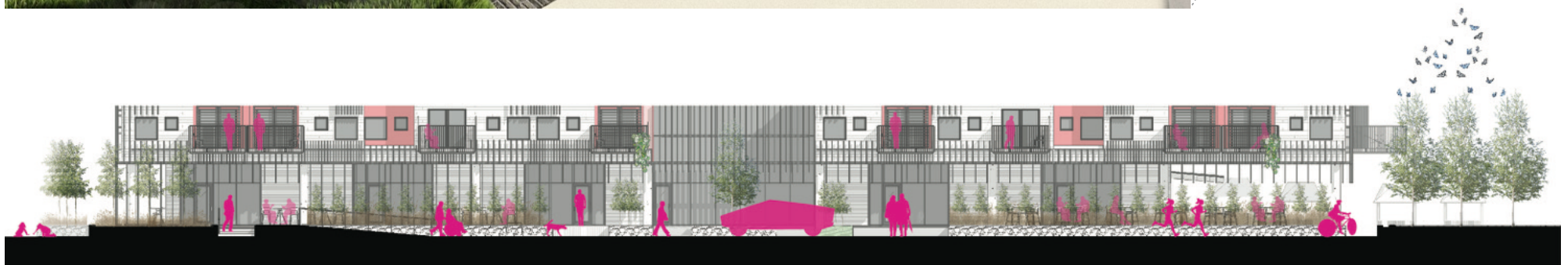
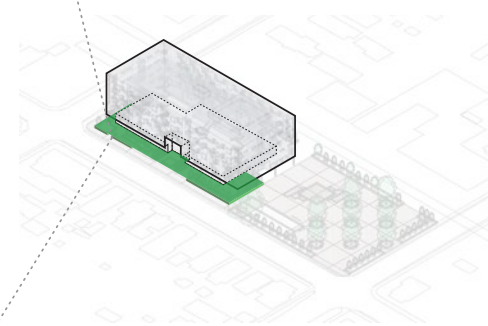
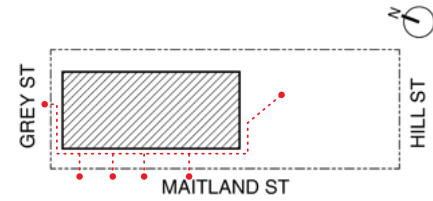


Vignettes





Vignettes

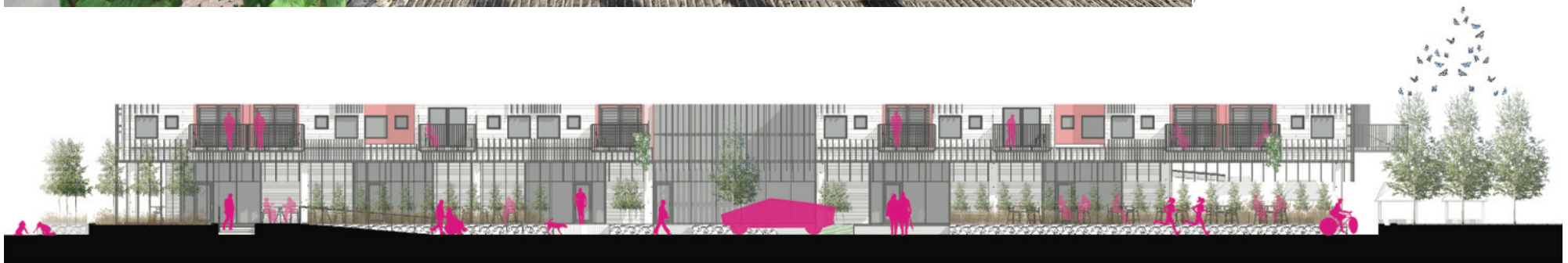
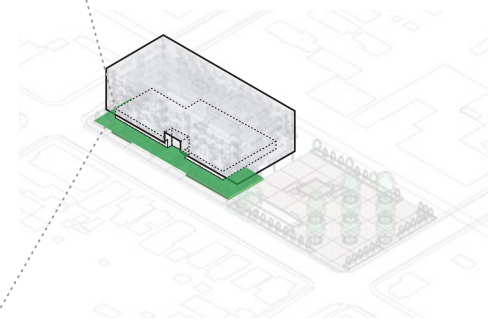
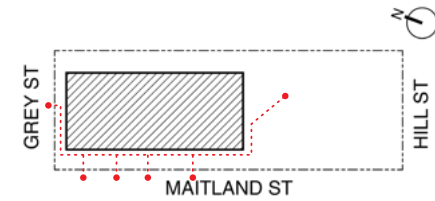


Social Space - Outdoor Porch

Building Resilience

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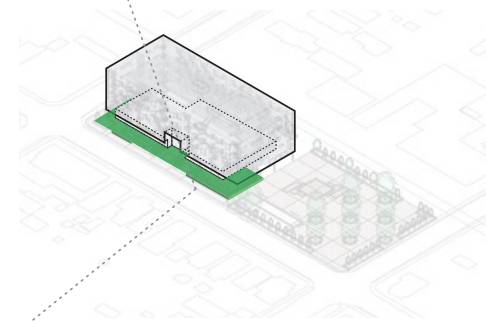
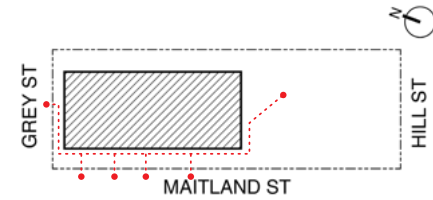


Social Space - Outdoor Porch

Building Resilience

Petar Sesar RAIC 690B - 2024 T2 FINAL -



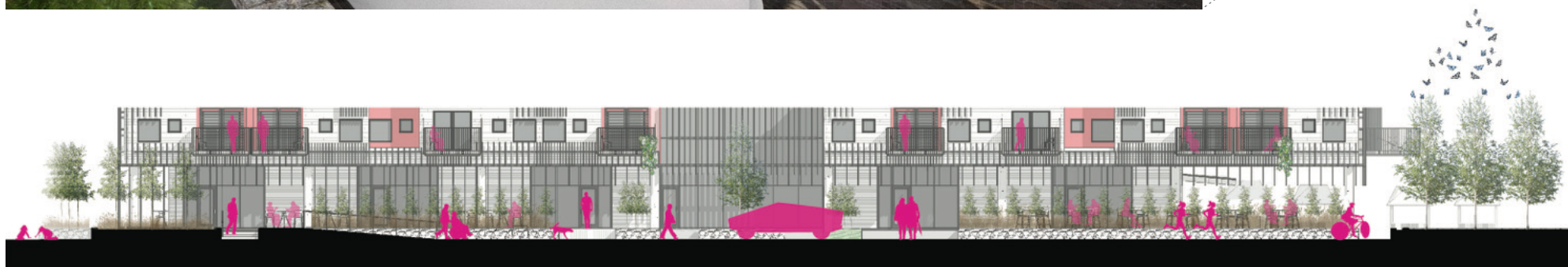
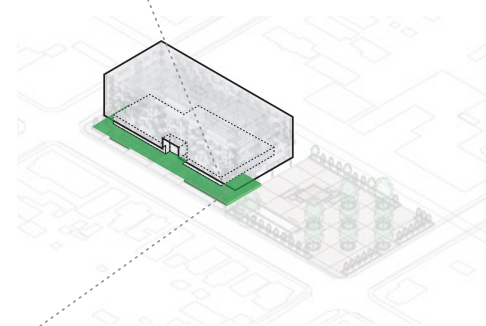
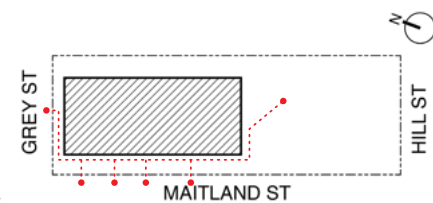


Social Space - Outdoor Porch

Building Resilience

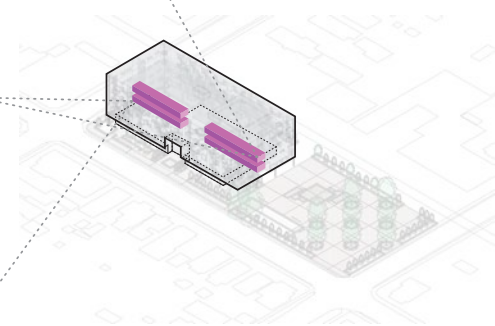
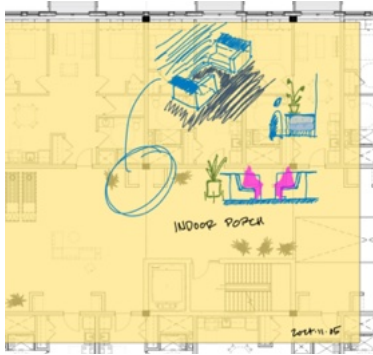
Petar Sesar RAIC 690B - 2024 T2 FINAL -





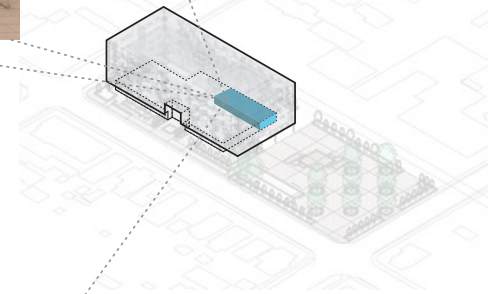
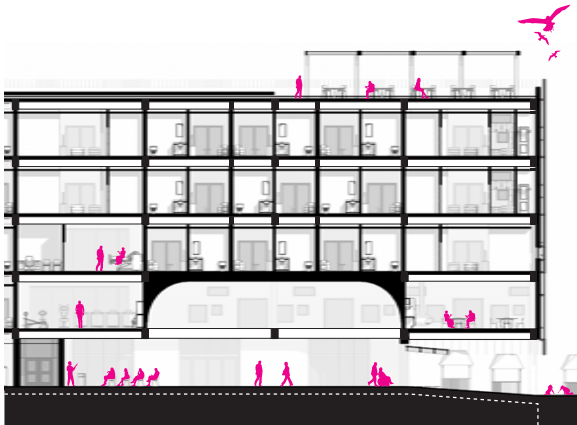
Social Space - Outdoor Porch





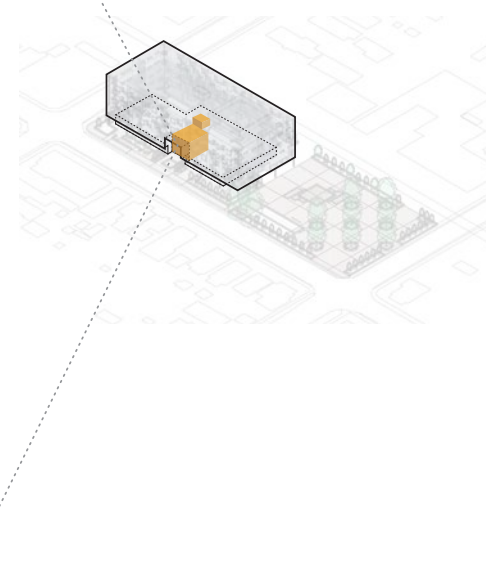
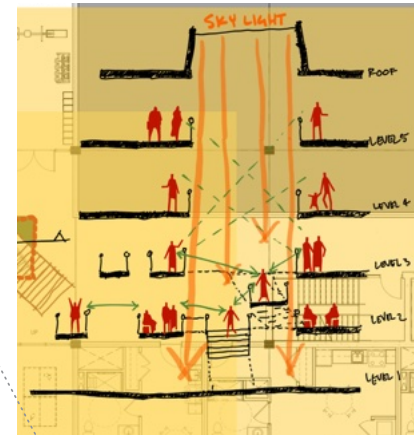
Social Space - Indoor Porch





