Do Utopias Require Fire Exits?

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Abstract

Throughout history, numerous utopian proposals have been born out of visionary architects' discontent with reality. These ideal visions have had a significant impact on the planning of our cities. This thesis explores the role of utopian thinking in the design process through a series of investigations related to the downtown core of Ottawa; the intention being to attract suburban dwellers back to the city. The numerous parking lots that are scattered throughout Ottawa's central business district are seen as an opportunity to reinvent the downtown experience. Through the design of a catalyst mixed use commercial/residential project, the thesis considers the relationship between the utopian idea and its translation into built form.

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Introduction

Nearly 30 years after Louis Kahn's death, a conversation took place between two men on the streets of downtown Philadelphia. The subject of their conversation was Louis Kahn's vision and involvement during the 1960's redevelopment process of downtown Philadelphia. The two men were Nathaniel Khan and Edmund Bacon.¹

¹ Nathaniel Kahn is Louis Kahn's illegitimate son, and Edmund Bacon was the Executive Director of Philadelphia City Planning Commission during the 1950s and 60s. Their conversation is extracted from *My Architect: a Son's Journey*, a documentary film that portrays Nathaniel's journey of discovering Louis Kahn as the famous architect and father he never knew. Louis Kahn passed away when Nathaniel was 11 years old. As a filmmaker, Nathaniel Kahn interviewed people who knew or worked closely with Louis Kahn. In this instance, Edmund Bacon confronted his disbelief against Kahn's proposal for Philadelphia, and reasons for Kahn's withdrawal from their collaboration in the redevelopment of Philadelphia.

EB: We started work, and I wanted to communicate to the stupid public in the most acerbic fashion I possibly could—the essence of the idea. And Lou would say, wouldn't it be nice to put a curving stairway here or, how about a tall tower here? Suddenly I realized that the purity of my communication was being encrusted by Lou's fantasy.

NK: So Lou didn't get it. Lou didn't understand what you wanted.

EB: He didn't understand. He DID NOT understand. And so, he was angry as he could be. And he got nice ladies to give teas where they would complain about me not using Louis Kahn for this purpose. By the way, there is not a single shred of any way in which Louis influenced downtown Philadelphia.

NK: Nothing, I know. Isn't that a tragedy?

EB: Well, I'll tell you one thing. It would have been an incredible tragedy if they had built one single thing that Lou proposed for downtown Philadelphia. They were all brutal, totally insensitive, totally impractical. The whole idea of doing circular garages up on Pine Street—

NK: Yeah, but the idea of leaving the cars outside the city and then letting people walk in the city, is a great idea, don't you think?

EB: No! It absolutely wasn't. It wouldn't have worked for a damn.

NK: So ultimately, isn't it just two strong men, two strong egos that don't get their—

EB: God damn it! NO! It's absolutely pure ignorance on Lou's part, and it's the same damn ignorance as the American Institute of Architects is based on now, that you have no responsibility to prepare the way for a system on a larger order. And you only do the little things that come along. So you simply have not understood a word I have said. (smiles)

Figure 1.0 Images from the film: *My Architect: a Son's Journey*, 2003.

Despite the film's interesting revelation of Kahn's minimal involvement in redeveloping his hometown Philadelphia during the 60s, the final comment from Edmund Bacon could not have been more shocking. Is the actual responsibility of architects much less than I imagined? Isn't the nature of the architectural profession to imagine the

unimaginable, and challenge the limits of reality through the creation of architecture? Kahn was simply asking these same questions, challenging preconceptions about how people lived. He was simply designing what he believed to be better for the city, and hoped to see his design come through. Regardless, Edmund Bacon terminated Kahn's participation on the design team without hesitation, due to Kahn's "incompatible genius" with the reality of Philadelphia's problem.

Under our contemporary social system that delineates complex urban issues and designates multiple tasks to various professions, it appears that architects no longer claim a role in the shaping of the cities. Among popular acceptance of mass culture and consumerism, where does the profession of architecture stand today? Should architects uphold their responsibility as "social engineers?" Should architects involve themselves in determining how people live through architectural design?

The scene from the film prompted the formulation of this thesis. The primary intent of this thesis, however, is to reaffirm the influence that architects have had on the shaping of our cities. This thesis investigates the architects' imaginative realm; past utopian visions that have had a significant impact on contemporary planning of North American cities. Ebenezer Howard's Garden City, Frank Lloyd Wright's Broadacre City, and Le Corbusier's Radiant City. Whether these utopian ideas were built or un-built, it is crucial that we examine the paths of such thinking that ultimately influenced the way we live today.

In turn, this thesis reflects upon the current urban conditions of our capital city, Ottawa; on how an adapted vision of Howard's Garden City took form and became misappropriated under the contemporary twist of the automobile. Specifically, the design

project examines the inevitable product of the automobile—the ubiquitous parking lots—that are scattered throughout Downtown Ottawa. These lamentable sites in the city can be seen to hold the promise for a revival of the quality of urban life. Through an introduction of new housing with a mixture of retail, public and green spaces, the architectural proposal places the importance of humanity, vitality, and nature back to the city center. Utilizing selected existing parking lots, the design becomes a critique of our society's dependence on the automobile, as it attempts to redefine the meaning of downtown as a healthy and vibrant place to live and work.

Sequentially, the thesis design employs the notion of Utopia as a process of thinking, reflection and questioning. In Louis Kahn's ideal thinking, "a great building must, in my opinion, begin with the unmeasurable and go through the measurable in the process of design, but must again in the end be unmeasurable."² Thus, the architectural design initiates a process that is developed over three phases: the first part explores extreme ideal scenarios for our city; the second phase visualizes these ideas through a fictitious story; the final stage considers the moment of translation of a utopian idea back into the real context of Downtown Ottawa.

In the end, ideal visions for the city, physical developments of the city, and lifestyles in the city are all interrelated elements that affect one to another, and contribute to its sense of wholeness. The following texts will begin by examining the past positions that architects have taken as idealistic manipulators of our physical environment.

² Wurman, R. Saul, and Eugene Feldman, eds. The Notebooks and Drawings of Louis L Kahn. (Cambridge: the MIT Press), p.73

1: Dreams for a Better City

Published in 1516, “Utopia” is a fictitious nation that Sir Thomas More created in the book under the same name. Portrayed as a minor character in the story, More writes of his fantastic encounter and conversation with his friends, Peter Giles and Raphael Hythlodæus, who had the privilege to visit the Island of Utopia during his travel. Through the imaginary character of Raphael and the nation of Utopia, More portrays his idealistic views on how a perfect society operates, while criticizing the social inequality and political corruption of England in his time.

The word “Utopia,” also invented by More, is composed of Greek words—*topos* (place) and the prefix ‘*u*,’ a contraction of *ou* and/or *eu* (‘no’ and/or ‘well’).³ In both senses, *utopia* represents the idealized condition of a No-Place and/or a Place-Where-All-is-Well. Hence, the contradicting dual meanings of Utopia are like two faces of a coin, except that the perfect world portrayed would never exist in reality. Despite the dilemma of Utopia’s non-existence, the condition of its striking duality has enticed many scholars among the fields of art, literature, philosophy, politics and architecture to endlessly pursue the fine balance that it poses between theory and reality, reasserting our essential human nature to dream, hope, desire, and attempt to reach a perfect state.

Throughout history, the aspiration to create an ideal world has led many architects to imagine countless ambitious plans that contest reality. Most of these fantastic proposals remain unbuilt, deliberately existing only in the realm of textual and graphical representation. These authors had no illusions about the essentially unbuildable nature of

³ Eaton, Ruth. Ideal Cities: Utopianism and the (Un)built Environment. (New York: Thames & Hudson, 2001), p.12

their projects, acknowledging the true sense of utopia as No-Place. Yet, the imagining of these utopian visions provided alternative ways of thinking about the world that profoundly influenced the later planning of our built environments.

Between the late nineteenth and early twentieth centuries, the most controversial and influential ideal cities are considered to be those proposed by Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier. Respectively, the Garden City, Broadacre City, and the Radiant City were imaginary cities that these three planners envisioned as answers to the urban crises of their times. Despite their biographical differences, Howard, Wright and Le Corbusier all inherited the spirit of More's Utopia that attempted to reshape the social and urban structure through design. Interestingly, under the same goal of urban reconstruction and social revolution, each scheme presented a vastly different vision for the city, particularly with regard to lifestyle and population density.

Moderate Decentralization: the Garden City

Of the three planners, Ebenezer Howard's Garden City concept was published earliest in the book entitled, *Tomorrow: A Peaceful Path to Real Reform* in 1898. The intent of Howard's proposal was to resolve the problem of deteriorated living conditions in urban and rural areas of England. As a social reformer, Howard was particularly concerned with the quality of life and values of family and community. During this time, cities were losing the power to control their own growth due to the negative effects of the Industrial Revolution, such as overcrowded neighbourhoods in the industrial cities, and a lack of proper drainage and sanitary facilities in the rural areas.

Acknowledging the undesirable conditions in urban and rural settings, Howard approached the problem by analyzing the beneficial attributes that appeared to be attracting people to the city/town. As Howard questioned the type of lifestyles people preferred, he composed the diagram of the “Three Magnets” to illustrate the advantages and disadvantages of town and country lifestyles (Figure 1.1). In the diagram, the Town magnet represents wealth, social and employment opportunities but lacks a healthy natural environment. On the other hand, the Country magnet provides an abundance fresh air, sunlight, and beauty of nature; however, it lacks the energy, conveniences, services and opportunities of the Town life.

Figure 1.1 The Three Magnets.

In an attempt to benefit from the balanced features of Town and Country, Howard established principles of a third alternative, the “Town-Country” magnet—an entirely new kind of rural city that combined advantages of both city and countryside.⁴ In Howard’s vision, the Town-Country consisted of the desirable qualities of natural settings, high wages and low rents, a place full of social interaction, opportunities, freedom and co-operation. Howard was optimistic in his emphasis that “Town and country *must be married*, and that out of this joyous union would spring a new hope, a new life, a new

⁴ Coates, Stephen, and Alex Stetter, eds. Impossible Worlds. (Boston: Publishers for Architecture, 2000), p.99

civilization.”⁵ Based on this belief, Howard further developed the Garden City concept in relation to the existing city center.

Without any background in architecture or planning, Howard understood the importance and need for proper planning prior to any new town establishment. In order to manage the rapid growth of the existing centralized city, Howard proposed a protective greenbelt of agricultural land surrounding the city to prevent further outward development (Figure 1.2). Outside the greenbelt, a number of new Town-Country cities were to be

Figure 1.2 Howard's Garden City Concept.

established as independent satellite cities to receive the overflowing population from the central city. Like the central city, the new satellite city was also to be contained within a smaller greenbelt, ensuring a limited population at relatively low residential density. The economy of the satellite city was to be based on a combination of agriculture and light industry, thus allowing the satellite city to sustain itself. Between cities, a network of efficient, electrically powered rail transit systems would provide continuity, connecting the cities as one working community.

