

Home, Green Home: Evolving the suburban image of home to a deeper ecology

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ABSTRACT

Home, Green Home: Evolving the suburban image of home to a deeper ecology

Alan Dąbrowski

Since the 1980s, Montréal has been experiencing suburban sprawl off the island, in the form of neo-modern suburban development. Neo-modern suburbs are replacing both the local culture and natural ecosystems with a technocentric, Token Ecology – a modern symbolic representation of the natural environment. The purpose of this thesis is to find out how to change the technocentric image of ecological homes to a deeper ecological image. This thesis focuses on three central issues: (1) the three primary spaces that make up the habitus of the suburban home (2) the contradictory nature of the mind and action of the suburban image and lifestyle (3) the cultural infrastructures that affect the suburbanite's image.

As a case study twenty participants who are young parents or soon to be parents from the Western Suburbs of Montréal (West Island and The Vaudreuil-Soulanges Region) were used to explore the transition to a deeper ecological image. The results from my research have concluded that: (1) the underlying reason why young parents chose to move to the westerns suburbs is that it offers the three primary spaces while the city does not (2) the technocentric image of ecological homes and communities can be attributed to the image construction of popular media and (neo)modern design. The image projected is heavily technological and scientific, neglecting building typologies, biodiversity, consumption and lifestyle habits. (3) If the proper cultural infrastructures are implemented the chances of attain eco-communities are significantly greater.

DEDICATIONS

In Memory of:

Babcia (1925-2009) My link to my past

Dr. Andrew Tyminski (1924 – 2004) Who gave me inspiration during the tuff times.

Peter Mullin (1977 – 2005) A true man of the hills.

John Wesley Grégoire (? - 2007) For always having faith in me.

Trish Lawton – Kirste (1982 – 2009) Taught me life is too precious

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CHAPTER ONE – INTRODUCTION

There is no more room for low density suburban development in The West Island (Montréal's western suburban cities), so development is migrating into smaller communities off the island. Since the 1980s, Montréal has been experiencing suburban sprawl off the island in the form of neo-modern suburban development. Neo-modern suburbs are replacing both local culture and natural ecosystems with a technocentric "Token Ecology" – a modern symbolic representation of the natural environment. Token ecology has produced an image about the suburbs as being "environmentally friendly", and therefore perpetuating the desire for parents to start their families in these places and spaces.

As we will see in the following chapter, according to the literature on the topic of suburban sprawl and environmental ideologies, there are a number of factors that contribute to the enhancement of this trend. An important one, and the one that becomes the focus of this study, is the perceived image that homeowners have of the suburbs. This is caused by external agents, such as media, family, social and cultural norms, developers and token ecology - a modern suburban design ideology that is still adhered to by planners, designers, architects and landscape architects. Such a perception contributes to one's habitus about environmental homes. Moreover, the perceived image of the suburbs being "green and family friendly" further perpetuates suburban sprawl and the acceptance of this settlement typology as the norm for home(s). As I found in my research, the majority of the participants wanted to recreate a similar home environment from their childhood and to pass on that same environment to their children. Therefore by

providing *genius loci* of taught social and cultural norms of what home ought to be in a certain environment (token ecology) this creates a learned image. People want to identify with that image and use it as a moral tool to help them make the right purchases and decisions, since the suburbs are perceived as green and family freindly, they believe that buying and living in the suburbs is the right thing to do. Therefore, homeowners will continue to purchase a single detached house in the suburbs.

While much of this seems to be constructed by aesthetic, behavioural and cultural factors that contribute to housing and urban design, the majority of the research that has been conducted on the topic of “sustainable solutions” has predominantly been from a technocentric perspective. However, there is a growing interest in combining culture and design. Technocentricity refers to science, rationality and technological innovation that will alone solve the problems of the negative impacts on the environment caused by our lifestyle(s). Only recently has there been research conducted that explores the socio-cultural and consumer behavioural aspects which, according to the Bruntland Report (1987), are the real determents that will propel us in the direction towards attaining deep ecological communities referred to as eco-communities hereafter). I will discuss the concept of deep ecology in the literature review.

The question that this thesis aims to address is: “How to change neo- modern suburban residents’ image of the ecological homes and communities from a shallow one to deeply ecological one”. This investigation explores this question by focusing on three central issues: (1) the three primary spaces that make up the habitus of the suburban home (2) the contradictory nature of the mind and action of the suburban image and lifestyle (3) the cultural infrastructures that affect the suburbanite’s image.

Based on the information provided by the participants, I developed an approach to community design that harmonizes both human and natural needs from a deep ecological perspective. By doing so I identified some of the push (media and education) and pull factors (child and natural place and space) that will enable homeowners to transition from their current low density suburban home to a higher density, biodiverse eco-community.

CHAPTER TWO – LITERATURE REVIEW - The Suburban Home

“A home is an abstract idea, a home is a setting, it’s a state of mind”

- George Carlin, 1992

This chapter will be divided into two parts. The first part will provide a theoretical introduction and review of the literature that discusses the cultural creation of the image of the ideal suburban home – the single detached house and its relation to the environmental landscape. The second part will explore the literature about ideology of environmental design and the different ways environmental housing is viewed.

PART ONE – THE SUBURBAN HOME

Housing and its environments are locations of consumption and are consumable entities in themselves; they are a part of a relationship between the physical, imagined, perceived and experienced that creates a sense of home (Hopkins, 1998; Jayne, 2006). All of these attributes are shown in advertisements, architecture and landscapes of the home(s), both intangibly (symbolism) and physically (aesthetics), which help to form housing and suburban ideals (Amorim & Loureiro, 2003; Cheung, Sidney & Ma, 2005; Hopkins, 1998; Jayne, 2006; Sturken & Cartwell, 2001). These ideals are then packaged and promoted, so that people can consume their home as part of their everyday life. These ideals concerning home design then become integrated into their culture, becoming a social norm. By understanding the processes of consumption, we are better able to develop methods that will aid in the creation of what I call ecological home landscapes (Jayne, 2006).

This review of the literature will be divided into two parts. The first part aims to explore, explain and define the suburban home from two perspectives: space and place. This part also aims to analyze the various cultural components that are used to encourage consumption and how the ideal image of home is promoted. This is vital in order to comprehend what and how cultural values, beliefs and lifestyles are used to promote the ideal residence. If we want to create eco-communities, we must first understand the how home is culturally constructed; one can then apply the same factors and components to the construction of eco-communities.

The second part presents and discusses the literature on why people have migrated to the suburbs. Two major factors caused the expansion of the suburbs are outlined. How the government and developers produce ideals in the landscape in Western Montréal is also discussed. It is important to include a historical aspect as part of the examination of the consumption process and production of cultural ideals. As many authors have argued, current consumption patterns are defined by the past, in that they are manifested from earlier generations' habits (Froud, 2004; Ward & Gold, 1994). Looking at local history one can gain an understanding of how a particular culture has evolved (Jayne, 2006; Philo & Kearns, 1993; Ward, 1994).

Defining and Explaining the Suburban Home

Since the home, both literally and philosophically, is an integral part of the ecology of the community landscape, it provides a reference point through which meanings are symbolically transmitted in to the physical components of the built and natural environment. The Canadian Oxford Dictionary “defines home as the place where

one lives; a house or dwelling place in which one's family or household resides". It can also be "a place of origin or a native land" (COD, 1998, p. 675). The individual defines and constructs home and its function(s) in relation to the built and natural environment based on an image that has been culturally constructed as well as the individual's habitus.

Home on a physical level, includes landmarks and spatial configurations such as the house, the neighbourhood, the parks and transportation networks. From a sociological perspective, home is the social, cultural and psychological interactions that take place in the neighbourhood such as a sense of community, belonging, and a sense of identity based on memory and experiences that are intertwined with socio-cultural norms. These experiences are expressed in one's daily routines and habits, in the home environment, and thus act as central locations for the construction of identity and meaning. These routines are constantly changing due a variety influences from internal and external forces and the social, cultural, economical and political conditions of the space through time (Æro, 2006; Blunt, 2005; Easthope, 2004; Kauko, 2006; Leonard, Perkins & Thorns, 2004). The term "home" used in this thesis takes into account both perspectives in the definition unless otherwise specified, because they are interrelated with each other. The definition of home in this thesis also incorporates the built and natural environment.

The suburban home is both a place and an ideal embedded in a suburban landscape; therefore, it is important to define what is considered a suburb. At the same time it is also important to note that not all suburbs are the same, and therefore, not all suburban homes are the same. The word "suburb" is derived from the Latin *suburbanum* which means a villa or country estate close to Rome (Smith, 2000). There have been debates over the definition of a suburb, but there is no right answer, due to the dynamic

and shifting nature of the term modern suburb is difficult to define. Generally, scholars agree that suburbs are predominantly low density residential development between the peripheries of the urban and rural (Barber, 1998; Cook, 1997; Donaldson, 1969; Duany, Plater – Zyberk & Speck, 2000; Harris, 2004; Hayden, 2003; Johnston, 1972; O’ Sullivan, 2007; Smith, 2000). Furthermore, certain post-modernism scholars argue that suburbs are phenomenons of the past: contemporary “suburbs” are no longer an offshoot of the city but rather new city structures (Borchert, 1996; Gad & Matthew, 2000).

Home as Modern and Post Modern

More recently, the concept of the suburban home has been veering away from the traditional modern methods of analyzing the construction of home and moving towards a post modern approach. Since the early 1970s, academic interests have begun to focus on a multidimensional theoretical framework that analyzes homes from an interdisciplinary and integrated perspective. This alternative view in understanding housing was heavily influenced by two great scholars from that decade, namely Martin Heidegger and Pierre Bourdieu (Æro, 2006; Easthope, 2004; Gary & Kent, 1993; Gram – Hanssen, Bech – Danielsen, 2004; Kauko, 2004, 2006; Karsten, 2007).

It is important not to generalize suburbs for several reasons. First, they are not static constructs: the suburbs of the early 1900’s, post war suburbs, and contemporary suburbs vary in values and landscape, rendering the typical clichés and stereotypes about them out of date (Donaldson, 1969, Jayne, 2006; Gad & Matthew, 2000; Harris, 2004; Sies, 2003; Smith, 2000). While the myths and ideals of the old suburbs are, according to Harris, still in the minds of most people the reality has changed (Mahoney, 2006).

The second reason not to generalize is the contemporary diversity of suburbs in Western Cities. Modern suburbs have evolved from the ideals of the late nineteenth century and early twentieth century British middle and upper class, into varied forms of post-modernity. Post-modern suburbs housing types are a mix of cultures and social classes and are not as segregated as they once were. However, there are suburbs that do exclude certain social classes because of travel distances between important life nodes (stores, houses, hospitals, etc) and the travel, housing maintenance and formal exclusions – gated communities. There may be similar factors in the creation and dimensions of many Canadian suburbs, but each suburb was developed in a different time period, for different reasons, and under different circumstances (Donaldson, 1969; Jayne, 2006; Gad & Matthew, 2000; Harris, 2004; Smith, 2000).

Modernists view the home as the house – a machine that was to produce certain culture, social and moral order from a technocratic perspective by the use of technology (especially), rationality, function and economics – mass production developed by Henry Ford. The design of the housing was suppose to counter the consequences of the industrial city –structure of the social classes, sanitary, density, affordability and low lighting. (Hoffmann, 1967; Knox, Marston, & Nash, 2004; Miller, 2007; Stritzler-Levine, 1996; Winter, 1969; Yorke, 1935) The goal was to create a single detached house (in the North American context) in the suburbs that was affordable, had comforts controlled by technology (air conditioning and artificial lighting) and safe place for children because industrial towns were grey, dusty and low light (Hoffmann, 1967; Winter, 1969; Yorke, 1935) – the reason Montréal was called “Tin Town”. (Marsan; 1985) “We must build in the open: both within the city and around it. Then having worked through every

necessary technical stage and using absolute ECONOMY, we shall be in a position to experience the intense joys of a creative art which is based on geometry” (Le Corbusier, 1987, p. 25) Unfortunately, the result was a “cheap” prefabricated mass produced urban design that took away from the natural environment and isolated residents because of incorporating large amounts of open space, transportation networks between housing (Knox, Marston, & Nash, 2004; Stritzler-Levine, 1996).

In contrast, post-modernist such as Easthope and Kauko argue that a home is more than just a social aspect of the house, which is a material component to a landscape (Easthope, 2004; Kauko, 2004). Their concept of home has gone beyond Le Corbusier’s modern notion that the house is a machine that we live in and that, in fact, home does not have to be limited to the technocratic view of “house”, but may include aspects of the community such as a commercial areas, a school, a church, or a park from an individual and collective perspective (Coolen, 2006; Easthope, 2004; Gary & Kent, 1993; Gram – Hanssen, Bech – Danielsen, 2004; Miller, 2007). Miller (2007) states that household structure and gender influences the perception and consumption of public and private space and how the home and house. Miller also takes into account about the design and construction process, that if it was done by an architect, builder or carpenter has an impact on housing. It brings back the tie with traditional aesthetics and image that modernism has severed, where modernism believes that the traditional way of building homes is that the use of space is impractical (Yorke, 1935).

Post- modernism argues that home is not based on a set of general universal rules instead it is based on the individual’s experience and identity. Authors such as Moran (2006) look at how memory and daily habits affect the perception of home and house

space. Ellin (1996) says that the theory is becoming more complex allowing for more interpretations than the generalizations of modernism, there is more than just a top down way of looking at the ways cities are shape, constructed and created. As an example from a feminist perceptive of the hose hold structure and the way gender plays a role in the construction of public and private space that breaks a way from the “traditional” and modern views of he house wife and the suburban ideal.

Home as Place and Space

Recent research puts more emphasis on the place of home rather than combining place and space together. Casey argues that “space and place are two different orders of reality between which no simple or direct comparisons are possible” (Easthope, 2004, p. 129) According to the renowned geographer Yi- Fu Tuan, “place is space that is filled with meaning” (Knox, Marston, & Nash, 2004, p. 41). There is an ongoing debate in the academic literature about the relationship between home space and place as a result of how modern and post modern theories view the subject (Easthope, 2004; Gram – Hanssen, Bech – Danielsen, 2004; Kauko, 2006). Modernism views the home as ordered, secure and structured spaces that function like an efficient ‘machine’, a position which is achieved through rational scientific progress (Easthope, 2004; Goss, 1988; Knox et al, 2004). Postmodernism opposed to modernism has a pluralistic view that incorporates social analysis focusing on the tastes, values and freedom of the lived place that is consumed locally (Easthope, 2004; Gram – Hanssen, Bech – Danielsen, 2004; Knox et al, 2004). Home is a socio-spatial entity (Blunt, 2005; Easthope, 2004) and therefore both

types of views are needed to understand the consumption and construction of home (Æro, 2006; Gram – Hanssen, Bech – Danielsen, 2004; Kauko, 2006).