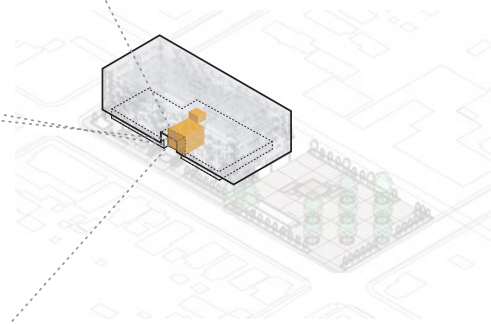
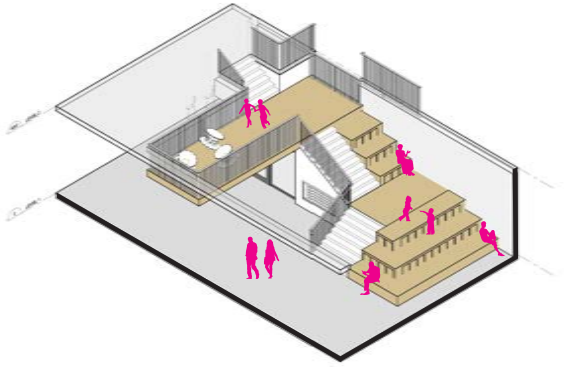
Social Space - Hall / Worship / Market





Social Space - Central Staircase





Social Space - Central Staircase





Partial Collection of Background Work

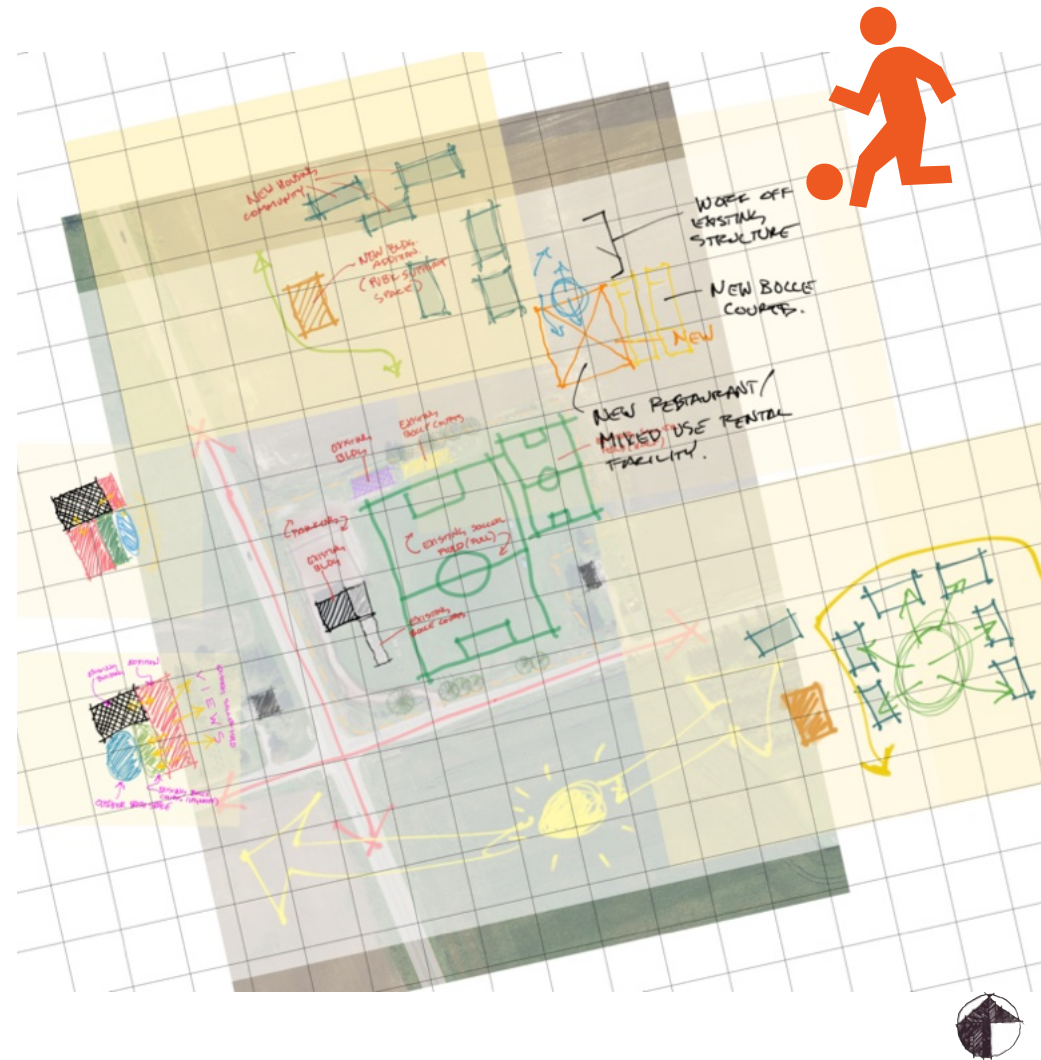
Programming

Type	Name	Use	Enclosure	Spatial Organization	Quantity	Occupant Load	Area
Housing							
All community members currently living in private dwellings or rental apartments							
Social Infrastructures							15,610 m2
Outdoor	Soccer field	Private	Exterior	Full size soccer field, smaller practice field, change rooms			14,300 m2
	Bocce courts	Private	Exterior	Four bocce courts, two active, two abandoned			580 m2
	Playground	Private	Exterior	Children's playground equipment			230 m2
	Patio	Private	Exterior	Wrap-around patio accessible from the Clubhouse			170 m2
Indoor	Clubhouse/Hall	Private	Enclosed	Open concept between clubhouse (bar area) and hall (non-fixed seating area); full-service commercial kitchen, washrooms (M/F/BF), max. occ. 75			330 m2
Cultural Spaces							7,510 m2
	Church	Semi-private	Enclosed	Single denomination, seating for 500 in congregation			950 m2
	Banquet hall	private	Enclosed	In basement; contains full-service commercial kitchen, max. occ. 600			950 m2
	Church grounds	Semi-private	Exterior	Open lawn, ancillary buildings for outdoor cooking and seating			5,610 m2
Total Area	Outdoor	14,880 m2	Indoor		8,240 m2		

Existing Program



Unavailable



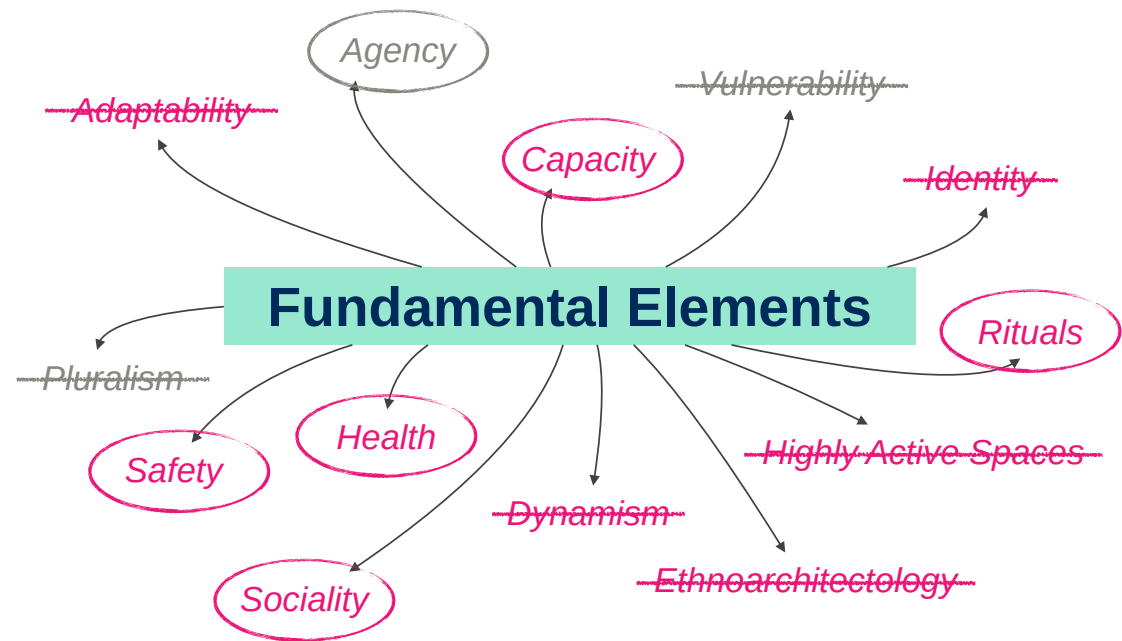
Petar Sesar RAIC 690B - 2024 T2 FINAL -



During my thesis research I put forward a collection of **Fundamental Elements**; proven characteristics that would support community resilience, and apply to cultural continuity and social infrastructures.

A review of the existing facilities and programming of the Croatian Church and Cultural Centre has uncovered which fundamental elements are present, and which are absent.

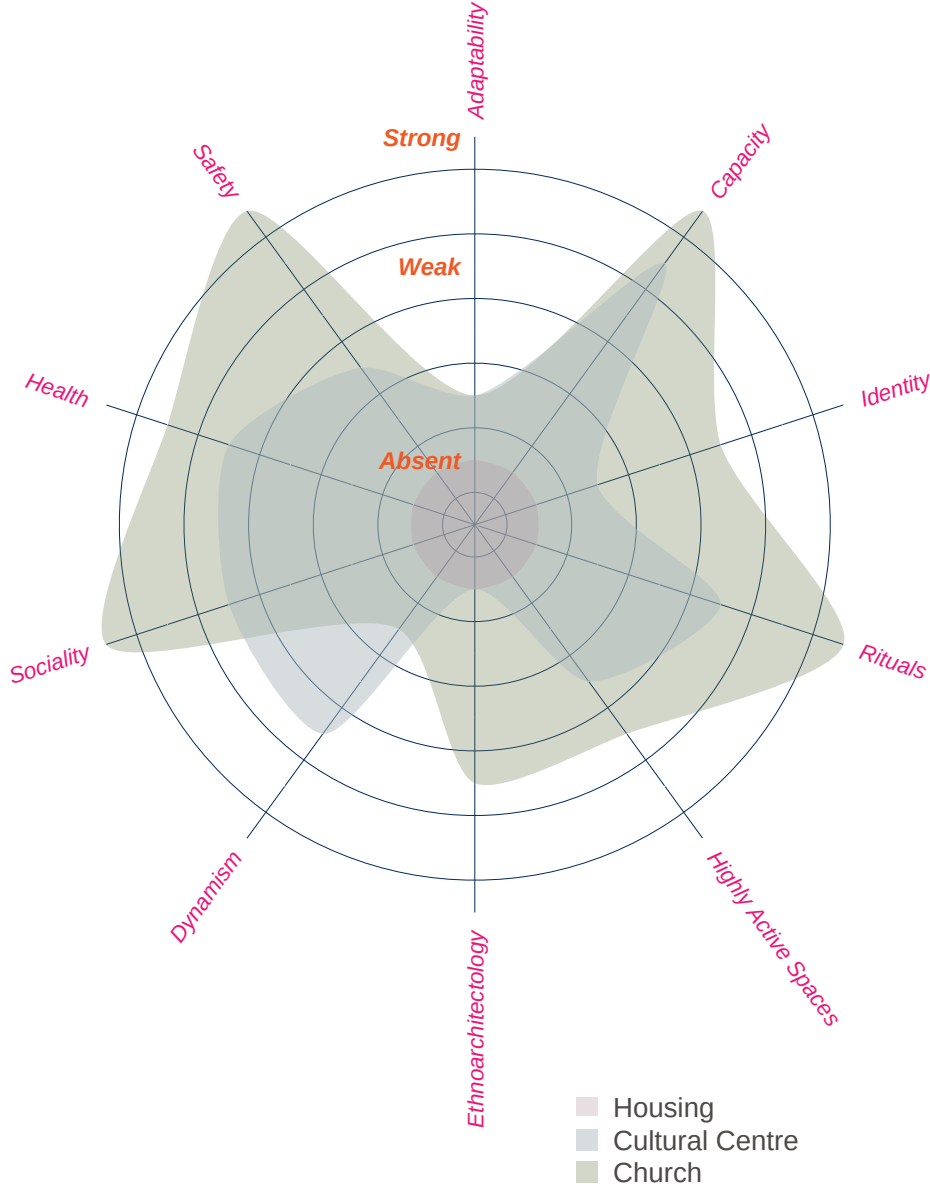
The greyed out elements were subtracted from further analysis due to their existence being based on the membership of the community. We know that community interest is present, however, waning.