Ultimately, Howard aimed to create a decentralized but closely interrelated network of cities surrounded by nature. He believed that the moderately decentralized position of urban populations would yield a more socially, economically and environmentally balanced city, as the preservation of natural, comfortable living conditions would support a

⁵ Howard, Ebenezer. Garden Cities of To-morrow. (Cambridge: The MIT Press, 1965), p.48

healthier, happier and more productive population. “Co-operation” therefore best describes Howard’s ideal scheme—a complete sharing and working of integrated urban elements that defined the city’s success.

Extreme Decentralization: the Broadacre City

Similar to Howard, Frank Lloyd Wright perceived the principle of decentralization as the driving initiative for his Broadacre City. However, Wright’s proposal was quite opposite to, and in many senses a much bolder scheme than Howard’s Garden City. In fact, Wright took the idea of decentralization to its logical extreme—from the scale of small communities to individual family homes.

Growing up in the seemingly unlimited vast land of America, Wright was a strong believer in individualism and democracy. As an urban theorist, he viewed the large and overcrowded urban cities as unfit for human inhabitation. In his opinion, “to look at the plan of any great city is to look at the cross-section of some fibrous tumour.”⁶ Furthermore, the chaotic arrangement of streets and buildings in the old cities troubled Wright. He felt that it trapped people’s identity and limited their freedom to move.

On the other hand, Wright was fascinated by the products of industrial cities, as mechanical and technological advancements escalated during the 1920’s. The new technologies led Wright to believe that the age of great cities was coming to an end. In particular, the enhanced mobility and communication created by the automobile and telephone implied a new opportunity for life outside the centralized city. With mass-produced automobiles, it was no longer a necessity to live in cities to function as part of the social system. People could live anywhere they wanted since any point on the map

⁶ Wright, Frank Lloyd. The Living City. (New York: New American Library, 1958), p.119

was virtually accessible. Convinced by the automobile's potential to revolutionize modern life, Wright imagined a new form of city that could take shape across the whole nation.

Figure 1.3 Plan and Model of Broadacre City

Wright's proposal was a city without form or borders. Broadacre City represented “everywhere and nowhere” since Wright's definition of the new city no longer required an urban center. Every house, factory, store, office, or cultural center could be evenly distributed, located across the land and connected to a system of roads (Figure 1.3). There was no clear distinction between “urban” and “rural” in Broadacre City, as the man-made world became part of the natural environment. In Wright's words, “the whole city had gone to the Countryside.”⁷

Deeply feeling the need to return to nature and regain the value of life, Wright further assigned every individual his/her own piece of land at a minimum of an acre per person. Such broad areas of land would permit each person to express a personal lifestyle on

⁷ Fishman, Robert. Urban Utopias in the Twentieth Century. (New York: Basic Books), p.91

his/her own land. Furthermore, citizens of Broadacre city were not tied to any specific type of physical or mental labour; everyone was a part-time farmer, a part-time mechanic, and a part-time intellectual.⁸ Wright believed the variety of daily tasks would allow everyone total freedom in experiencing life. In Wright's ultimate ideal, "individuality" was the key he strived for; and his proposal of total decentralization truly reflected such possibility.

Figure 1.4 Perspective view of Broadacre City. Helicopter in foreground and beyond is also designed by Wright as he imagined it becoming a common mode of transportation in the future.

Great Metropolitan: the Radiant City

In the case of Le Corbusier, a disdain with the irrational planning and degraded living conditions of the old cities enticed him into the world of urban planning. Similar to Wright, Le Corbusier had a high regard for technological advancements. To him, the Machine Age was a time of revolution; it represented the coming of a new era and a chance to abolish the old. Criticizing the old cities, Le Corbusier stated, "Traditionalism, in large

⁸ Ibid. p.128

cities, obstructs the development of transport, cramps and hinders activity, kills progress, and discourages new ideas.”⁹ Thus, tradition must be abandoned and a new form of city and architecture must rise out of modern industrialization. Architects must create a new social harmony in keeping with the engineers and businessmen who have created a new form of production and standardization. Le Corbusier further believed that with proper use of machines, a new society of order, abundance, harmony and beauty would emerge.

However, contrary to Wright’s dispersed urban density, Le Corbusier foresaw an alternate fate for the industrial cities. In fact, he thought the existing cities were not dense enough—that great modern cities required high population density in order to achieve maximum efficiency and production. Of course, such centralized metropolises could only function under a proper system of hierarchy and order. It was Le Corbusier’s strong belief that the repetitive arrangement of symmetrically, pure geometric forms, the regularity and standardization of buildings, along with planned streets and open spaces would best express and achieve his vision.

Facing the chaotic scenes of existing city centers, Le Corbusier’s consequent proposal was a complete disposal of their existence, as he envisioned the levelling of large areas of Paris (and other major city centers). In place of the congested streets, bustling public squares and untidy neighbourhoods, Le Corbusier proposed a brand new city of soaring skyscrapers made of glass and steel, distributed evenly in the midst of big open parks, gardens, and superhighways. With a clear separation of automobile and pedestrian traffic, citizens of the Radiant City would regain the freedom of walking in natural parklands, without the threatening danger of speeding automobiles. In Le Corbusier’s authoritative

⁹ Guiton, Jacques. The Ideas of Le Corbusier: On Architecture and Urban Planning. Trans. Margaret Guiton. (New York: George Braziller, 1981), p.94

and rational planning, every part of the city would be designated to a specific use, and separated into discrete zones for working, living and leisure (Figure 1.5).

Figure 1.5 Plan of Radiant City.

Notably, the skyscrapers were the most dominant feature in Le Corbusier's plan. For him, the skyscraper was the tool provided by the engineers, allowing him the possibility to free the ground plane and still achieve high density within the urban core. Since the towers occupied only 15% of the land, Le Corbusier was able to introduce greenery back into the city with elaborate landscaped gardens and parklands, as an opportunity to

reconcile man with nature (Figure 1.6).¹⁰ Moreover, Le Corbusier treated the skyscrapers as the center of life, and designed them as vertical communities. Particularly in the residential towers, he proposed several additional social and recreational functions within the apartments, such as meeting rooms, cafes, restaurants, shops, gymnasia, and swimming pools, with the purpose of delegating different functions of life in an orderly fashion. For the housing unit, Le Corbusier ensured a proper proportion and size that would satisfy the average family—no one would desire anything larger nor get anything smaller. In terms of construction methods, Le Corbusier employed mass-production techniques that echoed the advantages offered by industrialization.

Figure 1.6 Overall plan of one housing section in the Radiant City.

Prior to completing the designs of the Radiant City, Le Corbusier spent a lengthy process developing his utopia. Proposals such as the *Contemporary City* and *Plan Voisin* were his earlier ideal cities that ultimately laid the foundations for the *Radiant City*. As a collective result of his dedications, Le Corbusier described the Radiant City as “a city worthy of our time” because he truly believed this model lived up to the age. Unlike the

¹⁰ Fishman, Robert. Urban Utopias in the Twentieth Century. (New York: Basic Books), p.163

Garden City or Broadacre City, Le Corbusier's ambitious utopia celebrated grandness, hierarchy, and centralism. Through this daring, authoritarian gesture, the Radiant City exemplified a freedom from context, history and tradition, but also embraced the idea of community and organization at the same time. In the eyes of Le Corbusier, the Radiant City articulated his definition of modern life.

Lost Ideals

Today, traces of Garden City, Broadacre City, and Radiant City are evident in the planning of cities across North America. However, in most cases, the imitations of these visions represent a rather unexpected failure, unlike the great outcome their creators had predicted. Endless expanses of suburbia and superhighways and deserted public housing superblocks on no-man's parkland are examples of failed commodities orchestrated by these "ideal" visions. It makes one wonder: How could Howard, Wright and Le Corbusier, who contributed so much of their life careers to imagining absolute perfection of their ideal cities, have failed so dramatically? Where did the plans go wrong?

The primary responsibility for these failed imitations, however, does not reside with the utopian thinkers. Instead, the failures and negative impacts of utopian visions on our cities are due to the planners who interpreted the visions literally, without processing their true essence. Blindly imitating the formal descriptions of the ideal cities, the followers perceived only one dimension of the vision and neglected to appropriate the utopia for themselves. They failed to recognize that the language of a built project is entirely different from that of a utopia.

The ideal cities of Howard, Wright and Le Corbusier represented an abstraction of the city's functions, and of course were based on their personal preferences. Inevitably, such visions are limited in terms of their ability to conceive or predict the complexity of the city's social, cultural and economic systems. Nevertheless, the utopian processes that they explored to imagine greater visions of the city allowed Wright and Le Corbusier to transcend what the others had failed to attempt. Through their architecture, Wright and Le Corbusier were able to illustrate the complexity of the moves required in the translation from vision to great buildings, demonstrating the valuable significance of utopian thinking in the architect's design.

However, in modern society, where facts and figures outvalue theoretical imagination, is utopian thinking still valid? Next, the thesis investigates the formation of our capital city, Ottawa, as its planning took form under the influential guidance of Howard's Garden City.

2: Developing the Nation's Capital

*"The utopian aims that originally inspired them [urban planners], however, have been either forgotten or discarded."*¹¹

Cities are not created overnight. The evolution of cities is a collective effort and achievement of human civilization over a long period of time. Like all cities, the development of Ottawa has undergone a series of planning decisions over the past decades, that have resulted in the Capital city that we know today. The planning of a city, however, is often driven by a single ideal vision conceived by a small group of individuals. While such an ideal vision promises a convincing and wonderful future, the actual implementation of the vision often falls short of its original intention due to an inadequate appreciation of our ever-changing, complex society. As a result, many utopian inspirations have led to dystopias. In the case of our nation's Capital, Ottawa unfortunately illustrates a classic example of a utopian vision lost in its own creation. The following chapter will examine in more detail the evolution of Ottawa and its failure to achieve greatness.

The Gréber Plan

Decades after World War II, Ottawa experienced an explosion of urban growth, which was typical of most cities across North America. Yet, very little planning, land-use strategies, or direction for Ottawa's growth was put in place. It was a time of virtually uncontrolled development in areas immediately outside the urban centre.¹² Recognizing the seriousness of Ottawa's emergent growth, the federal government commissioned the

¹¹ Fishman, Robert. Urban Utopias in the Twentieth Century. (New York: Basic Books, 1977), p.x

¹² Hossé, Hans A. "The Greenbelt and Ottawa's Urban Containment." Ottawa-Hull: Spatial Perspectives and Planning. (Ottawa: University of Ottawa Press), p.94

French planner, Jacques Gréber, to produce a visionary master plan that would guide the future growth of Ottawa. Consequently, Gréber published *the Planning for the National Capital* in 1950, which became the primary strategy to shape Ottawa in the following decades.

Besides establishing a fundamental view that ensured the comfort and well-being of Ottawa citizens in all their activities and basic needs, there were two primary objectives in Gréber's Plan: The first goal was to maintain manageable growth of the city, and the second was to establish a formal image for Ottawa as the Capital city of Canada.

Figure 2.1 Urban Evolution of the Capital Region (1810-1945).