From the perspective of space, the physical aspect of the suburban Home can be viewed from two levels: cognitive and relative (for the purpose of the thesis) (Knox, Marston & Nash, 2004; Popescu, 2006). Certain scholars argue that space is more than a mere design or spatial layout with objects dispersed across an area, and that there are complex relationships within the physical entity of home. Space is an integral part of the construct of the sense of place for the home environment. Through behavioural (cognitive) habits, individuals consume the suburban space via landmarks (houses and shopping malls), environments (yards and open space) and spatial layouts (zoning) based on their values, feelings, beliefs and perceptions (Knox et al, 2004; Popescu, 2006). The perceived relationship between an individual and a community's socioeconomic and cultural aspects of an area are defined by unique events, attributes and meanings given by individual(s) that is experienced through relative space. The perception of the relative space of the suburbs can be seen as the ideal place to raise children because of the fresh air, open space and the greenery which is part of the countryside myth (Harris, 2004; Knox et al, 2004; Mayhew, 1997). The analysis of the literature concludes that space does have an effect on shaping places through the relationship between the inhabitant's norms and values and their home's spatial structure of the environment. Home can also be viewed from different spatial scales such as local or regional perspective that is based on the community's socio – cultural norms of that particular area and it is necessary limited to the micro scale of one's house (Easthope, 2004; Popescu, 2006).

The concept of place ties the physical world with the social, cultural and emotional worlds of people, through the construction and consumption of a distinctively built environment, that of 'space' (Easthope, 2004; Knox, Marston & Nash, 2004). Place is a particular portion of space such as a city, or a suburban neighbourhood that can be identified by human values and meanings imbued in the landscape. According to Crowe (1997, p. 74), "Every civilization, culture and community puts its own stamp of importance on places within its domain. The nature and character of that stamp arises from the way people experience their world". It can be seen on two levels, one of which is as an objective location that is still unique and interdependent when compared to other places (Barber, 1998; Knox et al, 2004; Mayhew, 1997). Places are subject to social and cultural constructs, where individuals or groups deliberately or unintentionally perform activities that enables space to acquire personal meanings based on their experiences, which are then processed by our interpretations (Easthope, 2004; Gold, 1996; Gold & Gold, 1994; 1990; Hopkins, 1998; Jayne, 2006; Knox et al, 2004; Mayhew, 1997; Philo & Kearns, 1993; Sturken & Cartwell, 2001; Ward, 1994). The suburbs are the 'stamp' of modern ideology of the nuclear family - by living in a suburban home one is consuming the values, images and symbols (Gram – Hanssen, Bech – Danielsen, 2004).

Home as a Commodity

Homes, like any other places and spaces, are a deliberate social, economical, political and cultural constructs created by various parties for their own interests, as an outcome created and represented in the physical, imagined and the symbolic aspects of the landscape. Marketing, social attitudes and regulations are used to shape, encourage and perpetuate certain ideologies of the character and structure of suburbs. This is

especially true for suburbs that re built en masse (Aitken, 1988; Brunckhorst, 2002; Harris, 2004; Nicol & Halseth, 2000).

Consumption of the home's built and natural environment is much like any product or brand that we buy off the shelves of our favourite store. We buy what we perceive reflects our values, lifestyles and traditions, which we have inherited through our parents' habits and our own experiences (Jayne, 2006). These factors are based on social norms, ideologies and myths which are manifested into a commodity (building and landscapes) through the attachment of symbols and signs. (Gold, 1994; Gold & Gold, 1994 & 1990; Hopkins, 1998; Jayne, 2006; Philo & Kearns, 1993; Sturken & Cartwell, 2001; Ward, 1994)

Cheung, Sidney and Ma (2005) argue that housing plays a crucial role in individuals' values, family structure and status, and sense of belonging in the community. People's perceptions may even be shaped by their subjection to housing policy and can be manipulated by advertisements that offer idealized lifestyles. Various studies have concluded that the meaning of a building and / or landscape is constructed by various mediators and experiences which are then processed by our interpretations to give a meaning that we attach to a particular building (Gold, 1996; Gold & Gold, 1994 & 1990; Hopkins, 1998; Jayne, 2006; Philo & Kearns, 1993; Sturken & Cartwell, 2001; Ward, 1994). According to Henry's marketing research, culture, in general, is the main determinant of consumption behaviours which are taught and carried through one's daily activities and experiences (Henry, 1976), an idea that is based on Bourdieu's consumption theory (Kauko, 2006). The suburbs are the centre place for everyday life interactions, and therefore act as a reference that helps to shape their future images, purchase and routines.

Suburbs are then used as a guide for consumption of place and space, an event that begins with the initial purchase of a home and the further consolidation of that image by living within that home, thereby creating a culture of the local property of home (Choko & Harris, 1990; Coolen, 2006; Tognoli, 2006). It is, therefore, important to understand the consumption process, specifically how the concept of home is culturally constructed, if we are going to create ecological communities in the contemporary social, cultural and environmental context.

The factors that help construct the ideal suburban residence will be explained separately in the following section, while the second part of the section will explore how the elements are manipulated to promote the ideal home and environment.

An Overview of the Promotional Process

Ideology is a set or system of ideas, beliefs, myths, norms and images that groups, classes or society use to act as a guide for standards, a “common knowledge” within one’s socio-cultural environment. The literature states that this process involves conscious manipulation of ideals which leads to conformity and conservatism and is often defined by institutions, social networks and private interests (Donaldson, 1969; Gold, 1996; Harris, 2004; Hopkins, 1998; Sturken & Cartwell, 2001).

The ideal of the contemporary suburban home was a by-product of industrialization, and was shaped by the social, environmental and economic conditions of that period. The upper and middle class wanted to move away from the polluted central city so that they could live in a healthier, more spacious, and secure and private environment which was closer to nature. According to scholars, this move was caused by a psychological desire for a return to a yeoman state: nature, family life and domesticity

based in nostalgia and tradition. This desire is deeply embedded in suburban culture that it still exists today in the social psyche (Daniels, 2006; Donaldson, 1969; Hopkins, 1998). It also exemplified the ideal of freedom because there was a shift from renting in the city to owning in the suburbs (public to private), which, in turn, permitted one to retreat from the “hustle and bustle” of the city to a life lived at a slower pace, surrounded by an imagined idyllic and nostalgic setting (Gold & Gold, 1990 & 1994; Hopkins, 1998; Ward, 1990). These ideals of homeownership and freedom helped to create and sustain the countryside myth (Bourne, 1996; Donaldson, 1969; Gold, 1996; Gold & Gold, 1990 & 1994; Halseth & Mortensen, 2000; Harris, 2004; Hopkins, 1998; Ward, 1990)

Myths are a specific set of connotative (hidden) coded cultural rules, values, and beliefs that are expressed collectively through symbolic signs in a given society. They are symbolically manifested in images which are then transferred to the landscape, by actually physically shaping the landscape. A myth can allow the connotative meaning of a certain object or image to appear to be denotative (literal) (Sturken & Cartwell, 2001). Yet, symbolically, all of those past myths are included within the form of contemporary housing. It is interesting to note that according to recent studies, suburbanites imagine that they are living in a “villa”, and that their backyards are representing forests and / or the countryside (Hopkins, 1998; Jayne, 2006; Laurier, 1993; Sturken & Cartwell, 2001). To illustrate how myths are transferred, one only has to look at the difference between the original British suburbs in Twickenham (Archer, 2005) and the different waves in Montréal (See Figure 1.1).

Most modern scholars suggest that the ‘countryside’ is such a deeply ingrained connotative sign of suburban ideology in western culture that this image was essential to

the production and the consumption of most suburban residential landscapes. This produces a continuous yearning for the nostalgic attachment to the rural life of our ancestors, to return to the state of wholeness that they once had. However, the countryside is some “other place”, spatially, temporally and symbolically distant from the actual every day of the suburbs; it remains only a fantasy (Donaldson, 1969; Hopkins, 1998; Sturken & Cartwell, 2001).

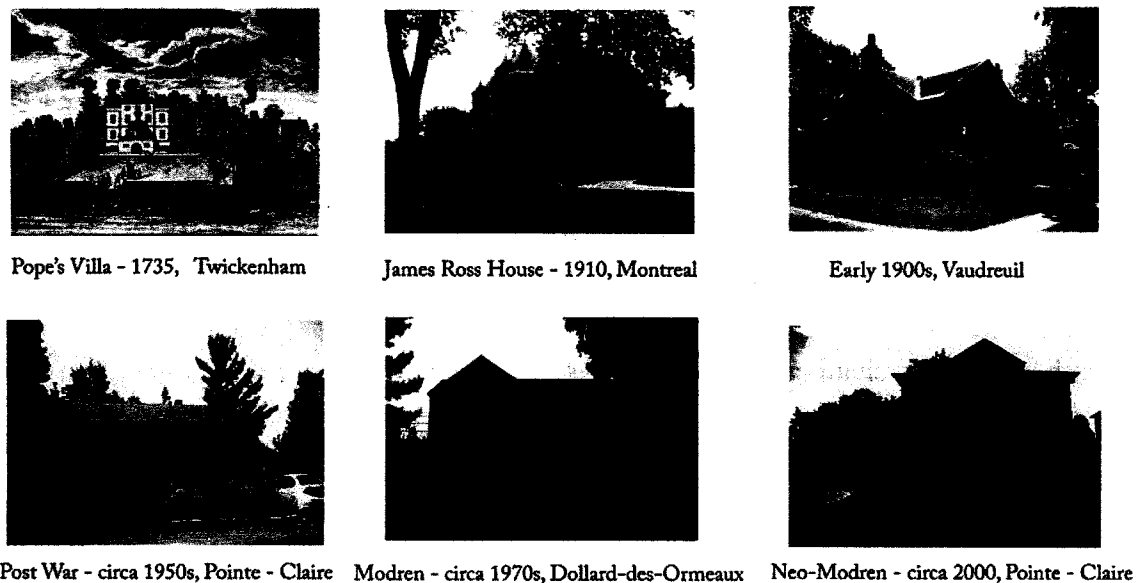


Figure 1.1 - Evolution of the Suburban Home

Source: The Twickenham Museum, McCord Museum, Author, Author, Author, and Author

Symbolic landscapes are cultural representation of ideas or objects in the form of signs. Societies are continuously producing new meanings, as social dynamics cause shifts in culture which then change the processes of producing and consuming signs (Barber, 1998; Hopkins, 1998). As stated in the literature, advertisers are constantly

using symbols as rhetoric to promote myths and ideologies in suburban residential landscapes. Typically, in print advertisement there is often the use of natural and / or environmental symbols because it allows for the connotation of the ideologies and myths to create the 'countryside image' that reference the past of the local area (Amorim & Loureiro, 2003; Gold & Gold, 1994; Hopkins, 1998). For instance, Post World War II housing advertising in North America used the English country house as a symbol to present the ideals of the countryside, offering a glimpse of how people used to live; a sense of nostalgia. This image was something that the new middle classes desired, an escape from the cramped and polluted industrial city. Typically advertisements were loaded with positive symbols in environmental landscape that promoted cleanliness, spaciousness and a sense of community, which are constructed around elements such as impressive architecture, green, clean and safe suburbs and access to the countryside (Gold & Gold, 1994, 1990; Jayne, 2006; Sturken, & Cartwell, 2001; Ward, 1994, 1998).

Suburbia is supposed to represent the best of both worlds (urban and rural). It is designed so that it preserves certain rural values and allows for accumulation of wealth, while maintaining the 'country lifestyle' (Harris, 2004). The rural or natural images that are shown in advertisements do not reflect reality; people were manipulated either through policy or advertisers promoting these ideals. As researchers have shown, these cultural factors are deeply rooted and are more important to people than the density and heterogeneity of their neighbourhoods. (Brownill, 1994; Cheung, Sidney and Ma, 2005; Gold & Gold, 1996; Gold, 1996; Hopkins, 1998)

Therefore, it can be argued that the quality of the suburban home is not determined by its architectural properties, but rather the symbolic values that are attached

to the process of production and consumption of the location. These signs are important to the understanding of commoditization, marketing and consumption of the symbolic landscape because they carry cultural insights into the rationale behind the thought process of the consumer made when making their decision (Amorim & Loureiro, 2003; Hopkins, 1998; Sturken & Cartwell, 2001).

Promoting the Green Image

The selling or promotion of places is not a new concept. Leif Erickson persuaded people to settle Greenland in the eighth century when he said that there was plentiful fertile land for farming (Ashworth & Voogd, 1994). The same is true of North America from late eighteenth century and until mid-twentieth Century (Ashworth & Voogd, 1994; Gold & Gold, 1994). Promoters and developers in the late nineteenth and early twentieth century sold the concept of the suburbs en masse, to lure in the middle class from the city, by continually using “countryside” symbols in their campaigns (Ward, 1990; Ward & Gold, 1994).

Promoting a place requires publicity and marketing to communicate selective images, experiences and ideologies for specific localities towards a particular audience. Place promotion is used for a range of economic and social reasons. Suburbs were and are in direct competition with the city(s) and other suburbs for financial resources. Municipal governments and developers used boosterism - to advertise, in order to attract the (middle class) population to consume the landscape over other municipalities (Ashworth & Voogd, 1994; Philo & Kearns, 1993; Jayne, 1996; Gold, 1994; Ward, 1994).

Gold (1994) and Ward (1994) explain the construction of countryside images and ideals began in symbolic space where the rural environment was commodified by signs. Promoters and consumers use these images to attach meaning, identity and value to a place and in doing so, help to recreate and sustain these dominant ideals and exclude others.

According to Amorim & Loureiro, there are three main features in housing advertising: the architecture, the name of the development and where it is located. Sometimes the building itself is the main focus displaying the exterior and the interior, but other times they can include landscape or some form of greenery (yard) (Amorim & Loureiro, 2003). For example, the names of the developments like some of Pointe Claire's: "Lakeview", "Cedar Park", "Pine Beach" and "Bowling Green", are loaded with connotative meanings. The image and myths associated with names appear to be among chief characteristics of natural identity; for example the West Island was known for its summer cottages. The names are used to grab attention and promote consumption by inducing strong positive impressions of leisure and nature that are associated with the place and space (Amorim & Loureiro, 2003; Donaldson, 1969; Hopkins, 1998; Matthews, 1985).