Fundamental Elements Analysis



Fundamental Elements: Existing Program



After reviewing how the existing facilities and programming responded to the fundamental elements, I discovered that there was actually a scale of achievement present. The assessment of scale from 'Absent' to 'Weak' to 'Strong' was analyzed subjectively based on interviews with community members and self-reflection.

The outcome of these diagrams revealed that it wasn't enough to simply provide the fundamental elements. There were actually instances where they were sufficiently accounted for, and others which although they were present, they were insufficient or lacking successful characteristics.

The diagram on this page presents a deeper understanding of the existing facilities and programs by grading each element on a scale.

Fundamental Elements Analysis

Type	Name	Use	Income Generator	Enclosure	Spatial Organization	Quantity	Occupant Load	Area (m2)
Housing								
1	1-Bedroom	Private	Yes	Interior: Enclosed	Co-Housing: Above grade; primary occupant: Croatian retirement community	21	1	75
2	2-Bedroom	Private	Yes	Interior: Enclosed	Co-Housing: Above grade; primary occupant: Croatian retirement community	7	2	95
3	1-Bedroom	Private	Yes	Interior: Enclosed	Upper floors; primary occupant: market rate, culturally diverse pop.	12	1-2	65
4	2-Bedroom	Private	Yes	Interior: Enclosed	Upper floors; primary occupant: market rate, culturally diverse pop.	8	2-3	95
5	3-Bedroom	Private	Yes	Interior: Enclosed	Upper floors; primary occupant: market rate, culturally diverse pop.	8	3-4	140
SUM								4,900

Social Infrastructures								
<i>Outdoor Public Spaces</i>								
6	Market space	Public	No	Exterior: Open	Adjacent to restaurant and park space; generalized space	1	150	600
7	Park space	Public	No	Exterior: Open	Adjacent to market space; thru-circulation for tenants; generalized space	1	100	1,600
<i>Outdoor Tenant Amenity Spaces</i>								
8	Circulation	Semi-private	No	Exterior: Open	Visible by eyes from the street, opportunity for ownership of space	4	25	250
9	Urban Theatre	Semi-private	No	Exterior: Open	Generalized space for social gatherings; located at roof level	1	25	80
<i>Indoor Public Spaces</i>								
10	Hall	Public	Yes	Interior: Enclosed	Ceremonial entrance; located distant from cultural spaces; (shared space)	1	150	215
11	Restaurant	Public	Yes	Interior/Exterior	Adjacency to exterior for patio functions; Hall for food service	1	30	140
12	Incubator space	Public	Yes	Interior: Enclosed	Accessible from street for full public view and access	2	15	75
<i>Indoor Tenant Amenity Spaces</i>								
13	Fitness	Semi-private	No	Interior: Enclosed	Co-Housing: centralized amenity space for retirement community and guests	1	30	80
14	Wellness	Semi-private	No	Interior: Enclosed	Co-Housing: centralized amenity space for retirement community and guests	1	30	80
15	Medical	Semi-private	No	Interior: Enclosed	Co-Housing: centralized amenity space for retirement community and guests	1	30	80
16	Social Lounge	Semi-private	No	Interior: Open	Co-Housing: centralized amenity space for retirement community and guests	2	30	80
17	Music Room	Semi-private	No	Interior: Enclosed	Co-Housing: centralized amenity space for retirement community and guests	1	30	80
18	Dining Area	Semi-private	No	Interior: Open	Co-Housing: centralized amenity space for retirement community and guests	1	30	80
SUM								4,410



Type	Name	Use	Income Generator	Enclosure	Spatial Organization	Quantity	Occupant Load	Area (m2)
Cultural Spaces								
19	Café bar	Public	Yes	Interior/Exterior	Strong street presence for public access and to encourage daily use	1	40	100
20	Worship space	Public	Yes	Interior: Enclosed	Isolated from other cultural spaces; combined with Hall (shared space)	1	100	215
21	Library Space	Public	No	Interior: Enclosed	Prominent location to feature collection; adjacent to café bar	1	30	80
SUM								395

Services								
22	Lobby	Semi-private	No	Interior: Open	Ceremonial entrance located off of Maitland Street (Building Address)	1	–	60
23	Electrical	Private	No	Interior: Enclosed	Located at Level 1	5	–	12
24	Mechanical	Private	No	Interior: Enclosed	Located at roof level	1	–	75
25	Janitorial	Private	No	Interior: Enclosed	Located near Lobby	1	–	2
26	Garbage/Recycling	Semi-private	No	Interior/Exterior	Located at grade (no chutes)	1	–	40
27	Univ. Washroom	Semi-private	No	Interior: Enclosed	Located near Lobby	1	–	11
28	Storage	Private	No	Interior: Enclosed	Distributed one room per floor	4	–	18
SUM								320

Parking (underground)								
29	Barrier-Free	Semi-private		Below Grade	3.4m x 5.5m	3	–	19
30	Tenant	Semi-private		Below Grade	2.7m x 5.5m	26	–	15
31	Bike Storage	Semi-private		Below Grade	0.6m x 1.5m	39	–	1
SUM								486

Total Area	Outdoor 3280	Indoor 7,231	SUM TOTAL	10,511
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Notes:

- Gross-up factors have been applied to individual program elements ranging from 1.25 - 1.5.
- Parking calculation as per City of London Zoning By-law (0.5 spaces per unit); 52 units = 26 spaces
- Barrier-Free Parking: 2 spaces plus 2% of total parking spaces (2% of 26 = 0.52 = 1 space); = 3 spaces
- Bike spaces calculation as per City of London Zoning By-law (0.75 spaces per unit); 52 units = 39 spaces

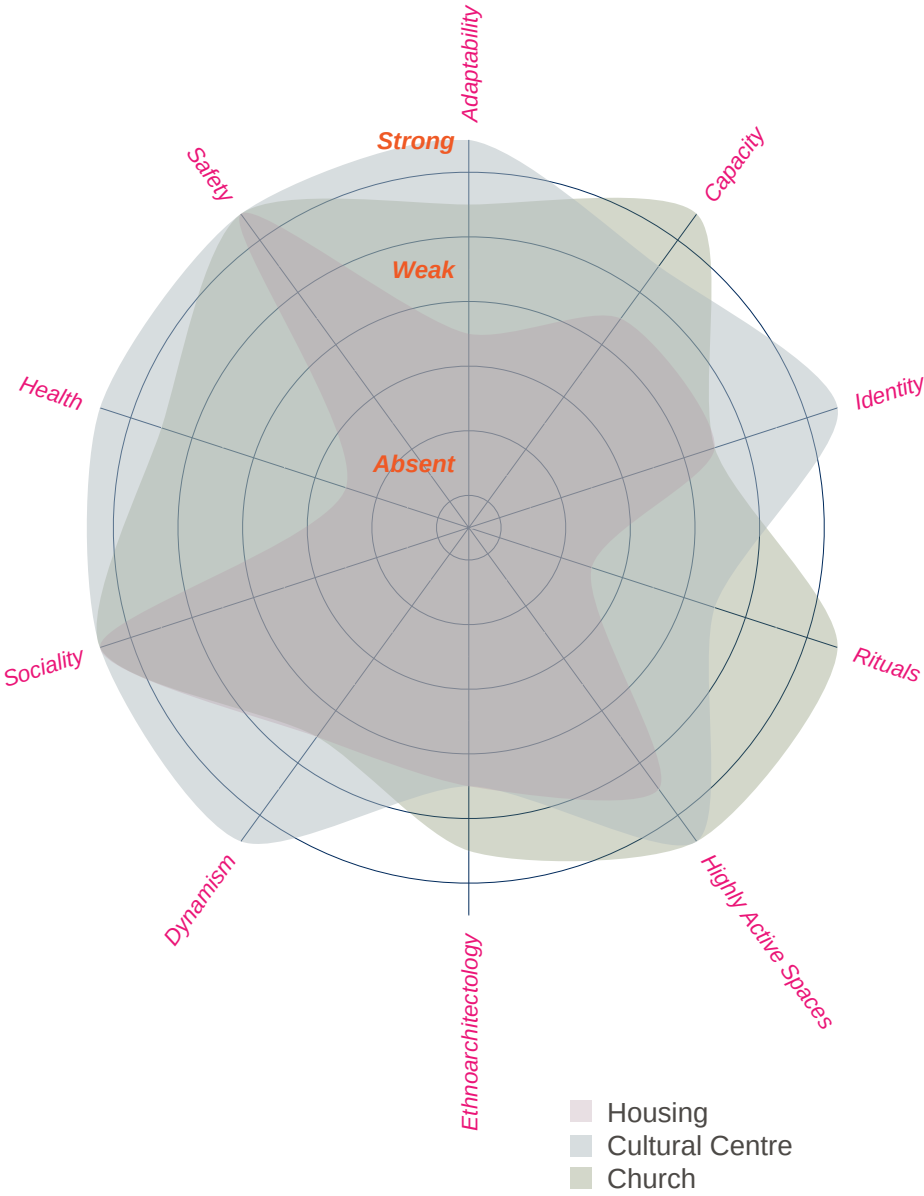
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The Thesis Research Paper uncovered that multi-generational sociality greatly benefits cultural continuity, and can be achieved through shared access to social infrastructures. Providing highly active spaces that support sociality between the elderly and the youth can bring about community resilience.

Providing housing support for the seniors within the community that promotes aging-in-place will strengthen the housing component's response to the fundamental elements.