The Greenbelt as Urban Containment

Since the establishment of Ottawa as the nation's capital in 1867, the population of Ottawa grew drastically from a town of 11,800 in 1845 to a metropolitan city of 238,000 in 1945 (Figure 2.1). The rapid expansion and urban sprawl across Ottawa's region resulted in the city's inability to service the urban edge with its existing infrastructure. To address uncontrolled outward development in the rural lands, Gréber proposed the creation of a greenbelt that enclosed the entire Ottawa urban area. The greenbelt therefore served to

preserve the natural environment, but more importantly, it acted as an “invisible containment” of urban development.

According to Gréber, once the greenbelt’s inner urban areas were entirely developed, a series of satellite cities were to be developed at some distance away from Ottawa. “Exterior to the rural greenbelt and at a sufficient distance therefrom to ensure the permanency of a rural frame to the future Capital, other nuclei of populations could be established in the rural zone in the *form of complete self-contained* communities comprising from 20,000 to 25,000 inhabitants.”¹³ Gréber further assumed that the satellite cities would develop their own independent economies and industries over time, thus avoiding reliance on the central city of Ottawa as a source of employment.

The application of the greenbelt and satellite cities concept was not a coincidence, since Howard’s Garden City movement had become a popular practice among urban planners in North America. Clearly influenced by Howard’s ideology, Gréber believed harmonious distribution and decentralization to be the most responsive direction for Ottawa’s future growth.

The Image of a Capital City

Next, Gréber focused on his second objective in greater detail as he attempted to promote a Capital city image that would serve the Parliament, government, and diplomatic, national and international constituents. Such a task was essential to Gréber, as he stated, “A Capital is the *reflection*, the *symbol*, of the whole nation. It is the city of special importance: to every Canadian and to all foreigners.”¹⁴ In addition, the successful

¹³ Gréber, Jacque. Plan for the National Capital. (Ottawa: National Capital Planning Service, 1950). p.191

¹⁴ Ibid. p.157

planning of Ottawa would showcase the city as a proud example to other Canadian and international cities.

However, the appearance of Ottawa was failing to meet this standard at the time of Gréber's survey, as congested traffic and disordered railways were contributing to a negative image of the city. Due to uncontrolled zoning and land-use, the cityscape was obstructed by numerous heavy industries and railway facilities within the urban center. Even though the existence of the rail lines and factories were logical creations as part of the city's growing process, Gréber believed the railways were limiting the potential of many valuable properties and jeopardizing the prosperity of future settlements in the city (Figure 2.2).

Gréber therefore proposed major railroad revisions involving the removal of all tracks from the interior to the periphery of the urban area. Of course, this strategy included the relocation of the Main Train Station—away from the heart of the city (next to the Parliamentary precinct and the Rideau Canal), to a distant location on the south-eastern fringe of Ottawa (Figure 2.3). In place of the existing railways' rights-of-way, a new system of vehicular arteries and parkways was introduced.

Figure 2.2 Existing Railway System.

Figure 2.3 Proposed Railway System.

To ensure a city center that celebrated the pride of the Capital, Gréber envisioned a grand boulevard that connected the Parliament to significant public squares and federal and cultural institutions. The creation of Confederation Boulevard thus aimed to serve the city as a memorable ceremonial route, allowing its visitor to experience the Capital's beauty, culture, and liveliness. Despite the vast scope of work required, Gréber was able to sell his plan to the National Capital Planning Committee and railway companies with the promise of an attractive and orderly future for Ottawa.

Lost Vision

In retrospect, Gréber described his proposal as an ambitious one, but he also considered it too modest from a long term perspective. He advised that "town planning is a component of human geography, and its advancement must be conceived at the rhythm of progress in all domains."¹⁵ Therefore, constant reflection and evaluation of the plan with respect to varying urban conditions was a necessary key to successful planning. Regrettably, it seems such a simple concept was not taken seriously by the implementers of Gréber's vision.

Over the remainder of the last century, much of Gréber's vision for Ottawa has been executed and realized by the National Capital Commission (NCC), a crown corporation that was created by Parliament in 1958.¹⁶ Following Gréber's strategy, the NCC has redeveloped much of the urban core. Its efforts have included: widening and rerouting streets, removal of streetcars and old rail lines, construction of new expressways and bridges over the canal, new parks (Confederation Square) and national buildings (National

¹⁵ Ibid. p.289

¹⁶ Hossé, Hans A. "The Greenbelt and Ottawa's Urban Containment." Ottawa-Hull: Spatial Perspectives and Planning. (Ottawa: University of Ottawa Press), p.95

Arts Center, National Defence Building, Bank of Canada Building). As a result of land-use regulations, the city of Ottawa presents a much cleaner, more organized and respected cityscape than it did during the post-war era.

Moreover, the NCC acquired a ring of agricultural lands around the city to secure the placement of the greenbelt, which aimed to contain further outward development. Many planners praised such decisive action, as a British geographer and land-use specialist, Alice Coleman wrote:

“It is greatly to the credit of the Ottawa City Planning Department and of the National Capital Commission that their urban planners have exercised a great deal of enlightened guidance in advance of need. The establishment of the Greenbelt is a major example of this, and its effect upon the spatial organization of the city appears to have been in precisely the hoped for direction.”¹⁷

However, the greenbelt’s highly anticipated success never came to Ottawa, as the present reality of the city demonstrates. In fact, the role of the greenbelt was never respected as an “urban container” around the Capital Region. Averaging 4 kilometres wide, the greenbelt’s presence did not provide any significant obstacles in terms of distance and traveling time in the free world of the automobile. Suburban developments simply extended beyond the greenbelt and continued to grow in spite of Gréber’s vision. Ultimately, Ottawa’s urban spill-over has never found its way into self-contained satellite cities.

Because of the ineffectiveness of the greenbelt and the lack of planning coordination between Ottawa and its neighbouring rural municipalities, the Ontario government initiated a regional government, the Regional Municipality of Ottawa-Carleton (RMOC), to prepare an Official Plan that would govern the framework of the region-wide land-use

¹⁷ Coleman, Alice. The Planning Challenge of the Ottawa Area. (Ottawa: Geographical Branch, Dept. of Energy, Mines and Resources, 1969), p.55

policy for Ottawa. Targeting Ottawa's urban sprawl outside the greenbelt, studies were conducted to evaluate how the rural expansions would evolve (Figure 2.4).

Finally, the 1974 RMOC Official Plan determined that a modified version of Gréber's intended satellite cities would best direct the growth of these outer communities. According to the Official Plan, five major urban communities would be developed adjacent to the outer limits of the greenbelt, each with an eventual

Figure 2.4 Concepts and alternatives considered to direct Ottawa's urban growth outside the Greenbelt.

Figure 2.5 The Greenbelt as "Urban Containment."

population of 60,000 to 120,000 (Figure 2.5). Moreover, an intercity transit system would be established, allowing these outer communities to rely on the central city for employment.

Clearly, this strategy was a detrimental departure from Howard's garden city concept and Gréber's vision, which specifically instructed the establishment of satellite cities to be placed at isolated, distant locations from the central city, where they could eventually grow as independent entities with their own industries. On the other hand, it is questionable that

had the original garden city concept been actually implemented, whether it would have been able to sustain the unexpected popularity and accessibility of automobiles.

Nonetheless, what happened hereafter marked the pivotal downfall in Ottawa's planning history. The idea of affordable housing, private property ownership and closeness to nature prompted people to move out of the city where they found the cookie-cutter suburban house to be a "better" place to raise a family. Suburban developments thus snowballed outside of the city like series of unstoppable chain reactions. Daily traffic congestion clogged the city's main vehicular arteries and expressways as the central city remained the primary source of employment for suburban dwellers. Facing the rapidly growing pattern outside the urban core, the city finds itself once again inundated by constant demand for additional transportation, infrastructure and public services. To this day, Ottawa has yet to find a response to this new era of decentralization—a mutated utopia that embodies only one aspect of the ideal garden city.

Ottawa in the 21st century

Despite the City's misappropriation of Gréber's vision, Ottawa with a total population of 774,072 is presently the fourth largest urbanized Canadian city following Toronto, Montreal and Vancouver.¹⁸ Approximately 7 million tourists visit the Nation's Capital annually, making tourism the second largest industry in Ottawa.¹⁹ Furthermore, surveys and statistics indicate a strong potential of future growth in the Capital Region. By the year 2021, Ottawa is estimated to become a mega city of 1,192,000...²⁰

¹⁸ Based on the 2001 Census

<http://ottawa.ca/city_services/planningzoning/facts/counts/counts_jan_03/index_en.shtml>

¹⁹ "About Ottawa," The City of Ottawa <http://www.ottawa.com/about/main_e.shtml>

²⁰ Ottawa 20/20 Official Plan <http://ottawa.ca/city_services/planningzoning/2020/op/vol_1/2_1_en.shtml>

The optimistic-never-ending-sweet-talk of the Capital goes on and on. Do these projections and numbers really reflect the *true* image of our city? Have we paused and thought about *how* the city is growing?

Undeniably, Gréber's vision and the NCC's execution have contributed to a better Ottawa. However, no plan is ever perfect. For better or for worse, Gréber's intent to remove disorganized railways and streetcars for a cleaner cityscape have accelerated the city's dependence on cars, thus unexpectedly promoting further urban sprawl. Today, the physical framework of our car-oriented city is a disturbing reality. Yet, the fact that the automobile has changed our culture does not grant cars the power to dictate the planning of our city.

Fixated upon obsolete principles of Gréber's vision, the City continues to uphold the grand scheme of building the image of the *Capital city* through the construction of numerous cultural institutions. Although these new buildings bring significant cultural, educational and social value to the city, it is questionable whether the city needs yet another museum. On the contrary, what the city needs is to regain focus on the fundamentals of planning, on the basic component that *makes* the city—its people. Instead of strategizing on how to attract more tourists to *visit* the city, Ottawa should examine on how to attract people to *live* in the city.

Caught in the midst of this silent urban crisis, how should the architect respond? Should one abide by existing building and planning codes that have become mired in bureaucracy, and continue to build under the influence of reactionary political and economic forces? For better or worse, Gréber's plan had a significant influence on the development of Ottawa. However, clearly it has long outlived its usefulness. Surely it is

high time that a new vision for the city be formulated. The following chapters, will speculate upon a variety of utopian ideals through a series of explorations that investigate the architectural potential of our urban core—Downtown Ottawa.

3: Reanimating Downtown Ottawa

What would it take to get someone to move from Kanata to Ottawa's downtown? Downtown would be attractive to a suburban dweller for its vibrancy. It is a place of immediate and intense sensory experience; it is an entertaining and exciting place to be. It is the heart of our civilization, where social, cultural, intellectual, economical and political interactions collide with each other and spark new directions in our constantly evolving social conditions. But Downtown would also have to appeal to the suburban ideals of privacy and individuality; the city would also have to appear organized, safe and clean. All in all, Downtown would need to convince these people that it is *the* place to dwell, to live and work, and raise a family. This is hardly a description that one would associate with the current life in Ottawa's downtown.

