Evaluating Public Open Space: Three Winnipeg Cases

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Executive Summary

Urban open spaces are considered an essential part of cities as they offer opportunities for movement and provide spaces for people to pause and interact with their surroundings (Madanipour, 2003). Some design features and amenities are more attractive to people and tend to be used more frequently. This project was initiated to investigate the amenities and design features that are appealing to the Winnipeg downtown community.

Urban open spaces are typically defined based on their location and how they operate within the city. In terms of design, they are defined by various elements, such as pathways, edges, nodes, access, and fit. However, it is equally important to consider how these and how they are used. Understanding these elements and integrating them with Winnipeg's unique needs can lead to the creation of attractive open spaces. In Winnipeg's context, transparency, "eyes on the street", and access are crucial elements. The absence of any of these can impact the security of users.

In this project, I evaluated three open spaces located in downtown Winnipeg: Central Park, True North Square, and Millennium Library Park. To assess how people used each site, I employed observation as a research method. Six observations were conducted at each site, providing insights into the amenities and design features that users preferred and how they are used by people. The observation method was useful in identifying the amenities and design features that are most attractive to the community, as well as their usage patterns.

1.0 Introduction

Open spaces provide a range of benefits to residents and visitors alike, offering places to rest, exercise, socialize, and engage in activities, such as dog walking, running, skating, exhibitions, and ceremonies. Winnipeg, Manitoba has a diverse population, in terms of immigrant people, age, gender and culture. The design and features of these open spaces are critical to attracting users, facilitating a range of uses and fulfilling the needs of all city residents. To understand how spaces in Winnipeg are being used, this research addresses the following research questions:

- Research Question 1 – Who is using each of the open spaces, and how are they using the spaces?
- Research Question 2 - How do different spatial designs and elements (specific features) accommodate the different users and groups of users in the open spaces studied?
- Research Question 3- Are there observable impediments to the use (of specific uses) of the open spaces (lack of proximity, design details like anti-skateboarding devices, policing/security, rules that limit activities etc.)?

The project focuses on three public open spaces in Winnipeg: True North Square, Millennium Library Park, and Central Park. Each provides a range of different functions and features and are in different neighbourhoods and contexts within the downtown Winnipeg area.

The research method for this project is based on observation. My point of view and experiences as an Iranian woman will inevitably influence the findings, particularly in terms of criteria, such as security. Crime is associated with downtown Winnipeg. As a newcomer woman, I feel concerned about my own security, and I have always felt security concerns in low-population areas. To minimize the impact of the observer's personal bias, the study was designed to involve six visits to each site, conducted at different times, including weekdays, weekends, and nights. Furthermore, I tried to define my criteria based on quantifiable objects and events.

Each observation lasted between 45 to 60 minutes, during which the observer attempted to record the number of users and their behaviours, including their movements and activities. The study took place between October to December, and the observations were documented using graphs, photos, and sketches. The data were analyzed and classified based on gender and age, with

a focus on determining which groups of people were most attracted to each space and how they used the available amenities.

The findings from the studies indicate that the design and features of public open spaces play a critical role in attracting users and facilitating their use. In particular, the provision of amenities such as seating, shade, and playground areas was found to be important in attracting families with children. The presence of green spaces and a variety of activities were also found to be important in attracting users, particularly in the more residential neighbourhood.

In terms of gender, the results indicate that females were more likely to use public open spaces for socialization and relaxation, while males were more likely to engage in physical activity or relaxation. The study also found that different age groups used these spaces in different ways, with children being attracted to playground areas, while older adults were more likely to use seating areas and shady areas for relaxation.

It is worth noting that Winnipeg is known as a winter city and my observations were conducted during the fall and winter seasons. Further research and observations are needed during the spring and summer seasons to provide a more complete picture. As a result, this project can be considered a preliminary attempt to assess the success of data collection method.

In conclusion, the results of this study demonstrate the important role that amenities and design features play in attracting users and facilitating the use of public open spaces in downtown Winnipeg. The findings provide valuable insights into the needs and preferences of different user groups and can be used to inform the design and development of future urban public spaces in Winnipeg and other cities.

2.0 Methods

The aim of this capstone project is to observe and analyze the behaviour and activities of people in public spaces, with a particular focus on the number of women, men, and children present, as well as how individuals and groups utilize open spaces. The study will also examine patterns related to dog walking in these areas. The research method employed in this study is observation, which is a qualitative research technique that enables researchers to gather data in real-life situations and record the behaviours and actions of individuals.

2.1 Background of Observation as a Research Method

Observation is widely used tool in various disciplines for collecting data about people, processes, and cultures. Observation is a method of systematically looking at physical surroundings to find reflections of previous activity not produced in order to be measured by researchers. Observation traces are considered by Baker (2006) exceptionally useful research tools that can produce valuable insights at the beginning of a project, test hypotheses in the middle, and be a source of ideas and new concepts throughout the research process. Observation is a method base on observer, I am an immigrant woman, and I feel scared when I am in Winnipeg downtown. This fear has an impact on my observation time and may bias my observations.

2.1.1 Duration and Focus of Observation

From October 3 to January 13, I conducted 18 observations focused on the behaviour and activities of individuals and groups of people in public spaces. My attention was directed towards women, men, children, and individuals who came for dog walking. The objective was to gather data on their behaviour, bench usage, where their main paths of travel (in terms of designed paths and desire paths) are, and seating preferences, whether individually or in groups.

To achieve this, I conducted six observations per site, lasting for either one hour (14 observations) or 45 minutes (4 observations). The observations were carried out during weekdays, weekends, and at night, providing a diverse range of data. Table 1 provides a detailed summary of the sites and times during which my observations were conducted.

Table 1: *Observation Details (Date, Time, Duration)*

Place		True North Square		Millennium Library Park		Central Park	
Date	Weekday	Time	Duration	Time	Duration	Time	Duration
2022-10-03	Monday	16:00-17:00	1 hour	17:05-18:05	1 hour	18:15-19:15	1 hour
2022-10-11	Tuesday	11:30-12:15	45 minutes	12:15-13:00	45 minutes		
2022-10-16	Sunday	17:15-18:15	1 hour	18:15-19:15	1 hour	16:00-17:00	1 hour
2022-10-17	Monday					12:30-13:30	1 hour
2022-10-27	Thursday	11:00-12:00	1 hour	12:00-13:00	1 hour		
2022-10-31	Monday					12:30-13:30	1 hour
2022-11-02	Wednesday	11:30-12:15	45 minutes	12:15-1:00	45 minutes		
2022-12-10	Saturday	18:00-19:00	1 hour	19:00-20:00	1 hour		
2022-12-17	Saturday					18:00-19:00	1 hour
2022-01-13	Friday					17:30-18:30	1 hour

Note. This table shows the date, time, and duration of observations.

2.1.2 Observation Tools

During Observation used photography and sketches, took notes and recorded my voice. According to Nasar (2007), photography and hand sketching can be useful tools in observation research methods for urban open spaces. Photography can capture specific details and moments in the space that may be missed or difficult to recall later. It can also provide a visual record of

changes over time in the space. Hand sketching can help to capture the overall layout and spatial qualities of the space, as well as specific design elements and features. It can also provide a way to quickly record observations and impressions while in the space (Nasar, 2007). Both photography and hand sketching can enhance the accuracy and richness of the data collected during observation research and provide valuable insights for analysis and interpretation.

By observing individuals interreacting with environments, the study aimed to capture their true behaviour and actions, rather than by asking questions or conducting surveys. The observational approach allowed for flexibility and adaptation to changes in behaviour or actions, providing a rich source of data for the study. Observation as a research method can help to identify which design features and amenities attract more people in open spaces by allowing you to directly observe and document patterns of use and behaviour (Nasar, 2007). By observing the ways in which people interact with different elements of the open space, researchers can gain insight into what aspects of the design and amenities are most appealing and effective in attracting and retaining visitors (Baker, 2006). The observation provided more in-depth insights and allowed for the collection of rich data for the study. By taking advantage of these opportunities, this study aimed to develop the research and create future opportunities for further study in this area.

I am using a data-driven approach to identify the factors that contribute to the success of three different open spaces in Winnipeg. By applying observational coding to my data and analyzing the results through relevant theories, I can gain valuable insights into what makes some spaces more appealing and accessible to people than others. Specifically, my analysis has revealed that factors such as seating availability, visibility, and cleanliness are important considerations in the use of open spaces in specific contexts.

2.2 Context Analysis

In this project, I employed context analysis, as it is an important aspect of urban design and city planning (Abd Elrahman & Asaad, 2021). The design of urban open spaces cannot be done in isolation from the context and the surrounding areas. Therefore, I conducted an analysis of the neighbourhoods within an 800-meter radius of each open space to understand the type of context in which they are located. I categorized the land use of each neighbourhood into residential,

commercial, church, open space, institutional, and parking areas. Based on this analysis, I evaluated each case study in terms of its context and surrounding buildings. It should be noted in this project all maps are from Google Maps (Google Maps, n.d.) and land use data came from the City of Winnipeg website (Map of Assessment Parcels, n.d.).

Overall, my approach has provided a systematic and empirical way to evaluate open spaces and identify the factors that contribute to their success. This information can be used to inform the design and management of urban open spaces in the future and to ensure that they meet the needs and preferences of the people who use them.

3.0 Literature Review

The city has emerged as a platform for communication and urbanization, resulting in the formation of various urban spaces, including open or covered spaces such as squares, communication networks, entrance spaces, and functional spaces like commercial and cultural services (Sivam et al., 2012, p. 817). Moreover, researchers including Sivam et al (2012), have found that urban open spaces are crucial for human health, as they promote physical activity and improving ecosystem health (p. 816). In addition, they argue that squares and open spaces serve as important communication and economic hubs, acting as gathering places for various economic, social, cultural, or sports activities on different scales (p. 816). Thus, open spaces serve as a platform to enhance the physical and mental well-being of individuals.

Urban open spaces function as areas where people can gather, engage in activities, and host events that become a part of collective and individual memories of citizens (Sivam et al., 2012). Similarly, urban open spaces represent the crystallization of their social life, as it is intended for them to use (Madanipour, 2007, p. 104). Therefore, it is essential for these spaces to meet the social needs of citizens by providing opportunities for face-to-face social interactions (Askari et al., 2015). Knowledge of urban design is crucial for shaping the social life of citizens and fostering interactions between them in urban spaces. Furthermore, these spaces should be diverse and eventful, with the capacity to accommodate a wide range of activities. They cater to individuals from various social strata and age groups, making it essential to design them with inclusivity in mind. As such, urban planners must consider these factors when designing and developing these spaces.

3.1 Open Space Definition

Urban Open Public Spaces (OPS) play a crucial role in the well-being of city dwellers and serve as a hub for social activities and gatherings (Carmona, 2019). According to Carmona (2019), these managed urban areas are accessible to everyone, even if temporarily controlled and usually incorporate green spaces. Moreover, Lau et al. (2014), note that open spaces can utilize various garden features, such as plants, flowers, and water, to promote stress reduction and enhance human well-being. Therefore, the design and functionality of urban open spaces are intimately linked with the surrounding environment and urban fabric. This interdependence encompasses various aspects

such as the accessibility of the park, the orientation of nearby buildings, the circulation of people and services, and the political considerations underlying any modifications made to the space (Waterman & Wall, 2010). Understanding these factors is crucial in designing urban open spaces that meet the needs of citizens and enhance their well-being.

The definitions of urban open spaces presented above are general in nature. In the following, I will provide more specific definitions for three types of urban open spaces: Urban Plazas, Campus Outdoor Spaces, and Neighborhood Parks. I will also discuss the unique design features and characteristics that distinguish each type. I chose my case studies because of their different nature (see section 4.1.1, 4.1.2 & 4.1.3), and categorized my case studies in following definitions.

3.1.1 Urban Plaza

Urban plazas are public open spaces that play a vital role in attracting people and facilitating social interactions within urban areas (Marcus & Francis, 1997). According to Kevin Lynch's (1981) definition,

> The plaza is intended as an activity focus, at the heart of some intensive urban area. Typically, it will be paved, enclosed by high-density structures, and surrounded by streets, or in contact with them. It contains features meant to attract groups of people and to facilitate meetings (p. 443).

An urban plaza is a gathering place for people to enjoy and interact with each other. It is an activity focused in the heart of the urban area and is typically paved, surrounded by high-density structures, and in close proximity to streets. The purpose of urban plazas is to attract groups of people and provide a space for them to interact. This is why it is often designed with features that make it appealing, such as trees, water, food, and sun (Marcus & Francis, 1997). Similarly, William H. Whyte (1980), highlighted the importance of incorporating natural elements such as trees, water, food, and sun in urban plaza design to make them more inviting spaces. Moreover, Urban plazas are used for various functions, such as civic events, social activities, and commercial activities (Marcus & Francis, 1997). To enhance the effectiveness of urban plazas, it is imperative to carefully consider their location. The best locations for urban plazas are those that can attract a

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diverse range of users (Marcus & Francis, 1997). In particular, areas in close proximity to hotels, apartments, and office districts tend to be ideal. Determining the ideal size for an urban plaza can be a complex process, but experts generally suggest a size that accommodates everyone to watch events and falls within a human scale, typically ranging between 40 to 80 feet (Marcus & Francis, 1997). These features make urban plazas a gathering place for people to enjoy and interact with each other, located in the heart of the city center. Unlike sidewalks, which are either purely static or transitory, urban plazas offer a unique experience that encourages social interaction and relaxation. True North Square is an example of urban plaza (see section 4.1.1).