When one engages with visual media, there is a complex relationship involved. We are not only shaped by what we see, since society as a whole also helps in shaping the image. Influences are not only limited to media but we can draw on personal aspects of our lives, such as experiences, memory and social networks. A few researchers state that visual media also serves as a cultural tool that reflects societal values and norms through various symbols and signs at the time of production. It is equally important to

recognize the political and social state and motive at the time it was produced (Kennedy & Lukinbeal, 1997; Sturken & Cartwell, 2001).

Film and television are used to embellish the suburbs, legitimizing values and practices that confirm and reinforce existing ideologies by using universal symbols such as family, barbeques, lawn mowers, and single detached housing. Visual media can consciously or unconsciously form both real and imagined meanings and pleasures while combined with personal experiences (Kennedy & Lukinbeal, 1997; Muzzio & Halper, 2002).

According to some academics, the creation or production of culture refers to a set of processes and practices through which individuals and groups go about their everyday life. These processes are based on the production and exchange of meanings, individual(s) and society(s). The outcome is a standard set of norms and ideals. Ideals are also constructed for economic and political reasons, through a variety of media for consumption purposes as well. With the aid of advertising, by combining both visual and textual symbols that represent ideals and myths at a connoted level in an image, they are able to commodify the suburban home. If home is a social construction then its image is produced to sell an aesthetic commodity. Images of homes and nature are ideologically charged social constructs of what we, as a society consider being natural (Amorim & Loureiro, 2003; Cheung, Sidney & Ma, 2005; Hopkins, 1998; Jayne, 2006; Sturken & Cartwell, 2001).

Advertisements in the later part of the nineteenth and early part of the twentieth century would tell a story of how the suburbs were the ideal place to live. A typical advertisement would include a picture of a family with a focus on children; the house

itself would be detached and surrounded by “nature” or some pastoral scene (Aitken, 1988; Daniels, 2006; Donaldson, 1969; Gold & Gold, 1996; Hopkins, 1998; Ward, 1990). It would portray the ideals of the suburbs: fresh air, children, privacy, security, space, health and being connected with nature via the countryside.

Around the same time those advertisements were appearing, the governing bodies of industrial cities were in the midst of setting up infrastructure to remove waste from the water and street. By the 1920s people could not bear the problems of the city, and the suburbs offered an alternative that attracted those who wanted to raise a family; already in the 1910s the suburbs had a good reputation. In contrast to the city, the suburbs had more space, privacy and security that allowed for better quality of life for the family (yeoman lifestyle). Families escaped to the suburbs to be in harmony with nature again, while in the city “nature” was limited to certain areas, only in the form of parks and gardens (Grant, 2000; Harris, 2000 & 2004; Marsan, 1990). It has been documented by academics that people have a longing to move back into the open space of the rural country side, away from the city’s vices (Bryant, Coppack & Mitchell, 2000; Harris, 2004; Hopkins, 1998; Marsan, 1990; Matthews, 1985; Smith, 2000).

Canadian urban researchers state that the continuous attraction to the countryside allowed the urban fringe to be commoditized with the romantic ideals from the 1750s. The countryside and cottage country ideal is so deeply ingrained in Canada that this traditional image is fundamental to the production of peoples’ attitudes, even though it exists only symbolically in their imagination. Whether they are real or imagined, it is the imagination that inspires and sustains the construction of myth. The combination of the countryside and cottage country myth and the conservative lifestyle (domestication,

conformity, privacy and the detached house) have made a lasting impression that solidified consumers' preferences towards housing (Bryant, Coppack & Mitchell, 2000; Donaldson, 1969; Filion, Bunting & Gertler, 2000; Harris, 2004; Hopkins, 1998; Olson, 2000; Smith, 2000).

Acclaimed suburban scholar Richard Harris states that the detached house is the dominant theme in the suburban ideal regardless of the time and type of suburb. It publicly reflects the culture of a preferred, private, and family-orientated style. The detached home is much more than a building where people could read on their porch, watch their children play, enjoy social gatherings, find tranquilities etc. The single detached home has helped in the evolution of the nuclear family; it separated them from the reality of the world outside them (Harris, 2004)

For example, Montréal's suburbs started off as wealthy enclaves where the middle and upper class would retire to a villa that was beyond the outskirts of the city, between the mid eighteenth and nineteenth century. These residential areas were often designed by landscape architects, with streets gently curving to maintain the image of the Garden City and give a picturesque look: large houses on large lots, the opposite of what urban life was like. The home was to become romanticized for its spiritual qualities rather than nature. Soon this lifestyle would be absorbed by the mainstream culture as the ideal or the dream house (Archer, 2005; Freidman, 2002; Matthews, 1985; Smith, 2000).

Harris points out that at the beginning of the twentieth century housing in some of the Canadian suburbs started to shift from quality to affordability, since not everyone could afford a first class house. Developers and builders complied only with compulsory regulations and built standardized houses in order to reduce costs. This appealed to the

conservative buyer because it made housing relatively inexpensive and consistent reducing the risk for resale. During the Depression, the federal government gave out grants and loans to keep the industry afloat and to aid homebuyers. In the 1950s, prefabrication was used in the mass production of houses, making construction more efficient and cost effective, and increasing the degree of homogeneity. This was a financial incentive for businesses to continue manufacturing and for consumers to keep purchasing these houses. In a span of less than 50 years, these ideals remained ingrained in the culture, but the actual house changed from villa to “cookie cutter” and from farm to lawn. Consumers are wrapped in those nostalgic ideals charged with the cultural and emotional power of pure consumption (Harris, 2004; Moran, 2004; Matthews, 1985; Brindley, 1998).

The next section will explore the suburban ideals and the relationships between government, business and consumers that have evolved to create and maintain the ideal suburbs. It will also discuss two major factors that are essential to the growth of the modern suburbs, transportation and the economic boom at the end of the Second World War.

Historical Perspective of the Social, Economic and Technological Climate

This part will look at social, economic and technological contributions to Montréal’s outward growth, and of the suburbs that have shaped the West Island as a network of modern suburban cities (Fishman, 1987; Fogelson, 2005; Friedman, 2002; Harris, 2000 & 2004; Matthews, 1985). This historical perspective allows us to view the evolution of the suburban ideology and image. Montréal is currently experiencing its

fourth wave of suburbanization – neo-modern, which will be discussed in chapters five and six. For the scope of the literature review, the focus will be mainly on the third wave – modernization. The different waves of suburbanization show that there is consistency among the reasons why and how suburbs develop and their impacts on the natural and built environment.

The other two sections will analyze in further detail the role of the agents and factors that contributed to the growth of the modern suburb. The topics deduced from the literature include: the effects of two agents, developers and government, and how they helped shape and perpetuate ideals through marketing and zoning. The second section will discuss the transportation and economic boom at the end of the Second World War how that enabled the growth and acceptance (Fishman, 1987; Fogelson, 2005; Friedman, 2002; Harris, 2000 & 2004; Matthews, 1985).

First & Second Wave – Farm and Cottage

The first wave of suburbanization in Montréal happened in the mid to late 18th century; the living conditions inside the Ville Marie fort were starting to worsen with the influx of migration (Marsan, 1990). With a population of 5000 in 1761, space became limited inside the walls of the fort as a fair amount of livestock and human waste was out on the streets, it made for unsanitary living conditions. The suburbs (particularly in the west) started to attract people with good reason, since they offered more land, allowing families to live in comfort and not in cramped, and unsanitary conditions (Marsan, 1990).

The second wave was a response to the growing industrialization of the city. Urbanization had been quite slow on the island prior to 1830, and by 1851 only 15% of

the total population actually lived in Montréal, the rest were living in the surrounding rural villages. Great enhancements to the harbour and the establishment of the railroad allowed Montréal to become the industrial centre of Canada and a major financial and trading hub, attracting many immigrants (Harris, 2004; Linteau, 1998; Marsan, 1990; Stobart & Schwarz, 2008; Stuccliffe, 1998). In the late 1800s, Montréal experienced large influxes of immigrants, which created a housing crisis. The response was to develop working class suburbs in the lower part of the Montréal Terrace, close to factories. The developments were unorganized, dense and poorly constructed housing, known as “plexes”. Unfortunately, with the combination of those factors and high levels poverty, this environment produced sanitary problems, slums and crime; the south western district soon built a reputation for its vices (Layton-Jones, 2008; Linteau, 1998; Marsan, 1990; Sutcliffe, 1998).

Meanwhile, the area in the West Island that was used as cottage country embodied the ruling class’s (English merchants) traditional values based on nostalgic ideology that embellished these ideals from the previous generation of England’s upper class. This was a place of wealth and leisure, and was the desired ideal throughout North America, a place to escape the dirty industrial town and enjoy the finer things in life in the seclusion of nature (Daniels, 2006; Donaldson, 1969; Friedman, 2002, 2007; Linteau, 1998, Marsan, 1990; Mathews, 1985). The ideals were inscribed into landscapes that mimicked Britain’s Garden City urban design, such as in the case Fredrick Todd’s development Bowling Green in 1904 in Pointe-Claire; trees were planted, parks created and curvilinear roads laid out in his development (Mathews, 1985). The municipalities played a large part in shaping the suburbs during the early part of the 20th century. However, this was

only a very small portion of the West Island, it was largely farms. They began to establish laws that could regulate and control the developers. They dictated pretty much everything from the setback (20 feet), housing typology, construction methods and commercial districts north of the railroad tracks; other by – laws included weed removal and garbage. During the decade, the municipality developed the infrastructure such as lighting, gas, electricity and water treatment (Mathews; 1985). To encourage growth at the end of the Depression and after the Second World War, both municipal and provincial governments set up programs to stimulate the economy and housing development. Financial distribution shifted from the inner city to the hinterlands; it was easier “plan” housing projects in the suburbs because of undeveloped farmland, rather than deal with the complications of redevelopment. (Filion, Bunting and Gertler, 2000; Filion, Hammond, 2003; Friedman, 2002; Gad and Mathew, 2000; Gruenberg, 1955; Harris, 2000 & 2004; Mathews, 1985; Purdy, 1998; Smith, 2000).

The “countryside” and “cottage country” lifestyle which originally attracted people to the West Island provided the foundation for the creation of the image and ideals of the suburban home. Within less than half a century, the area slowly transformed into a mere symbolic representation of the original and now would serve as a “rationally zoned” template that could easily be stamped throughout the area (Grant, 2000; Friedman, 2002, 2007; Harris, 2004; Marsan, 1990; Mathews, 1985).

Third wave – Modernism

Development projects were typically carried out by small local businesses, but with the arrival of modernization, large companies and corporations started to take over

by the end of the 1940s. These new modern suburbs were constructed in the absence of local values and had little or no regard towards the natural environment (Lucy, 2006; Jamieson, Cosijn, & Friesen, 2000; Dagger, 2003; Scott, 2001). Developers claimed that they catered to what their customers wanted, and in order to sell their developments they advertised and promoted the place based from an archetypal image (Belzer, et al, 2004, Ellis, 1999; Dagger, 2003; Harris, 2004; Hopkins, 1998; Jamieson et al, 2000; Mathews, 1985; Scott, 2001).

Developers have a financial concern for the continuous outward growth that has been successful since the end of Second World War, and have, therefore, perpetuated the cycle of this type of expansion. The automobile made it possible for people to live further from the city and in any direction and distance (Bourne, 1996; Filion, Bunting and Gertler, 2000; Harris, 2004; Mathews, 1985; Miller, 2000; Newman & Kenworthy, 1999; Smith, 2000). Zoning became a practical way to insure that people's investments would keep their value by separating the residential, commercial and industrial areas and while accommodating the automobile (Ellis, 1999; Friedman, 2002; Harris, 2004; Lucy, 2006)

By the late 1940s, there was a construction boom in the West Island which increased the local economy; suburbanites could get back to the lifestyle of the luxurious 1920s, and frugality was a thing of the past. At the end of the decade, and for the first time, Pointe - Claire opened the northern area to commercial and residential development (Mathews, 1985). The 1950s represented conservative values of privacy, security and the nuclear family. This traditional ideology was reinforced by the mainstream culture; the nuclear family in a suburban setting was a dominant theme in television sitcoms. Television played an important role because it created an allusive ideal of "picture

perfect” living conditions. It also had an advantage because it was able to reach out to a mass audience with the same message making it a standard image, further perpetuating the standardization of the suburbs (Harris, 2004). Visual media can consciously or unconsciously form both real and imagined meanings and pleasures while combined with personal experiences (Kennedy & Lukinbeal, 1997; Muzzio & Halper, 2002).

The design of Don Mills, Ontario in 1955 greatly influenced other Canadian suburbs by providing a template for future suburban development; although other developers did not copy it exactly, they took some key elements, such as detached housing, cul-de-sacs, looping streets, shopping centres, open spaces and low densities. This also broke the traditional way of developing residential projects, it was a rational way of planning making everything clean and cut (Filion, 2000; Friedman, 2002). Some municipalities copied it for their land use and subdivision regulations. Low density reduced financial risks and to further increase profits they used standardized prefabricated houses and lots. Industrial parks were being built and affordable housing needed to be built to accommodate the workers, Lakeside Apartments were built 104 units in multi-story building, and by the end of the 1950s, these rural settlements were starting to urbanize; as the cities grew, so did the demand for housing (Mathews, 1985).

The 1960s also brought a change both politically and economically, with some of the municipalities who wanted to remain independent fearing that they would lose their identities under Montréal’s Mayor Jean Drapeau’s slogan “One Island – One City” (Matthews, 1985). The west Island suburbs were incorporated for two main reasons: to isolate themselves from the mounting problems of the central city – such low quality housing, rising taxes, congestion, crime – and to provide the particular basket of goods

and services they desired and for which they were willing to pay for (Harris, 2004). This decade proved to be another in which cheap mass produced housing, mushroomed specifically the Magil split level type (Mathews, 1985).

The Don Mills style of planning became the norm by the 1970's. The planning of every Canadian city was dominated by the suburban form of Don Mills, and even promoted by the federal government in its regulations and standards, as well as in their planning guidelines and mortgage programs aimed at helping the development industry (Friedman, 2002). Harris (2004) argues that some academics have proposed that this shift was the beginning of the first truly suburban era, while others claim the exact opposite – that the suburbs ended the era when modernism replaced traditional values. In either case, the transition suggested a dramatic shift taking place in the social and geographical distribution of economic wealth and political power (Harris, 2004). The suburbs are now more symbolically romantic than they once used to be; younger generations are looking for more land and cheaper housing. Before the 1970s, nature was the main attraction, but the suburbs were developing outwards as commercial and industrial interests moved in because inexpensive land and taxes (Grant, 2000). The 1980s experienced a new wave of decentralization and acceleration of economic trends creating new consumption patterns that went beyond blunt consumerism. People became obsessed with quantitative acquisition and self-identification.