Immediately south of Parliament Hill, adjacent to Confederation Boulevard and the Rideau Canal, and a few steps away from the Byward Market, Ottawa's downtown is the city's financial center, surrounded by numerous easily accessible civil and cultural institutions. Given its advantageous geography, "the heart of the city," however, is not a frequent compliment that Downtown Ottawa proclaims. To many citizens and visitors, the feeling of "downtown" is most often associated with the vibrant neighbourhood of the Byward Market or the Parliament buildings, rather than the dreary financial business district. "Every citizen has had long associations with some part of his city, and his image is soaked in memories and meanings."²¹ Obviously, Ottawa's Central Business District has little significance or meaning to its citizens.

Today, overshadowed by neighbouring attractions, the area bounded by Wellington

²¹ Lynch, Kevin. The Image of the City. (Cambridge: Technology Press, 1960), p.1

St.-Gloucester St. (north-south) and Elgin St.-Bay St. (east-west) remains relatively mute and without character. Due to the City's strict, inflexible zoning and fixed land-use, the majority of Ottawa's downtown is occupied by office and government buildings. Very limited residential opportunities exist in this valuable urban core which is slowly losing its own identity and vitality. Frankly, downtown Ottawa is a hollow shell that houses people as a place to work; nothing more. Like a ghost town, the district only comes to life during weekdays from 9 to 5, and remains deserted the rest of the time. During holidays and weekends, the empty district is visited by a few disoriented tourists wandering around, aimlessly searching for a way out of the static cityscape.

Besides countless office buildings, downtown Ottawa's struggle is further reinforced by the numerous parking lots that populate the ground plane. Among 93,000 downtown office workers, over 60% are suburban commuters who drive to work.²² Although the public transit system serves some suburban commuters, most people still prefer driving to work, as the idea of going to places *by car* is highly "celebrated" as *the* way of life, in keeping with the mentality and physical framework of suburbia. As a result, a constant demand for more parking spaces persists and remains as a significant constraint to new developments in the downtown area.

Vacant Spaces as Opportunities

In the modern vehicular age, parking lots have become an inevitable requirement in urban design. While modes of transportation, accessibility and efficiency are becoming key concerns of metropolitan cities, the dominance of automobile traffic is slowly taking

²² "Ottawa Counts," The City of Ottawa.

<http://ottawa.ca/city_services/planningzoning/facts/counts/counts_apr_04/index_en.shtml>

precedence over the importance of city life. Throughout the city, the existence of parking lots has provided us with convenient solutions as temporary car storage, but they have also deteriorated the cityscape and caused serious fragmentation of the urban fabric. Nonetheless, these parking lots hold a great potential if they are considered as a group of sites that contribute to the city as a whole, instead of individual sites designated for a particular building. Silently serving our car-oriented culture, these vacant spaces stand idle, awaiting activation and reinterpretation as valued contributors to the urban landscape.

Figure 3.1 Parking Lots in Ottawa Downtown. Indicated in red highlight, the immense number of scattered parking lots within the urban core reflects the seriousness of the city's fragmentation.

Project Description

Recognizing the City's failure to address the potential of these parking spaces, the thesis design engages a utopian exploration that seeks new definition for the downtown business district. The design project is developed over three phases; each phase exploits the potential of these vacant sites from a different perspective.

The first project includes a series of graphical explorations that represents a search for utopian ideas for Ottawa. The second project writes a fictitious story as an attempt to visualize these ideas through an imaginary city. Thirdly, the characteristics represented in the imaginary city are extracted as inspirations to develop a building design on selected sites in the urban context of Ottawa.

I have chosen to approach the project through this process because I believe that invoking utopian ideals in the design process leads to an enhanced and more comprehensive understanding of the architectural project. It requires a broader spectrum of thinking that takes up the urban issues of these vacant sites in relation to the city and its people and considers these in a larger cultural and social context. Instead of initiating these investigations from a particular vacant site and letting the design grow outwards, this process allows me to establish an overall ideal vision for the city, which then directs the finer developments of the site at building scale. This way, the building design not only relates to its specific context but also becomes a model for other developments in the city.

Project One: Ideas, Scenarios, Visions

The initial project is executed through a series of graphical explorations of utopian urban visions. Each collage and drawing is accompanied by an annotated description that poses questions or ideas originating from my reactions to the city and site(s) investigation. Building upon physical characteristics of Downtown Ottawa, possible strategies and programs are formulated for the idling parking lots. However, the specific details of the visions are purposely left unidentified, as these explorations need to remain in their raw utopian form in order to provide an imaginative framework for the subsequent story project.

Vision 1: What if the streets were full of people?

Figure 3.2 Reactivating the Ground Plane.

The idea of strolling down bustling streets of Downtown Ottawa on a Sunday afternoon requires an enormous leap of imagination. The city is lifeless. Standing on the empty streets of downtown, one senses a strangeness and unreality in the surroundings that is overpowering. The city presents a surreal image: at the brightest time of the day, not a single person is in sight. Like a nightmare that haunts one forever—Block after block of seemingly vacant buildings; there is no one. Is this Utopia? A place without a place; Ottawa's Downtown is truly a No-Place.

However, even if the streets *were* filled with people, would the overcrowded streets be enough to restore the city's vibrancy? Can we simply expect a lively cityscape by removing the vehicular traffic and replacing it with pedestrian traffic? Given the retail failure of the Sparks Street Pedestrian Mall, which remains dead outside of business hours, we can be certain that a complete pedestrian use of the streets is not the most optimal solution to revitalize the ground plane.

At the same time, in the midst of our society's obsession that thrives upon productivity and efficiency, the city's progression is being judged through the distorted lens of our consumer-driven culture, where everything has to be bigger, taller and faster to be considered *better*. The common modern motto, "time is money," best exemplifies such a misleading mindset of our society—less time spent on the road means more money earned. Systems of city movement therefore take priority over the quality of street life with more car lanes and wider expressways. As a result, we have created a city that discards humanity. No one seems to feel any better, happier or act friendlier in the city that forgets how to slow down. No one seems to be satisfied with what they own, where they are going, and even who they are as people.

The pace of our streets needs to slow down; car lanes need to be reduced and pedestrians need to feel comfortable walking on the streets. We need to rethink *who* and/or *what* has the rightful claim to the streets. A balanced arrangement between cars and people must be conceived.

Vision 2: What if there was a vibrant Underground Life?

Figure 3.3 Underground Life.

Examining the scattered vacant lands throughout Downtown Ottawa, I wondered if an inhabitable underground connection could be established between these idle spaces. Since these sites are situated within the most valuable real estate district of Ottawa, the untapped possibilities of occupying the underground world is equally as important as the focus directed toward new developments aboveground. Perhaps the city's underground offers a different role than the aboveground. Perhaps the underground becomes a place of nightlife, where people can escape from the stress of work, and release their pressure through entertainment and pleasure. Perhaps the underground provides a place of meditation, where people take brief respites from their busy schedules, and restore their spiritual minds through relaxation. Or, perhaps the underground simply becomes an extension of the aboveground, providing extra spaces to enhance existing functions of the city. Essentially, numerous possible uses of the underground lead us to another dimension of appreciating the vacant sites' value.

Vision 3: What if cars were no longer permitted in the downtown core?

Figures 3.4, 3.5 and 3.6 explore some commonly held beliefs regarding strategies to improve the urban environment. Taking these ideas to their logical conclusions allows one to formulate a clearer attitude with respect to certain *misconceptions* about mechanical movement systems and vehicles, and the role that they play in the life of a city.

Figure 3.4 Underground Vehicular Passage.

What if, the automobiles had a designated underground passage in cities? The streets aboveground would be freed from vehicular dominance, and could return to pedestrian use. Trees could be planted all the way across the streets, transforming the asphalt corridors into a promenades of green gardens. Under the shade of the trees, people could find a place to relax from work without the noise of the traffic. Booths and outdoor cafés would set up in the middle of the promenade, providing pedestrians with a place to sit and chat, or simply act as a visual reference on the street.

But people are fundamentally lazy. They don't want to walk too far. It would take too long to get to places.

Figure 3.5 Alternate Mode of Movement.

Imagine buildings connected by multiple escalators and express walkways that accommodate short distance travel in the city. Even though such cityscapes would possibly appear to be active and engaging, would they really contribute to improved public interaction?

Towards a *lively* city:

Production... Always... Speed...
Movement... A to B... Work...
Efficiency... 24/7... Now!

Figure 3.6 Speed of Life.

There is no doubt that some find that extreme speed and the hustle and bustle of urban life can be very exhilarating. The intensity of cities such as Hong Kong, Tokyo, Taipei and New York can inspire an undeniable adrenaline rush. But what happens when the adrenaline subsides? Is speed alone enough to sustain a healthy city? Can it actually become a deterrent to a thriving urban condition?

Vision 4: What if the downtown core were filled with trees?

Figure 3.7 Downtown Ottawa's Lack of Nature.

This drawing illustrates the current condition of Ottawa's greenery and parkland coverage. Clearly, Downtown Ottawa stands out as a single entity in the middle of the drawing with very little dedicated green space. Ironically, the City promotes itself as the Capital that celebrates its beautiful natural setting, but the emptiness of the downtown area proves otherwise. No wonder many people have chosen the suburban life, where one can at least maintain contact with nature. Clearly, there is an urgency to restore nature back to the city.

Figure 3.8 The Green City.

As a response to the absence of natural settings in Downtown Ottawa, this drawing illustrates a vision for a Green City. The intent of the Green City is to convert the vacant parking lots to public parks and private gardens, depending on the size of each lot. The use of these green spaces is not restricted to grade; some may be raised as roof garden while others may be sunken as public meditative space. Furthermore, these green spaces are connected by green promenades that encircle the downtown area to achieve an overall sense of continuity. This way, the urban core embraces a new identity, and its vitality is woven back to the rest of the city. However, as history demonstrates, parklands without designated users or purpose can easily end up as deserted no-man's land (witness the numerous failures of poor imitations of Le Corbusier's ideal city). These green spaces must be properly programmed so that people can integrate them into their daily lives.

Vision 5: What if the canal was extended into the downtown core?

Figure 3.9 The Waterway City.

Being the world's longest outdoor skating rink, the Rideau Canal offers visitors and citizens of Ottawa a lively destination for many winter activities. In addition to its historic and recreational values, the Rideau Canal acts as an alternate travelling route for people visiting the downtown area. *What if* new waterways were created along the downtown street grid and connected to the Rideau Canal? The vacant parking lots would become pockets of outdoor skating rinks, and the Confederation Park would become the hub of movement, as a central point of interaction between people entering and leaving downtown. Programs such as visitor pavilions, restaurants and resorts would be inserted into these new urban spaces, thus transforming downtown as an attractive destination. Ultimately, the waterways offer an alternate public movement to the city—a new moving passage that extends the vibrancy of the Rideau Canal within the downtown core.

Figure 3.10 What if all of these visions were combined?