Fundamental Elements Analysis

Fundamental Elements: Proposed Program



Building Resilience

Housing
Cultural Centre
Church

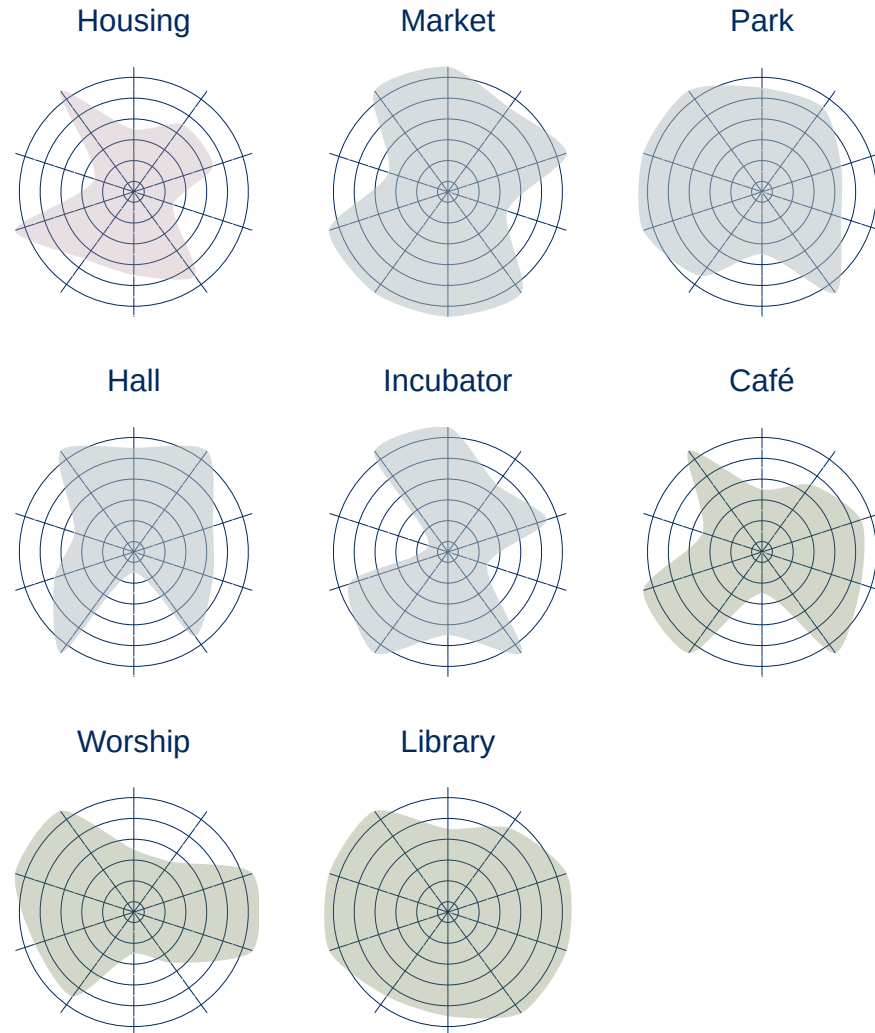
Petar Sesar RAIC 690B - 2024 T2 FINAL -



Diving deeper into the spaces of the proposed program, we uncover which spaces carry value in strengthening the fundamental elements based on their shape.

These spaces are being implemented in the proposed program as a direct response to the current programs detractors and needs. Together, these spaces can supplement the existing weakened social infrastructures and fill in the missing pieces.

What may end up occurring is the abandonment of the existing social infrastructures, which are currently on the trajectory of failure for various reasons (as identified in the Thesis Research Paper).



Housing

- 1 1-Bedroom
- 2 2-Bedroom
- 3 1-Bedroom
- 4 2-Bedroom
- 5 3-Bedroom

Social Infrastructures

- 6 Market space
- 7 Park space
- 8 Circulation
- 9 Urban Theatre
- 10 Hall
- 11 Restaurant
- 12 Incubator space
- 13 Fitness
- 14 Wellness
- 15 Medical
- 16 Social Lounge
- 17 Music Room
- 18 Dining Area

Cultural Spaces

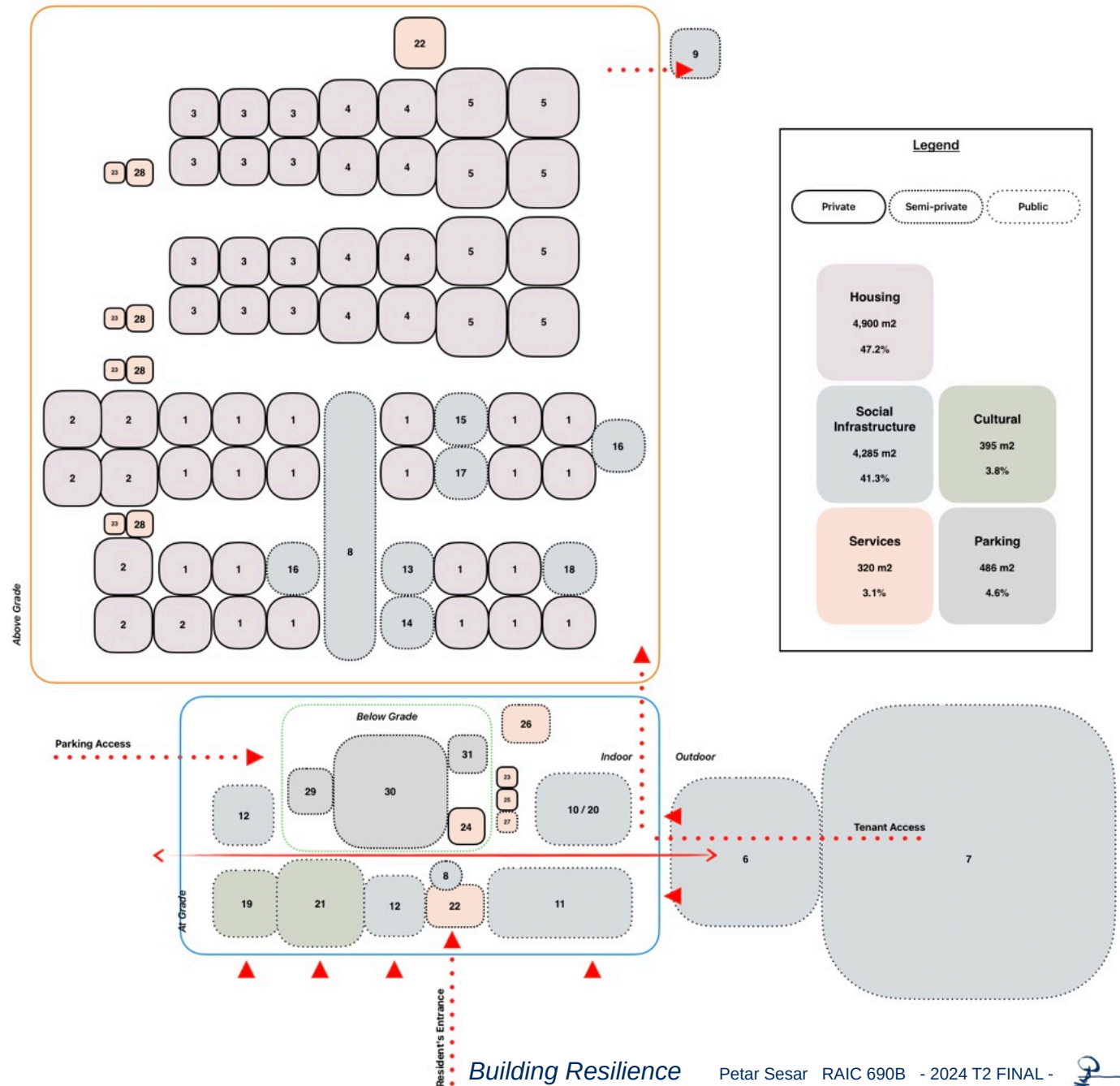
- 19 Café bar
- 20 Worship space
- 21 Library Space

Services

- 22 Lobby
- 23 Electrical
- 24 Mechanical
- 25 Janitorial
- 26 Garbage/Recycling
- 27 Universal Washroom
- 28 Storage

Parking

- 29 Barrier Free Parking
- 30 Tenant Parking
- 31 Bike Storage



Adjacency Diagram

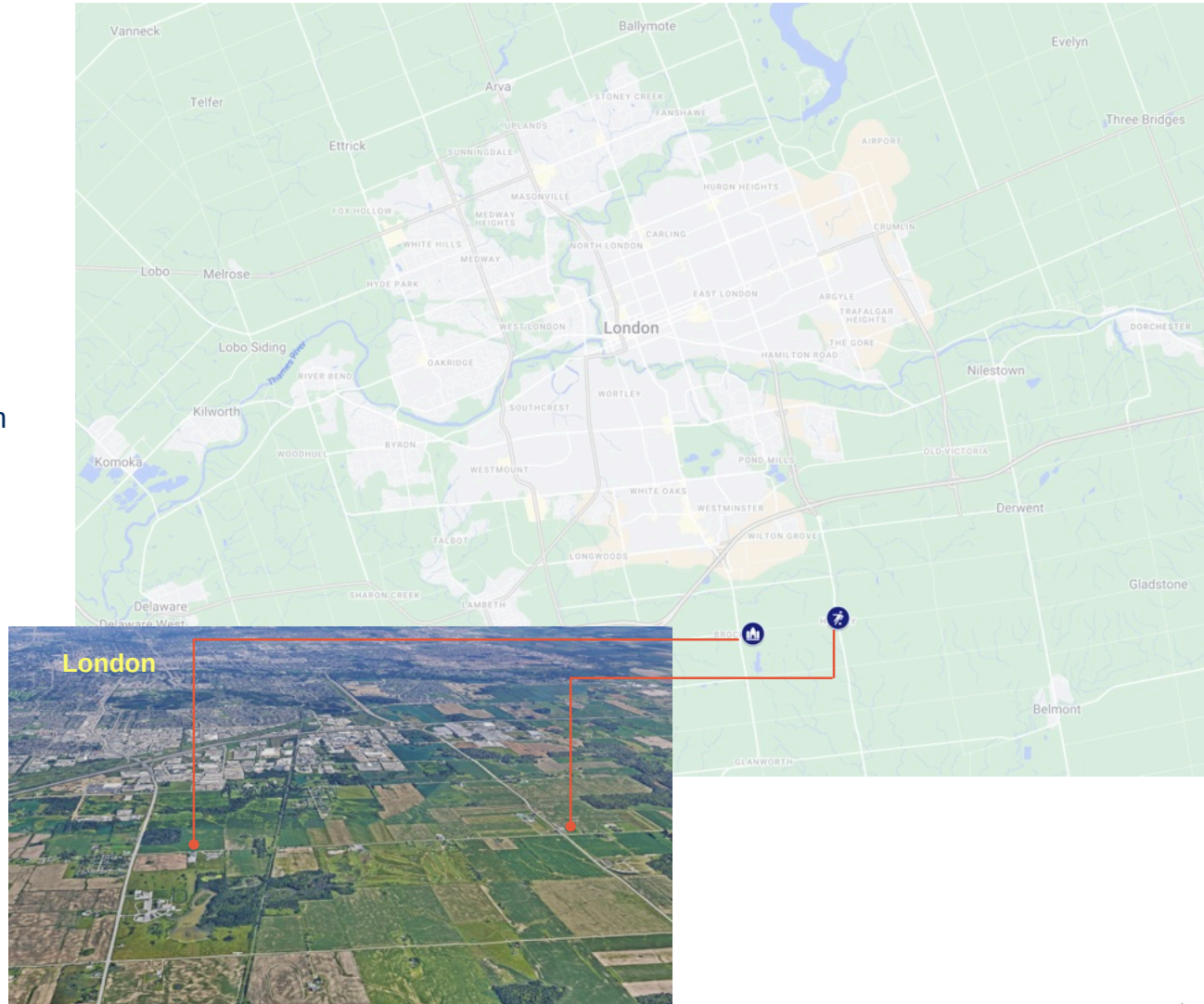


Site Analysis

A quick examination of the existing social infrastructures that support the local Croatian community reveals what has been the preeminent reason for the community's fading resilience.