3.1.2 Campus Outdoor Spaces

Campus outdoor spaces serve as a pre-entry area for students, faculty, and visitors to become familiar with the sounds, smells, and character of the educational space (Marcus & Francis, 1997). In addition, the outdoor spaces provide a connection between the urban environment and the university, serving as a transitional area between the city and the university grounds (Marcus & Francis, 1997). Moreover, Campus outdoor spaces provide a unique and inviting area for students, faculty, and visitors to interact, relax, and engage with the university community (Marcus & Francis, 1997). These open spaces offer a range of amenities, including seating areas, cycling facilities, pedestrian-friendly walkways, places for events, and night-time lighting for safety.

The size and location of campus outdoor spaces depend on the size and type of the university or college, with larger institutions often having more extensive outdoor spaces (Marcus & Francis, 1997). It is important for the location of these spaces to be conveniently located near the campus and bounded by the university's buildings. Therefore Campus outdoor spaces serve as a crucial link between the urban environment and the university, bridging the gap between the city and the institution. When designed and managed effectively, campus outdoor spaces can greatly enhance the overall experience of the university and contribute to the overall well-being of its community. The Millennium Library Park is categorized as both a campus outdoor space and an urban plaza, as defined in sections 4.1 and 4.1.2, due to Millennium Library is located in the northern part of the site and its academic nature, as well as its context within the surrounding commercial land use of the neighborhood.

3.1.3 Neighborhood Park

The importance of neighborhood parks in providing a range of activities and meeting the needs of a larger group of people is highlighted by the research of Marcus and Francis (1997). They note that neighborhood parks are where people spend their free time and leisure, unlike other outdoor spaces such as urban plazas and campus areas. They identified four main features of parks, including the pleasure ground, reform park, recreation facility, and open space system (Marcus & Francis, 1997). Similarly, parks offer various activities, including gardening, cycling, sunbathing, playing, and walking dogs, providing a diverse range of options for park-goers (Marcus & Francis, 1997; Wright, 1976). To create a park that is both engaging and welcoming, it is essential to include a range of elements that can enhance the user experience. Successful parks incorporate elements such as diverse plants, moving water features, natural trees and plants without pruning, pathways, seating areas, and spaces for eating and reading, and encourage socializing and connection among users (Marcus & Francis, 1997; Wright, 1976).

In conclusion, neighborhood parks play a vital role in the community by providing opportunities for leisure and social interaction, and the design of these parks has a significant impact on the overall quality of life for those who use them. By incorporating features that meet the needs of a diverse group of users, successful parks can enhance people's connection to their neighborhood and create a sense of community. Central Park works as a neighborhood parks (see section 4.1.3).

3.2 Sense of Place

According to Relph (1976),"sense of place" is a complex and multi-layered concept that encompasses the emotional and psychological connections that people have with their environment. It is the unique feeling or atmosphere of a place that gives it a sense of identity and character. This feeling can be influenced by physical, cultural, and social factors, including architecture, history, customs, and community (1976). For example, a small town with traditional architecture, local festivals, and close-knit community relationships can provide a strong sense of place for its residents. Similarly, a modern city with towering skyscrapers, bustling streets, and diverse cultures can also have a unique sense of place that attracts people from around the world.

As stated by Proshansky et al. (1976), sense of place can also be influenced by the way people interact with their surroundings, including their personal experiences and memories associated with a particular place. For instance, a person who spent their childhood playing in a neighborhood park may have a strong emotional connection to that place, even if the physical environment has changed over time.

A sense of place is a crucial element in designing and using urban open spaces. By understanding and fostering this emotional connection, designers and planners can create environments that are more meaningful and responsive to the needs and desires of their users. Therefore, designers and planners should know what people desire and need by understanding the sense of place through observation and other methods. This understanding allows them to create a strong sense of place that enhances the user experience in urban open spaces.

3.3 Users' Needs

The design, character, and amenities of open spaces are crucial in attracting people and shaping their behaviour within those spaces. It has been shown that the presence of public seating, sports equipment, and trees can enhance the appeal of open spaces (Zhao et al., 2022). Moreover, walking, socializing, and engaging in physical activities are among the most common uses of urban open spaces (Yu et al., 2020). It is important to note that the activities taking place within a space are dependent on the facilities offered.

Open spaces that offer a range of amenities, such as walking paths, picnic areas, sports facilities, and recreational spaces, can accommodate a wider range of activities, including walking, eating, dog-walking, cycling, reading, playing, sunbathing, and more (Koohsari et al., 2015; Wright, 1976; Xue et al., 2017). It is important for the design of open spaces to consider the preferences of its intended users. Studies have indicated that watching people engage in activities in outdoor spaces is more appealing than simply observing nature (Xing et al., 2018).

Different groups of people may have different preferences for amenities and design elements. For instance, a park designed for children may include playground equipment and areas for running, while a park designed for seniors may include seating areas, walking paths, and shaded

areas. Therefore, it is important to consider the demographics of the intended users when designing these spaces.

In conclusion, understanding the impact of design and features on human behaviour can lead to the creation of open spaces that are more attractive, functional, and well-utilized. By providing a range of amenities, considering the demographics of intended users, and incorporating elements such as public seating, sports equipment, and trees, the appeal and use of open spaces can be greatly enhanced.

3.4 Features Design and Amenities

Public open spaces are highly valued in urban areas as they attract a wide range of people with different interests and activities. A well-designed open space creates a welcoming atmosphere that is safe and comfortable for people to enjoy (Zhao et al., 2022). Urban designers and planners are constantly seeking ways to enhance public spaces to better meet the needs of their users. Funding and quality are significant factors in attracting people to spaces such as public parks (Mullenbach et al., 2022). Higher funding results in higher-quality parks and stronger social ties (Mullenbach et al., 2022). Additionally, safety is also a key concern for park users, including factors such as crossings, visibility, and surrounding roads can affect people's perceptions of safety (Giles-Corti et al., 2005). Quality and safety are both elements that can be improved through the design of public spaces.

The design of a public open space can influence human behaviour and different groups of people may require different design features and amenities to meet their needs (Xing et al., 2018). Studies have shown that open spaces with certain features, such as public seating, sports equipment, and trees, are more attractive than those without these features (Zhao et al., 2022). Some of the most common activities in urban open spaces include walking, socializing, cycling, and enjoying nature (Koohsari et al., 2015; Wang et al., 2019). Walking is the most popular activity in public spaces, as people often use them as a destination or a means of getting to another location (Koohsari et al., 2015).

Seating is another essential component of public spaces and the use of both formal and informal seating can help make the space more usable (Vaughan et al., 2018). Additionally, the

arrangement of benches and chairs, as well as their distance from one another, can shape the space and affect how people use it (Vaughan et al., 2018). Water features, sculptures, and signs can also contribute to the appeal and identity of public open spaces (Muhamad & Faradisa, 2021). To create an attractive public open space, designers should consider various elements and features, such as human scale, sight lines, activated edges, shelter, seating, engagement, legibility, permeability, and thermal comfort (Ridings & Chitrakar, 2021). To achieve a better human scale design for public spaces, designers and planners should consider incorporating seating areas, walking paths, and water features. By including these elements, the design can enhance the user experience and promote social interaction and engagement.

In conclusion, public open spaces play a critical role in urban areas, by providing a place for people to gather, relax, and engage in various activities. The design of a public space can greatly influence how people use it and whether they feel comfortable and safe. By considering various elements and features, urban designers and planners can work towards creating public spaces that meet the needs of the people who use them.

3.5 Theoretical Approaches

3.5.1 Prospect Refuge and Small Urban Spaces

Prospect-Refuge theory was introduced by Jay Appleton (1996) in his book *The Experience of Landscape*. The theory proposes that humans seek out environments that offer a balance of prospect, which refers to the ability to see and perceive the surrounding environment, and refuge, which refers to the sense of safety and security in a space (Appleton, 1996). According to Appleton (1996), this balance creates a positive emotional response in humans towards their environment, which in turn enhances their sense of wellbeing. Similarly, William H. Whyte (1988), discusses the concept of "*the sensory street*" and how it can enhance the experience of walking in the city. He argues that a sensory street is one that engages multiple senses and provides a variety of stimuli to pedestrians, such as interesting storefronts, street performers, and outdoor seating areas. Whyte suggests that sensory streets can create a sense of place and community in the city, as people are drawn to linger and socialize in these areas. He also notes that sensory streets can increase foot traffic and economic activity for businesses, as people are more likely to stop and shop in areas with a vibrant and engaging atmosphere.

Research has supported the idea that the prospect-refuge balance affects people's perception and enjoyment of outdoor spaces. For example, a study by Herzog and Barnes (1999), found that people tended to prefer parks that offered a balance of open and enclosed spaces, providing both prospect and refuge.

In urban design, the prospect-refuge theory can be applied to guide the creation of open spaces that are appealing and attractive to people. By designing spaces that offer both prospect and refuge, designers can create environments that promote positive emotions and a sense of wellbeing in users.

3.5.2 Imageability

Kevin Lynch's theories on urban design emphasize the importance of creating legible and navigable spaces for people to easily understand and experience. According to Lynch (1960), the city should have "imageability," which refers to the city's ability to be easily perceived and navigated by people, with identifiable landmarks and paths. Lynch identifies several key elements that contribute to a space's legibility, including "*paths*", "*edges*", "*nodes/landmarks*", "*fit*", "*access*", "*control*", "*sense*", and "*vitality*" (Lynch, 1960, 1981).

The *path* is an important element of the built environment as it provides a clear and identifiable route for people to follow. According to Lynch (1960), the path is the most fundamental element of a city, as it is what connects different spaces and landmarks. This idea is supported by other scholars, such as Jan Gehl (2013), who notes that people have a natural inclination to follow paths, which should be the starting point for urban design.

The "*edge*" refers to the boundaries between different spaces in the built environment, such as the transition from a street to a park. He argues that the edge is an important element of the city's legibility, as it helps people understand the organization and structure of the built environment (Lynch, 1960). This concept is echoed by other scholars, such as William H. Whyte (1980), who notes that edges provide visual cues that help people navigate and orient themselves in the city.

"Nodes" or *"landmarks"* refer to unique and identifiable points in the built environment that serve as important reference points for people as they navigate the city (Lynch, 1960). Lynch's (1960), suggests that nodes and landmarks play an important role in helping people understand the organization and structure of the city, providing a sense of orientation and security. Other scholars, such as Gehl (2013), support this idea, emphasizing that landmarks are essential for creating a sense of place and identity in the city.

Lynch (1960), also underscores the significance of *"fit"*, which refers to the coherence and consistency of the built environment. He argues that a city's buildings, streets, and open spaces should be designed to fit together cohesively and harmoniously. Other scholars, such as Christopher Alexander (1977), notes that emphasizing the need to design a city's elements to establish a sense of wholeness and completeness.

Other elements that Lynch identifies as contributing to the legibility of the city include *"access"*, which refers to the ease of movement and circulation within the built environment (Lynch, 1981); *"control"*, which refers to the ability of people to shape and influence the built environment (Lynch, 1981); *sense*, which refers to the sensory experience of the city, including its sounds, smells, and textures; and *"vitality"*, which refers to the level of activity and engagement in the built environment (Lynch, 1981). However, for this project, to avoid repetition, I utilized de Certeau's criteria of "*sense*", "*control*", and "*vitality*" instead of other previously used criteria.

Lynch's theories on urban design emphasize the importance of creating legible and navigable spaces for people to easily understand and experience. His identification of key elements such as paths, edges, nodes/landmarks, fit, access, control, sense, and vitality provide a framework for creating urban spaces that are both functional and meaningful.

3.5.3 Mental Representations of The City

Michel de Certeau's (1984) concept of urban space is based on the idea that the city is a site of constant re-appropriation and reinterpretation by its inhabitants. He argues that how people use and experience urban spaces is not simply determined by the physical environment but is also shaped by their mental representations of the city (Certeau, 1984).

De Certeau (1984), distinguishes between "*spatial practice*" and "*mental space*". Spatial practice refers to the actual physical use of urban spaces by people in their everyday lives, while mental space refers to the mental representations and interpretations of those spaces that people hold in their minds. He argues that the city can be seen as a site of expression, where multiple discourses converge and intermingle. Each individual who traverses through the urban landscape can be considered a *reader*, who interprets the space according to their unique perspective (De Certeau, 1984).

De Certeau's "*representation of the city*", on the other hand, refers to the ways in which urban spaces are represented and communicated to people through media, such as maps, guidebooks, and other forms of discourse (1984). He argues that these representations are not neutral or objective but are instead shaped by particular interests and power relations, stating that "the space of a plan is a practiced place" and that "the act of reading is a spatial practice" (De Certeau, 1984, p. 117). De Certeau's (1984) approach emphasizes the agency of people in shaping their experiences and meanings of urban spaces and highlights the importance of mental representations and discourse in shaping those experiences. His concept of spatial practice and mental space provides a framework for understanding the dynamic and constantly evolving nature of urban spaces (Shields, 2005).