Based upon two previously explored scenarios, the third scenario proposes a balanced combination of waterway and greenery in the city. On this new urban fabric, the waterways continue to serve as an alternate passage of movement, circulating people in and out of the urban core. Opportunities for new development occur at the junctures where waterways meet green spaces. Mixed-use buildings of residential, commercial and retail spaces are inserted into these locations, adjacent to the waterway's pavilions, restaurants and cafés. In addition, the majority of existing vehicular traffic is maintained along the city grid, while some streets are shared among pedestrians, waterways and automobiles. The number of automobiles travelling through downtown is kept at a limited number, thus ensuring a smooth traffic flow and encouraging the use of public transportation. In the end, a sensible and environmental downtown is created by the animated unity of existing vacant spaces.

Project Two: City of Awatto

Inspired by Sir Thomas More's *Utopia*, the second project I undertook was to create a fictitious city of my own. The name of "Awatto" is simply the reversed spelling of "Ottawa," similar to Samuel Butler's *Erewhon* for Nowhere.

As a tool to free my imagination, fabricating this story (through text, models and drawings) allowed me a brief escape from the practical constraints and context of a real city. It allowed me to explore and establish my own vision for a perfect city, which in turn inspired a utopic strategy for Downtown Ottawa.

The story describes a young professional's journey in Awatto. As someone who grew up in the suburbs, the protagonist explores the utopian city for the first time. While parts of the story may seem irrelevant to a vision for Ottawa, they are necessary components that set the stage for the character, mood and atmosphere of the fictitious city.

The City of Awatto

by Eric Li

[ONE]

3253, 3254, 3255...

Counting never works for me.

Can't sleep.

3:21AM.

I can't remember how long I have been lying on the bed. It must be hours. My body feels sore but my mind is calm and clear. *Where am I?* A frequent thought when I wake up in the middle of the night.

Eager to discover my whereabouts, I open my eyes and sit up. I begin to inspect my surroundings. *Good, I am on my own bed.* Yet the room feels awfully unfamiliar.

Where am I?

In the dark, I can sense the solidity and heaviness of the wall. The feeling reminds me of my childhood when I once peeked down into the water well at my grandparents', while helping my grandmother carry some fresh water.

I was told not to bend over against the well for my own safety, yet my curiosity always superseded my rational sense.

Edging myself on top of the well, my sight carefully followed the empty bucket as it descended, tracing its path along the out-stretched rope. Quickly, the wooden bucket faded and blurred into darkness. All I could see was the skinny line of rope slicing into an endless black hole of unlimited depth. Out of reach.

Down below, the fading tip of a nylon rope was the only connection to the world of the Unknown. *The well was a secret passage to the underground world where the others lived... The underground was a private terminal that linked to countless waterways, interconnected throughout the world... Anyone who sought the secret passage to the underground would receive greetings from the 'others' and be granted unlimited access to anywhere in the world... This well, was my entry into an adventurous dream and—*

Just as my imagination would begin to be drawn into the starving black hole, my grandmother would suddenly pull me away from the well, and admonish me for my misbehaviour.

Back to reality.

The reoccurrence of my memory of the well prompts me to stand up and reach out towards the darkness. Waving my arms aimlessly in the air, I hope to at least touch something, and somehow redeem my childhood imagination in return.

Nothing. A feeling of emptiness emerges within me.

As I take a step forward in doubt, an unexpected light comes flashing into the room, sweeping across the window, and fades away slowly. Sudden exposure of the light is a harsh jolt for my eyes; luckily, I take the chance and quickly scan the room. For a brief moment, I regain some control of my position, feeling somewhat satisfied.

The surprising light reveals my surroundings and the silent wall in front of me, which stands about eight feet away. Reminiscent of looking into the mysterious well, the light uncovers nothing significant on the black wall before me. No decoration. Not a painting nor any fixture. Nothing except a low, heavy humming noise behind it.

I realize I am standing in a room with a high ceiling, held up on three sides by heavy walls, the final side on my left remaining transparent. This wall of glass, which just moments ago spared me a brief source of vision now appears as a dimmed, unsympathetic mirror—cruelly reflecting the image of a helpless, disoriented young man. However, besides my own reflection, a dot of flashing light beyond the glass faraway catches my attention. The light is flashing slowly at a constant interval.

Then, as if the light source is reading my mind, the flashing light slowly returns to the room. More surprisingly, the light calmly floods into the room, unlike its last abrupt visit. In the warmth of the light's second coming, I am able to take another look at the brightly-lit space. Between the flashing lights and shadows, the image before me clears up all my questions, as I see countless packing boxes stacked on top of each other at the opposite end of the room. Suddenly, I remembered where I am—in my new apartment!

I must have passed out. Gazing over mountains of boxes, I remember the exhaustion of packing up my entire life in the past 48 hours.

The flashing light fades again, and my new home returns to darkness. It does not matter. Unmoved by the light's disappearance, I walk in the dark freely towards the wall where I spotted a light switch above the boxes seconds ago.

Fully awakened now, I stand in an evenly-lit, lofty space with a king-size bed, and traces of my existence in about fifty unpacked boxes.

A flourish of images and memory is pounding my head all at once—the long hours of flights and transfers, the gracious job offer, the moving company, boxes, tapes,

bubble-wrap, and me—all here in this newly finished bachelor apartment in this mysterious city called Awatto.²³

Figure 3.11 The Apartment.

[TWO]

I was enticed by an *irresistible* offer.

An offer that paid three times more than my previous job, including complete coverage for all my moving and travel expenses, and an apartment unit for free, located in the heart of the city.

There was no way I could say *No*.²⁴

²³ Broadly advertised in the suburban and rural communities, the city of Awatto is represented as a city of opportunity. Aimed to attract people to live in the city, the City promises its new comers a new beginning and diverse lifestyle within the urban core.

²⁴ To maintain the vibrancy and productivity within the urban core, the City of Awatto encourages the private sector employers to attract new employees with an offer of free housing in the city and related moving expenses provided by the government.

The strangeness of the room does not vanish when I switch on the light. For a second, I doubt if I have made the right choice. The unit is obviously not as spacious as my old country house but it seems large enough for me once I get use to it. In addition, the high ceilings make my world seemed less compressed.

The room's silence reminds me of the quiet nights I spent in my barn, where its comfort and stillness allowed me total concentration to write. Oddly, there is no sound of traffic. Despite the fact that it is 3AM in the morning, I can hardly recall any city that actually sleeps at night.

What appeared as a dark, blank wall moments ago now shows its subtle rough face and earthy texture under the light. At first, I think the uneven finish of the wall is simply bad craftsmanship. However, a second closer look of the wall reveals something else embedded within it, contributing to its irregular surface.

Unsure of the wall's composition, I step forward and placed my palm on it. *It is warm!* An unexpected wave of warmth radiates through the tips of my fingers. Gliding my hand across its heated, bumpy surface, the heavy wall gives me a welcoming surprise, despite its unusual appearance.

On the concrete-like surface, I noticed several pieces of translucent pebbles embedded within the wall. The placement of these amber-coloured, coin-sized pebbles seems random, but are spaced more or less evenly across the wall's surface. Looking up along the wall in amazement, I see a widespread continuation of the pebbles across the ceiling. Different from the ones embedded in the wall, the ceiling pebbles are glowing steadily, illuminating the room. *Lights! These tiny pebbles are actually the light source of the room, integrated into the structure!* Astounded by the technological advancements of my new apartment, I stare at the earthy wall and its massive presence.

After all, the wall needs no decorative elements; it alone is a vertical sculpture of dancing lights, illuminating and heating the room silently.²⁵

Adjusting the light switch, my assumptions for the wall and ceiling pebbles proves to be correct. I am able to compose various combinations of lighting scenarios and pattern for the room.

In a fully lit condition, the whole ceiling face and the top section of walls discharge a full, bright luminosity that imitates the warmth and comfort of sunlight. All the light-pebbles merge as a uniform light source across the room, releasing a vivid but soft glow like

²⁵ The building technology of Awatto is far more advanced than other cities in its time. The earthy wall is a building composite that combines structural stability, luminance and heat/thermal mass into one component. Similar to concrete, this composite takes shape through a process of casting and curing. Once finished, the product is lighter and much more durable than concrete or steel. Its high compression and tensile strength allows for the construction of long span bridges or skyscrapers, without limitation of natural causes such as wind force or seismic activity.

daytime. Without any distraction in sight, I am able to examine the room in every tiny detail.

Releasing another switch permits the control of the light intensity from the pebbles individually, resulting in fascinating shadows being cast from the walls' and ceiling's rough surface.

In the lowest setting, the room returns to almost complete darkness. Tiny moments of radiance from each light-pebble on the ceiling are still noticeable. Surrounded by shadows, the glowing pebbles resemble twinkling stars in the night, dancing above me. Under the relaxed atmosphere created by the room, I imagine myself camping out in the woods, counting the stars on a summer night.

My daydream does not last long. The dimming of the room enhances the flashing light outside the window. Once again, the flashing attracts my attention toward the gigantic view outside the glass wall. As I look outside, the dot of flashing light has enlarged from my previous encounter, illuminating its surrounding. At a distance about two blocks away, I can see vague forms of building structures that surround a open green space. In the middle of that green space, the dot of light is flashing steadily.

All of a sudden, I feel an urge to investigate what I am seeing through the glass. My inner childhood curiosity is starting to formulate stories around the mysterious flashing light from the street. Even though there are still a few hours before dawn, I decide to venture out and begin my day of exploring the city. Turning away from the window, I snake my way through an open passage between the boxes and find the shower.

Figure 3.12 The Passage.

[THREE]

3:42AM.

After locking the door of my new world behind me, I take a long breath and head out towards a narrow corridor. Unable to recall my last decent meal, my stomach is protesting for food. *I have to find something to eat.*

The walls and the ceiling of the corridor continue to be the same cozy glowing composite as the interior of my apartment. The corridor consists of the earthy wall on one side, and a series of circular openings on my left. Through the circular openings, the distant flashing light glows in the dark, tempting me in that direction. At the end of the corridor, a subtle, warm radiance welcomes my approach. A light-pebble sign on top of the doorway illuminates: F18. *I am on the 18th Floor...*

Here is the elevator I used when I first arrived at my apartment. Conveniently, a subway platform is located below my apartment building. Apart from the exhausting air travel, I recall the trip from the airport to my apartment being effortless.²⁶

²⁶ All buildings in Awatto were built to provide access to major transportation systems. Nearly 90% of the citizen work and live in Downtown Awatto, since the city's infrastructure provides them flexible convenience for their traveling needs.

Walking towards the elevator, I unconsciously place my hands into my pockets; an old habit of mine, checking the contents of my pockets to make sure that I have brought my keys and wallet. Toying with the keys inside my left pocket, a sense of unease hits me as I hold the light-weight key chain in my hand. I suddenly remember that I no longer own a car. I sold it before coming to Awatto. Having previously been utterly dependent on my car, I could never have imagined a day when I would leave home without it. However, the associated thought of endless boring drives to and from the city on congested highways is not something that I will miss.

The corridor expands into a spacious elevator lobby. Standing in front of the elevator doors, the thought of my car quickly evaporates. I am confident that the elevator will lead me to the subway station, from which I will probably be able to navigate the city. However, I doubt that the subway will be open this early. The stainless elevator panels seem uninviting as the doors are in perfect alignment and tightly shut.