As outlined in the provisional findings and closing observations of the Thesis Research Paper, the proximity of social infrastructures has just as much to do with the resilience of a community as the discovered fundamental elements and design criteria.

The existing social infrastructures of the Croatian community are located quite distant from its members' homes, as well as the rest of the City's residents. Access to these community spaces are becoming increasingly difficult for the aged population and an inconvenience for the adults, who, for one reason or another, would prefer something closer to their homes.



Community Centre

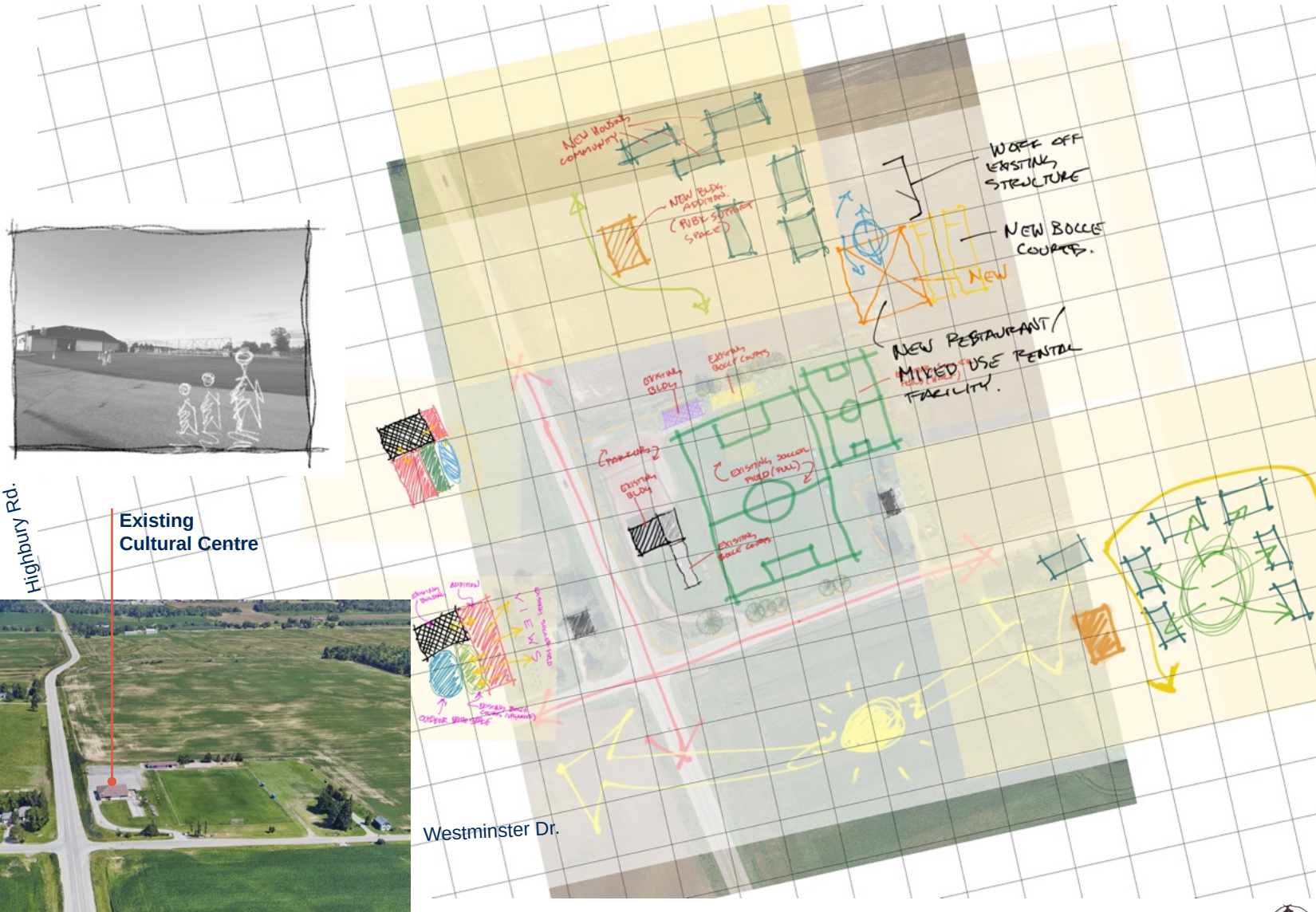
Address
1994 Westminster Drive
London, ON
N6N 1L6

Zoning
NF2 - Neighbourhood Facility Zone
Permitted uses limited

Lot Area
24 685 m²

Max. Building Height
12 meters

Zoning Regulations (NF2)
Lot Frontage - 30 m
Min Yard Setbacks - 6 - 8 m
Min. Landscape: 25%
Max. Lot Coverage: 30%



Site Analysis - Existing Social Infrastructures



Church

Address
2889 Westminster Drive
London, ON
N6N 1L7

Zoning
NF2 - Neighbourhood Facility Zone
Permitted uses limited

Lot Area
16 215 m2

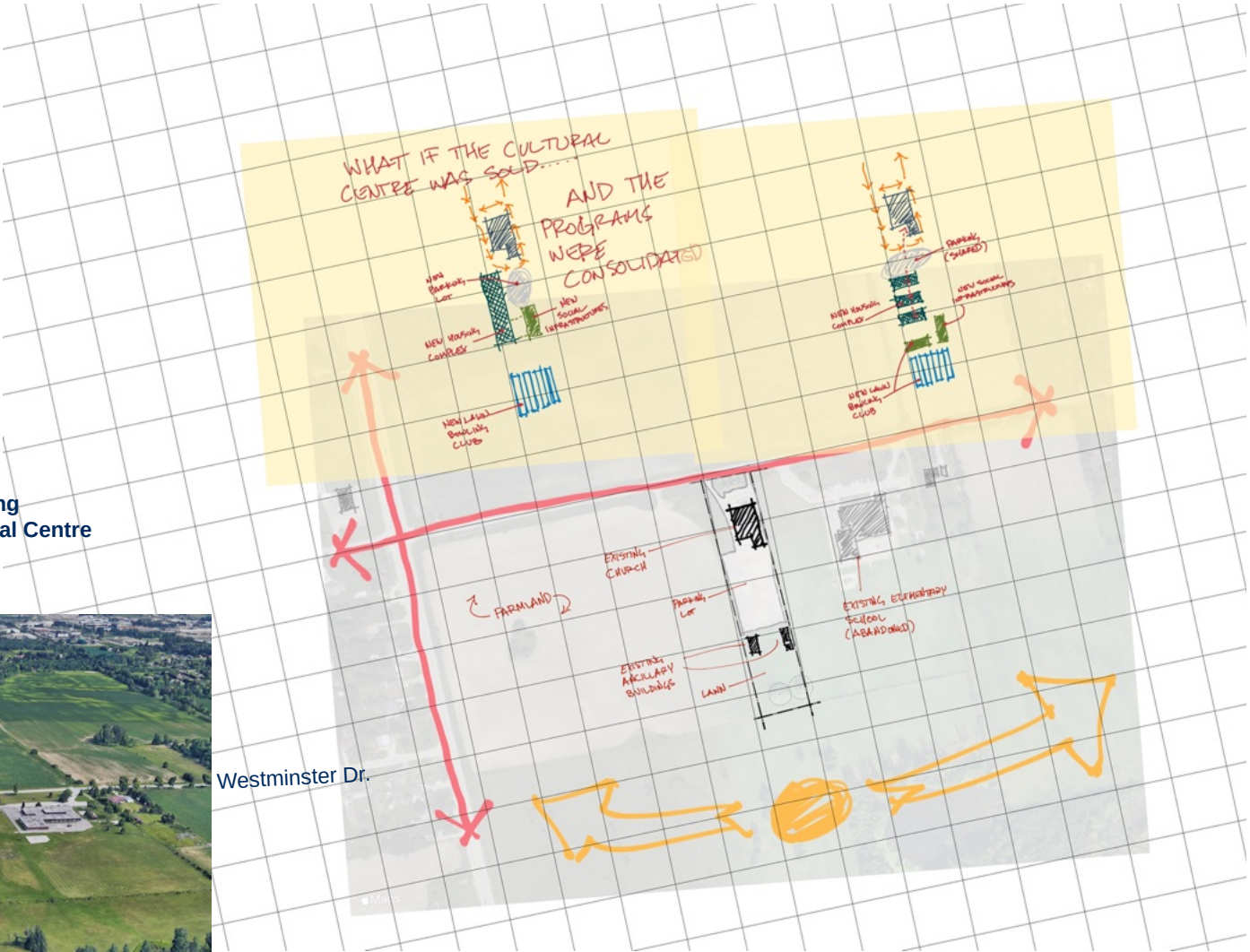
Max. Building Height
12 meters

Zoning Regulations (NF2)
Lot Frontage - 30 m
Min Yard Setbacks - 6 - 8 m
Min. Landscape: 25%
Max. Lot Coverage: 30%



Wellington Rd.

Existing Cultural Centre



Site Analysis - Existing Social Infrastructures



Within the critical analysis of the Thesis Research Paper it was identified that diversity plays a pivotal role in the resilience of communities. Diversity is multifaceted - it applies to both the members that make up a collective community, and the social infrastructures (program) that support the community's members.

The two existing sites that support the Croatian community in London lack diversity in both their community make-up and their programming.

Although both sites may be adequate in size and scale for revitalization, they both struggle with accessibility due to their distant proximity to members of the community and the general population of the city.

Therefore, it has been determined that a new site would be much more appropriate for this design exercise to take shape.



Finding the Right Site



<u>District</u>	<u>Proximity to Public Transit Services</u>	<u>Pre-existing Social Infrastructures</u>	<u>Cultural Ambassadorship Opportunities</u>	<u>Outreach Opportunities</u>
Central London	+ Walking distance to major arterial bus lines (rapid transit routes)	- Downtown social infrastructures are generally privately owned and maintained - Social infrastructures within proximity of district are unsafe and not suitable for all age groups + Local ethnocultural church could become a shared social infrastructure	+ The district is a food desert; opportunity to bring in food market space to help feed locals with accessible groceries + Often the first district for immigrants to the City + Opportunity to build mid-rise without creating monumental scale of the structure	+ Adjacency to rapid transit route makes this district more desirable for elders + Adjacency to major waterway makes for a better biophilic relationship between occupants and the site + Central location within the city makes it optimal for a destination for everyone
Westmount	+ Walking distance to collector bus lines (local routes)	+ Access to local school grounds and park space + Strip plazas host to various - private - social infrastructures - Diversity of social infrastructures lacking	+ Pluralistic engagement with existing and future residents through the scattering of standardized strip plaza distribution within the district + Opportunity to create placemarkers for ethnocultural communities (ethno-hubs)	+ Opportunity to support a significant population for aging in place initiatives
Talbot / Lambeth	- Limited to no direct access to city bus lines	- No readily accessible social infrastructures unless willing to travel by car	+ Entrepreneurial opportunities through the need for social infrastructures; cultural ambassadorship through social infrastructure interventions	- Not ideal for aging in place



<u>District</u>	<u>Proximity to Public Transit Services</u>	<u>Pre-existing Social Infrastructures</u>	<u>Cultural Ambassadorship Opportunities</u>	<u>Outreach Opportunities</u>
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Assessment

The objective for site selection is to select a site that needs an injection of resilience - both social and community.