Integrating the ideas and concepts of Appleton, Lynch, and de Certeau, can provide a more comprehensive understanding of urban open spaces. Lynch's concept of legibility and imageability (Lynch, 1960, 1981), de Certeau's notion of the mental representation of the city (De Certeau, 1984) and Appleton's prospect-refuge theory can all help to explain the ways in which people interact with and perceive urban open spaces (Appleton, 1996). For instance, Lynch's ideas about legibility and imageability can help explain how people navigate and remember urban open spaces, and how designers can create spaces that are more easily understood and memorable. De Certeau's notion of the pedestrian as a "walker in the city" can highlight the importance of pedestrian experience in urban open spaces, and how people make meaning and find agency in the city. Appleton's prospect-refuge theory can provide insight into the psychological responses to urban open spaces, such as the desire for both prospect (a view out into the surrounding environment) and refuge (a sense of protection and security within the space).

By weaving these theories together into a larger discussion about urban open spaces, we can gain a more nuanced understanding of the complex relationships between people, design, and the built environment. Integrating these theories into the discussion also means using them to help define and refine our understanding of what constitutes an urban open space. By considering the ways in which these theories are applicable to different types of open spaces we can develop a more nuanced and comprehensive understanding of the characteristics that make a successful and effective urban open space. Overall, weaving Lynch, de Certeau, and Appleton's theories into the larger discussion of urban open spaces can help provide a deeper understanding of how people interact with and experience these spaces, and how design can play a role in shaping those experiences.

4.0 Context

4.1 Winnipeg

According to the official website of the City of Winnipeg, as of 2021, the population of Winnipeg is estimated to be 794,581, with 49.7% male and 50.3% female (City of Winnipeg Population, 2021). The case studies of True North Square, Central Park, and Millennium Library Park are located in the downtown area of Winnipeg, which is known for its diverse mix of commercial, residential, and public spaces.

In a study based on the actual map of the City of Winnipeg website, it was found that within 800 meters from Central Park, the land use is primarily residential, followed by commercial areas (Figure 1). The percentage of parking spaces in this neighborhood is 5.49% (Table 2). In the Millennium Library Park neighborhood, which is predominantly commercial, more than half of the land use within 800 meters of the park is commercial (50.39%), followed by parking (17.86%), public spaces (16.34%), and residential areas (12.68%) as is shown in figure 2 (Table 2). In the True North Square neighborhood, which has the most commercial land use among the three case studies (Figure 3), commercial areas account for 44.63% of land use within 800 meters of the square, followed by public spaces (19.93%), residential areas (15.40%), and parking spaces (14.38%). The following table and maps display the findings of the case studies conducted in the respective contexts (Table 2).

Table 2: *Land Use Within 800 Meters of Case Studies*

Land use within 800 meters of mentioned open space	Central Park	Millennium Library Park	True North Square
Commercial	38.69%	50.39%	44.63%
Residential	33.58%	12.68%	15.40%
Church	1.72%	2.20%	2.84%
Public building	15.02%	16.34%	19.93%
Parking	5.49%	17.86%	14.38%
Park	5.49%	0.54%	2.82%

Note. This table shows how many of land within 800 meters of Central Park, Millennium Library Park, and True North Square is commercial, residential, church, public space, parking, and park.

These findings suggest a relationship between land use and urban design. For example, the design of Central Park as a public space surrounded by residential areas may encourage more pedestrian activity and community engagement. On the other hand, the high percentage of commercial land use around Millennium Library Park and True North Square may attract more visitors and stimulate economic activity in the area. The urban design should consider the surrounding land use to maximize the benefits of public spaces in urban areas. Subsequently, the land use maps have been provided to provide further clarification regarding Table 2.

Figure 1*: Central Park- Within 800 Meters Area*
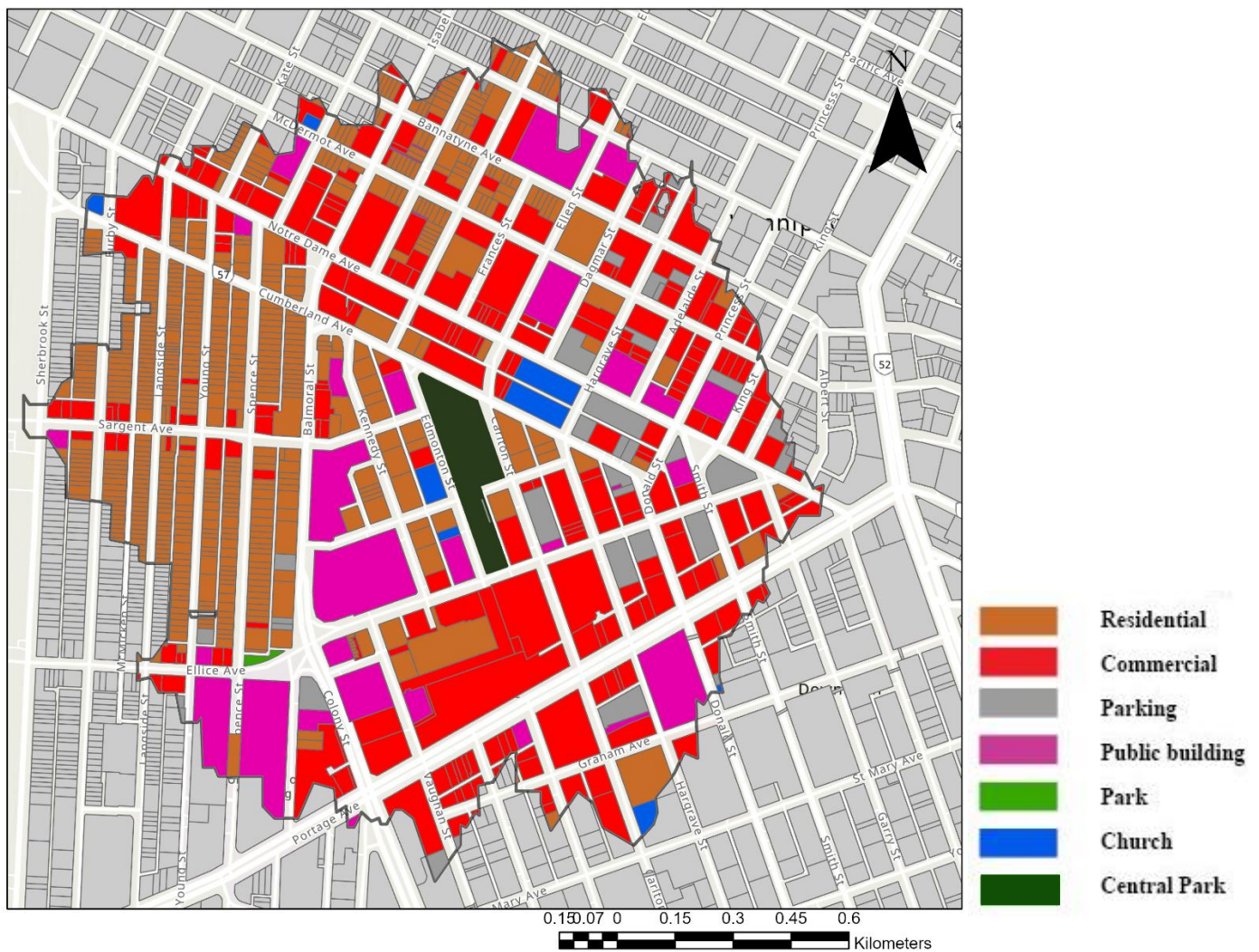
Note. Land use within 800 meters of Central Park. This map shows that residential area is the most land use in this area. From the City of Winnipeg website, 2023.

Figure 2: Millennium Library Park- Within 800 Meters Area

Residential
Commercial
Parking
Public building
Park
Church
Millennium Library Park
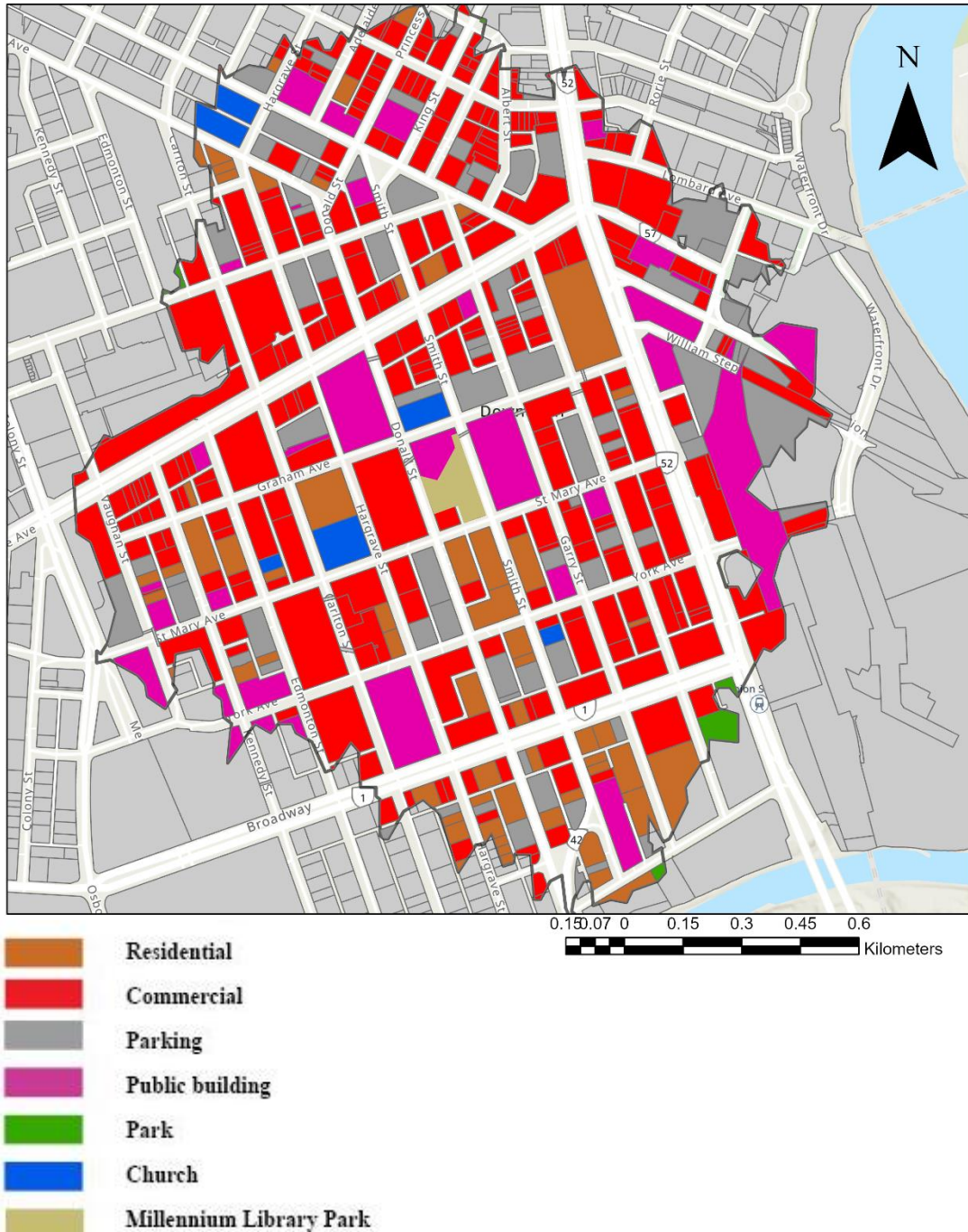
Note. Land use within 800 meters of Millennium Library Park. It is obvious that most parts of this area are commercial, public spaces, and parking lots. From the City of Winnipeg website, 2023.