I notice a set of French doors in the lobby, situated perpendicular to the elevator. They appear to be an access to the outdoors, perhaps a patio. The alluring light continues its flashing through the doors' glass paneling. Given the choices of the two paths, I walk toward the French doors without hesitation.

A refreshing breeze of air floods towards me with a scent of spring as I open the door. The path before me is planted with rows of tulips on both sides, and laid with green grass in the middle. The sudden transition between the elevator lobby's stone flooring to the soft lawn feels awkward but is a pleasant surprise. "Patio" is an understatement to describe my tranquil surroundings. It is more like a secret garden. Unlike the corridor inside the apartment, the path is surrounded with thick greenery; none of which, however, I am able to name. Five empty benches are my witnesses as I wander along the grassy carpet.

Then, the peaceful silence is interrupted by a low, mechanical sound behind the trees. About a minute later, the green trail broadens to an open area. It turns out to be a kids' playground: swing set, slides, climbing bars, and a sandbox. Under the pale moonlight, these lonely objects seem lifeless without children's laughter.²⁷

²⁷ The "Green-Garden" is one of the mandatory housing requirements in Awatto. The requirement states that all residents must be provided with access to natural, green space within 100 feet of their units. As a result, "floating gardens" are common features of high-rise residential buildings in Awatto. Depending on the building occupancy, multiple platforms of the garden would extend out from the residential structure in various sizes. Each floating garden would serve up to 4 or 5 floors of residents. The uses of these gardens are diverse and flexible. For recreational purposes, the platform includes scenic gardens, green trails, children's playgrounds and a multi-functional court for sports activities such as badminton, tennis, or basketball. Some floating gardens also contain a swimming pool. For social functions, the floating-gardens act as public spaces that host community events for the residents and visitors.

The whirling sound comes from across the playground. It originates from a long pair of sloping steel tube structures, half-enclosed with clear glass panels. Inside the scissor tubes, a set of escalators is in operation, as the metallic treads glide into the other end of the tube. The up-rising escalator prompts me to look upward, and I realized that there is another level above me, about four stories higher. The extension of this escalator is probably the longest I have ever seen.²⁸

The thought of solving the mysterious flashing light keeps ringing in my head, so I decide to take the descending escalator. Not knowing where I am heading, the deep steel tube controls my fate. The moment I step onto the escalator tread, its mechanized movement makes me feel like manufactured goods being shipped on an assembly line. Being processed.

I come to about four stops before I finally reach the ground level. Each stop of the escalator leads me to a playground and garden that is similar to the one outside my apartment floor.

Figure 3.13 Floating Garden and Exterior Escalator.

²⁸ Connected by exterior escalators, most floating gardens are publicly accessible, except for the private gardens on higher levels, where the gardens are smaller and attached to individual units. These private garden units are not specifically designated for the wealthy elite, nor are they any pricier than the regular units below—since the “Green-Garden” requirement prohibits *people’s right to green spaces* to be valued as a real estate commodity. The owners of these private garden units are usually gardening enthusiasts who enjoy planting with their own hands. Most certainly, other residents of the same interest without private gardens can access their own gardening spaces in the general floating-gardens. Therefore, every floating-garden has a distinct variety of greenery, personalized and maintained by the residents.

Figure 3.14 The Cityscape.

[FOUR]

The slow descent of the escalator shows me a clear view of the city for the first time. As expected, no one is on the street. However, the surreal image of empty streets still bothers me. *There has to be someone somewhere...*

Unlike the orderly street grid pattern I know of other cities, the streets of Awatto are quite different. In most cities, the typical width of an urban street is approximately ten to twelve meters wide. Within this section between two buildings, the common configuration of the street consists of pedestrian sidewalks on the edge, and two or three lanes of car traffic in the middle, running in opposite directions.

The streets of Awatto, on the other hand, have a unique presence.²⁹ First, it would be more suitable to name the streets as “walkways,” since none of them are more than two meters wide. Even the widest walkway seems too narrow for a car’s passage. Secondly, the street appears that, an earthquake has shaken up the ground plane, and split it open into multiple levels of walkways at various heights, ranging from below-grade to three-storeys above ground. In the ten-meter gap between two buildings, there are five separate walkways that run in parallel directions.

The top two walkways are located adjacent to the building, with intermediate bridges connecting them. The lower two walkways are covered by greenery, as passages to a park. The middle walkway, the one which I have landed on, is the widest of the five. Half sheltered, the middle walkway is an outdoor galleria, exhibiting a series of abstract sculptures. Straight ahead of me, the flashing light is shining from a pavilion structure at the far end of the walkway.

Gazing across the cityscape, “a chaotic sense of order” is the only rational term I can think of to describe the excessive dominance of the walkways and the richness of buildings. It seems as though the city has grown in an impromptu fashion.³⁰ Everything feels ad hoc, but at the same time, everything seems to be in the right place...

²⁹ Years ago, the planning of Awatto was predominantly based on its transportation needs. The city strongly believed in private ownership and individuality. Therefore, everyone owned a car, and adopted cars as their primary mode of transportation. No one used the public transit system as it was poorly maintained and disintegrated with the city’s infrastructure. To meet the city’s vast demand, the streets and highways were constantly being constructed and expanded. Such obsessive focus on transportation finally came to a stop when one day the city realized its heavily polluted environment was endangering the health of its citizens. Upon its awakening, the city introduced new laws that emphasized the creation of a better quality of life as its primary revitalization goal. Consequently, cars were banned and streets were torn apart. “People” became the primary focus of Awatto’s planning. Immense numbers of trees were planted to bring nature back to the city. Parking lots were converted to scenic gardens. To maintain accessibility, pedestrian-walkways were created above ground for short travel; subway systems were revamped and integrated with new buildings as well as existing major nodes for longer distance travel demands.

³⁰ “Organic Growth” is the main principle of the new planning of Awatto that specifies how new buildings are to be constructed. The regulations of Organic Growth, however, are rather flexible. As long as the following three requirements are met: *Sensibility*, *Mobility*, and *Expandability*, new buildings may be built freely in any shape, form, height, occupant density, program use, and exposure to natural light. 1. *Sensibility* refers to the responsibility to nature and response to site surroundings. New construction must not disturb existing natural settings, and must provide sufficient green/public spaces for future occupants. 2. *Mobility* is the key for a city to function properly. People movement must be provided with ease and convenience by/during the new construction. 3. *Expandability*. Given the possibility of future demands of the city, the new construction must anticipate, and provide “room to grow,” whether the demand is for extra housing, offices, or public spaces, etc. Finally, the construction of new buildings must contribute and benefit the

Along the walkway, I recognize the same earthy material used for my apartment wall on the building façades, peacefully emulating the starry night. I cannot tell whether one building is a commercial office tower or a residential condominium. The façades hardly hint at any specific use or type of building. When I am looking up at an office building, part of the building exterior resembles residential balconies with floral pots; just as I am looking at a residential unit, a retail sign appears a level above it. The most distinct feature of all the buildings though, is their heavily planted greenery.³¹

Finally, I reach the end of the walkway. The termination brings me to an open public square, where its neatly trimmed lawn and well-maintained flowerbeds offer a decent place for a relaxing afternoon picnic. But none of it matters as my eyes are caught by the glimmering canopy structure before me. Backed by a wall full of vines, the red, angular shaped canopy announces as a welcoming entrance. Underneath the canopy, the flashing light is radiating outward, sharing its brilliance with the city. A downward sloping ramp leads to the entrance. In a haste, the outline of my body fades into the light...

Figure 3.15 The Entrance.

overall vitality of the city.

³¹ As a result of Organic Growth, Awatto's buildings looked similar one to another; yet, no buildings are ever identical. Since there are no fixed specific building uses, the design of the buildings adapt to mixed programs in order to meet the city's ever-changing social and economic demands. Through constant expansion and additions, it is possible that one single building serves as a place for multiple purposes: food, shopping, shelter, transportation, education, work, recreation and entertainment.

[FIVE]

The moment I follow the glimmering light down the ramp, my stomach complains once more. But my impatience to find food quickly vanishes when I hear voices of people chattering from the distant end of the tunnel. As I approach, the sound grows louder and clearer; it is a mixture of people talking, bargaining, and music playing in the background. Passing the threshold, the walls and ceiling of the tunnel disappear. Suddenly, I am walking along a broad walkway, which spans across a grand vertical space bridging open and below.

Surprised by the unexpected exposure to a new surrounding, I immediately lean over the railing and carefully examine the space from top to bottom. Up above, an omni source of light penetrates the translucent ceiling panels, emitting a bright, vivid glow. The warmth of the light feels so natural and comfortable, that did I not know that it was still dark outside, I would probably mistake the artificial light for the sun.

Apparently, I am standing on the topmost level of the walkways within an enormous cylindrical open space. Looking down, how deep this open space extends into the earth, I cannot tell. The view below stuns me like nothing I could have anticipated; it is a different world completely, compared to the peaceful scenery outside the tunnel. At last, I have found the source of voices and music I heard earlier.

Figure 3.16 The Underground.

The open space is layered with multiple levels of walkways, each connected by a set of stairs. Some walkways are aligned in the same direction while others cut through the giant vertical void at random. Where the walkways collide with the wall of the cylindrical space, sets of doorways appear, as entrances to other tunnels. Some walkways have more than two doorways at each end as they split midair to a third or fourth passage. What occupies these walkways is the most intriguing sight I have seen all night—they are packed with people, shops, cafés, booths, patios, fountains, green gardens and pavilions.

On one walkway, people are chatting, enjoying their drinks on a patio outside a café. A playful rhythm of music from the café accompanies them. On another level, people are bargaining prices over household items with the merchant while others are reading books on the long bench in the garden. In some ways, the walkways remind me of the liveliness of a traditional market.

Fascinated by my new discovery, I recall a sense of familiarity based on distant memories. The Underground. The City of the Unknown. The imaginary world I have always dreamt of in my childhood actually exists right before my eyes! Before I know it, I am already walking down the stairs, eager to explore this unreal place.

As I wander along the walkways, no one seems to notice my presence as a stranger in the city. Some nod with a friendly smile when I make eye contact, but everyone simply resumes whatever they were doing. Passing by several booths that sell fresh fruit and vegetables, I come to a deli at the corner of an intersection. Finally I have found the place to satisfy my insistent stomach.

The deli is small but cozy; it can probably seat only six people. Besides the charming cook, I am the only customer. Regardless, it is nice to have someone to talk to. I order a bowl of soup and a turkey sandwich, and explain to the cook that tonight is my first visit to Awatto. The cook, who turns out to be the owner of the store, is excited to meet a newcomer like me, since he is also an immigrant to the city. While I am enjoying my meal, the owner kindly shares his insights on Awatto with me.