The image of the original suburbs, once seen as a city in a garden, was being replaced with a house on a lawn. It was during this period that the suburbs were just a symbolic representation of the old upper class's country house, with symbolic and nostalgic attachments incorporated into the landscape (Harris, 2004). Developers and

builders took advantage of the behavioural trend; they designed their projects so it would incorporate the values and desires of owning a detached house separated from the public space. The construction industry helped shaped the norm of the suburban by physically constructing it and people accepted it by consuming the landscape. By the 1960s the suburbs had been completely transformed, breaking the traditional way of developing housing, it was a rational way of planning making everything ordered (Filion, 2000; Friedman, 2002; Harris, 2004).

Transportation

When the rail road system came into existence in Canada, it allowed the middle and upper classes to move away from the city into the farm lands of the nearby rural communities. The typical radius was about a half hour to forty five minute ride from the inner city, thus allowing the spread of low density residential development (Matthews, 1985; Newman & Kenworthy, 1999). Some of the railroads were built to encourage suburban strip development and/or they were redirected to influence the development pattern and even created neighbourhoods which would eventually grow into a small walkable “city”. This was evident in Pointe-Claire when Fredrik Lily used his personal connection with the public relations manager of Canadian Pacific Railroad to open a train station at the northern end of his Cedar Park development project in 1893 (Friedman, 2002; Grant, 2000; Harris, 2004; Matthews, 1985; Newman & Kenworthy, 1999).

The second transportation ‘improvement’ occurred with the gradual introduction of the automobile in the 1920s, and became come use after the Second World War. When it finally became popular, the effects on development and the environment were

substantial, this was and is one of the most prevailing factors that induces sprawl. The automobile made it possible for people to live further from the city and in any direction and distance. (Bourne, 1996; Filion, Bunting & Gertler, 2000; Harris, 2004; Mathews, 1985; Miller, 2000; Newman & Kenworthy, 1999; Smith, 2000).

Post Second World War- social and economic boom

This was the second large event, after the implementation of the railroad that In Canada, radically altered suburban growth from the small scale community that had existed for so many years, to the “mushrooming” of mass produced housing. With the large amounts of returning soldiers and the baby boom, there was a need for rapid housing for the increasing population. The federal government’s interests were shifting along with financial distribution from the inner city to the hinterlands; they also had the ability to “plan” housing projects on undeveloped farmland (Filion, Bunting & Gertler, 2000; Filion & Hammond, 2003; Friedman, 2002; Gad & Mathew, 2000; Gruenberg, 1955; Harris, 2000 & 2004; Mathews, 1985; Purdy, 1998; Smith, 2000).

During this period there was an economic boom: mass production, prefabrication and track development allowed for quick and cheap housing, and effective marketing strategies made these communities an instant success. Automobiles and other durable goods were being mass produced making thrift a thing of the past. By the 1960s the suburbs changed into consumption focused rather than garden based: cheaper, larger lots that required low maintenance which made for a homogenous environment that was neither town nor country. This development pattern began to sprawl from the city to the forest and agricultural land mainly because people could not afford to have an automobile. (Bourne, 1996; Filion, Bunting & Gertler, 2000; Filion & Hammond, 2003; Friedman,

2002; Gad & Mathew, 2000; Gruenberg, 1955; Harris, 2000 & 2004; Mathews, 1985; Murdie & Texeira, 2000; Newman & Kenworthy, 1999; Smith, 2000).

The post World War II period would alter housing, changing it from the picturesque, romanticised garden city suburbs of the wealthy, into a standardized, mass produced form of tract housing for the average Canadian. Business and government saw the potential at making a profit from this trend and a good way to increase a tax base. People bought into it because of the affordability of ownership, a secure investment and a relatively quiet place to raise children.

Developers (Post War)

History and private enterprise have played important roles in the structure of the suburbs. Developers have played an important role in the housing industry by subdividing the land in a piecemeal fashion which they either sold to individual speculators, builders and owners provided that they had permits and that they followed proper government regulations (Grant, 2000; Harris, 2000 & 2004, Helsley & Strange, 1997).

According to Richard Harris, in Canada, land and property developers started to emerge in the 1920s. By the early 1930s, groups of investors and developers began to shape most cities. The government as well as private investors wanted to stimulate the housing market and urban development. Financing from the Canadian Mortgage and Housing Corporation began in the 1940s but it was mostly used to promote developers and builders of corporate suburbs; some financial assistance was given to those that bought a home. After the Second World War, municipal governments favoured developers because they offered to develop local infrastructure for the clients after

subdivision. That way the government did not have to build it itself and spend any more money than they had to. By the 1950s the suburbs in Canada started to become uniform, impersonal and synthetic because the developers had to incur the costs. In order to cut costs and improve efficiency they had began mass producing housing and selling them as packages (Friedman, 2002; Harris, 2000 & 2004)

Generally, there has been little change among the housing industry since the 1950s, due to conservative attitudes by the developers and home owners. Developers by nature are averse to risk, closely following regulations and competitors based on what the market “wants”; unfortunately this constrains any form of creativity. Creativity is an uncertain investment because there may be unseen costs and there is no guarantee how the market will respond. Aesthetics are limited by tight architectural controls to maintain a certain look. Because the developers’ main concern is to make a profit, they will develop a neighbourhood only if it will prove to be profitable. Unlike the government, developers do not have a mandate to look after the public’s well being, so naturally the housing industry will be conservative (Belzer, et al, 2004; Jamieson, Cosijn, & Friesen, 2000; Ellis, 1999; Dagger, 2003; Scott, 2001).

Companies claim that they cater to their customers’ wants while giving them the maximum amount of profit, but the truth is that consumers have little or no alternative. They use advertising because it is a powerful tool that can manipulate the values and ideals of the consumer and can be used as an indicator of their preferences (Harris, 2004; Hopkins, 1998; Jamieson, Cosijn, & Friesen, 2000).

By and large, suburbs are constructed in the absence of local values and have little or no regards towards the natural environment. Developers are reluctant to build and

people are hesitant to buy alternative housing designs because both parties seek to make a secure investment. Housing is produced mainly by the private sector but it is profoundly influenced by the government, zoning ensured that investments would be secure by maintaining standardization and the conservative ideals (Lucy, 2006; Jamieson, Cosijn, & Friesen, 2000; Dagger, 2003; Scott, 2001).

Government

Local governments are responsible for planning, facilitating and shaping development while remaining accountable to the public's interest. There is an intricate and dynamic relationship between politics and the market. Governments and consumers reinforce values through the democratic process of voting. People vote on the platform that best suits their ideals, values and beliefs, and politicians will adhere to them in order to gain as many votes as possible, for their own self-interests (Belzer, et al, 2004). On the other side, public policies create and sustain beliefs which over time transform into myths, which manipulate the people's decisions when voting for certain public policies. One way planners reinforce people's values and perception is by controlling the physical layout and development of the city. When one sees the built environment everyday it reinforces the idea that this land use is the norm (Belzer, et al, 2004).

Zoning is merely a tool which allocates land based on classification. Some of the elements that zoning controls are: the use of land, density, buildings dimensions, and parking. Zoning can be used for political and economic reasons mainly keeping the value of the property as high as possible and reducing irrationalities or external forces in the market. When people purchase a house, it is an investment not to be taken lightly, considering the percentage of one's earnings that is involved. Zoning becomes a practical

way to insure that people's investments keep their value by separating the residential, commercial and industrial areas and while accommodating the automobile (Ellis, 1999; Friedman, 2002; Harris, 2004; Lucy, 2006).

Municipalities are just as conservative as the developers; they are reluctant to switch systems. Because of the conservative nature of Canadians, urban culture is predominately standardized so it is hard to bring about change. Regulations and zoning typically rely on the old standards that were created in the past even though they are outdated. Indeed, the government is hesitant about switching the way land is used because of the potential negative images that might be associated with it. For example higher density may mean more cars and therefore more pollution, whereas public housing often engenders higher crime rates and reduces green spaces (Belzer, et al, 2004; Ellis, 1999; Friedman, 2002). The conservative nature of the municipal government is a barrier towards attaining eco-communities because it fosters separation and not integration that will not allow mixed land uses, housing typologies, and increased densities.

This examination of the literature suggest the following research question with regards to suburbanization in Canada, and specifically in a Montréal context: is it possible to evolve the image of home from a token to a deeper ecological image of an eco-community. Our hypothesis is that a change might be possible if people are provided with the information and space that they need.

This thesis, therefore, provides a case study of the western suburbs of Montréal - as a case study, to gauge and explore the perceptions of suburbanites and as well as their, visualisation and understanding of the environment, housing, ecological housing and eco-

communities and their awareness of their contributions to environmental degradation by perpetuating suburban sprawl.

PART TWO – ENVIRONMENTAL IDEOLOGY

This part of the chapter examines three aspects of environmental ideologies that can be applied to home. The first part is the analysis the evolution of green, environmental, ecological and sustainable design. The second part explores the spectrum of approaches that can be applied to home. Finally the third part debates sustainability versus ecology as the approach the ideal approach to attain harmony between the built and natural environment.

The dominant themes in the current literature on green, environmental, ecological, and sustainable housing and design are technocentric, focusing mainly on energy consumption, technology, and construction material. Therefore, this literature fails to address the importance of the socio – cultural factors in the creation of eco-communities. Although socio – cultural literature on environmental housing has started gaining attention within the last decade, the main theme is still technology and economics. However, it is through social and cultural, norms and ideologies that we structure our decision-making and consumption, and views of home. Human and environmental needs must be incorporated if we want to harmonize our homes with the natural environment. Homes and communities play a vital role in the way ecological development is achieved and perceived (Bhatti, 2001; Chiu, 2004; Godfaurd, Clements – Croome & Jeronimidis,

2005; Grant, Manuel, & Joudrey ; Guy & Moore, 2007; Joye, 2006; Li, 2004 ; Pearson, 2001, 2005; Tjallingii, 2000). This part is divided into two sections

Before analysing the information obtained from interviews in my case study in the following chapter with regards to people's construction of their habitus and image of the association of the "green" suburban home, it is important to understand two things. First, how did the image of the neo modern suburb being "green" derive from and second, what was the cultural climate prior to the growth and acceptance of this urban form / design? By briefly exploring these issues, this chapter will provide us with the reasoning behind these ideologies and to why and how the division between the natural and built environment were created on the urban periphery and the evolution the modern suburban design (Tjallingii, 2000).

Evolution of Environmental Design Ideology

The neo-modern suburban landscape is shaped by technocentric ideologies of expansionism and reductionism that encourages fragmentation rather than integration; it further detracts from attaining ecological communities (Archer, 2005; Berkes, 1999; Chiu, 2004; Farr, 2008; Jepson, 2004; Vlek, 2000). It is biased by current social and cultural norms that allow human activities to control and conquer nature through rational scientific methodologies of categorization based on the use of Euclidean zoning and the construction of parks and reserves. This poses a problem because people's attitudes towards the built and natural environment are configured by their spatial surroundings, which are used as a cognitive anchor and passed on down the generations through their routines and habits everyday in their suburban homes. Therefore, the built landscape is a

medium which plays an instrumental role in shaping categories of housing, community and nature; through this evolving process, it perpetuates technocentric ideology and image of what the home should be (Archer, 2005; Berkes, 1999; Chiu, 2004; Farr, 2008; Jepson, 2004; Vlek, 2000).

Ideologies of the past are often hidden in our current ideologies and images; we constantly use them as a guide of reference to what we say or do, and where and how we live. (Archer, 2005; Daniels, 2006) There are six contributing ideologies that form the pillars of the suburban ideology of home (built) and natural environment: Western Enlightenment (freedom and individuality), colonization (control of nature), Judeo – Christianity or the misinterpretation thereof (Hitzhusen, 2007) (the right to control), poor living conditions, the yeoman lifestyle (countryside myth) and technocentricity (Euclidian zoning, rational and scientific approach the built and natural environment). There is a dynamic relationship and connection between ideologies of a culture, society and economics, that help with the possession, consumption and the manipulation of the space and materials of the home and natural environment that is reflected in one's own identity (Archer, 2005; Jepson, 2004; Vlek & Steg, 2007; Young, 2008). To illustrate this point I will briefly discuss the six ideologies in relation to the development of Montréal and the West Island.

The French brought with them colonization, the strict rule of the Catholic Church and agricultural development. When the Sulpician priests were granted the titles of Seigneurs of Montréal in the mid 17th century, they had two missions. The first was to set up military posts to protect their investment of the land for fur trade from the natives, and the second was to convert the “barbaric savages” (natives) into Christians (Marsan, 1990;

Matthews, 1985). This in part was fed by the misinterpretation (Hitzhusen, 2007) of Judeo Christianity texts as seen in, for example, the case of the notion that God gave people supreme power and responsibility to take care of the world and that all the resources were suppose to be used to better civilization. We only incorporated the first part of that notion into our norms and attitudes, while the importance of looking after people's welfare slowly eroded from our ideology. This view further separates humans from the natural environment making our ideologies anthropocentric and speciesist, creating an ideology that would permit the manipulation of the natural environment for the benefit of society, without any regards or consideration for nature (Jepson, 2004).

Although the merchants and military were in control of the land, the *real* power still belonged to the Sulpician priests until the mid 20th century. (Baird & Hall, 1989; Bélisle, 2003; Duval, 1989; Marsan, 1990; Matthews, 1985; Stewart & Robichaud, 2000). Some of the retired militia along with merchants developed the land into "rangs" (the name for parcels of land in New France) for agricultural purposes, and there was relative peace among the natives (Marsan, 1990; Matthews, 1985).

John Locke, especially in his *Essay Concerning Human Understanding* and *Two Treatises of Government*, both formally published in 1690, laid the foundations of modern occidental thinking according to the philosophical movement known as the Enlightenment. The British upper and middle class then combined imperialism and those ideals of the enlightenment with a technocentric world view. The British migration to Montréal established new values, ideals, politics, and ideological notions of individualism, freedom, privacy and public morality. Previously one's way of life was dictated by social hierarchies such as: rank, status, wealth, and ancestry. When the

English came to Montréal, they brought with them the enlightened (liberal) ideals of the self made man, that is to say that one's destiny should not be controlled by the state, but rather by the individual, who was therefore allowed to have a home of his/her choosing. Individuals were able to express and articulate their ideals through various forms of architecture, personal landscape and furnishings. This new notion of the private home was crystallized in the early part of the eighteenth century and thus gave birth to the single-family house and quasi-pastoral lifestyle on its own parcel of private property, a benefit of capitalism.