Figure 3: True North Square - Within 800 Meters Area

![Residential]	Residential
![Commercial]	Commercial
![Parking]	Parking
![Public building]	Public building
![Park]	Park
![Church]	Church
![True North Square]	True North Square
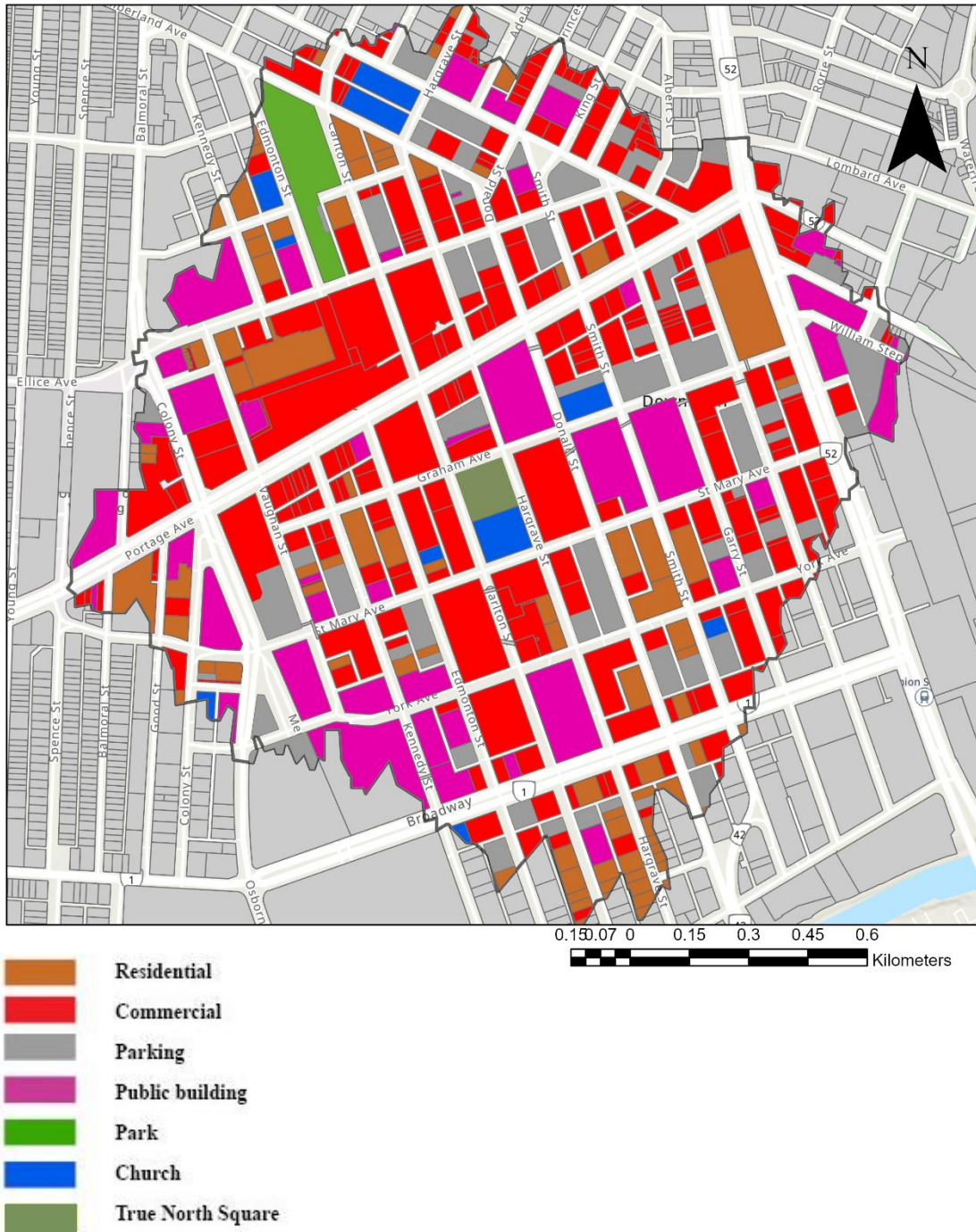
Note. Land use within 800 meters of True North Square. Commercial space and public space are the most land use in this area. From the City of Winnipeg website, 2023.

4.1.1 True North Square

　　　　True North Square, located in downtown Winnipeg and surrounded by two towers (Figure 4), includes companies, restaurants, hotels, retailers, and a bank. According to Myron Love (2016), the goal of the plaza's design is to provide high standards of workplace flexibility, tenant health, comfort, and sustainability, as well as complementary public spaces and urban experiences that match the best in North America. According to Marcus and Francis (1997), an urban oasis is a place where benches and trees provide a quiet place to relax, which could make True North Square a suitable place for that. I perceive True North Square is a safe public space with security guards who prevent homeless and drug-addicted individuals from entering the area. As an urban plaza, it has eating places, seating areas, walking paths, and is located near public transportation, see below picture.

Figure 4: *True North Square*

　　　　Note. True North Square, covered by two commercial towers. The plaza includes benches and water features. By changing the flooring, the designer has shown that you are entering a new space. Photo by H. Bajelan, 2022.

4.1.2 Millennium Library Park

Millennium Library Park is located in the heart of downtown Winnipeg, in the Portage neighborhood. The main building of the library opened in 1977, with underground parking and a landscaped garden (Millennium Library, 2022). In 2000, the library underwent a major renovation to modernize the building and enhance its features. The park itself was also renovated in 2012, adding a concrete pond and sculpture to the site ("The Millennium Library," n.d.). Additionally, the seating arrangement was changed to create a more intimate atmosphere for park users. The park offers a range of amenities for visitors, including a skating rink in the winter, a water feature in the summer, and ample seating for relaxation and socializing. The park's location in the downtown core makes it easily accessible via public transit, and it is also within walking distance of many local restaurants, cafes, and shops.

According to the urban plaza and campus outdoor space definition, the Millennium Library Park is a combination of both definitions. The park is located on the grounds of the Millennium Library, making it part of an educational campus, while at the same time serving as a public space for the community.

Overall, Millennium Library Park is a vibrant public space that serves as both an urban plaza and a campus outdoor space. Its central location, range of amenities, and accessibility make it a popular destination for residents and visitors alike. It serves as part of an educational campus while also functioning similarly to an urban plaza. The park is enclosed by the library building on one side and a parking ramp on the other, with the remaining two sides open to the pavement, making it accessible to all.

4.1.3 Central Park

Central Park is in downtown Winnipeg in the Central Park neighborhood. Established in 1893, the park was initially a part of a prestigious urban area, but with time, both the neighborhood and the park lost their former glory (Wagner, 1988), and has undergone several transformations over the years. One of the most significant changes occurred when the City of Winnipeg decided to extend the park, with the purpose of creating a neighborhood identity for an area undergoing revitalization and change (Wagner, 1988). The Scatliff+Miller+Murray company was responsible for the park's redevelopment, with the design concept aimed at combining immigrant culture with

a Canadian recreational lifestyle. To achieve this, the designers included amenities such as a soccer field, football pitch, and spray pad, providing a park suitable for all seasons and ages (Robbins, 2014).

Central Park is also home to several notable features from its past, such as the Waddell Fountain and Gothic structure, alongside modern additions like the spray pad. The result is a vibrant space that fosters community and friendship, attracting a diverse range of users (Figure 5). Inside the park, visitors can enjoy a variety of activities, including skating on the rink, playing soccer or football on the field, or simply relaxing on one of the many benches scattered throughout the park. The green space is also used for playing during the summer months and skiing in winter, providing an all-season space for the community to enjoy (Figure 6). Overall, Central Park in Winnipeg exemplifies a neighborhood park that covers all its definitions and provides an attractive outdoor space for the community.

Figure 5: *Central Park*

Note. This picture shows how children use middle space for playing. Photo by H. Bajelan, 2022

Figure 6: *Central Park – Winter Park*

Note. The middle space finds a new use in winter and turns into a ski field. Photo by H. Bajelan, 2023

5.0 Results and Findings

5.1 True North Square Observation Results

During my observations, I spent between 45 minutes to 1 hour in True North Square on 6 different occasions (Table 3). I was interested in the demographics of the people who used the space, as well as how they used it. In each observation, I recorded the number of men, women, children, and dogs present, as well as whether they were there alone or in a group (Table 4). I also paid attention to how people used the space, such as where they preferred to sit, how they used benches and main routes, and what activities they engaged in.

Table 3: *True North Square Observation Details (Number of People and Dogs)*

Place		True North Square					
Date	**Weekday**	**Time**	**Duration**	**Man**	**Woman**	**Children**	**Dog**
2022-10-03	Monday	16:00-17:00	1 hour	19	15	5	3
2022-10-11	Tuesday	11:30-12:15	45 minutes	12	14	3	1
2022-10-16	Sunday	17:15-18:15	1 hour	7	6	2	2
2022-10-27	Thursday	11:00-12:00	1 hour	18	22	0	2
2022-11-02	Wednesday	11:30-12:15	45 minutes	22	19	0	2
2022-12-10	Saturday	18:00-19:00	1 hour	25	21	10	3
Sum				103	97	20	13
Men/Woman		1.06					

Note. Observation details, in terms of how many men, woman, children and dogs used this space.

Table 4: *True North Square Observation Details (Whether Alone or With Someone Else)*

	True North Square			
Date	**Individual**	**With Someone**	**With Children**	**With dog**
2022-10-03	12	20	7	3
2022-10-11	7	17	5	1
2022-10-16	6	5	4	2
2022-10-27	15	24	0	3
2022-11-02	14	27	0	2
2022-12-10	8	29	18	4

Note. Observation details, in terms of how many individuals, group of adults, children with adults and dog-walkers use this open space.

Based on my observations, it appeared that more men than women used the space. Additionally, the number of children using the space was relatively low, making up less than 0.08% of the total visitors. The most children I observed in the square were present on December 10, 2022, when there was a "Holiday Dreams: A Spectacular Holiday Cirque!" event taking place at the Canada Life Center. During my observations, I noticed that children were drawn to the ground lighting in True North Square and enjoyed walking through it. They also preferred to sit on the curved benches where they could see the ground lighting and water features.

On the other hand, women tended to visit True North Square in groups, often going to the various restaurants and cafes in the east side of this area. On sunny days, women could be seen sitting on the benches, eating their lunch, talking on the phone, and chatting with friends. They prefer to sit on the west side's beaches of True North Square (Figure 7). It's worth noting that the majority of women I observed were either with other women of the same age or with their children.

Figure 7: *True North Square- Seating Area*

Note. The picture shows people prefer to sit in the west side of True North Square in compared to east side. Photo by H. Bajelan, 2022.

According to Gumpert and Drucker (2008), the design of urban public spaces plays a crucial role in encouraging social interactions and promoting community engagement. My observations of True North Square confirm this, as I noticed that people tended to gather in the areas with the most seating options and interactive features, such as the water features and ground lighting. Additionally, a study by Gehl and Svarre (2013), found that providing seating opportunities in public spaces can increase the amount of time people spend in those areas, thus promoting social interaction and a sense of community. This was evident in my observations of True North Square, where I noticed that people who were sitting on benches were more likely to strike up conversations with others than those who were walking through the space. According to Brown (2001), the use of lighting in public spaces can play a role in supporting activities and enhancing social interaction. This is reflected in my observations of True North Square, where children are attracted to the ground lighting and tend to walk through it.

5.2 Millennium Library Park Observation Results

During my 6 visits to Millennium Library Park, I observed a higher number of men than women, with a ratio of 1.28, and a low percentage of children using the park at 0.02% (Tables 5 and 6). People tend to prefer benches with a view of the street, as well as the L-type benches in the north part of the park for group gatherings, and sometimes use the stairs in the middle area as an improvised bench (Figure 8). It is worth noting that a person who experiences homelessness lives in the park and repairs bicycles. He resides in the south part of the park.

Figure 8: *Millennium Library Park – Seating Area*

Note. L-shape benches more are used by women and group of users more than two people. Photo by H. Bajelan, 2022

The low percentage of children using the park indicates a possible lack of child-friendly amenities or programming. Tzoulas et al. (2007), suggest that providing such amenities and programming can improve social cohesion and community engagement.

In conclusion, the Millennium Library Park is predominantly used by individuals, with men using the park more frequently than women. Women tend to prefer the L-shaped benches in the south side of the park. The findings suggest the need to improve child-friendly amenities and

programming in the park and address broader social and political factors that contribute to homelessness in urban public spaces.

Table 5: *Millennium Library Park Observation Details (Number of People and Dogs)*

Place		Millennium Library Park					
Date	Weekday	Time	Duration	Man	Woman	Children	Dog
2022-10-03	Monday	17:05-18:05	1 hour	16	8	1	2
2022-10-11	Tuesday	12:15-1:00	45 minutes	8	9	0	1
2022-10-16	Sunday	18:15-19:15	1 hour	4	4	0	1
2022-10-27	Thursday	12:00-13:00	1 hour	10	7	1	3
2022-11-02	Wednesday	12:15-13:00	45 minutes	18	17	1	2
2022-12-10	Saturday	19:00-20:00	1 hour	3	1	0	0
Sum				59	46	3	9
Men/Woman		1.28					

Note. Observation details, in terms of how many men, woman, children and dogs are used this space.

Table 6: *Millennium Library Park Observation Details (Whether Alone or With Someone Else)*

	Millennium Library Park			
Date	Individual	With Someone	With Children	With dog
2022-10-03	15	6	3	3
2022-10-11	12	5	0	1
2022-10-16	6	2	0	1
2022-10-27	9	3	4	5
2022-11-02	21	9	4	4
2022-12-10	4	0	0	0

Note. Observation details, in terms of how many individuals, group of adults, children with adults and dog-walkers use this open space.

5.3 Central Park Observation Results

During my observation of Central Park, I found that the ratio of men to women was 1.04. The percentage of children using the park during my observation was 40%, indicating that Central Park is popular among families with young children (Tables 7 and 8). According to my observations, children often prefer to sit on the topography in the edge of central area (Figure 9),

and teenagers prefer to skate in the northern part of the park (Figure 10). Additionally, families with young children often use the playground area.

Figure 9: *Central Park – Topography as Undesigned Seating Area*

Note. Children prefer to use topography as undesigned bench. Photo by H. Bajelan, 2022

Figure 10: *Central Park – Skating Area*

Note. Teenager uses skating area. Photo by H.Bajelan, 2022.

When it comes to seating preferences, I noticed that people prefer the benches in the southern part of the park, which are shaded by trees and create a semi-private space. During my fall observations, I also noticed that people preferred to sit in the western part of the park, which may be due to the sun. Moreover, families also tended to sit in the southern part of the park, close to the playground area. The middle space with artificial grass was popular for people to relax, lie down, and play games.

Overall, people tend to prefer walking through the middle space, perhaps because it offers a more direct route or is more visually appealing. It's worth noting that the design of urban public spaces can greatly impact how people use and interact with the space. In the book "The Social Life of Small Urban Spaces," Whyte (1980), emphasize the importance of providing a mix of attractions, such as seating options, water features, and topography, to encourage social interaction and a sense of community in public spaces. Similarly, this idea is reflected in the popularity of the

benches in the southern part of Central Park, as well as the use of topography in the central area for children to play.