Central London district appears to be the best option for a future project that aims to strengthen community resilience through the integration of cultural continuity within social infrastructures.

The district is in need of strengthening its resilience, with some efforts put towards doing so in recent years (affordable housing projects, high-rise residential construction projects).

Facts

Central London's population has declined by 6.3% between 1996 - 2016.

9% of the population is between the ages of 0 to 19.

50% of the population is between the ages of 20 to 44.

41% of the population is of the age 45 and older.

22% of the dwellings are owned, while 78% of the dwellings are rented.

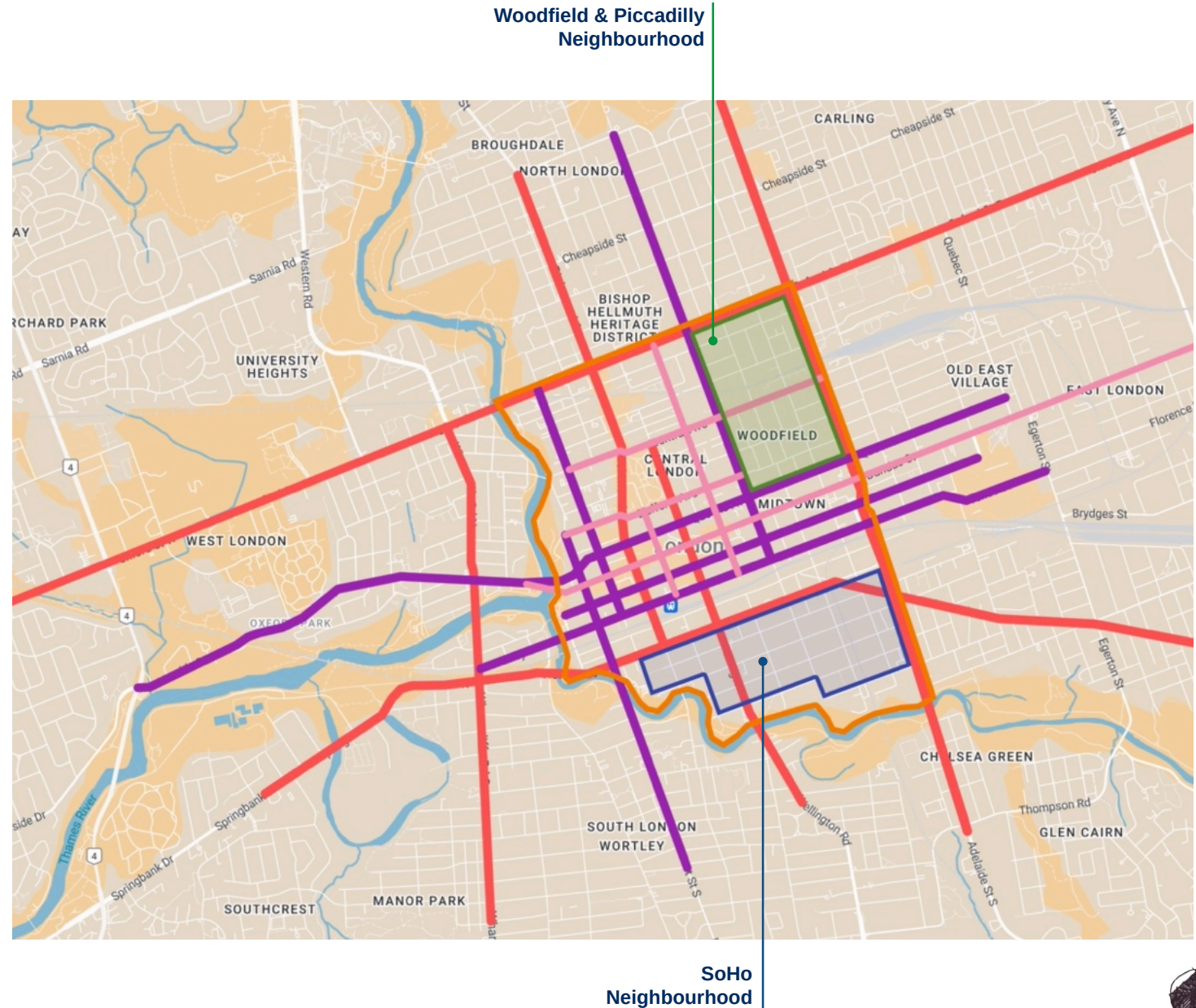
Only 38% of the population lived in the same neighbourhood for more than 5 years.

Data analysis extrapolated from City of London Neighbourhood Profile (1996-2016): https://london.ca/sites/default/files/2021-08/Central_final_aoda.pdf



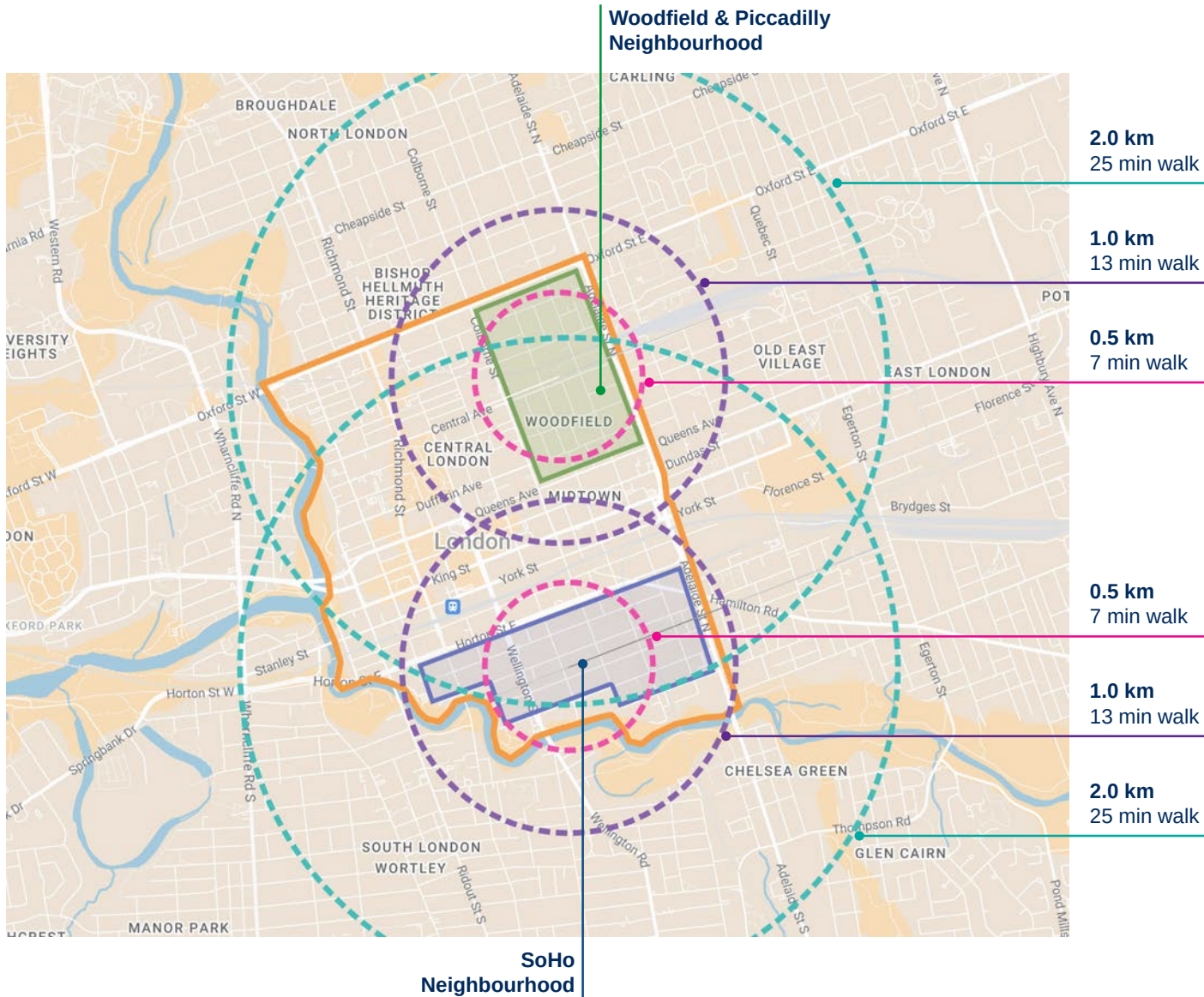
Traffic Volumes

- Arterial Road
20-35k vehicles per day
- Primary Road
11-19k vehicles per day
- Secondary Road
1-10k vehicles per day
- Central London District Boundary