Although there was freedom, it only rested in the hands of white men, and therefore remained largely a part of patriarchal view and culture. These new homes were often clustered on suburban fringes of the city, and began to expand into the agricultural communities, particularly in the industrialization era. (Archer; 2005) As in the case of West Island, wealthy Anglophone industrialists would spend their summers along the Lake Louis eventually building permanent residences. During the late 19th and early 20th century, some of the summer residents became permanent residents, and with the rise of Montréal's new middle classes, this housing preference became a preferred choice (Baird & Hall, 1989; Bélisle, 2003; Duval, 1989; Marsan, 1990; Matthews, 1985; Stewart & Robichaud, 2000). The migration from Montréal's urban centre to the fringe along the coast of Lake Louis and coupled with the long history of farming helped shaped the "countryside" and "cottage country" myth that many suburbanites find alluring (Harris, 2004; Marsan, 1990; Matthews, 1985).

These six ideologies influenced the way the landscape was to be shaped and how society interacted with it. These suburban ideologies also served as the basic templates

for how environmental design was to be conducted and can be traced back to the most influential urban design – The Garden City. See Appendix A for an overview of the chronology of major environmental design movements from 1890 – 2009.

Garden City to Post Second War

Neo-Modern design stems from the Garden City concept of an anti-industrial city by providing a clean and sanitary environment, while attempting to merge city and country life. The predominant design from this era is the Garden City concept put forth by Ebenezer Howard in 1898.

Howard kept the landmarks and objects of the original suburb while integrating curvilinear boulevards that gave an “organic” feel. Howard’s aim, according to Knox, Martson & Nash, was to create good quality, low-density housing with green parks, which were surrounded by green belts and agricultural land to support a locally grown food supply. Garden Cities were designed to support approximately 30, 000 people and to increase the quality of life. Furthermore, Howard separated the residential areas from industrial (Knox et al, 2004). This made it possible for the middle-class to afford the coveted home.

Despite its name – “[The] Garden City”, Howard never intended it to be a “green” or “ecological” city. Instead it was supposed to be a socialist city, designed to improve the quality of life. In fact, he used nature to sustain society’s needs for aesthetic pleasures and agricultural production, rather than preserving the natural environment. As Howard writes (1965) “... it is intended to offer a means of securing new and better employment for their capital talents ... Its object is, in short, to raise the standard of health

and comfort of all true workers of what ever grade – the means by which these objects are to be achieved being healthy, natural, and economic combination of town and country life...” (page 51).

Howard’s view on parks is explained in the following passage: “(H) Parks and Road Ornamentation – This item of cost would not be incurred until the undertaking was in a thoroughly sound financial condition, and the park space for a considerable period might be a source of revenue as agricultural land. Further, much of the park space would probably be left in a state of nature. Forty acres of this park space is road ornamentation, but the planting of trees and shrubs would not entail great expense. Again, a considerable part of the area would be reserved for cricket-fields, lawn-tennis courts, and other playgrounds ...” (page 86). For the first since the medieval period, nature was considered as part of the built environment. However, even though the Garden city was a tremendous step forward to attaining ecological balance, it did not treat the natural environment as equal.

The Garden City served as the basic template for modern design by separating residential areas and by adding generous amounts of green space which the industrial city lacked. In the case of the West Island, these developments during late nineteenth and early twentieth century were typically located on the coast of Lac St Louis and fused the spatial landmarks of the cottage country movement, with elements of the Garden City, as evidenced in the old villages of the southern part of the West Island, who were the first to develop this type of settlement typology. (Bélisle, 2003; Braid & Hall, 1989; Duval, 1989; Matthews, 1985)

With the advent of modernism in the 1920s, a new environmental ideology for suburban design emerged. Architects such as Le Corbusier, Alvar Alto and Josep Lluís Sert built on the concept of the Garden City, but ultimately replaced them the parks with wide open spaces. They also adopted a standardized approach to housing and relied on heavy on the use of the automobile. ‘Openness’ was key to this concept because it eliminated the feeling of over crowdedness, and gave the impression that it was a healthy environment. The next modern ideological shift took place in 1969, with Ian McHarg’s book *Design with Nature*. McHarg, who had a total dislike for the city, aimed at creating a suburban designs that would have minimal impact on the environment (Farr, 2008). The downfall of his approach was an even greater separation and classification of the built and natural environment rather than trying to “repair” the city by integrating them. As a result, of these influences nature, with in the suburban areas became a standard open area primarily composed of grass and a few trees with some reserves of actual “wilderness”. In the context of the West Island, as one walks around the area it is heavily embedded in the landscape and it is evident that landmarks are still there from the second wave; the quality of the landscape is representative of the modernism’s standardization from mass production, although there are still some remnants of the “cottage country” and it sense of place. The suburban landscape has transformed over the century from the rural villa, to cottage country to a split level house and as each generation passes there is less connection with wilderness – the original natural environment. The Garden City was in fact not an environmental design, but rather a social concept. The underlying use of the environment was to improve the quality of life for the residents by providing an alternative to the industrial city. Basically, the environment was used for aesthetic, health,

recreational, and agricultural purposes. Therefore, the primary purpose was not to foster a mutual relationship with the natural environment.

Smart Growth

The Smart Growth (henceforth, known as SG) movement stemmed from American laws and acts of environmental preservation passed in the early 1970's. The main goal was to create a management tool for land use and population growth, while at the same time fostering natural beauty in the area, by establishing urban growth boundaries (UGB). These were meant to prevent suburban developments beyond the boundaries of natural and agricultural land, consequently creating higher density housing development within the boundaries – a key strategy (Behan, Maoh & Kanaroglou, 2008; Farr, 2008; Grant 2009). The aim is redevelop or rejuvenate existing areas with high density mixed-use zoning in efforts to foster a more social and environmental space / place (Behan, Maoh & Kanaroglou, 2008; O'Connell, 2009) based on 10 principles (for the complete list of principles see Appendix B).

Dittmar, Belzer and Autler (2004) have voiced some concerns about the effectiveness of smart growth principles, stating that it neglects people's lifestyle habits of owning and living in single detached houses in a suburban neighbourhood. O'Connell (2008, 2009) mentions that if there is no awareness, community or governmental involvement in smart growth, policies will not materialize. She also mentions that there are also tensions between the neo-classical economic system of housing and restoration of the environment. Grammenos (2005) found that there is a considerable gap between the stated growth policies in planning documents and the performance of some

municipalities. Canadian researcher Jill Grant (2009) says that SG has the potential to reduce the consequences of growth, as in the case of British Columbia and Ontario who have implemented these principles into their policies. However, she felt that the majority of Canadian municipalities have failed to incorporate smart growth objectives into their planning policies.

Congress for the New Urbanism

New Urbanism (henceforth, known as NU) is a neo-traditional design-oriented approach to neighbourhood development design based on a contemporary polycentric ideal of green communities. It is considered one of the most innovative planning approaches of the century (Berke, 2002; Grant, 2009; Song & Knaap, 2003). NU was created in 1993 by several architects¹. It emulates the design of neighbourhoods from the early nineteenth century to the early twentieth century and is characterised by mixed-use town centres, traditional building types, connected street patterns, and walkable communities (Congress of New Urbanism, 2009; Grant, 2009; Song & Knaap, 2003; Youngentob & Hostetler, 2005). The movement was created as a response to post-war environmental issues, lack of community cohesion, and to counter suburban sprawl created by modern suburbs. It was designed with the intention of making efficient use of the land, protecting the environment and creating a sense of community (Garde, 2004; Youngentob & Hostetler, 2005).

The founders were influenced by Howard's *Garden City* (1898) and McHarg's *Design with Nature* (1969) which included highly dense, pedestrian orientated

¹ Peter Calthorpe, Andrés Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides and Dan Solomon.

communities with social networks (Howard) and the incorporation of natural landscape features in urban design (McHarg) (Berke, 2002; Farr, 2008). Some of the concerns raised in the Congress of New Urbanist's charter are (see Appendix C, for entire charter):

- Concern with a sense of place and social cohesion
- Promotion of high-density development pattern mixed use (homes, shops, schools, public spaces)
- Smart Code: an open framework that replaces older zoning codes, with more integrated zoning

Some scholars argue that NU has done a great job at creating mixed use neighbourhoods and villages, with high diversity of architectural styles and typologies. Therefore, it is being promoted as the solution to counter suburban sprawl and foster sustainable growth and development (Farr, 2008; Garde, 2004). However, there is a debate going on in the literature how NU deals with environmental issues. On the one side there are those who believe that NU balances social needs and environmental concerns, while on the other side there are those who critique the lack of real environmental efforts (Berke, 2002; Farr, 2008; Garde, 2004; Grant, 2009; Skaburskis, 2006; Song & Knaap, 2003; Youngentob & Hostetler, 2005).

One of the main proponents of NU's to use higher density in the development to counter suburban sprawl (Berke, 2002, Congress of New Urbansim, 2009; Farr, 2008; Garde, 2004; Skaburskis, 2006). By increasing the density some scholars argue that it will help improve the state of the environment by increasing the amount of open and natural space, reducing consumption, travel time, energy, and ultimately sprawl (Garde, 2004; Skaburskis, 2006;). Although NU design attractive places, it does however

increase sprawl by causing people that live in high rise apartments to move to a NU development where there is more less dense forms of housing and there is no clear consensus that NU helps to reduce sprawl on a regional level (Berke, 2002; Garde, 2004; Skaburskis, 2006).

Approximately 30% of the planners in Garde's (2004) study said that NU projects do not necessarily prevent development on the urban fringe. Therefore, designers and developers of NU should pay more attention paid to social opposition of infill developments and the cost of single detached homes in the periphery and include them in their projects at a regional scale. Berke argues that with out the regional aspect "[NU] does not fully embrace a holistic vision of community building" (Berke, 2002 p.21). He also argues that there is clear evidence in the NU's principles for neighbourhood design that only 17% of the outlined principles deal with environmental issues and there is no explicit information concerning the maintenance of basic functions for local and regional ecosystems. Berke, (2002 p.28) also heavily critiques Peter Calthorpe's (one of the founding architects) (1993) book, *The Next American Metropolis: Ecology, Community and the American Dream*, as

"Misleading as the principles in this text do not incorporate spatial conservation concepts developed in the field of landscape ecology. Only six of the seventy-two principles of new urbanism deal with environmental protection, and these principles do not incorporate the spatial concepts to protect the integrity of urban ecosystems and restore biodiversity (Forman and Godron 1986) ... there is no discussion of other critical landscape components that deal with the shape and design of habitat patches that are linked by corridors."

Another critique about NU is that it does not inhibit or encourage environmentally friendly attitudes, behaviours, and knowledge about local wildlife and conservation issues

and in fact they have the same attitudes towards the environment as those in the post war suburbs (Youngentob & Hostetler, 2005).

One would have to credit NU for its valiant attempt for rethinking urban design after post war development. In 1993, Peter Calthorpe coined the term “Transit Oriented Design” a practice that was used the late nineteenth and early twentieth century who brought back the concept back into the mainstream. The basis of this design is that development should be built and scaled around transportation. The train station should be the focal point of the design, there should be a variety of transportation options available, and it should only take a 10 minute walk to arrive at some form of transportation. (Farr, 2008)

Unfortunately, there are some fundamental flaws about NU’s attitude towards the environment protection that does not make it a holistic approach for ecological design. As Skaburskis says that (2006, p233) solution is “... [new urbanism can] reduce city spread by inducing households to move to and then to stay in single-family detached houses on smaller lots.” Therefore, the design must include a connection between the regional and local, moving beyond focusing solely on the sense of place, including more environmental issues at the forefront of their design and by educating the residents and designers about the environment and its natural processes (Berke, 2002; Youngentob & Hostetler, 2005)

Shades of Green

Making more ecological housing is key to creating ecological harmony between the built and natural environment; cities are ecological entities in themselves and

therefore should be viewed as an ecosystem both from an internal and external perspective (Coolen, 2006). There are two dominant environmental ideologies that are used to approach housing, namely light green or shallow ecology and dark green or deep ecology. This division was developed by the philosopher Arne Ness, who elaborated how environmental approaches can be understood across a spectrum with, on the one side, the deep ecology, is eco-centrists who argue that in order to achieve sustainability there needs to be fundamental change our ideologies, values and lifestyles, and on the other side shallow ecology, is technocentric argue that technological and scientific innovation along with economical incentives will reduce the impact on the environment (Guy & Farmer, 2001).

Deep Ecology

Deep ecology ideology advocates that we must make fundamental changes in our basic values and practices in order to preserve the natural environment. Humans are part of nature; they have no right to exploit nature and are subject to ecological laws. This perspective stems from ecocentric principles influenced by Aldo Leopold's "land ethic" and is based on a framework that combines the science of ecology with bioethics and attributes nature a unique value (Guy & Farmer, 2001). Deep ecologists feel they have a moral obligation as part of human responsibilities to act as stewards to save the environment beyond one's personal interests, and to take into account nonliving objects and ecological systems in their lifestyle choices. They are in favour of low-impact technology, morally and ecologically solution and are concerned with the environmental

impact neoclassical economic growth. (Berke, 2008; Bhatti, 2001; Farr, 2008; Frey, 1999; Guy & Farmer, 2001; Hess & Weintraub, 2004; Jarvis, 2003; Li, 2004)

Shallow Ecology

Shallow ecology still sees humans and nature as separate from each other, its view of “helping” the environment by upgrading to “green” technologies. Through this approach the individual can control nature with science and technology to fit the benefit of the individual’s enjoyment, while ignoring the environmental costs associated to their hedonic lifestyle. It is based on technocentric ideologies that aim to manage the environment for the benefit of present and future generations. It is founded on the principles of progress, efficiency, rationality, and control, in combination with neo-classical economics, science technology. Technocrats use a rational logic and scientific method to objectively analyze and identify problems. They believe that through the use of economical incentives and technological innovation (both of which perpetuate each other), humans will solve social and environmental problems (Bhatti, 2000; Frey, 1999; Guy & Farmer, 2001). Neo- classical economics focuses on the micro level - the individual, through an expansionist framework, to protect the consumer by maximizing, optimizing and insuring their hedonic rights are satisfied while disregarding global issues and consequences. It instils fixed universal principles of economic behaviour while ignoring the cultural context and environmental consequences of economic activity. Thus, it actually aids in the separation of humans from the natural environment. Restrictions are governed by the limitation of human activities through calculations (supply and demand) which are ascribed through monetary value placed on the environment and housing. This

acts as an index for the level quality and access to the consumer in terms of the level of environmental and housing (Bhatti, 2001; Connolly & Prothero, 2003; Frey, 1999; Jepson, 2004; Knox & Pinch, 2000; Rees & Wackernagei, 1996; Vlek, 2000).