About 8 years ago, the deli owner moved to the city of Awatto. Friends told him that Awatto was a city full of opportunities; that it was constantly growing, requiring increased services, and that he would be able to make a good living there from his skills. Like me, the owner had lived his previous life in the suburbs, and had great doubts about living in the city. He questioned whether the heavily polluted, crowded and noisy city life would be the best choice for him. However, he was tired of living the predictable suburban life; tired of looking at the boring, empty streets in his neighbourhood where he never saw anyone occupying the sidewalks. Though he owned a decent house with front and back yard, he never found any real use for these spaces, except the toll of mowing the lawn every other week. Besides, he hardly knew his neighbours; only by name. The only times he would see his neighbours were when they were entering or exiting their garages.

After a brief period of internal struggle, the owner decided to abandon the life he hated and decided to take his chances on Awatto. Without knowing much of the city, the owner

arrived at the city and was amazed at what he found. Unlike what he had imagined, the city walkways were exceptionally clean and decorated with numerous beautiful gardens of greenery, fountains and artworks. Moreover, he was intrigued by the diverse functions and programs inside the buildings and impressed that he could find places that served most of his daily needs, such as cafés, shops, theatres, restaurants, markets and pharmacies within walking distance. There were also offices of professionals such as lawyers, doctors, dentists, engineers and architects, within close range of his new neighbourhood.

Furthermore, the convenience provided by the city's advanced transportation system set him free—he could literally travel between places via closely interconnected subway networks, without the hassle of searching for parking. On his third day living in Awatto, the deli owner sold his car without hesitation. The car was no longer a necessity in his life.

In addition to the subway system, the owner continued, there is a series of waterways that provide people with a scenic route to explore the city. The waterway network connects the major civil, cultural institutions and parks as an alternative leisurely mode of travel. During the winter, parts of the waterway above-ground freeze and are transformed into public skating canals for recreational use.

When I question the owner about the Underground world, he describes what he has learnt of the city's past: At one point, the land of Awatto was completely occupied. There was no more vacant land for new development. Instead of growing outward, the development of the city continued downward, into the earth. It was believed that building the city downward would maximize the potential of existing land, and maintain the urban core's density and vibrancy. Building upward was the city's secondary option but the city did not want to compromise its outdoor spaces' exposure to natural sunlight. Of course, such an ambitious task required an enormous budget and a substantial amount of time, as well as a proper management system that could delegate the details of the construction process. Thankfully, the citizens recognized the benefits of building the underground city, as it would introduce a substantial amount of additional inhabitable space to the existing urban core. As a result, the Underground city not only achieved what it set out to do; its development also reconnected existing buildings below grade and revitalized the spaces between buildings with a variety of activities. Today, the city continues its underground expansion projects.

I ask the deli owner why there are so many people awake in the middle of the night, occupying the underground and doing their businesses as if it was daytime? The owner has an unusual reply. He tells me that the actual night time *is* the daytime for the underground dwellers. Puzzled by his answer, the owner continues his explanations: Awatto is a city that appreciates and respects the phenomenal workings of Mother Nature; the revolution of the earth around the sun, and the diurnal cycle of light and darkness. Yet, in the modern digital age, the ease and mobility of communication has allowed businesses to carry over their tasks to the other side of the globe after sunset. Given the spacious Underground city, people can continue their daily activities at night, without disturbing the retired city above-ground. The choice of whether to work during the day or night is up to the individual. This is another reason why the city insisted on developing the underground. Therefore, when half of Awattoonians sleep underground during the day, the

other half continue the production of the city as their shifts change. In essence, time is not a constraint in Awatto; Awatto is indeed *a true city that never sleeps*.

Feeling contented with a full belly, I stand up and thank the owner for his stories and the delicious meal. He graciously offers the meal for free as a welcoming present to the city, and recommends that I take a tour on the waterway before dawn.

Figure 3.17 Walkways and the Underground.

[SIX]

After leaving the deli, I walk down two more levels of walkways. Recollecting the owner's directions, a pool and fountain linked to a narrow water passage appears before me. Away from the shops and people above me, this level is quiet except for the sound of running water. The water path is flowing away from the fountain, heading toward the end of the walkway. As I was told, the opening at the end is the entrance to the docking area, where I can board a touring boat.

The narrow water passage widens to a full street width once I pass the entrance. There are three boats tied to the dock. Like the subway and other public transit systems, the touring boats are free of charge. I ask a lady at the information desk about touring the city, and she directs me to the third boat at the far end of the dock.

Paddling the water in a mechanical tempo, the engine is already running when I board the boat. I quickly find a bench to sit on before the boat departs. There are two other couples on the boat as well as the boat driver. Dressed in business attire, I guess that they are heading home, after a long "night" working in an underground office.

Along the waterway, rays of brilliant light shine through the cracked openings in the ceiling, guiding the boat along its path. On both sides of the waterway, the combined use of brick and the earthy composite on the building façades creates a soothing sense of enclosure. It seems the boat is passing through a residential neighbourhood. Dimmed

lights are glowing behind some of the windows. One couple after another, the business workers get off the boat at their respective stops along the journey.

Figure 3.18 The Waterway.

Alone again, I sit in the back row, enjoying a moment of silence, letting the boat driver determine my next encounter with the city. Perusing the underground architecture as the boat passes along, I am still astonished at how determined the city was to utilize every part of the land, even below grade.

Approximately 15 minutes later, the boat reaches the waterway tunnel exit. The waterway soon enlarges to a less defined body of water. At the distant horizon of water and sky, the sun rises in silence, slowly announcing the beginning of a new day. As the boat speeds out towards the horizon, I turn back and gaze over at the city.

Along the shoreline, vague figures of morning joggers appear in and out of the woods. Ahead, a few others are practicing Tai Chi in an open square. Evidently, the above-ground city is now awakening. Looking beyond, rows of soaring skyscrapers rise out of a green sea of trees. The towers' presence form a unique skyline for the city. Behind these playful structures, millions of other stories of Awatto likely await my discovery. Absorbed by what I have seen all night, my desire to live in Awatto is blossoming.

Without knowing the destination of the boat's next stop, I close my eyes and lean on the window for a brief rest. For all I know, the boat will take me on another adventure in Awatto. Somewhere in the city—an exciting new life awaits me.

End.

Figure 3.19 Distant View of Awatto.

[AFTERTHOUGHTS]

Instead of cars, the primary mode of transportation in Awatto is substituted by closely interconnected network of subway, waterway and pedestrian walkways. The automobile is no longer the center of people's life, nor is it the focus of the city's planning.

Instead of specific restrictions, codes and by-laws that dictate the city's growth, the quality of life has become the foremost criterion that governs the planning of Awatto. Based on people's need, the development of the city is built with the flexibility to change and the freedom to grow.

Instead of segregated, cookie-cutter houses of the suburb, the city is composed of dense, mixed-use buildings and communities, offering opportunities for public engagement and interaction. Unlike the meaningless suburb, the city's diversity and vibrancy creates a sense of belonging for its citizens.

Instead of...

...Given the context of a fictitious vision, I have conveniently proposed unrealistic physical arrangements for a city. While most of these arrangements are impossible to achieve in reality, the value of these ideas was not meant to be literally translated into an architectural proposition. The true meanings of these impossible ideas are to be read behind the texts, in between the lines.

...In essence, Awatto celebrates the primary reasons for a city's existence: *freedom, pleasure, exchange, convenience, beauty, commerce and production*. In addition to these qualities, the city's development evolves around the people's desire for quality living, which I believe, is the key to city planning.

...Having recently completed the writing of the story, I realize that, I too, have fallen into the alluring trap of utopia. I was creating a city of my own, romanticizing the cityscape of my own personal dreams, but then proposing to impose these on others' lifestyles—like past utopian thinkers. However, the danger occurs, I believe, when its creator is not fully aware of the trap. Frankly, I could follow the descriptions from the story and simply propose an Awatto building within the context of Ottawa, but such a proposition would lose its purpose, as the Awatto building would then be placed “out of context,” removed from its original intent. Hence, at any given moment, the architect needs to be aware of the spectrum in his/her utopian thoughts, and to reconcile and express them in physical terms. It is at that very instant that the realized physical project leaves the realm of utopia and enters the real world.

...Moving forward to the next phase of the thesis, the focus of my design returns to the context of Ottawa. The characteristics expressed in the story of Awatto become the guidelines for my design. Specific sites in the city are selected and developed with mixed-use buildings of residential, office, retail, and recreational/public spaces. Along the process of translating my utopia into architecture, some impractical ideas are discarded or compromised due to the challenges of physical constraints. Conversely, some “utopian” measures are exacted upon existing conditions of the city, as the design project proposes to remove part of the existing urban fabric. Overall, certain essences of the story are kept in the design project, that raise the design from the level of a mundane urban insertion into a catalyst project for future development.

Figure 3.20 Typical Building Section of Awatto Skyscraper.

This drawing is developed simultaneously along the process of writing the Awatto fiction. Moments of this drawing resemble events described in the story, allowing the reader to *see* the spatial quality of Awatto. At the same time, these moments become inspirations for my subsequent architectural project as the drawing translates the utopian qualities of Awatto into architectural terms.

Project Three: Utopic Insertions

Following the initial explorations of Ottawa and the fictitious Awatto, the third project is an attempt to translate these utopian ideas back into the context of Downtown Ottawa. Amongst the numerous parking lots in the city, my intent for the project is not to impose my design on every available site. Instead, the proposed project develops a particular location within the urban core, as a catalyst proposition that introduces residential life to its immediate surroundings and acts as a model for other future vacant space developments.

Site Selection and Massing Studies

The design project is intended to act as a gateway into the downtown area. Consequently, my site(s) selection process began by considering the role of Bank Street as a pre-established and popular north-south commercial axis. This would be the optimal location for the project to engage the city. To locate a proper site for my project, I began with a series of massing studies on available lots. The following three attempts illustrate the process of my site(s) selection and massing strategy, each is annotated with my strategy and thoughts. In all images, *red* represents the residential component, *green* suggests green/open space, and *blue* represents water.

Figure 3.21 Massing Study 1: Existing vacant sites.

For my initial attempt, the proposed project occupies a corner site on Bank and Laurier Street, and a larger parcel between Laurier and Slater Street. Working with these two sites, I envision the majority of the building program to be located on the larger parcel, while the corner site, with its formal extension toward the larger site, becomes an introductory gesture that suggests more housing, green space and waterways exist beyond.

Critique: In this iteration, the proposed massing is not persuasive as a “catalyst” project as its gesture seems forced. I also feel the proposed massing is constrained by working *only* with existing vacant sites. My next attempt should consider the possibility of removing part of the existing fabric, to see whether or not it will benefit the project.

Figure 3.22 Massing Study 2: Existing vacant sites & the removal of existing city block.

In this iteration, an existing city block of office buildings and retail shops between Bank and Kent Street is replaced by a open public space of greenery and waterways. While this strategy expropriates a significant amount of existing office space, the design offers a generous public park that connects to three additional vacant sites along Kent Street. Extending from the housing complex, the public park includes a continuous pedestrian and waterway passage that cuts into the earth. A series of retail shops are proposed along this sunken passage, offering another dimension to this urban retreat. Essentially, the project plays a predominant role in the city, providing the residents and public a place of relaxation and recreation within the business district—much like a miniature version of New York’s Central Park.