Site Analysis - Traffic Volumes

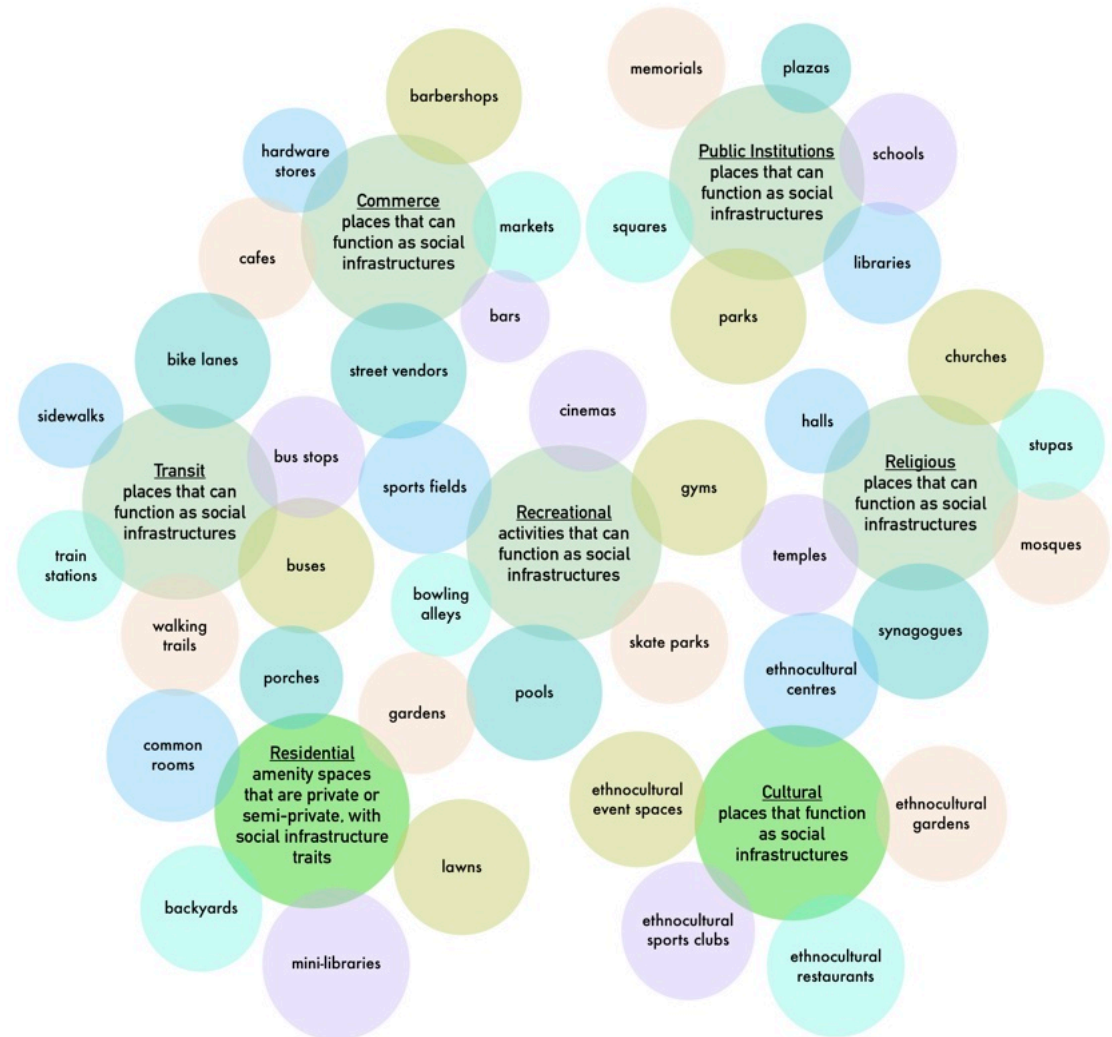




Site Analysis - Pedestrians

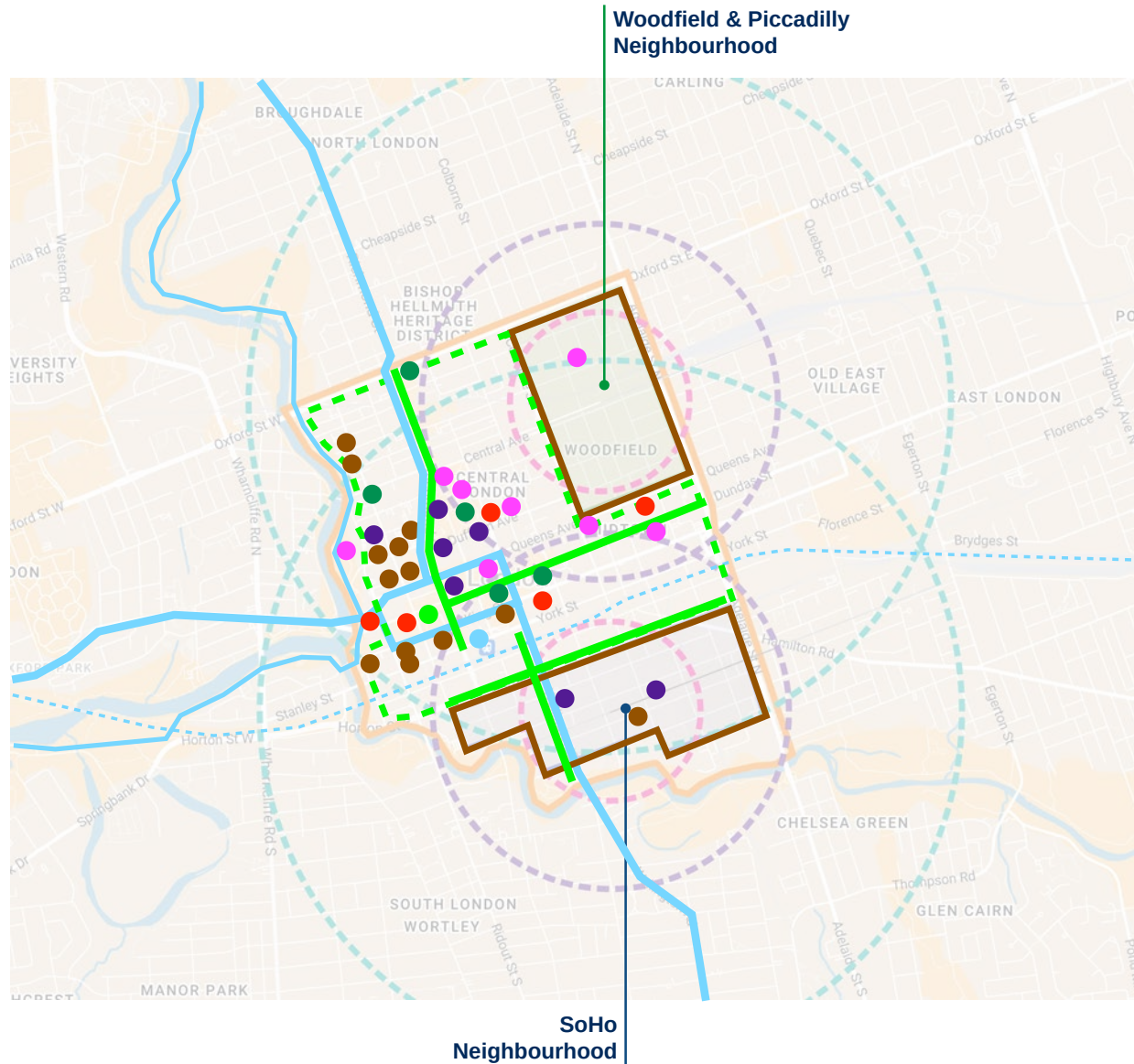


Part of the site analysis for the Central London District involved identifying the location of existing social infrastructures present by category, which resulted in the appearance of 'social infrastructure deserts' in the Woodfield & Piccadilly and SoHo neighbourhoods.



Categories of Social Infrastructures





Existing Social Infrastructures within the Central London District

- **Commerce**
Main Street, Commerce Building, Dundas St., Horton St., Small-Office Businesses
- **Public Institutions**
High Schools (3), Elementary Schools (1), Park, Central Library Branch
- **Transit**
Via Rail, Rapid Transit Loop, TVP Trail
- **Recreational**
Fitness Gym, Ice Rink, Squash Club
- **Religious**
Churches (7), Ethnocultural Specific (1)
- **Residential**
High-rise Residential, Woodfield, SoHo
- **Cultural**
Stadium, Museum, City Hall, Convention Centre, Cross-Cultural Learner Centre

Site Analysis



Neighbourhood	<u>Proximity to Public Transit Services</u>	<u>Pre-existing Social Infrastructures</u>	<u>Cultural Ambassadorship Opportunities</u>	<u>Outreach Opportunities</u>
SoHo	+ Walking distance to major arterial bus lines (rapid transit routes) + Bike lanes on prominent secondary roads and access to major bike routes	+ Local cultural church and hall (Polish) could become a shared social infrastructure with the Croatian community + Elementary school for aboriginal population + Recreational park hosts tennis and basketball courts + Single-family housing + Thames Valley Parkway (TVP) multi-use path along river - Food desert - No places of commerce	- Current neighbourhood has a traditional cultural place of worship and a cultural hall, however, both feel private - Neighbourhood is lacking a major public point of interest – a destination	- TVP in this area of the City is not safe for public due to low activity in the area - Large unhoused population migrate through the neighbourhood - Lacking places of commerce - Lacking public institutions - Lacking recreational social infrastructures - Neighbourhood needs older inhabitants to support an outreach program
Woodfield & Piccadilly	+ Walking distance to major arterial bus lines (rapid transit routes) + Bike lanes on prominent secondary roads and access to major bike routes	+ Elementary school and relatively close secondary schools + Single-family housing + Some places of commerce + Some religious social infrastructures + Some recreational social infrastructures - No cultural social infrastructures - Food desert	+ Higher percentage of inhabitants reside for greater than 5 years here - Currently no cultural ambassadorship within the neighbourhood - No distinct ethnocultural heritage in the neighbourhood - Neighbourhood is lacking a major public point of interest – a destination	+ Larger density of single-family housing to support those aging in place, and any outreach programs - Lacking cultural social infrastructures



Neighbourhood	Proximity to Public Transit Services	Pre-existing Social Infrastructures	Cultural Ambassadorship Opportunities	Outreach Opportunities
SoHo	+ Walking distance to major arterial bus lines (rapid transit routes) + Bike lanes on prominent secondary roads and access to major bike routes	+ Local cultural church and hall (Polish) could become a shared social infrastructure with the Croatian community + Elementary school for aboriginal population + Recreational park hosts tennis and basketball courts + Single-family housing + Thames Valley Parkway (TVP) multi-use path along river - Food desert - No places of commerce	- Current neighbourhood has a traditional cultural place of worship and a cultural hall, however, both feel private - Neighbourhood is lacking a major public point of interest – a destination	- TVP in this area of the City is not safe for public due to low activity in the area - Large unhoused population migrate through the neighbourhood - Lacking places of commerce - Lacking public institutions - Lacking recreational social infrastructures - Neighbourhood needs older inhabitants to support an outreach program

Assessment

The SoHo neighbourhood stands out as a reasonable neighbourhood for the integration of a community-based program that aims to strengthen resilience with existing and future inhabitants.

SoHo is lacking a number of social infrastructures that the proposed program can alleviate:

- Places of commerce
- Public institutions
- Recreational spaces
- Cultural spaces





Project Site:
130 Maitland Street

+ 124 Maitland Street



Address

130 Maitland Street (R8-4) & 124 Maitland Street (R2-2)
London, ON
N6B 2X4

Zoning

R8-4 (70) Residential R8 Zone
R2-2 - Residential R2 Zone (see previous slide)

Permitted Uses (R8-4)

Apartment buildings
Lodging house
Stacked townhouse: *permits stacking 3 units high*
Senior citizens apartment buildings
Emergency care establishments
Continuum-of-care establishments

Lot Area

130: 3 754.68 m² (93.4 m x 40.2 m)
124: 1 077.36 m² (26.8 m x 40.2 m)
Total: 4 832.04 m² (120.2 m x 40.2 m)

Max. Building Height (R8-4)

16 meters

Zoning Regulations (R8-4 (70))

Lot Frontage - min. 20 m
Min. Front Yard Depth - 3.2 m
Min. Rear Yard Depth - 3.3 m
Min. Exterior Side Yard Depth - 3.3 m

Max. Density: 98 units / hectare

Min. Parking: 34 spaces, or 0.9 spaces / unit

Min. Landscape: 30%
Max. Lot Coverage: 35%

130 Maitland Street



124 Maitland Street

SoHo - 130 Maitland Street



The site is edge defined by an abandoned rail line that formally connected Lake Erie with London via the town of Port Stanley. This strong, barren edge bounds the east side of the site. The north, south and west sides of the site are defined by paths (vehicular & sidewalks).

Two nodes appear at the street intersections, north and south of the site.