Table 7: *Central Park Observation Details (Number of People and Dogs)*

Place		Central Park					
Date	**Weekday**	**Time**	**Duration**	**Man**	**Woman**	**Children**	**Dog**
2022-10-03	Monday	18:15-19:15	1 hour	12	7	2	1
2022-10-16	Sunday	16:00-17:00	1 hour	17	19	5	1
2022-10-17	Monday	12:30-13:30	1 hour	10	18	50	5
2022-10-31	Monday	12:30-13:30	1 hour	24	19	50	3
2022-12-17	Saturday	18:00-19:00	1 hour	7	5	0	1
2022-01-13	Friday	17:30-18:30	1 hour	6	5	4	0
Sum				76	73	111	11
Men/Woman		1.04					

Note. Observation details, in terms of how many men, woman, children and dogs are used this space.

Table 8: *Central Park Observation Details (Whether Alone or With Someone Else)*

	Central Park			
Date	**Individual**	**With Someone**	**With Children**	**With dog**
2022-10-03	6	7	6	3
2022-10-16	17	17	7	1
2022-10-17	12	16	50	5
2022-10-31	20	22	50	4
2022-12-17	6	6	0	1
2022-01-17	3	4	8	0

Note. Observation details, in terms of how many individuals, group of adults, children with adults and dog-walkers use this open space.

5.4 Finding Based on Theories

In this section, I have defined and categorized my finding of case studies according to Lynch's and De Certeau's criteria. Kevin Lynch and Michel de Certeau offer distinct perspectives on how people experience and navigate urban spaces. Lynch argues that cities should be legible, meaning that people should be able to easily understand and navigate the built environment. In

contrast, De Certeau argues that people subvert and reinterpret the meanings of urban spaces in their everyday practices. Lynch's concept of "imageability" (Lynch, 1960), refers to the ease with which people can perceive and navigate cities, including the presence of identifiable landmarks and paths. Lynch believes that the design of the built environment can shape people's perception and understanding of urban spaces. He notes that the legibility of the city is critical to its key attributes, and that the recognizable pattern of paths and nodes, districts, landmarks, and edges is essential to its legibility (Lynch, 1960).

In contrast, De Certeau (1984), emphasizes the agency of people in shaping their experiences of urban spaces. He argues that the city is a space of enunciation, where different discourses intersect and overlap, and every passerby is an urban reader who interprets the space in their own way (De Certeau, 1984). De Certeau (1984), sees the city as a site of constant re-appropriation and reinterpretation, where people engage in creative and subversive practices to make the space their own. Lynch stresses the legibility of the built environment and its role in shaping people's experiences, while De Certeau (1984), highlights the agency of people in shaping their own experiences and meanings of urban spaces. Understanding the perspectives of both scholars is critical to gaining a comprehensive understanding of how people navigate and experience urban environments people's inclinations.

At first, I give a summary of criteria that I have categorized these spaces according to them:

5.4.1 Edge

In my analysis of the urban spaces, I have considered the edges of the space and the first buildings or spaces that have a direct view to my case studies. These edges act as a frame in defining the character of the urban space and the activities that take place within it. To classify the edges, I have identified their functions, which include commercial, residential, wall, street, and public buildings.

Central Park, one of my case studies, has five edges, all of which are streets. The park is surrounded by residential areas on four sides and a mixed residential, public space, and church on one side. As a result, four out of the five sides with direct view are residential (Figure 11). This

means that the character of the edges is mainly residential, and it influences the activities that take place around the park. People who live in the area may use the park for recreational activities, while visitors to the area may be drawn to the residential character of the surrounding neighborhoods.
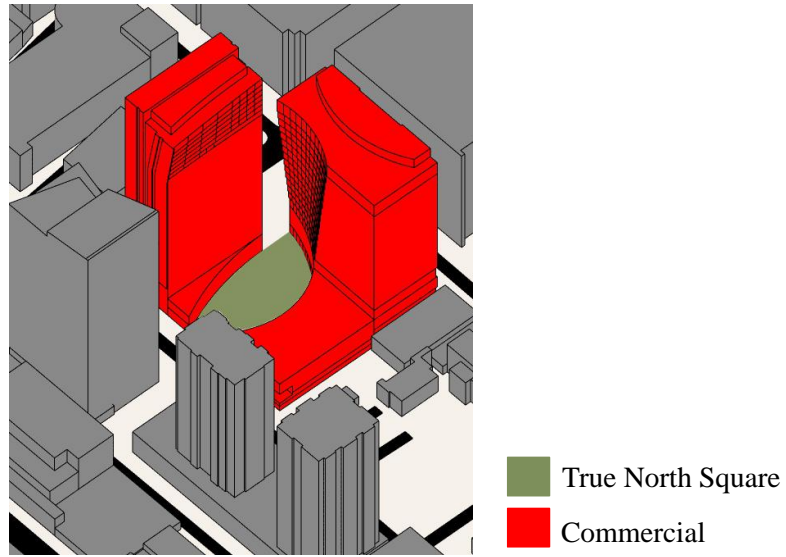
Figure 11: *Central Park - Edges*
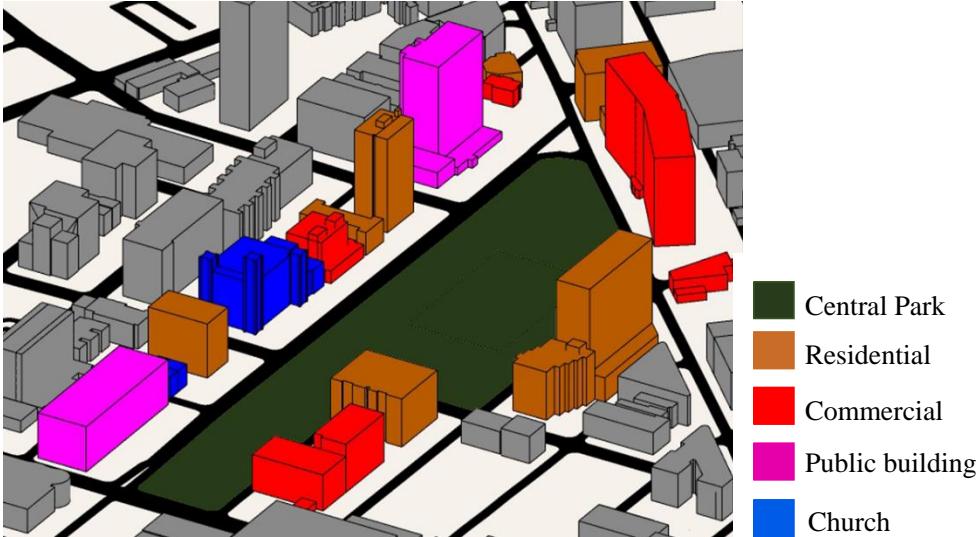
Note. Edges of the space and the first buildings or spaces that have a d
Park. This park from two sides is surrounded by residential buildings.

Moving on to my next case study, True North Square, it has four edges, two of which are commercial and two are streets: Graham Avenue and Carlton Street. The buildings that have a direct view of True North Square consist of 4 commercial and 1 public space. As a result, True North Square has four out of five commercial views, indicating that the character of the edges is predominantly commercial (Figure 12). This means that the activities that take place around the area may be more business-oriented, and the park may serve as a break from work for the people in the surrounding commercial buildings.

Figure 12*: True North Square - Edges*

True North Square

Commercial

Note. Edges of the space and the first buildings or spaces that have a direct view to True North Square. True North Square is completely covered by commercial buildings. In south tower first floor and second floor are restaurant and café, their close time is 10 pm.

Lastly, Millennium Library Park has three sides with street edges, one side with a public space edge, and one side with a wall. The park is surrounded by two sides of public space, one side of commercial buildings, and one side of a residential area and wall (Figure 13).

Figure 13*: Millennium Library Park – Edges*

Millennium Library Park

Residential

Commercial

Public building
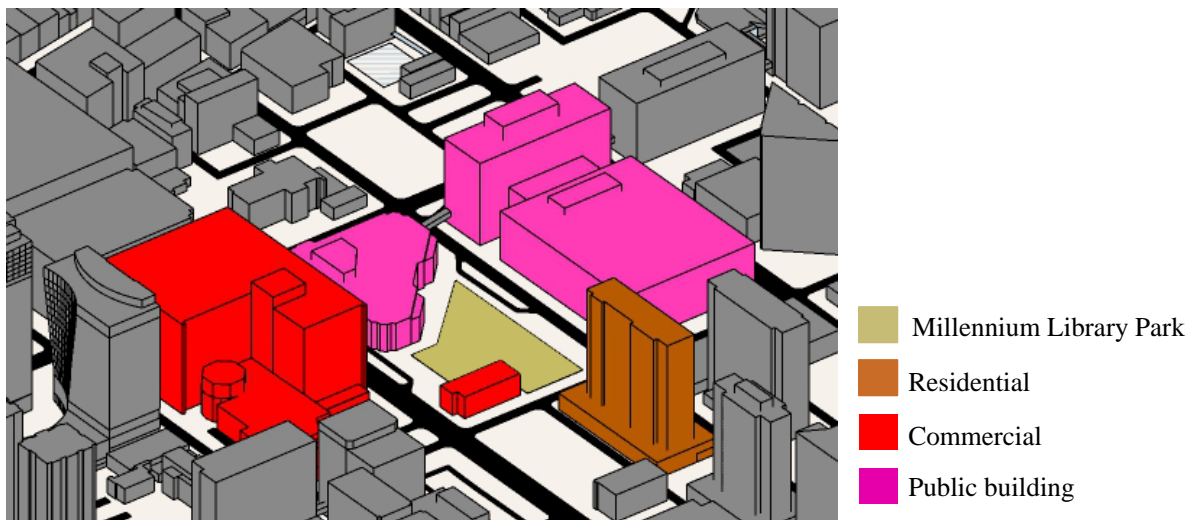
Note. Edges of the space and the first buildings or spaces that have a direct view to Millennium Library Park. From north it is covered by library, from west and east it covered by parking entrance and from southwest it is cover by wall.

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5.4.2 Path

The concept of a path can be broadly divided into two categories - designed paths and desire paths. Designed paths refer to those paths that are professionally created by architects, designers, or planners. On the other hand, desire paths are not professionally designed but still commonly used by people as paths. These paths could have been created by the users themselves and may be shorter or more pleasant than the designed paths.

Based on my observations, I have further classified designed paths into three categories - strong, medium, and weak, based on the frequency of their use. Strong paths are those that are used frequently by people, while medium paths have a moderate level of usage, and weak paths have minimal usage.

Central Park has five designed paths that have been created by designers, of which three are strong, indicating that they are frequently used by people, and two of those are medium use. Additionally, there are four desire paths that are frequently used by people, three of which traverse through the middle space. These paths may have formed due to the needs of the people who use the park or because they provide shortcuts to certain destinations within the park (Figure 14).

Figure 14: *Central Park – Path*
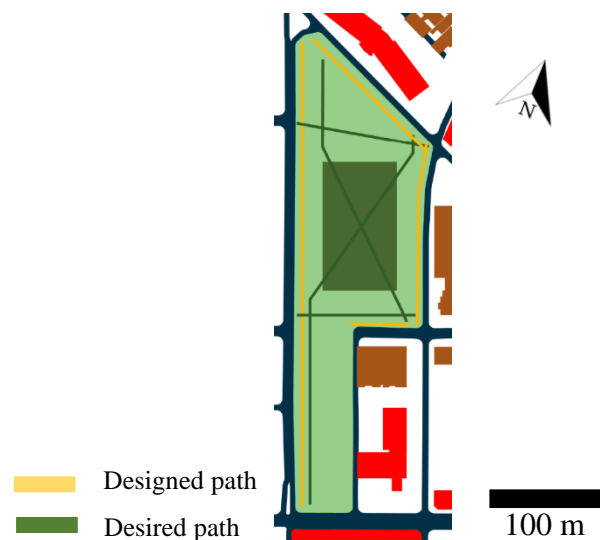
Note. Central Park and its designed and desire paths. As this map shows, two of the desired paths are in aligned streets. Also, two of them go through the middle area.

In contrast, True North Square does not have any special designed or desire paths. It has four main paths, except for two paths that lead to the restaurant out of these four paths (Figure 15), include two paths which go to restaurant are strong and two other paths are weak in terms of people using frequency. During my observations, I noted that four out of six times, there was a wind tunnel in the middle of the True North Square due to the existing towers creating a wind tunnel effect. This could impact the way people do not willing to use True North Square and its paths leading to it. The True North Square entrance is located at the south-west and north-east corners, which is where the main wind direction in Winnipeg comes from - the south and west and north (*EXISTING ENVIRONMENT - Province of Manitoba*, n.d.). The presence of a wind tunnel could create a less pleasant experience for park-goers and affect how they perceive the park and the paths leading to it.