Critique: This extreme massing strategy shifts the design away from the original intent of the thesis: the redevelopment of the vacant sites in the city. I therefore determined to return to a less invasive strategy with respect to the context, one with fewer disturbances to the existing urban fabric.

Figure 3.23 Massing Study 3: Existing vacant sites & the removal of existing retail buildings along Bank Street.

In this third attempt, the office buildings between Bank and Kent Streets remain in their original locations. The design focuses on Bank Street and proposes the relocation of the smaller scale retail shops along this popular commercial corridor. Working with a broader site than the existing vacant sites alone, the proposed housing complex suspends its residential component in the air and frees the ground plane for public green space. Moreover, the horizontal extension of the massing creates an interesting dialogue between the buildings and the public at street level.

Critique: This iteration satisfies the intention to create a catalyst project that suggests the possibility of dwelling in the urban core. The final project, therefore, adopts the site(s) adjacent to Bank Street, in the blocks between Laurier and Slater Streets, as its site.

The Complex

Throughout the story of Awatto, the primary goal of my vision is to create a desirable living destination for people to work *and* dwell in the city. In essence, the concept behind the mixed-use complex is to entice the suburban dweller back to the Downtown core; providing privacy, convenience, closeness with nature, and social interactivity. The design of the complex therefore revolves primarily around the residents' lives. In distributing the programs of the complex, the proposed office, retail and public/green spaces become the supporting cast which enhances the residents' living experience in the city.

Figure 3.24 Rendering of the proposed Complex.

For instance, the complex is designed under the assumption that most of its office occupants are also residents of the complex, as most people live *and* work within the downtown core without the hassle of the long commute everyday. Moreover, the complex's retail component is composed of shops that supply daily needs of living, such as a fresh produce market, bakery, deli, and pharmacy, thus providing easily accessible conveniences to the residents. As well, restaurants and cafés in the complex offer the residents and visitors places to dine and socialize. Lastly, the complex's relaxing public and private recreational spaces allow individuals to refresh themselves, to take a break from their business-oriented urban surroundings. While woven into the city fabric, the mixed-use complex has the potential to be a self-sustaining community that aims to create a denser urban context in Downtown Ottawa.

Reclaiming the Land: Multiple Horizons

Inspired by Awatto's unique approach of maximizing inhabitable spaces—the floating-gardens and the underground city, the design of the complex approaches the vacant sites as valuable opportunities for inhabiting the land on multiple levels. The idea of accentuating the inhabitable horizons in the design is unlike what a typical developer would build, which usually results in a pancake-tower constructed by vertical extrusion of the maximum floor plate that stacks one over another as high as the building code permits. On the contrary, the project attempts to heighten people's awareness of the horizontal plane through the users' engagement with various functions of the complex, which are represented across three horizontal sections of the building: above grade, at grade, and below grade.

Figure 3.25 Final Site Model. This model shows the massing of a *possible* cityscape of future Ottawa downtown. Finished with clear acrylic, the proposed massing of the utopian vision creates a contrast with the solidity expressed by the massing of the existing urban fabric. The transparency of the proposed acrylic massing also reinforces, by contrast of material, the fact that these under-utilized sites still exist throughout the city.

Above Grade: the private life

The residential units of the proposed complex are located in the upper section of the building. The units' elevated position from the lower public domain provides the residents with a sense of privacy. The units in the residential complex are composed of 1-bedroom, 2-bedroom, and loft units. The design of the units adapts an open-plan concept, which allows maximum use of the space and complete freedom for the residents to personalize their home. Each unit has an outdoor balcony or patio space wherever feasible. In addition, residents of the lofts have private access to their own roof gardens, which overlook the busy Bank Street.

Down below, as one travels along Bank Street, the complex's most dominant feature is its horizontal loft component that spans across the street above. As a *gateway* into the downtown district, the distinctive visual presence of the residential lofts engage the public, both pedestrian and car traveler, from street level.

Figure 3.26 View of the Complex from Bank Street looking north.

As a bold statement, the horizontal extension of loft units displays to the city that the downtown district is not only a place to work, but also capable of containing a lively destination in which to dwell.

On the rooftop of the loft units, one finds a communal roof garden in the center; a public green space shared amongst all residents of the complex. The general public can also access this spacious rooftop garden that oversees the city, without disturbing the loft resident's privacy. One can access the roof garden via elevators in the complex's service core or additional elevators at the end of the horizontal loft component. The elevator shaft and staircase at the end of the horizontal lofts provide structural support to the building, and also serves as alternate points of access to the complex and for the residents to their homes.

Figure 3.27 Views of the Roof Garden.

At Grade: public life

The second layer that emphasizes the horizontal plane is at grade, where social interactivity takes place between the city and the residents.

Reflective of Le Corbusier's notion to reconcile men with nature, the open ground plane is dressed with green landscaping, as a strategy to bring nature back to the city. However, unlike Le Corbusier's deserted parklands, this landscaped ground plane is an urban oasis, providing a much-needed leisure and relaxation space as well as a hub of interaction for city dwellers.

First, the ground plane is not simply planted with orderly trees and seating areas. In addition to the grassy surface, the ground is interlaced with porous paving passages and an open court, and decorated with a reflective pool, which transforms into a public skating rink during the winter. Following the path of sloping pavement, one reaches the sunken level of the ground plane, away from the noise of the busy traffic. On one side, one finds shops and outdoor cafés partially embedded

Figure 3.28 View of the Complex by the Reflective Pool.

Figure 3.29 View of the Complex at street level.

into the earth, offering a moment to sit and relax. On the other, the verticality of the building columns and trees attracts one's sight once again to look upward, acknowledging a place called home in the air.

Moving along the passage, in between the evenly spaced trees, circular steel tube structures encased with glass extrude out of the ground, hinting at a sense of life nestled under the earth. At night, these mysterious light wells glow in various playful colours.

Below Grade: the hidden life

Thirdly, after sunset, the light wells reveal the hidden horizon below grade, as younger crowds of people come flooding into the grounds of the urban oasis. Doorways into the vibrant world below grade now open as the clubs and lounge bar celebrate the beginning of another exciting night in the city. The loud music playing below grade is completely muffled by the heavy earth, as residents of the complex

Figure 3.30 View of the Light Wells at Grade.

Figure 3.31 View of the Night Club.

peacefully fall to sleep. Here in the underground world, countless opportunities of interaction and desire wait to be discovered, as people no longer remember the lifeless hollow core the city once represented.

Reflections

The proposed project is an initial attempt at realizing my vision for downtown Ottawa: how people can be reintroduced to city life with the qualities they often seek elsewhere. As a first step towards the re-inhabitation of the core, it is unrealistic however, to expect to instantly realize the utopian ideal that envisions an intense public experience of the city at all levels of engagement. The project proposes therefore to compress the density of public life onto the ground plane by relating all below and above grade activities directly to the streetscape. The intention is to set up and sustain a vibrant street life that would ultimately expand into the Complex's surrounding neighbourhood, thereby establishing the urban core as a desirable living destination.

Engaging the realities of the current downtown situation should not be seen as a failure to achieve the utopian ideal. Rather it offers a positive opportunity to creatively interpret the highly complex factors that come together into a unique architectural project. Without the statement of the Awatto story however, the project would have been quite different. The utopian ideal stands as the guardian of the spirit of the project; the inspiration and guide for all future design decisions. It provides us with an opportunity to re-examine our physical and cultural surroundings, inspiring us to aim higher in the design of cities.

Figure 3.32 Proposed Master Plan for Downtown Ottawa.

■ **GROUND LEVEL** 1. lobby 2. cafe 3. outdoor patio 4. sunken retail 5. entrance to club/lounge 6. pool/ice rink

Figure 3.33 Plan of the Complex at Ground Level.

RESIDENTIAL LEVEL 1. 1-bedroom unit 2. 2-bedroom unit 3. loft unit 4. communal garden

LOWER LEVEL 1. restaurant 2. bar 3. dance floor

Figure 3.34 Plans of the Complex at Residential and Lower Level.

Figure 3.35 Building Section of the proposed Complex.

Conclusion

In answer to the thesis title, “Do utopias require fire exits?” —the answer is no. The notion of constraints should not exist in the realm of utopia, since anything is possible in the open framework set by its creator. However, in the process of translating a utopian vision into the real world, physical constraints such as fire exits do play a critical role. Much like the translation of one language to another, the process of bringing *utopia* to *reality* requires one to engage in a thorough interpretation and a total understanding of the vision. As in language, a mindless, literal translation will result in simplistic and often absurd products that miss the original meaning entirely. What we need are good translators, architects and urban planners for whom the physical constraints are seen as *opportunities* that through design interpretation, will animate and reinforce the essential utopian idea.

Bibliography

- Bacon, Edmund. Design of Cities. New York, Penguin, 1974.
- Coleman, Alice. The Planning Challenge of the Ottawa Area. Ottawa: Geographical Branch, Dept. of Energy, Mines and Resources, 1969.
- Coates, Stephen, and Alex Stetter, eds. Impossible Worlds. Boston: Publishers for Architecture, 2000.
- Eaton, Ruth. Ideal Cities: Utopianism and the (Un)built Environment. New York: Thames & Hudson, 2001.
- Fishman, Robert. Urban Utopias in the Twentieth Century. New York: Basic Books, 1977.
- Gréber, Jacque. Plan for the National Capital. Ottawa: National Capital Planning Service, 1950.
- Guiton, Jacques. The Ideas of Le Corbusier: On Architecture and Urban Planning. Trans. Margaret Guiton. New York: George Braziller, 1981.
- Howard, Ebenezer. Garden Cities of To-morrow. Cambridge: The MIT Press, 1965.
- Jacobs, Jane. The Death and Life of Great American Cities. London: Jonathan Cape, 1962.
- Kahn, Louis. The Notebooks and Drawings of Louis L Kahn. R. Saul Wurman and Eugene Feldman, eds. Cambridge: the MIT Press.

Le Corbusier. The City of To-morrow and its Planning. Trans. Frederick Etchells.
Cambridge: the MIT Press, 1929.

_____. The Radiant City. New York: The Orion Press, 1933.

Lynch, Kevin. The Image of the City. Cambridge: Technology Press, 1960.

More, Thomas. Utopia. George M. Logan and Robert M. Adams, eds. New York:
Cambridge University Press, 1989.

Sorkin, Michael. Local Code: The Constitution of a City at 42 Degrees North Latitude.
New York: Princeton Architectural Press, 1993.

Ward, Stephen, eds. The Garden City: Past, Present and Future. London: Spon, 1992.

Wesche, Rolf, and Marianne Kugler-Gagnon, eds. Ottawa-Hull: Spatial Perspectives and
Planning. Ottawa: University of Ottawa Press, 1978.

Wright, Frank Lloyd. The Living City. New York: New American Library, 1958.

Electronic References

“Discover Ottawa.” City of Ottawa Website. <<http://ottawa.com>>

“Ottawa 20/20 Official Plan.” City of Ottawa Website. <<http://ottawa2020.com>>

My Architect: A Son’s Journey. Directed by Nathaniel Kahn. New Yorker Video, 2003.