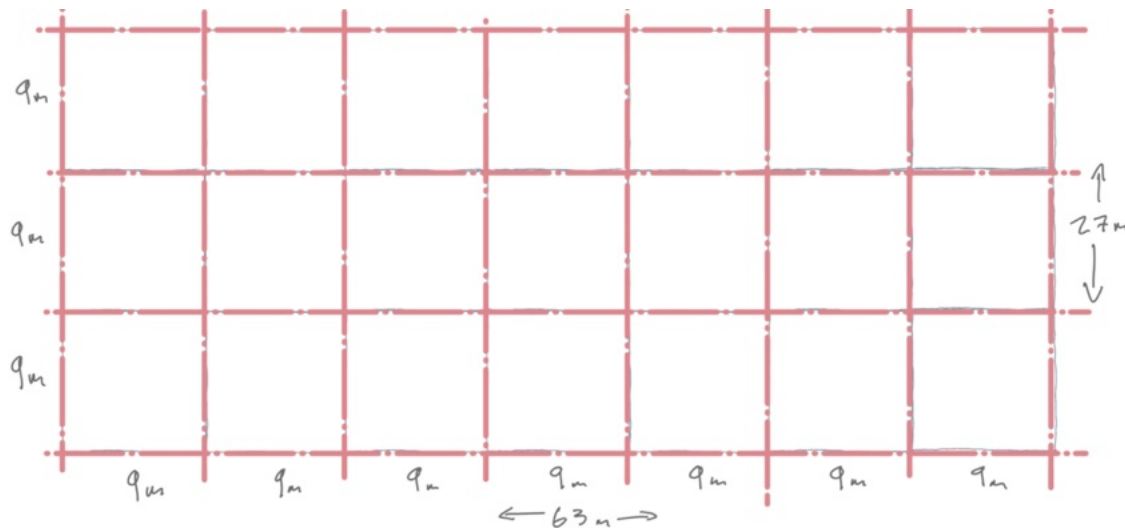
Site Analysis - Lynch Study



Larger **square grids** such as 28×28 ft (8.5×8.5m) or **30×30 ft (9×9m)** with one intermediate beam can also be used. This typically results in the use of **5-ply CLT floor panels**, spanning 14 or 15 ft, with an **intermediate beam** within each bay to reduce the span of the mass timber floor panels.



Clay Creative, Portland Oregon, USA, by Mackenzie Inc. (2016)

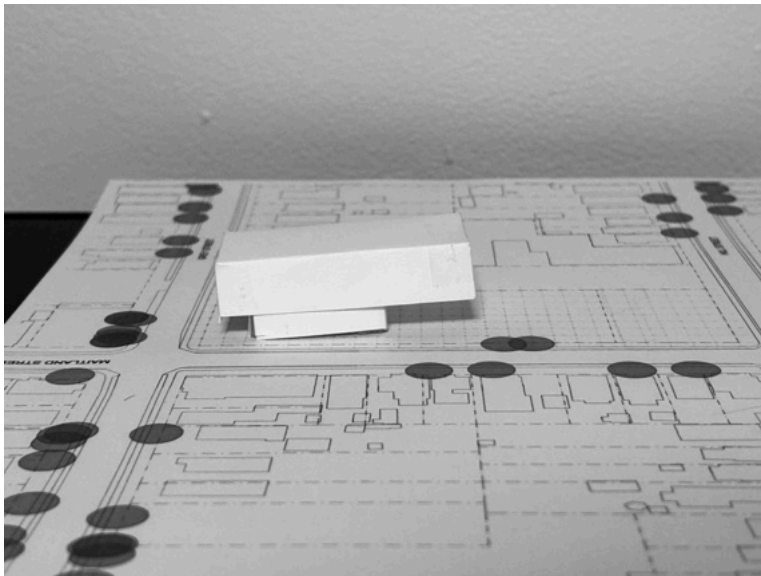
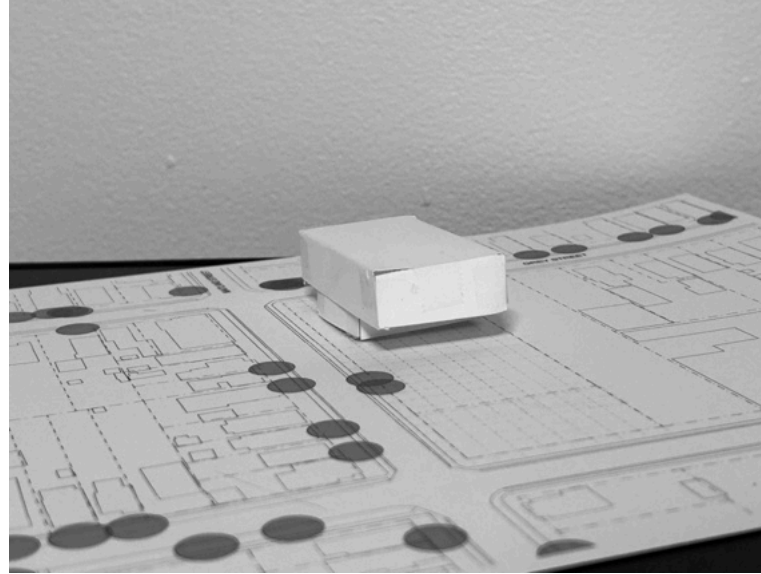
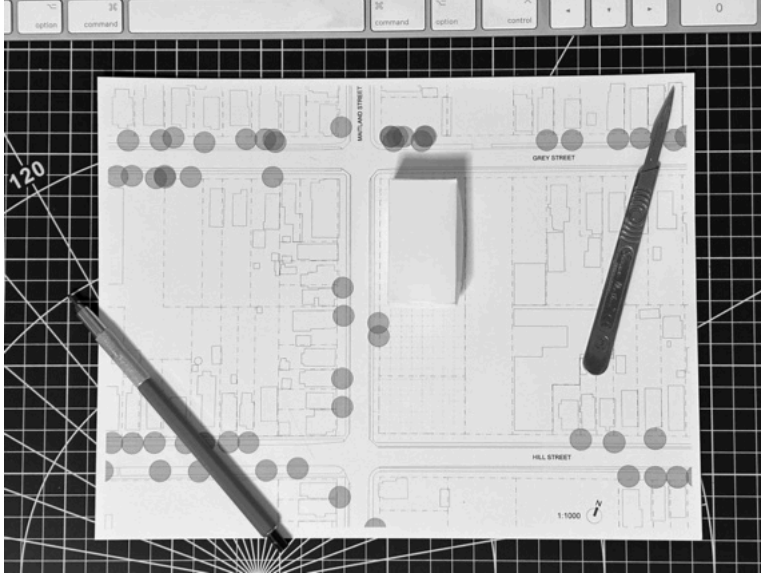


Structural System Overview:

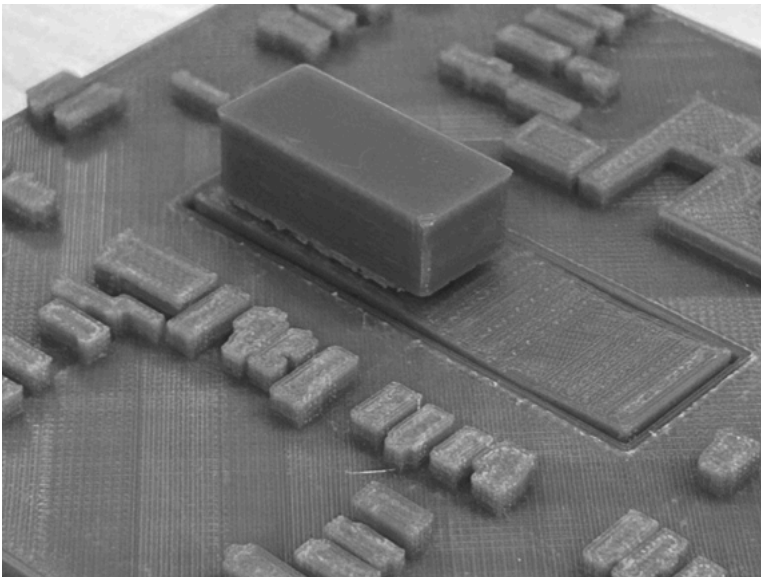
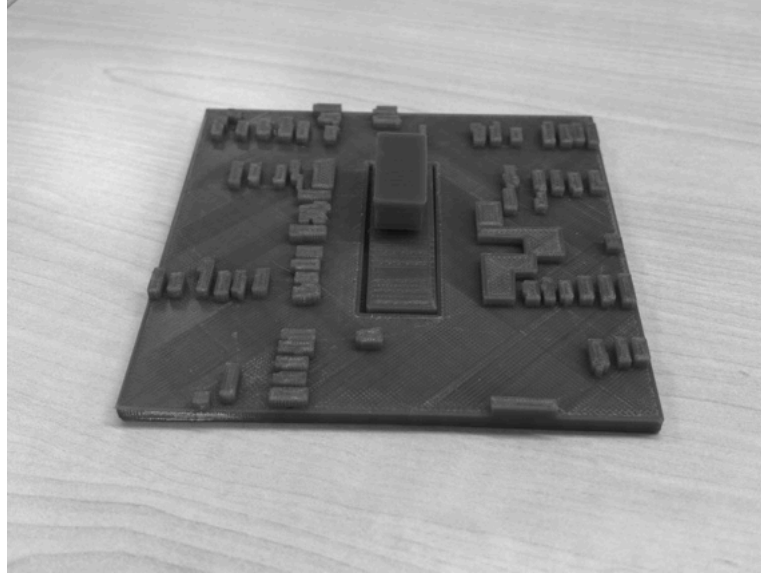
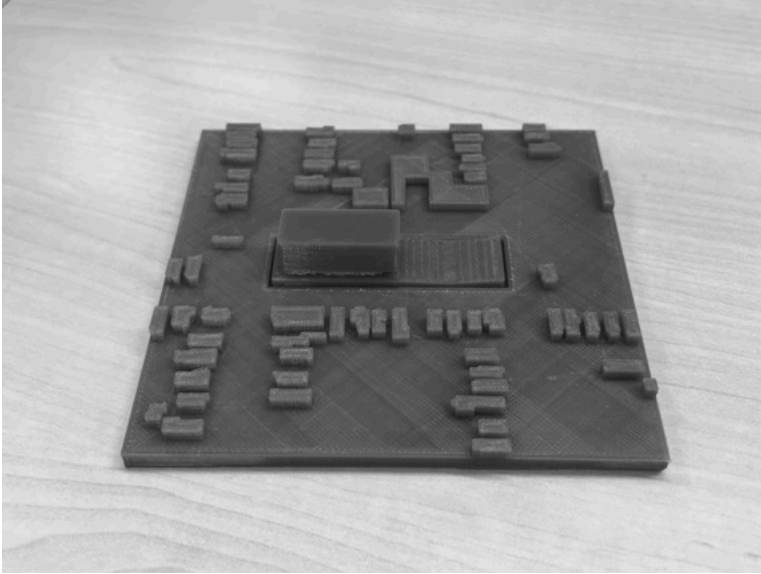
- + Live load upgraded from 1.9kPa to 2.4kPa
 - + Allows for maximum flexibility of current and future tenants of the building
- + 9m x 9m structural grid c/w intermediate beams
- + 5-ply CLT floor panels - 175 mm layup
- + *Columns*: 365mm x 456mm Spruce-Pine 20f-E
- + *Beams*: 365 x 646mm Spruce-Pine 20f-E
- + *Floor-to-Floor Height*: 4.0m

Building - Structural System





Massing Models



Massing Models