Figure 15: *True North Square – Path*
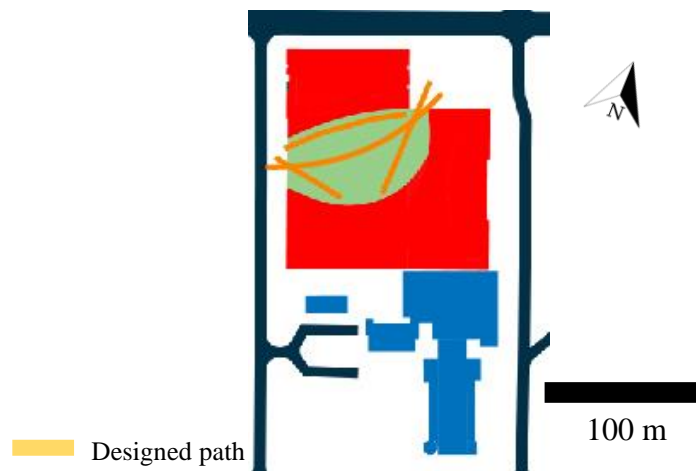
☐ Designed path   100 m

Note. True North Square and its designed paths. Because of the flooring design, True North Square doesn't have special designed paths or desired paths.

Lastly, Millennium Library Park has three designed paths that have been created by designers, all of which are strong in terms of how frequently they are used by people. These paths run from north to south, south-east to west, and north-east to west, respectively. Interestingly, this park does not have any desired paths, indicating that people tend to follow the designated paths in this park (Figure 16). This could be due to the clear and logical design of the paths, which make it easy for people to navigate the park. I recognized designed paths by their flooring. In this case,

both True North Square and Millennium Library Park have the same flooring material in all their areas.

Figure 16: *Millennium Library Park – Path*
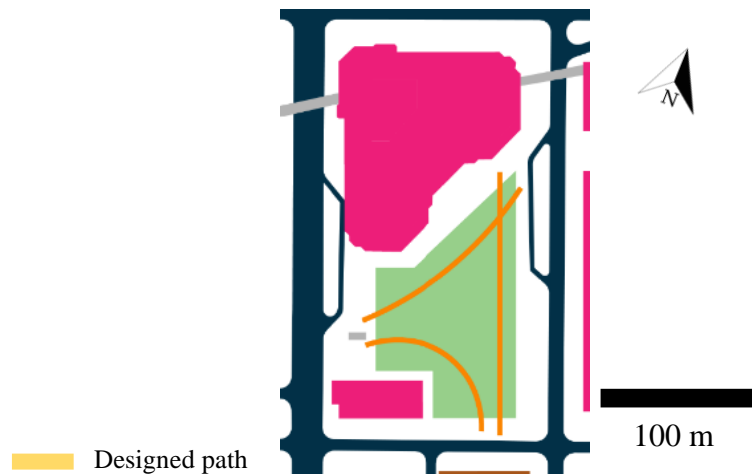
■ Designed path

Note. Millennium Library Park and its designed paths. Because of flooring design Millennium Library Park does not have specific designed paths or desired paths.
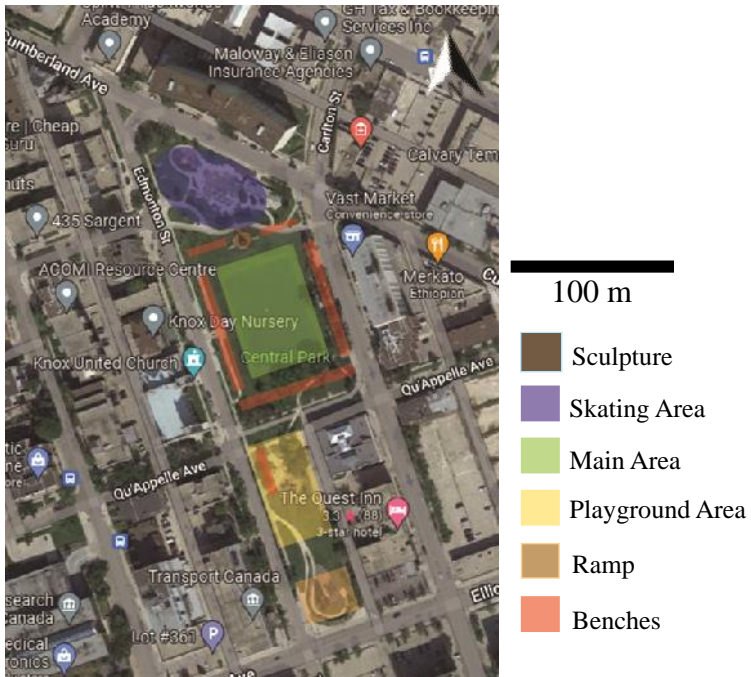
5.4.3 Nodes and Landmarks

For Nodes and Landmarks are together in a single category. I have further divided nodes into two types: designed (planned and created by designers), and undesigned (emerge as people use certain areas as nodes). Designed nodes include sculptures, benches, and other identifiable areas, while undesigned nodes consist of seating areas or other spaces that people prefer to stand in or use for specific activities such as smoking, eating, or reading. Landmarks are important features that people use to navigate and orient themselves within an urban environment. To support this categorization, Michel de Certeau argues that urban spaces are experienced through "spatial practices" that involve the everyday movements and actions of individuals, while the "mental space" refers to the cognitive and symbolic representations of the city that people hold in their minds (De Certeau, 1984). Similarly, Manzo and Devine-Wright (2013), suggest that landmarks play a key role in the legibility of urban spaces, helping people to create cognitive maps of their environment and understand the city's structure and identity.

Central Park has ten designed nodes and an undesigned nodes and landmarks. The designed nodes and landmarks include a sculpture, five rows of benches in the northern, eastern, western,

and middle spaces, and the playground area. There are also four main areas that consist of a skating area in the north, one main area and one playground area, and one big ramp in the southern part of the park. Additionally, Central Park has two undesigned nodes and landmarks: people use the topography as seating area (Figure 17).

Figure 17: *Central Park – Nodes*

Note. The map shows the locations of the designed nodes and landmarks in Central Park, including the sculpture, benches, playground area, skating area, main area, playground area, and big ramp.

True North Square has eight designed nodes and landmarks, which include 1sculpture, 5 rows of benches (3 of which are infrequently used by people) located in the eastern part of the site, and 1 near the bus station in the northern part. The strong benches in terms of user frequency are in the western part of the site. Furthermore, True North Square has 1 areas that function as nodes; One is a staircase that goes to the second floor, which people use as a seating area, and the other is a water feature located in the middle of True North Square and one sculpture in north part of site. True North Square doesn't have any undesigned nodes or landmarks (Figure 18).

Figure 18: *True North Square - Nodes*

Note. The map shows the locations of the designed nodes and landmarks in the True North Square including the sculpture, benches, water features and south stairs which is used as bench.

Millennium Library Park has nine designed nodes and landmarks (Figure 19), which include 1 sculpture, 4 rows of benches in an L-shape in the north part. People prefer to use 2rows of benches in the southern part of the site. It also includes 4 main areas: one in the north, one green circle in the middle of the site, a sculpture area and west area, and a south area. Because of its site plan, Millennium Library Park is divided into more than 1 area, and ramps and stairs help to separate those areas from each other. Moreover, Millennium Library Park has 2 undesigned benches: one is a staircase in the middle area that people use as a bench (Figure 20), and the other is the edge of the middle area. Additionally, one person who has experienced homelessness lives in the south side of the park.

Figure 19: *Millennium Library Park - Nodes*

Note. The map shows the locations of the designed nodes and landmarks in the Millennium Library Park including the sculpture, benches, water feature, main green space, and two spaces which defined by plan.

Figure 20: *Millennium Library Park – Undesigned Bench*

Note. People use stairs as a bench. Photo by H. Bajelan, 2023

5.4.4 Fit

I have assessed the fit of my case study spaces based on the ratio of the land area they occupy to the size of their respective side blocks.

The ratio of land area to the size of side lots is an important consideration in urban planning as it can provide insights into the efficiency of land use and the overall character of a neighborhood. In the case of Central Park, it occupies a significant portion of the urban fabric in its immediate vicinity. The park is surrounded by blocks that are roughly 30,327 square meters, while the park itself is 47,464.79 square meters in area. This means that Central Park is approximately 1.5 larger than average blocks in its neighborhood, with the park taking up a significant amount of the available land in the surrounding area.

On the other hand, True North Square is situated in a denser urban environment than Central Park. The blocks in the area surrounding True North Square are approximately 30,000 square meters in size, with the square itself occupying roughly 3000 square meters of land. This means that True North Square is approximately 0.1 the size of the average block in its neighborhood. Despite this, the square is still able to serve as a significant node in the urban fabric, with its mix of commercial and public spaces providing a valuable amenity to the surrounding community.

Finally, Millennium Library Park is also situated in a dense urban environment but occupies a smaller portion of the available land than Central Park. The blocks surrounding the park are roughly 30,000 square meters, with the park itself occupying roughly 16,000 square meters of land. This means that the park is 0.53 of the average blocks size in its neighborhood. Despite its smaller size, the park still plays a valuable role in the urban fabric, providing a mix of green space and public amenities in an otherwise dense and built-up area.

In summary, the ratio of land area to the size of side lots can provide valuable insights into the efficiency of land use in urban environments. While Central Park occupies a significant portion of land in its surrounding area, True North Square and the Millennium Library Park demonstrate how smaller spaces can still play a valuable role in the urban fabric. Ultimately, it is important to

consider both the quantity and quality of public space in urban environments, in order to ensure that they are both functional and enjoyable for residents and visitors alike.

5.4.5 Access

"Access" in this project refers to the number of bus stations located within a 100-meter radius of each case study, and shape and quality of intolerance to open spaces. The concept of access is crucial in urban planning and design as it determines the ease with which people can move around and engage with different parts of the city. Access to transportation increases mobility. The availability and proximity of public transportation options, such as bus stations, is a key factor in ensuring that urban areas are accessible to people of all ages and abilities, particularly those who do not own a car or have limited mobility. Furthermore, in this part I defined the "access" as how people access to open spaces, in terms of entrance and height from street level.

Central Park has a high level of access to public transportation, with 10 bus stations located within a 100-meter radius. This means that visitors and residents of the area can access the park from various parts of the city, making it a more inclusive and accessible public space. The availability of public transportation near Central Park also makes it easier for people to attend events and activities hosted in the park, such as concerts or community gatherings. In terms of entrance, Central Park is completely accessible from the surrounding streets, and is designed to be at the same level as the street. It does not have a main entrance but is fully accessible from all sides (Figure 21).

Figure 21: *Central Park Section (Demographic (NTS))*

Section A-A
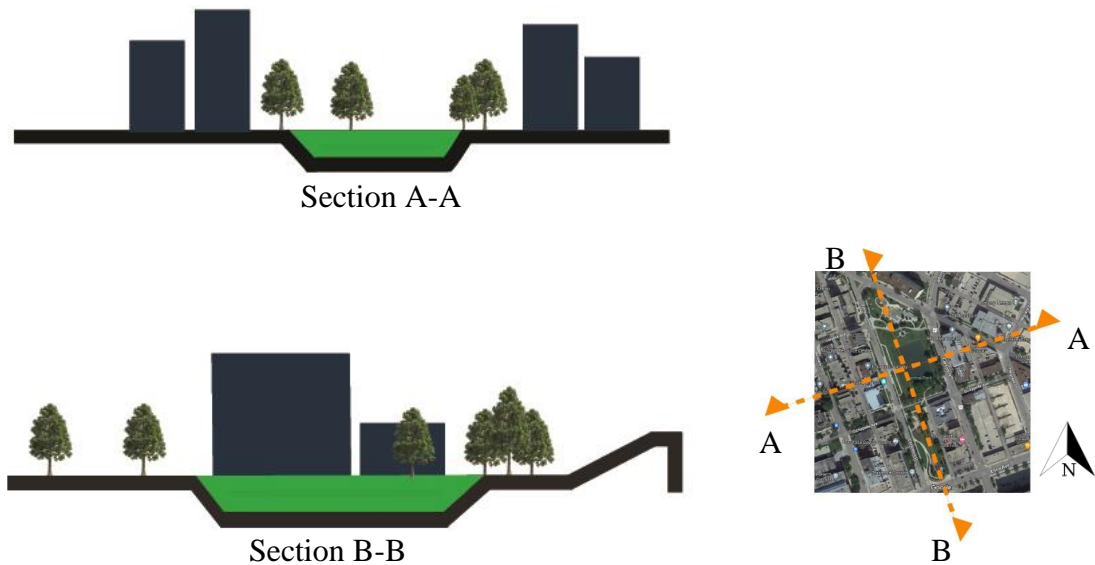
Section B-B

Note. These figures are sections of Central Park. It shows that Central Park and its surrounding area are on the same level.

True North Square has a relatively lower number of accesses to public transportation, with only 5 bus stations located within a 100-meter radius. However, the bus stations near True North Square are destinations for many bus routes, making it a key transportation hub in the area. This means that while the number of bus stations may be lower, the impact of those stations is significant in terms of the overall accessibility of the space. On the other hand, True North Square has two main entrances that are open, accessible, and on the same level as the pavement (Figure 22). However, it should be noted that True North Square has security guards who regulate access to the area. While security guards may limit access to certain individuals or groups, their primary purpose is to maintain safety and security.

Figure 22: *True North Square Section (Demographic (NTS))*

Section A-A

Note. This figure is a section of True North Square. It shows that True North Square and its surrounding area are on the same level.

Millennium Library Park has a high level of access to public transportation, with 9 bus stations located within a 100-meter radius. This means that visitors and residents of the area can easily access the park and the adjacent Millennium Library from various parts of the city. Additionally, main bus routes pass through these stations, further enhancing the park's accessibility. There are five entrances to Millennium Library Park, ranging from 1.5 meters to 2 meters in width. Four of the entrances are located on the west and east sides, adjacent to the underground parking entrance, and one entrance is located on the south side. All entrances can be accessed by either a ramp or stairs (Figure 23).