They argue in terms of ecological modernization, an “integrative” approach that centres on science, technical disciplines (i.e. engineering and architecture) and economics, while excluding social sciences and psychology to resolve the environmental problems caused by human activity (Guy & Farmer, 2001). This takes a global and top down perspective which places a distance between the environmental and built landscape by putting human wants before the natural environments needs. The negative consequences that the built environment has on the natural one is a result of outmoded technologies and that new and improved “smart” ones should replace the older ones in order to improve the environmental impacts of the built landscape. Shallow ecologists symbolically borrow principles from ecology and scrutinize the ideals and validity of the darker greens as unsound (Berke, 2008; Bhatti, 2001; Farr, 2008; Frey, 1999; Guy & Farmer, 2001; Hess & Weintraub, 2004; Jarvis, 2003; Li, 2004).

Sustainability vs. Ecology

Although at first the two terms may appear similar, the core of each principle is quite different, with sustainability being technocentric and ecology being holistic. The relationship between the built and natural environment is determined by one’s ideology in reference to the cultural norms and ideals about how the built and natural environment is shaped and used; it may seem like a subtle difference between the two ideologies, but it

will radically alter the course of our perception and activities on the built landscape. The contemporary mainstream approach to achieving a balance is based on technocentricity, which emphasises the use of science, technology and economic incentives, which neglect the cultural and physiological aspects of the built landscape (Guy & Farmer, 2001; Jepson, 2004; Lee, 2005).

The contemporary notion of sustainability is derived from the 1987 Bruntland Commission - to meet the needs of the present without compromising the ability of future generations to meet their own needs (Guy & Farmer, 2001; Jepson, 2004; Lee, 2005). Because of its narrow scope, it has produced a vague definition that is inadequate for sustainable housing because it lacks broadness. This definition has come under scrutiny by numerous scholars because of the technocentric view that it produced, making it only shallow or light green approach. Jepson points out the short coming of the definition, that it is intrinsically anthropocentric in character: nothing is included about the “needs” of the environment or of other biological entities (Jepson, 2004). Marcuse (1998) states, in fact, that it should not even be considered as a viable objective for housing or for any other urban issues because being sustainable would actually be counter intuitive. The main problems with the definition are that, first, it is incomplete, and second, that the focus of the critique is the word ‘needs’. Is it to sustain our current need of growth and progress at the expense of the environment? How are “needs” defined? How can we determine the needs of the future? It seems that western society also added wants into the definition by the consumption choice that society is making. These lifestyle and consumption choices are embedded in our landscapes and by incorporating superficial measures into our routine we can make being “sustainable” an accomplishable goal. Like

many authors state, this means we would be sustaining our current lifestyles which is the reason why the environment is not in a good situation (Bhatti, 2001; Grant, Manuel & Joudrey, 1996; Jepson, 2004; Lee, 2005; Marcuse, 1998; Priemus, 2005)

Some authors, such as Chiu (2004), include the environmental component in their definition of housing sustainability: "The primary purpose of housing development is to meet housing needs and to improve housing conditions. Sustainable housing should not be merely about meeting basic needs, but should also improve the liveability of the living environment." (Chiu, 2004 p. 65) But if our "need" is to live in a 3000 square foot detached house in the suburbs, can we be really looking after the wellbeing of the environment?

The ecological approach is best suited to the application of environmental policies and design because of its holistic, interdisciplinary and integrated nature. Although sustainability may be seen as an honest attempt to do this, it is latent with modern, anthropocentric and technocentric ideologies, and therefore, should not be used as the path towards reaching harmony with the natural environment. Since urban areas are ecological entities themselves, biodiversity concepts should also apply to them. Homes and communities are considered integral parts of the urban landscape, but they also symbolize human ecological transformation (Savard, Clergeau, & Mennechez, 2000; Teixiera, 2007). Urban centres require ecological input and discard outputs via the hinterlands through consumption of the natural resources and natural biogeochemical cycles. Our current ideology and image separates nature and city both functionally and spatially, which has led us to construct an image of nature as a distinct entity in which one can study wildlife in less dense areas outside the urban periphery. Unfortunately, this

has a cultural and psychological impact on the way we perceive the dichotomy between nature and city, which has led us to separation instead of integration. Therefore, we exclude nature from the energy and material flow required to sustain our cities (Lee, 2005; Rees & Wackernagei, 1996; Tjallingii, 2000).

Ecology is not simply a scientific frame work; it is a holistic approach that can be applied to almost any discipline. As Lawrence mentions “ecology derives from the ancient Greek words oikos and logos and means the logic of the habitat” (Lawrence, 2006, p.206) For instance, there is human ecology, which is the study of how social relationships between people are affected by the natural area of their habitat. Cultural ecology is the study of the ways human groups and communities adapt to their environment (Lawrence, 2006). Landscape ecology explores the complex interconnections between human activities and natural processes in the environment (Grant et al, 1996) Production ecology based on Bourdieu’s notion of a ‘cultural field’ examines how media, through various relationships between technologies and actors, (managers and audiences) produce culturally constructed concepts of nature (Cottle, 2004). Interactive ecology integrates space, place, lifestyle and life cycle by focusing on the individual's (internal) and community’s (external) interactive transactional relationships with and between the built, human and natural environment.

The built environment is also a physical landmark in the landscape; the consumption, production, manufacturing and construction processes must also be taken into account in addition to the socio-cultural relationships between the natural, human and natural environment. Landscape planning for an ecological design should have minimal environmental intrusion on the native environment of building location. It is also

important to integrate and to incorporate the consideration of opportunities in material recycling with a “cradle-to- grave” life cycle reprocessing before wasting material and further damaging the native landscape and the global/local hinterlands during pre and post construction (Deutz, & Gibbs, 2004; Ngowi, 2001). As quoted from Berkes’s book, *Sacred Ecology* “The ecologist as a scientist is forced to treat nature as essentially non-living, a machine to be dissected, interpreted and manipulated” (Evenden 1993, p.20) (Berkes; 1999, p.54). This shows a lack of humanistic concepts and morality toward nature.

Suffice to say that we are a part of the natural ecosystem on a global and local level, and should take the possible consequences of our actions on the environment into consideration. Humans are a single species amongst countless others, and we should not use science as management for them. We should, in fact, do the opposite; we should learn how to manage ourselves so that we fit into the world’s ecosystem and not the other way around. As quoted from Grant et al’s article “The key to good planning,” as Kay and Schneider (1994, 33) note, requires that “we don’t manage ecosystems, we manage our interaction with them.” (Grant et al, 2006, p.333).

Methodological Framework

There have been numerous studies conducted on housing in general by many scholars. In particular, conventional research has tried to define the concept of the suburban home, historical evolution, housing economics, mobility patterns and technological innovation (for environmental solutions). In contrast, I have chosen to examine the consumption and cultural construction of the suburban home, with particular emphasis on ecological housing through the habitus and image of the residents.

I focus on the Western suburbs of Montréal (see figure 3.1) and middle and upper middle class young parents and couples (henceforth, referred to respondents or participants) who have either lived or currently live in one of the Western suburban cities. The majority of the residents were raised in one of these areas and have a perceived image that the suburbs, particularly the Western suburbs are an ideal place to raise their family because of child friendly environments and green spaces. Even with the best intention of wanting to raise their children surrounded by greenery, the reality is that suburban development harms the natural environment, by replacing the natural ecosystem with suburban housing. Unfortunately, we only become aware of the negative impacts that these lifestyles have on the natural environment when they affect our economy. In 2007, Vlek and Steg published a summary of the variety of impacts on the environment caused by suburban sprawl that usefully catalogues the effects (see Appendix D).

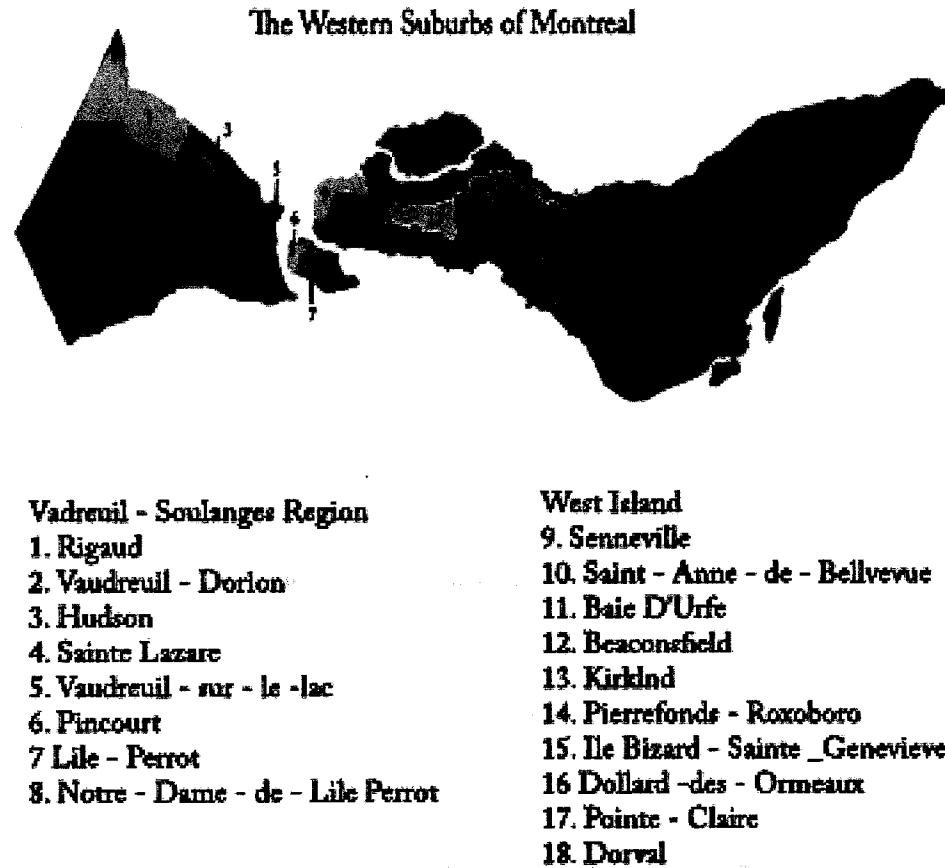


Figure 3.1 – Western Suburbs of Montréal

source: author

There is insufficient qualitative research from a cultural perspective that bridges housing, environment, lifestyle and consumer behaviour from the resident's point of view. Since the residents are ultimately the ones who purchase houses and make them their home (as defined in the literature review), it is imperative that their needs are met in the design of higher density more ecological housing forms and communities. We want parents to transition from their conventional suburban residences to more ecological developments. There is also a lack of research on Home and housing in the Western suburbs of Montréal; most of the studies have been conducted on the Central and Eastern areas, particularly the older industrial suburbs.

Since the aim of my thesis is to provide an insight into the young family's image(s) and habitus of home and to discover the mechanisms that will aid in the transition of their image and consumption preference of home to a deeper ecology, I needed collect data on their housing ideals, needs, environmental awareness, and perception of housing Montréal provides many possibilities for such research and I chose to conduct my work in the Western Suburbs (see Figure 3.1). The reasons why the Western Suburbs make a good choice of study site are as follows: the population (Statistics Canada, 2007) of the West Island makes up 12% of the population of the Island of Montréal, and occupies a third of the area of land. The average density of the West Island is 1694 (population / sq km) compared to the density of the rest of Montréal, which is 3,715 (population / sq km) (Statistics Canada, 2007). The number of single detached housing in the West Island is 78,871, which accounts for 95% of the housing, while the rest of Montréal only has 55, 743 single detached houses (accounting for 7.5 % housing typologies) (Statistics Canada, 2007). The image of the "Canadian Dream", living in a single detached house in the suburbs, plays an important role in land use and the impacts on the natural environment. Due to the lack of insight in planning, design and development, only four percent of the area of the West Island is deemed agricultural (Montréal Master Plan, 2004) while 13% of the total land area is considered "natural environment" (Tremblay, 2007) in the forms of lined trees, green spaces and parks (Montréal Master Plan, 2004).

The fact that Western suburban development and design is moving from the West Island to off the island into the surrounding western rural communities should be a great concern. The new suburbs are quickly replacing natural and agriculture ecosystems with

mass produced housing with a very limited uni-functional aesthetic “token ecosystem”. The population (2006) of these Off Island Communities ² is 23, 394 and between 2001-2006 increased on average 25.6% (as high as 44.5%) and an average density of 636 (Statistics Canada, 2007). The data reveals that poor design, planning and development is causing suburban sprawl, and if not stopped soon, the natural environment will be reduced to a mere percentage.

There are also several personal reasons why I chose the Western Suburbs. I lived in Pointe Claire, a western suburban city for a year when I moved to Montréal, which constitutes my personal experience in a post war suburb and thus became my point of reference. I also frequently made the trip between to Pointe Claire and Hawkesbury, Ontario³ where I grew up, to visit my family. For over 20 years I have been able to see first hand the affect of suburban development on the cultural and environmental landscape of the rural communities off the island; particularly the negative environmental impacts it has on the rural ecosystems (agricultural and natural). Another reason why I chose the Western suburbs was that many of my friends are from that area, which granted easier access to subjects for my research.

The people I have chosen to interview, are young parents who have young children between the ages 0 -5 and couples that are planning to have children within three years. I chose couples with children because parents think that the suburbs are an ideal place and space to raise their children. The other criterion was that they had to either have lived or live in the West Island, and were looking or have bought a single detached house in the West Island, or one of the western communities off the Island of Montréal. I

² Hudson, Pincourt, Saint-Lazare, Rigaud, Vaudreuil-Dorion, and Vaudreuil-sur-le-Lac

³ Hawkesbury is a small city approximately 80 km West of Montréal.

chose that particular group because of their active involvement in buying a suburban home and thus allowed me to acquire more accurate information, as opposed to someone who bought their home over five years ago whose recollection of the event maybe distorted due time and memory loss.

As outlined in the literature review I am interested in the cultural construct of the suburban habitus and image of the built and natural environment of the western suburbs of Montréal. I devised three ways of examining this construct: a questionnaire survey, a survey based photographs and a community mapping exercise.

I decided to interview the young families on an individual basis because interviewing them as couples, would take too long and not all of the partners were available for the interview. In order to pursue the exploration of the factors involved in the transition towards ecological housing, I used a semi-structured interview with a sample group of young families to obtain an understanding about their habitus and image construction about housing, environment and eco-communities. With the use of a questionnaire I was able to ask key questions, and at the same time, allow the respondents to answer the question in their own words. As a supplementary method of extrapolating information from a subconscious level, I used visual methods of photography and community mapping to enrich the information gained from the questionnaire.

In summary, each interview, therefore, comprised three elements and gave me both the verbal and visual information I needed to investigate my research questions.