Figure 23: *Millennium Library Park Section (Demographic (NTS))*
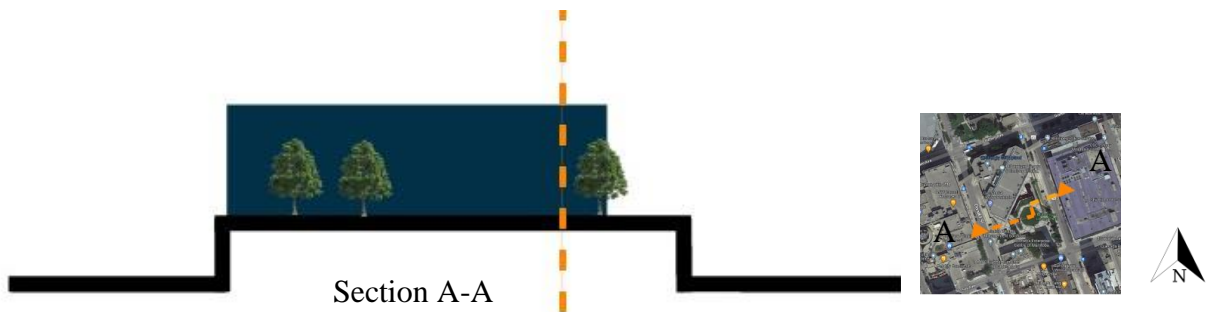
Section A-A

Note. This figure is a section of Millennium Library Park. It shows that Millennium Library Park and its surrounding area are not on the same level, because of underground parking. The difference in the level of the street and the park, separates the park from the street, and people does not use this space as a part of the street like Central Park and True North Square, and it turns it into a more private space.

5.4.6 Spatial Practice

According to De Certeau's theory, concept of "spatial practice" is a crucial factor in the design and use of public spaces. In this project, the term "spatial practice" is defined in two ways. Firstly, it refers to the average number of people who use the spaces during the observation period. This factor helps to identify how popular and well-utilized a particular space is. Secondly, the project measures the number of desire paths that were used by people. These are the paths that people use even though they are not part of the intended design of the space. Understanding the spatial practice of a public space helps designers and planners to create spaces that are not only aesthetically pleasing but also functional and practical.

According to the data, Central Park is used by 55 individuals, 175 people in groups, and 13 people with dogs. This indicates that the park is a popular spot for group activities and dog walking and is also used by individuals seeking solitude or relaxation. The large number of people using the park in groups suggests that it is an important social space in the community. The data collected during the observation period highlights how people used the case study spaces. Central Park had an average of 45.17% people using the space, which suggests that it is a popular space for people to spend time in. The observation also identified four desire paths that were used by people, which indicates that the design of Central Park could be improved to better accommodate people's natural movement patterns.

Similarly, True North Square is used by 62 individuals, 156 people in groups, and 15 people with dogs. These numbers suggest that the space is also used for social gatherings, but with a slightly greater focus on individual use. The relatively high number of people walking dogs in the area suggests that it may be a popular spot for dog owners in the community. True North Square had an average of 38.83% people using the space, and no desire paths were used. This suggests that the space is well-designed and efficiently utilized.

In contrast, Millennium Library Park is used by 67 individuals, 36 people in groups, and 14 people with dogs. The smaller number of people using the park in groups and with dogs may indicate that it is more of a personal or individual space, although the relatively high number of individuals using the park suggests that it may also be a popular spot for relaxation or leisure activities.

Millennium Library Park had an average of 19.50% people using the space, and no desire paths were used. This observation raises the question of whether the park's design could be improved to attract more visitors or better accommodate the needs of the existing visitors.

The number of people using a space and the paths they choose to use may vary depending on several factors. These factors may include the time of day, day of the week, weather conditions, and events happening in the area. Therefore, a single observation period may not provide a complete understanding of the spatial practice of a public space. However, the data collected during the observation period provides valuable insights for designers and planners to improve the design of public spaces to better meet the needs of the people who use them.

5.4.7 Representation of the City

According to De Certeau's theory, the concept of "Representation of the city" refers to the various ways in which urban spaces are utilized by people for different activities such as eating, reading, playing games, exercising, socializing, and simply taking a walk. This measure provides valuable insight into how the community engages with these spaces and how they contribute to the overall character and livability of the city. Throughout this project, I sought to define the representation of the city based on the number of designed activities and places in my case studies.

Central Park is a large urban space with a variety of designed activities and places. It boasts one skating area in the north, a central area, a playground, and a big ramp in the south. In addition to benches for sitting, these amenities provide additional activities for park users, making Central Park a vibrant and dynamic urban space. True North Square, on the other hand, is a plaza that offers a unique space with benches and water features. While it lacks the variety of activities that Central Park provides, its simple and elegant design creates a calm and inviting atmosphere for those seeking a moment of tranquility in the heart of the city. Finally, Millennium Library Park provides a green space in the middle of the city that is defined by portable chairs. Although it lacks enough amenities and features to attract people, it still defines two distinct spaces in the north and south sections of the park (Figure 19).

5.5 Users

According to census data from 2021, more than half of Winnipeg's population are women. However, according to my observations, most urban open space users in Winnipeg are men (Tables 3,5, and 7). The number of male users compared to female users in Central Park, True North Square, and Millennium Library Park is 1.04, 1.06, and 1.28, respectively. Based on my observations, women use Millennium Library Park less frequently than the other two spaces. Additionally, I observed that the ratio of individuals using these open spaces alone compared to those using them with someone else or children is 0.31 for Central Park, 0.4 for True North Square, and 1.86 for Millennium Library Park (Table 4,6, and 8).

Women were observed more frequently in groups with other women of the same age or with their children. Therefore, Millennium Library Park is used more often by individuals than True North Square and Central Park, as my observations suggest that women prefer to use open spaces in groups. This preference for group use could have different reasons, such as 1) Millennium Library Park having a design approach more attractive to men, or 2) it not having enough space for groups of people, such as benches or seating area. It is worth noting that during the weekend of Saturday 22/10/2022, the number of men was 3 times more than woman using Millennium Library Park was 3 times.

Based on my observations, women tend to prefer seating in the playground area of Central Park, where they can easily keep an eye on their children while they play. The west part of the park also seems to be a popular choice among women, possibly because it has less tree cover and greater visibility, making it a safer place to sit. These observations suggest that women may have different preferences when it comes to choosing where to sit and spend time in urban open spaces. In Millennium Library Park, women were observed to prefer seating in the northeast corner of the site, which features L-shaped benches. This area is often used for chatting with others and socializing. It is also common for women to visit this park with others, rather than individually. In True North Square, both women and men tend to use the space in a similar way. They both prefer to sit on the benches located on the west side of the area, likely because this area receives ample sunlight. Additionally, the benches on the north side of the area are like those on the west side, and

the space is visually monitored by two nearby towers, which may contribute to a sense of safety. Furthermore, the presence of security guards may also make this space feel safer for users.

According to my observation, men tend to use open spaces more individually. In Central Park, men were observed to prefer seating on the south side of the park with a view of the central area. In True North Square, men use any available benches, but tend to prefer those on the western side of the area. In Millennium Library Park, men most commonly use the single bench located in the south side of the park, as well as the row of benches located in the southeast of the park with a view of the sculpture.

These findings suggest that there may be gender-based differences in how men and women use public spaces in Winnipeg, with men more likely to use open spaces individually. It is important for urban planners to consider the needs and preferences of all users when designing public spaces. Further research is needed to better understand the reasons behind these observed differences and to ensure that public spaces are designed in a way that accommodates the needs of all members of the community.

Children have distinct preferences when it comes to urban open spaces, with their attraction towards feature design, amenities, and activities. In Central Park, children are often seen in the skating area in the northern part of the park, the playground area, and the central area. They enjoy using the ramp in the playground, running, and playing football in the central area, and skateboarding in the skating area. Similarly, Studies have shown that children have unique preferences when it comes to urban open spaces, and they tend to be attracted to features and amenities that cater specifically to them (Veitch et al., 2007). In True North Square, children are drawn to the curved benches for seating and often walk on them when they are not in use. They are also fascinated by the ground lighting and water features. During Christmas, they are attracted to the Christmas tree in the square and enjoy taking photos with the ice sculptures in the winter (Figure 24).

Figure 24: *Winter in True North Square*

Note. Including relevant design features that attract people to the space for ceremonies and encourage them to spend time taking photos.

In contrast, during my observations, I noticed only three children in Millennium Library Park. Despite having an ice sculpture during the winter season, unlike True North Square, I did not see any children taking photos with the Millennium Library Park's ice sculpture. Further research is needed to explore the reasons behind these differences in children's preferences for urban open spaces to create more attractive and enjoyable spaces for them.

These findings highlight the importance of considering gender-based differences in the use of public spaces when designing and planning urban environments. Urban planning should consider the diverse needs and preferences of different groups of users to ensure that public spaces are accessible and welcoming to everyone.

6.0 Discussion and Analysis

Urban public spaces are the heart of cities, gathering people of different genders, cultures, and ages, and creating a sense of community (Madanipour, 2007). In this part, I compared three urban public spaces based on Lynch's criteria for designed features and space characteristics, and De Certeau's criteria for human experience and public impact.

In terms of paths, Central Park has both designed and undesigned paths, with three strong and one medium-use designed paths and four frequently used undesigned paths. The desire paths may have formed due to people's needs or provide shortcuts to certain destinations within the park. The middle area of Central Park has a pleasant path for walking, especially with the artificial growth, which makes walking more enjoyable. During the winter and cold weather, people tend to use these paths to make their journey shorter. Similarly, the grounds around the National Congress of Brazil in Brasília show the presence of desire paths (Bramley, 2018). Desire paths usually emerge in places without sidewalks and can indicate people's desire to walk, allowing urban residents to provide feedback to city planners through their movement.

In contrast, True North Square has no special designed or desire paths except for four paths, with two being strong leading to the restaurant and two weak. The plaza's entrance is located at the south-west and north-east corners, which is where the main wind direction in Winnipeg comes from the south and west. Due to the existing towers, there is a wind tunnel effect in the middle of the park, making it less pleasant for park-goers to walk through. Therefore, most people tend to use the paths to go to their destination rather than walking or sitting on benches.

Millennium Library Park has three designed paths that are all strong in terms of how frequently they are used by people, running from north to south, south-east to west, and north-east to west. Additionally, there is one medium-use path. Interestingly, this park does not have any undesigned paths, indicating that people tend to follow the designated paths. This could be due to the clear and logical design of the paths, making it easy for people to navigate the park. Additionally, the parking entrance on the west and east sides of the park might have an impact on how people use the park to go from south to north or the opposite.

Overall, the three urban public spaces have different features, designed and desire paths, and public impacts on the community. Understanding the ways in which people use these spaces is essential to ensure their continued success as vibrant and inclusive public spaces.

Edges of Central Park is characterized by openness and a surrounding view of buildings and streets. The southwestern edge has been thoughtfully designed with lighting features that promote safety and an enjoyable walking experience. In addition, the presence of a nearby children's playground makes it a popular destination for families. Moreover, the use of transparent edges and unobstructed views of nearby residential buildings enhances safety by providing an "eye on the street". Similarly, the commercial edges of True North Square offer a safer environment for women and children at night compared to Millennium Library Park, which has a predominately male user base. During the night, Millennium Library Park lacks good "eyes on the street" due to its surrounded by wall on the south side and the closure of commercial and public buildings on other sides. "Eyes on the street" is a term coined by urbanist Jane Jacobs (1961) to describe the importance of natural surveillance and community interaction in creating safe and vibrant urban spaces.

My analysis of these three case studies reveals that lighting alone cannot increase the number of park users, as there are other factors that also affect this outcome. For instance, Millennium Library Park has lighting during the night, but it does not have transparent edges. It is completely blocked on the north and south sides, while the east and west are covered by underground parking entrances, as Lynch (1960), noted, legibility is an essential element of successful urban design. In contrast, True North Square and Central Park are part of people's routes and are not separated from pedestrian levels by ramps or stairs, unlike Millennium Library Park, which is covered on two sides and not readable from the other two sides and is separated from the pavement by ramps and stairs. Although stairs and ramps make a space an attractive place for walking and discovering and offer new perspectives of an area, they can sometimes make it unsafe at night.

According to Lynch (1960), nodes play a crucial role in fostering a sense of community and social interaction within a city. These are the points where people tend to pause or change direction as they navigate through the city, and can include plazas, street corners, and parks. In

Central Park, there are 10 nodes and landmarks that serve as navigational aids and contribute to the park's overall sense of place. Similarly, True North Square has eight nodes and landmarks, although it should be noted that this is a smaller area. On the other hand, Millennium Library Park and Central Park have four areas each, but Central Park's areas are more clearly defined by color, activity, and strong lines, while Millennium Library Park's areas are not as strongly defined. Overall, Lynch's emphasis on nodes and landmarks highlights the importance of creating easily identifiable and navigable spaces within a city.

Defined nodes and areas create opportunities for a diverse group of people as each group has its own space, which helps to avoid unnecessary interruptions. Central Park exemplifies this by providing designated areas for different activities. The park is divided into different sections by color, activity, and strong lines, which ensures a clear division of space. Similarly, Millennium Library Park has designated areas for groups and individuals, green space, and a designated area for one homeless person who lives there. Although it does not have the same strong lines as Central Park, it has still attempted to create specific areas within a smaller space.

In terms of size and fit within their neighborhoods, Central Park stands out as being 2.5 times larger than the surrounding blocks, while True North Square and Millennium Library Park are roughly half the size of a city block. This makes Central Park more visible and transparent to the surrounding community, allowing people to easily see and access it from multiple points of entry.

The larger size of Central Park also enables a greater variety of activities and experiences for visitors. With multiple areas dedicated to different activities, such as sports, picnics, and cultural events, visitors can easily find a space that suits their interests and needs. In contrast, the smaller size of True North Square and Millennium Library Park limits the variety of activities that can be accommodated and may make it more challenging to create distinct areas for different activities. The size of Central Park also contributes to its reputation as a destination where visitors can spend a significant amount of time. With so much to see and do, visitors can easily spend an entire day exploring the park and its various attractions. In contrast, the smaller size of True North Square and Millennium Library Park may make them more suitable for shorter visits or quick stops.

In terms of access, Central Park, True North Square, and Millennium Library Park all have different levels of accessibility for visitors. Central Park is not located near main bus routes, which makes it less accessible to people who rely on public transportation to get around. In contrast, True North Square and Millennium Library Park are located near Graham Avenue, which is a main bus route that many people use to get around the city. The location of True North Square at the Eastbound Graham at Hargrave station makes it a convenient place for people to visit when they get off their bus or while they are waiting for their bus.

In terms of physical access, Central Park and True North Square have the same level of accessibility as their surrounding areas, with easy access to streets and pavement. However, accessing Millennium Library Park can be more challenging, as it requires visitors to use one of four small entrances to get into the park. This lack of clear, visible access can make it difficult for people to find the park and discourages potential visitors who may not want to navigate a confusing entry point.

Based on the aspect of accessibility, it should be noted that there is a security guard present in True North Square. While this might be reassuring for some visitors, it can also create an unpleasant atmosphere for others. For example, some individuals might feel scared or intimidated by the presence of police officers or security guards. This type of presence can make it difficult for certain groups of people to access the space. For instance, people who have had negative experiences with law enforcement or who feel uncomfortable around security personnel might avoid visiting True North Square altogether. During my observation period, I noticed that I tended to change my location whenever I saw security guards patrolling the area. As such, it is important to consider the potential impact that security measures can have on a public space's accessibility and inclusivity. While safety and security are important, they should be balanced with the need to create an open and welcoming environment for all visitors. Overall, the level of access to these parks is an important factor that can impact their use and popularity among different groups of people.

The special practice of urban design is concerned with how people use space and how they give meaning to it through their everyday practices. In terms of visitor numbers, Central Park comes in first place with 45.17% of visitors, followed by True North Square with 38.83%, and

then Millennium Library Park with 19.50% of visitors. As I observed, the majority of users in Millennium Library Park are men. However, this could be one of the reasons why the park is losing some of its users, as women tend to visit open spaces in groups of other women of the same age or with their children. Unfortunately, Millennium Library Park doesn't have enough group-designed benches to accommodate these groups, and it is not transparent, which makes it feel less safe than Central Park and True North Square.

In addition to visitor numbers, another factor to consider in special practice is desire paths. Central Park provides visitors with the chance to create their own paths, which makes it feel more personalized and less rigid. This can be a big draw for visitors, as they are able to create their own unique experiences within the park.

In terms of mental space, or the way people mentally map and understand the city, it is important to consider how people prefer to go to open public spaces. Do they prefer to go alone, or with someone else? If they go alone, which spaces do they prefer? If they go for dog walking, what kind of spaces do they prefer? Central Park, due to its unique characteristics, is a popular destination for all types of visitors. People choose to visit the park in any situation, whether they want to be alone, go for a jog, walk their dog, or spend time with their children. Central Park provides a variety of spaces and activities to suit any age or need. For example, visitors can sit on the middle ground and enjoy the artificial grass, or they can explore the park's walking trails, play games, or have a picnic. True North Square also offers a variety of spaces to suit different needs, but it is notable that people in groups tend to go to the restaurants located in one corner of the square, while individuals often walk through the area or bring their dogs for a walk. In contrast, Millennium Library Park tends to be more of an individual space. The design of the park, with its lack of transparency and design benches, makes it less appealing to groups. As a result, people may feel less comfortable in the park or choose to visit it less frequently.

By considering how people mentally map and understand the city, designers can create public spaces that meet the needs of different groups of people. Whether they are designing a new park or improving an existing space, designers should consider factors such as accessibility, security, and the specific needs of different visitors in order to create a space that is inviting, comfortable, and enjoyable for everyone.

Representation of the city is an important aspect of urban design, as it affects how people interact and communicate with their environment. In this regard, Central Park is a prime example of a space that is designed to facilitate a wide range of activities and interactions. With its numerous nodes, large size, transparent edges, and readable space, Central Park offers a wide range of opportunities for people to eat, read, play games, skate, chat, and walk.

One of the unique features of Central Park is the availability of middle ground, which is a term used to describe the space between the ground and the sky. This feature allows visitors to sit on the ground, which is covered with artificial grass, and enjoy the surrounding environment. This is in contrast to True North Square and Millennium Library Park, where visitors do not have as many choices due to the lack of sufficient spaces. This can lead to crowded spaces and limited options for visitors to engage with the urban environment.

In addition, studies have shown that people prefer to sit in places that have a view of the street, as they enjoy observing people engaging in different activities. This is more appealing to them than simply observing nature. Both Central Park and True North Square offer this opportunity, as they are designed to allow people to see more people and activities compared to Millennium Library Park. Furthermore, during my observation period, I noticed that people in Millennium Library Park preferred to sit on benches that had a view of the street, indicating a strong preference for observing people's activities.

Overall, the representation of the city and how people interact with urban spaces is crucial to urban design. Central Park's design offers an excellent model for creating spaces that are accessible, functional, and engaging, allowing for a diverse range of activities and interactions. By considering people's preferences for space and activity, designers can create urban environments that are more appealing and enjoyable for everyone.

Based on my observations, it seems that women prefer to use open spaces in the company of other people, whether it be with other women of the same age or younger women, or even with their grandchildren. This observation is supported by the findings of Anna Ortiz, Maria Dolors Garcia-Ramon and Maria Prats (2004), who noted that women often use public spaces in the company of other women or family members.

Central Park seems to cater well to this preference, as it offers plenty of benches that are suitable for chatting and socializing in groups. Additionally, the park has designated areas for children to play, which makes it a suitable space for women with children to spend time in. True North Square also provides benches for groups to sit and socialize, although it is worth noting that the restaurants located there seem to be more popular among groups of people than the public space itself.

In contrast, Millennium Library Park seems to be less suitable for women who prefer to spend time in open spaces with others. The park lacks enough benches for groups to sit and socialize, which may discourage women from spending time there with friends or family. Additionally, the lack of enough "eyes on the street" in this park may create a sense of discomfort or insecurity for some women. Therefore, it can be concluded that Central Park and True North Square offer better options for women who prefer to use open spaces in the company of others.

Based on my observations, I have noticed that children tend to enjoy certain features in open public spaces. They tend to like ground lighting, curved benches, simple or non-designed benches, as well as open spaces for running and playing. In Central Park, for instance, there are designated areas specifically created for children of all ages. The skating area provides ample space for running and creativity, and the topography of the park provides seating options for children to choose from. Additionally, the park has a playground area that is quite attractive to children. The lighting in this play area is colorful and unique, setting it apart from the rest of the park and making it all the more appealing to children.

Similarly, True North Square also has several features that are of interest to children, such as curved benches, ground lighting, and water features. However, my observations indicate that children tend to use these spaces more with their mothers or grandmothers. In contrast, Millennium Library Park appears to be less popular among women and their children compared to the other two spaces.

6.1 Results conclusion

Appleton's theory of landscape appreciation is based on the notion that people experience landscapes through a process of perception and cognition, similar to Lynch's theory of urban

perception. In Appleton's theory builds upon Lynch's concept of mental mapping, which suggests that people develop mental images of their physical environment. However, Appleton also draws upon Michel de Certeau's theory of everyday life, which emphasizes the agency of individuals in shaping their environment. Appleton believes that people interact with landscapes in distinct ways based on their cultural background, personal experiences, and individual perceptions. Therefore, his theory of landscape appreciation underscores the subjective, experiential nature of landscape perception. In general, Appleton's theory synthesizes the ideas of Lynch and de Certeau to offer a nuanced understanding of how people perceive and appreciate landscapes.

Central Park supports the prospect refuge Appleton's theory by providing a semi-private space in the middle of the park surrounded by trees, and the large ramp in the southern section of the park is another design feature for prospect and refuge. Moreover, Central Park is surrounded by residential buildings and located in a residential neighborhood, which makes it observable from the street. Additionally, it was designed on the street section level, making it accessible for people and an integral part of their walking routine. However, it should be noted that Central Park doesn't have god access to public transportation in compare two other case studies.

True North Square, with its two towers, provides a good refuge and enough space to prospect the surrounding area. Additionally, it is designed on the street section level and located near the main bus station and two commercial buildings, making it observable from the street, making it an ideal spot for people. Moreover, Canada Life Centre is another positive aspect of True North Square which is a reason for people to use this place. However, it should be noted that the presence of security guards can make this location inaccessible and unappealing for some people who have had negative experiences with law enforcement or security personnel.

Millennium Library Park has a good prospect-refuge since it is designed above the street level, which makes it an excellent spot for people to observe the street. However, on the other hand, Millennium Library Park is surrounded by public buildings and, on one side, by a commercial building that closes at night, which means that it does not have good eyes on the street from its surrounding buildings. Additionally, it has good access to public transportation, as it is located near the main bus route in Winnipeg. Concerning entrance, it does not have good access,

as there are only four small entrances beside the parking entrance and one small entrance from the south side.

Overall, my observations and this capstone project show that the presence of prospect, refuge, access, and transparency make a space pleasant for people. According to my observations, Central Park and True North Square have good prospect-refuge and transparency and eyes on the street. However, Millennium Library Park lacks good eyes on the street, which may explain why it is not utilized by people at night.

7.0 Conclusions

As part of my Capstone Project, I have compiled a collection of documents that provide insights into various aspects of urban design and open spaces in Winnipeg. The documents cover a range of topics, from the history and evolution of open spaces to the principles and theories of urban design. Through my case studies of Central Park, True North Square, and Millennium Library Park, I have drawn several conclusions about the importance of urban open spaces and how they can be designed to meet the needs of the people who use them.

I believe that open spaces play a crucial role in the social and cultural life of a city, providing opportunities for people to interact with each other, engage in leisure activities, and connect with nature. Therefore, urban designers and architects must recognize the importance of open spaces and create ones that are accessible, inclusive, and appealing to a broad range of users. Also, as urban designers, it is our responsibility to create spaces that meet people's functional requirements while providing a sense of safety and security, especially in cities such as downtown Winnipeg, where crime rates are high ("Crime Maps", 2023). To enhance safety and security, transparency and eyes on the street are crucial. One way to achieve this is by incorporating small local vendors selling hot dogs or sandwiches, or small cabins designed for local musicians, which not only change the character of the space but also create a sense of security without the need for security guards. Furthermore, another way to improving transparency is locating urban open spaces in areas with good visibility from surrounding buildings can contribute to a more pleasant place for users and enhance security. Street-level design for open spaces can also improve transparency and access to the open spaces.

Other factors, such as nodes and landmarks, and the features and amenities that they offer, can play a pivotal role in attracting people. Designed benches suitable for groups of people, areas for skating and playgrounds for children, ground lighting, water features, and sculptures are just a few examples.

Additionally, the theories and principles of urban design, such as Appleton's "Prospect-Refuge theory", can guide the creation of successful open spaces. Appleton's theory emphasizes the importance of balancing a sense of prospect with a sense of refuge. Designers can apply this

theory by creating open spaces that provide a mix of open and enclosed spaces, with features such as seating areas, greenery, and artwork that create a sense of both prospect and refuge.

Furthermore, it should be noted that this Capstone Project was completed during the fall and winter seasons. Additional research and observations during the spring and summer months could provide further insights into the use and effectiveness of urban open spaces in Winnipeg. The changing seasons and weather patterns may also impact the design and management of open spaces, emphasizing the need for ongoing evaluation and adaptation. In addition, other methods such as interviews could help to expand this project and ensure that people's feelings about the mentioned open spaces are accurately captured. Overall, this project provides a solid foundation for further exploration of urban open spaces in Winnipeg and highlights the importance of continued research and analysis in this field.

In conclusion, the Capstone Project pivot valuable insights into the design and management of urban open spaces in Winnipeg. The documents demonstrate the importance of open spaces in promoting social and cultural life in the city and highlight the key factors that contribute to the success of such spaces. Urban designers and architects can use these insights to create open spaces that are safe, accessible, and appealing to a broad range of users, and to incorporate the principles and theories of urban design that guide the creation of successful open spaces. Ultimately, by prioritizing the creation of well-designed and well-maintained urban open spaces, Winnipeg can enhance the quality of life for its residents and foster a vibrant and sustainable urban environment.

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