Sample Selection

I used my social networks to obtain my 20 interviews from two primary sources, my family and friends from the Western suburbs and the staff and parent's from

Monchichi Daycare. The use of the daycare was one that enabled me to target a group of people that was appropriate for my survey: young parents residing in my study area. The friends that I used as part of my sample were my primary friends, meaning that I have established an intimate relationship with them over 5 years. The ones I did interviewed were born or living in one of the western suburbs and are in the planning process to start a family within the next three years.

The second group was from Monchichi Daycare, a semi-private daycare in Kirkland that caters to middle and upper-middle class parents from the Western Suburbs and even from other suburban areas such as Laval and Côte Saint Luc. I worked at the daycare as a temporary replacement cook from June through September 2008. During that time I began to build a rapport with the staff, parents and children which allowed me to establish enough of a relationship to ask them personal questions about their homes. Before I spoke to the parents, I discussed my research with the owner and the director of the daycare and if I could ask to have their permission to ask the parents if they would be interested in participating in my research. Once I received approval I talked to some of the parents and staff about my research to see if they were interested in participating. After my discussions I realized that it was possible to use them as my sample group. I printed a brief explanation of my research and provided my contact information, which I then put in each child's "basket". The parents that were interested came and talked to me about the study while they were picking up their children. I told them a bit more about the research and established a meeting time.

I then emailed them a copy of the consent form (see Appendix E) explaining their rights and that the information gathered would be used solely for academic research and

that their anonymity would be protected. The form also had the contact information of the chair of the department, should they have any questions about my conduct. Once the parent replied to the email and acknowledged the consent form, I then formally started to proceed with arranging a time for the interview.

Interview Methods

The research draws on information from the 20 qualitative interviews I conducted from November 2008 to January 2009. These were in depth interviews aimed at extracting three sets of data: 1) what are the suburbanite's habitus and images of home and environment, 2) how does their habitus and image(s) affect their consumption process / consumer behaviour of purchasing a house in a particular neighbourhood and 3) what are their housing needs. With the following information obtained I could use this as a base for shaping the design for ecological homes.

Prior to commencing the formal interviews I did a pilot interview with five of my friends to see what types of results the interview would yield I found that I had to cut one of the sections which took an hour and half on its own, which made the duration of the interview totaling three hours. During this pilot interview I found that 2 hours was the maximum time before interview fatigue set in. I also had to remove a few of the photographs from the second part because some of them were redundant and therefore wasted time. I also learned that a more structured approach was needed for the photographs to save sufficient time for the rest of the interview. The results from the pilot did prove that it would be possible to obtain sufficient information about the images and habitus of the home, the environment and ecological housing.

The interview was divided into five parts. The first part was aimed at getting a sense of the housing and neighborhood habitus and images. I asked questions which included the following:

- *Where did you grow up?*
- *Are you trying to live in a similar or duplicate the environment that you grew up in? Why?*
- *Why did you choose this house and neighbourhood over other areas?*
- *Describe your ideal house and neighbourhood?*

For the full questionnaire please see Appendix C. The information I gathered allowed me to see if there were similarities between the housing they currently, or soon planned to occupy, and the housing they grew up in. The conversations offered insights into how their habitus and images have evolved and shaped their cultural construction of home.

The second part of the interview consisted of examining 5 sets of photographs that were taken around Montréal, outside of the Western Suburbs. Interestingly to date few geographers have used photographs as a part of their investigation of urban issues. However, this approach is used by architects and urban designers. For example, Luka (2001) used photographs to explore the meanings and images of two postwar suburbs of Quebec City. Since this methodology is less developed in geography, I have adapted Luka's approach. Each section had between 8 – 15 photos and included commercial settings, housing typologies (medium to high density), yard space, parks and green space. They were asked to describe what they liked and disliked about the photographs. This allowed them to associate their design preferences, ideals and images of home through

place and space. This information can be particularly informative for providing a sketch of key cognitive space(s).

The third part dealt with their knowledge and awareness of the built and natural environment and the relationships between the two. I asked questions which included the following:

- *“Do you find that your house and neighbourhood is better for the environment than one in the city?”*
- *Have you ever heard of green or sustainable buildings?*
- *Have you ever heard of suburban sprawl?*
- *Have you heard of ecological footprint?”*

From these sets of questions, I was able to trace the factors that shaped their ideal and images from external forces, adding to the first part, which dealt with internal forces. Based on the responses I was able to extrapolate their images of the environment and ecological housing, and to an extent, their awareness of the impacts that their lifestyle had on the environment.

The fourth section of the interview gathered information about the basic demographics of the respondents. It was used to see if my sample was representative of the average population of the western suburbs. The majority of the respondents were women between the age of 28 and 45, married or in common law relationship with children, with a bachelor's degree and had an average household income of \$105, 500. They lived in a house valued on average at \$317, 200; they are in the business, health and child care sectors. Half of the respondents were born, and grew up, in one of the western

suburbs of Montréal, while twenty five percent of the respondents grew up in the central area of Montréal.

In the last part of the interview I asked the participants to sketch or draw their ideal community based on a scale using walking distance. The purpose of this exercise was to find out what are the essential elements of their housing ideas had changed their views about low density suburban housing. This exercise is also known as community mapping which is an effective tool in the development of eco-communities because it is a response to an individual's environmental perception and image (Fahy & Ó Cinnéide, 2009). Using drawings and images helped the participant to map out and communicate the cognitive thoughts and articulate their ideals. This method can generate a more holistic expression and perception of self – identity and assists respondents to communicate their own experiences that cannot be normally recounted verbally (Chaplin, 1994; Canal, 2004; Edgar, 2004; Pink, 2004; Rose, 2001).

The interviews were primarily held at a café near the daycare, and at some of the participant's homes. They lasted approximately two hours. Before I officially started the interviews I made sure that the participant signed and understood the consent form, clarified any questions that they had and thanked them for contributing to my research. Some of the parents could not commit to an interview because of their schedules; we thus proceeded via email, at their leisure. To ensure that the questions were answered as if being in a face-to-face interview, if the participant's answer did not address the question I simply reworded it and asked them to answer again.

All of the interviews were conducted in English and 15 were recorded using an audio device. The mother tongue of 90% of the participants is English, except for two

people who spoke French and Taiwanese. The West Island is considered predominantly an English community, even though there is a significant bilingual and Francophone community. My study represents the Anglophone's image, ideals and views of the suburbs, environment and eco-communities.

Photographic Survey

In deciding on the type of visual representation, I chose photograph of the basic components of the neighbourhoods ⁴ in Montréal. The photographs were taken on the Island of Montréal, in the Western and South Western inner city suburbs⁵. I did not take any pictures of the Eastern part of Montréal because of time and travelling restrictions, and I found that there were sufficient samples in the areas where I did take the photographs. I also did not take any pictures from the Western suburbs of Montréal (my study area) to expose participants to different built and natural environments of the inner city suburbs. Since the objective of the research was design focused, I eliminated economical, demographic and psychographic criteria in the built and natural environment that I was photographing.

There were two reasons for the photographic survey: one was to seek out the barriers of higher density design that prevent the participant from moving closer to the urban core; and the other was to identify the key fundamental spaces concerning the construction of their ideal home and house. I was then able to analyse the information provided to make positive suggestions that would enhance the inner city as a place and space for the participant's home. As an example, for housing, I took photographs of three basic typologies found in Montréal: semidetached, row and condominiums / apartments.

⁴ Built environment: housing and commercial area. Natural environment: yards, green space and parks.

⁵ Pointe-Saint-Charles, Montréal South West, Notre-Dame-de-Grâce, Rosemont-La Petite-Patrie, Ville Saint Laurent, and Westmount

I specifically did not take any of single detached housing because I wanted the participants' opinions about denser housing typologies to find the transitional barriers of these typologies. I also looked at four architectural styles: modern, post – modern (neo modern), traditional (early twentieth century) and redeveloped brownfields in order to increase the variety of styles within the different housing typologies to understand the participant's housing aesthetics that could be used to. As for the commercial areas, I focused on the boutique style from traditional and modern development, strip malls, and traditional “farmers markets”. For the green spaces, parks and yards I chose spaces that had a different density of vegetation and natural elements as well as ones with child and non-child spaces.

I used photographs as opposed to drawings, sketches and renderings because they offer the closest, most realistic representation of the subject; this meant that the participant did not have to work by converting the picture into reality. Drawings, sketches and renderings might have allowed the participant to see an image beyond the existing reality of the built environment. However, for the purpose of my research I wanted the participant to identify with existing typologies of the built environment of inner city suburbs in Montréal, rather than conceptual international “ecological” designs. Therefore, the importance of the use of existing designs for this exercise allowed the participant to identify and comment on the design barriers that thwart the transition to an eco-community design, in the context of Montréal. According to housing scholar Froud (2004), people will have a much easier time moving to a location if they can identify with the landmarks of that community as they will “transfer” housing knowledge from their previous home.

I chose to take my own photographs rather than scanning pictures from print or downloading from an electronic source for the following reasons: first, to avoid the complication of copyright issues. Second, to reduce the amount of time spent searching the different typologies of the of the neighbourhood components through various media sources. Finally, to have a variety of photographs from different geographic locations and to increase the diversity of design styles and typologies for each of the component so that it could enrich the information that the participants would provide.

The standard technical aspects that I used for taking the photographs were:

- A wide angle (17mm focal length) to get a wider view of the subject/object
- All the photographs were mostly taken on sunny days between 11 am until 2pm to ensure that the lighting would be the same, in order to not cause a psychological bias in the participant i.e. cloudy days are more likely to have a negative view on the participant.
- For buildings, depending of the relation to the street, I would take a front shot (directly in front of the facade of the building or from a 45° angle). The desired angle to take a picture is from a 45° angle because it allows the facade of the building and another side to be viewed, thus giving a more holistic perspective of building.

Introduction

In this chapter, we will be examining the habitus and images of 20 young families with children ages 0 – 5 who live in either the West Island or one of the off island cities (West Island and the off island cities shall be referred to as the Western suburbs henceforth), will be presented as they provide information on their housing needs that will, in turn be used as the catalyst for transition from conventional suburban housing to a deeper ecological home. Habitus and image construct, design components, and their affect on consumer behaviour and lifestyle, will be explored within my findings based on the interview, photographic survey and the community mapping exercise. The young families' demographic information will also be analyzed in the profile of the respondents.

The transition process will be examined in detail with a particular focus on internal and external factors such as education, awareness, media, experiences and the [sub] urban built and natural environment; how they shape and define the young families' habitus and images. The participants will be questioned about non-monetary incentives and barriers directly and indirectly that will affect the transition into ecological housing.

In total, there were 20 interviews that were administered. The majority of the respondents were mothers with children that had purchased a single detached house with in the last three years, in the West Island. The findings are divided into eight sections: demographic, habitus and image, environmental, environmental image, ecological housing, transportation, photographs and community maps. Throughout the following chapters, I assigned pseudo names to the participants in order to protect their identity.

Profile of Interview Respondents

The sample of my study is quite similar when compared to the average demographics from the suburban cities which they live, as shown in Table – 4.1. Half of the respondents were born and raised in one of the suburban cities in the West Island. From this sample, the respondents did not live in a particular geographical concentration within the Western Suburbs. A quarter of the population of my sample were born and raised in other suburban cities on the Island of Montréal such as Saint Laurent, Town of Mount Royal and Saint-Léonard. This means that the 75% of the sample group had a habitus that began in a suburban area, and therefore, this settlement typology was a point of reference for their housing ideals and images. Only one of the respondents grew up and was born in another city; one person who originated from Halifax, Nova Scotia. For those that immigrated there was no particular country or continent, rather it was quite diverse ranging from countries such as Jamaica, Taiwan, and South Africa. One of the respondents was raised in multiple countries because of their parents work and therefore had to travel often so they lived in countries such as Brazil, India and Canada.

<u>Female Participants Demographics vs. Average Statistics Canada Demographics*</u>				
	Value of House	Education - Bachelors	Combined Household Income with Children	Immigrant
Statistics Canada	\$300,849.00	66%	\$98,245.00	26%
Respondents	\$317,200	67%	\$105,500	20%

Table 4.1 Female Participants Demographics vs. Average Statistics Canada Demographics

* Based on the cumulative average of the participant's suburban residence.

Geographic Location of Birth Place of all Participants

Western Montréal	Central Montréal	Province of Quebec	Province Outside of Quebec	International
50%	25%	0%	5%	20%

Source: field research

Table 4.2 Geographic Location of Birth Place of all Participants

The age range of the respondents was from, 25 years to 49 years. The exact age range is not known because the vast majority of the respondents were in their thirties, with a slight majority in their early thirties.

Age of Respondents	%
25 - 29	10
30 – 34	40
35 – 39	35
40 - 49	15

Table 4.3 Ages of Respondents

Family Structure		
Marital Status		
Married	Common Law	Single Parent / Divorced
70%	25%	5%
Children		
With Children		Without Children
70 %		30%

Table 4.4 – Family Structure of Young Families

The majority (70%) of the respondents were married with young children. The remaining respondents were in common law. Despite not being married, they have been in a relationship for two to seven years. In my sample group, there is no relationship between marital status and having children, 10% of the married respondents do not have children, while 75% of the respondents who are in common law or single (5%) do have children. Also, in my sample group, there was no relationship between marital status, children and age, each age bracket has married and common law partner.

The primary occupation for the sample group was in the business sector (65%), but there was no specific concentration. Occupational sectors ranged from sales, importing, business analysis, administrative assistant, finance and real estate. The second occupational sector was health and included occupations such as a coach / counselor, psychologist and dental hygienist. One of the respondents was a social worker and another individual was computer programmer. Two respondents from Monchichi Daycare that participated in the research are early childhood educators and as well as the director, who plays mostly an administrative role but on occasion teaches as well.

Occupation	
Business	65%
Health	15%
Social	5%
Computer	5%
Education	10%

Table 4.5 – Occupation of Respondents

The majority of the respondents (60%) have earned a bachelor's degree area of study ranged from business administration, marketing, English, computer science and sociology. There were six respondents (30%) that attained a Collège d'enseignement général et professionnel (CEGEP) diplomas in areas such as computer programming, dental hygiene, early childhood education and business administration. There were only two respondents that deviated from these two educational brackets one who attained a high school diploma, and another who received a masters in psychology.

Education	
High school	5%
Collège d'enseignement général et professionnel (CEGEP)	30%
Bachelor's	60%
Master's	5%

Table 4.6 – Highest Level of Education Earned

Housing	
Purchase Price (in thousands)	%
Less than 200	15
200 – 249.	65
250 – 299	10
300 – 349	5
350 – 399	5
500 – 549	5
Current Value	
Less than 200	
200 – 249	15
250 – 299	50
300 – 349	10
350 – 399	15

500 – 549	10
Fair Price	
Less than 200	25
200 – 249	25
250 – 299	40
300 – 349	5
450 – 499	5

Table 4.7 - Housing Value

Source: research interview

According to the interviews, the most common (65%) price range for a starter home is between \$200,000 and 249,999. In fact, as you can see in Table 4.7 the majority of the starter houses bought were within the \$200K range. The price of the home was affected by two primary factors: neighbourhood location, the date of purchase and income. Different suburbs have different demographics; therefore, have an effect on the price and value of the home. For instance a house in the newer area of Pierrefonds-Roxboro would cost less than a house in an older suburb such as Senneville or Pointe-Claire, or a higher class neo-modern (nouveaux riches) suburb such as Kirkland; where a house can sell for half a million dollars.

Time plays an important role in the contribution of value in two ways: 1) when the house was built and 2) when the house was purchased. The older the house as in the case in West Island the higher the value. This was due to the fact older homes had larger interiors and yard space. According to my respondents, the most expensive housing in the West Island tend to be along the coast of Lac St. Louis because of the water front and it was the first placed developed by wealthy industrialists; these house primarily located in the southern part of the West Island and can range from \$500, 000 to millions. Neo-

modern homes, depending on the size, sell on average in the 300K bracket, some of those homes are split level and have an acre yard. The northern part of the West Island is less expensive because of the decrease in quality of housing and the fact that the interiors and exteriors are smaller. The cheapest forms of housing tend to be neo-modern suburbs, developed on “virgin” land located on the periphery of the northern part of the west Island and off the island of Montréal such as Vaudreuil Dorion. These tend to be lower quality and even smaller. Distance plays another role in housing value: the further the neighbourhood is from the core of Montréal, the less expensive.

The time when house was bought also has an effect on the type as you can see in the Table some of the respondents had an increase in their property value since they originally bought. Those that bought earlier were able to have the same house as some of the other respondents for less.

Income is directly proportional in the case of my sample group to the size and location of my respondents. Those that were more affluent could afford either a larger house in a newer development such as in Kirkland or an older post war suburban home in Pointe- Claire. As you can see in Table 4.8 the majority of the household incomes were less than \$90, 000, and as shown in Table 4.7, the majority of houses were purchased at less than \$250,000. This shows that there is a relation between income and price value.

Household Income (in thousands)	Percentage
Less 40	15
70- 79.9	45
80 - 89	20
100 -125.9	5
126 - 150	10
151 – 199.9	5
200 - 225	5

Table 4.8 – Household Income

Part of having ecological communities is having affordable housing, so I asked the participants what they would consider a fair price for a house based on their needs. The vast majority of respondents believe that a house should cost them no more than \$300, 000 as shown in Table 4.7. Only two respondents (10%) were willing to pay more than \$300, 000, primarily because their income was higher and were able to afford more expensive houses.

Habitus and Image of Home

As the research reported in the Literature Review has indicated, the key for change, transition and adaptation to ecological homes and communities lies in the cultural attitudes that have been passed on from generation to generation. The Brundtland Commission's report noted that culture is the key to change, and not technology, science and economics stimulus: "perceived needs are socially and culturally determined, and sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecological possible and to which all can reasonably aspire" (Chiu, 2004, p.65). Unfortunately, shallow ecology, which is the

mainstream ideology that popularized the concept of sustainability failed to incorporate that part of the report into the definition of sustainability. To understand how we can help direct people's attitudes towards transitional change, we must first gain an understanding of the process of the cultural construction of suburban habitus and its images.

Habitus is constructed during childhood and is based on a pre-conscious and a pre-verbal agreement between agents, society and the built environment. Where the person was 'raised' relates to the cultural and economical capital of one's parents (Gram – Hanssen, Bech – Danielsen, 2004). The interviewee is predisposed to accept ideology without thinking because the person accept the labels or categories as natural or inevitable (Popescu, 2006). The actions that we take in the everyday are not always habitual; there is a degree of spontaneity and originality. We are able to consciously think and experience, and therefore cultivate a conscious sense of place. Also, one does not necessarily have to identify with the community where one was born; the individual does have the consciousness and creativity necessary to leading an alternative lifestyle to the one they were raised with (Easthope, 2004, Lappegard, Hauge, & Kolstad, 2007; Setten, 2004). Sometimes generations reject habitus of parents.

As the literature review states, images are a reflection of ideologies and habitus. Therefore they act as reference for what the neighbourhoods should be, and are a basis for consumption through identity and the lifestyle choices one makes. Images are created from internal and external factors that form the basis of one's habitus. The habitus which is a system of acquired personal preferences and dispositions around which any individual's thought and activities are perceived structured and are constituted by

constant everyday practices that represents the individuals' internalized social structure of behaviour. Internal factors are shaped by one's experiences, memories and by the activities that are carried out at that particular place and space as a part of their everyday lives. External factors arise from society, friends, family, education, media and the existing built environment (Archer, 2005; Easthope, 2004; Gram – Hanssen, Bech – Danielsen, 2004; Podmore, 2008; Setten, 2004).

In this research the first part of the interview dealt with habitus. In this study, 85% of the participants wanted to recreate the same living experiences that they had while growing up. The nature of their experiences and memories were mostly positive and they, therefore, wanted to recreate a similar environment and living conditions for their own children. This shows that ideologies lead to behaviours which are transmitted from generation to generation and through of positive experiences from these places and spaces created a demand for similar environments in which, to raise a family. The main difference that they seek is larger space, which according to Chiu has become a cultural norm and also stems from the pillars of the suburban ideology of expansionism; although it may be subtle on the everyday level, it is a leading factor that contributes to suburban sprawl. The more interior and exterior space required means an increase amount of natural resources that is required to produce these suburban developments and each individual home (Chiu, 2004).

While, there was a relationship between the environments in which the interviewees were raised and the homes they now occupy, however, there is a discrepancy as to which factor is at primary force between cognitive space and sense of place. To determine the attachment and the type of attachment one has to the modern

suburb depends on the bond that they have with a particular place which can be described by the term coined by Yi-Fu Tuan; *topophilia* – the love of place, which refers to emotional and personal attachment to space and place (Easthope, 2004; Kauko, 2004; Knox, Marston & Nash, 2004). The intensity of the relationship varies from individual to individual and can be experienced on many different levels. *Rootedness* is where one experiences a deep connection with a home-place(s) because of long residence either in that particular house, community or city where there is a high degree of comfort and security (Easthope, 2004). A sense of place, however, involves knowingly establishing a relationship with a particular space, based on one's inside cognition: experiences, memories, images, ideologies and external forces such as the media and family (Easthope, 2004; Knox et al, 2004; Leonard, Perkins & Thorns; 2004).

Based on the research conducted, there are three levels of attachment to the respondents' previous home and neighbourhood: deeply rooted, sense of connection and repulsion. Those that were repelled comprised only 10% of the interviews, and they were repelled because of negative experiences and memories. One's home is typically a bounded place of security and retreat but it can also be a place of fear and danger (Blunt, 2005; Blunt & Varley, 2004; Easthope, 2004; Knox & Pinch, 2000). One of the interviews lived in an apartment above a store which was robbed. The respondents heard the sounds from the robbery. Due to that experience, they associate apartments above commercial property as unsafe and insecure to this day. Some of the factors they listed that contributed to the unpleasantness were: the "rough" part of town, high noise levels, low levels of security and privacy from the street and a proximity school playground. Based on the information provided by the respondents, the factors that deter them from

living in higher density communities are noise and traffic flow. These factors should therefore be taken into account in future design.

Those that were 'rooted' (20%) linked their previous homes with positive memories, experiences of family and social networks in their particular neighbourhood. The emphasis on attachment focused more on the sense of place rather than the spatial configuration of their home and neighbourhoods. To quote two of my respondents:

"I moved back to D.D.O., Westpark area because we wanted to live in a Jewish environment, just like I did growing up. I really enjoyed growing up in D.D.O. and knew it's a great place to start a family and that's why we moved here. I didn't really want to end up buying a house like the one I grew up in, but when we saw the house we really liked it and felt like it would be our home." - Gertrude

"Absolutely, I had a great childhood living in that house in the Suburbs. I think it's important to give that to my kids... the space, the outdoors and the family time." - Richard

Although the majority of the attachments were linked to the exterior (i.e. neighbourhood and outdoors), some were more attached to the cognitive space of the interior of their home, in particular the materials that were used. I found that when the respondents were looking to buy a home, the initial emphasis was placed on the spatial layout of the urban design, such as open spaces, greenery and yard-space. Once settled in their new homes the attachment shifted from the exterior to the interior because the respondents spent more time indoors than outdoors, therefore, it created a more intimate relationship with the spatial configuration and sense of place inside.

Two people had strong relations with the community of their upbringing, while the others had attachments because of memories prior to their parents separating. These

examples show that there can be variety of factors that can contribute to their attachment but the common thread that ties everything together is positive memories.

The rest of the participants (70%) are what Crowe (1995) describes as 'déjà vu' to a particular area in that they felt an immediate familiarity with the general layout of a space because they have stronger bond to spatial landmarks (single detached homes and yard space) of the suburbs rather than the attachment to a sense of place. Although they grew up in particular suburbs, they are willing to move to other suburban areas within western Montréal and even, in some cases, off the island into the surrounding smaller communities.

Furthermore economic constraints were not a factor in relation to place attachment with the area in which the participants grew up in. If sense of place was greater, then they would make financial compromises and buy a less expensive house within that neighbourhood or community. Those who bought a house outside of their neighbourhood because of financial reasons did so because the topophilia was lower and attachment to cognitive space was higher.

This is further reinforced by the fact that 95% of the participants do not live in the same suburban city that they grew up in, but do live in either West Island (55%) or in one of the off island communities (45%).

When asked about the main differences between their older home and the one they currently reside, the most common answer had to do with the size of the actual house and yard. Those that had a higher income would live in a larger space while those that had an average household income tended to live in smaller space in newer developments and the majority of them were in the off-island community. Below in Table 4.9 are some

of the comments that some of the respondents made about the similarities and differences of their past and current homes. There is evidence that space and size are reoccurring themes. This also proves that there is a stronger bond to relative and cognitive space than place. Generally speaking the similarities that have been carried from the older to the newer homes are the green spaces, and the single detached house. The differences are the size of the house and the yard; some are smaller or larger depending on income.

Location	Similarities	Differences
Off Island Western Communities	<ul style="list-style-type: none"> - Mature trees, family oriented, close to water, exposed brick, split level - Harold - Green space, schools, amenities & back yard - Matilda - Older house was similar architecture: natural wood and it felt homey. - Betsy 	<ul style="list-style-type: none"> - More quite, water like being on vocation, more parks, more kids - Agnes -Smaller house, housing is closer together, prefer the older house that grew up in - Matilda - We have a yard, garage, make as much noise, A LOT more space – Fanny
West Island	<ul style="list-style-type: none"> - Family large space home forest neighbourhood park place for kids - Tiffany - Same style parents & current house are raised bungalows in D.D.O. – Westpark - Gertrude - Ethnic, safe, clean (northern part) & friendly – Claudia 	<ul style="list-style-type: none"> - less room than parents, 1000 square feet of difference, no fire place - Richard - grew up in was bigger overall , more storage /closet space, heated by oil, large patio - Esther - no garage, no metro access, larger rooms, amenities not in walking distance - Alfonso

Table 4.9 – Difference between the Past and Present Home

In order to find out what constitutes “home” from the perspective of young families I asked them about their ideal home and neighbourhood. The purpose of the

question was to extract key themes from their responses and to see the frequency of these themes throughout the rest of the interview and to consider these components as factors for the design of more ecological housing. The neighbourhood, house, parks, community and children were the most common elements of their ideal home.

All of the respondents said the most important factor in their home was the house, the size of space, particularly the interior space was essential, as Wendy said “because that’s where we live, and most of the time is spent inside”. Here are a few thoughts from some of the respondents about the space of their ideal house:

“I like to have an open concept I find that it generates more social interaction, plus I find this to be an efficient and functional use of space” - Patty

“A large family (5 people) needs a large house. Ideally I would like each child to have their own bedroom, so that they can have their own space that way they won’t fight as much. Because we are a large family cooking can be quite a task, so a large kitchen with island would make things more efficient when preparing the meals and it doesn’t give you that crowded feeling” – Fanny

“I would love to have large back yard with a deck, so that there is enough space for my kids to play and have a pool” - Tiffany

The second important component was the greenery, most of the respondents wanted to be in walking distance of one or two parks. A couple of respondents liked and wanted a lot of mature trees, as it gave them a sense that they were as Agnes, said “surrounded by nature”. Children’s space plays an integral role in the shaping of the participant’s ideal home and is in fact, the underlying reason why parents want a large house. The extra space is “needed” for their children’s play area and so that they can have their own private bedrooms.

There was less emphasis placed on the neighbourhood than on the house. For example, in terms of the children's area, the predominant answer focused on the having a private backyard. Surprisingly, only three parents added schools as part their ideal. Other factors mentioned were community, safety, and accessibility to transportation.

There was an interesting relationship between place attachment to interior and exterior space. Most (60%) of the participants placed more emphasis on the neighbourhood when choosing their home, while 15% made their choice based on the house; the remaining 20% said that both the house and the neighbourhood had equal importance. This means that there is a higher degree of attachment to spatial configuration and settlement identity than the architecture of the suburban home. When asked about the preference they had in terms of their house, the respondents placed more weight on the interior space than on the exterior space (their yards) and the façade (aesthetics) of their home. The interior space contributed to 55% of their purchase decision. The main reasons for this was the respondents' belief that in the words of two of my respondents, "it was more difficult to change the inside of a house than the outside" – Claudia; the other main reason was that "the majority of the time spent was indoors and not outside" - Tatiana. The importance of their yard scored 30% while the façade a mere 15%. This shows the micro-level of place attachment and is very useful when considering the design of eco communities. In fact, 80% of the respondents would give up their backyards if they were able to have a functional balcony space along with a form of public or communal space within close proximity of medium density building. This means that if a residential area is designed properly, people are willing to live in higher densities as long as their needs are met. What is required is a spatial configuration

that affords residents outdoor space at high densities and at the same time can give the same sense of family place as the current suburbs. The façade is aesthetic and only matters when buying or selling.

When I asked the participants which was more important to them the house or the neighbourhood, the majority (65%) of the respondents said that the neighbourhood was important because according to the young families:

“You need to feel safe and it is important to have a good relationship with neighbours, so that you can trust that they will keep an eye on things, when you are not there” – Tiffany

“I really like an area that has lots of green spaces and mature trees, not all neighbourhoods have this, some don’t have any, like a concrete jungle” - Harold

“You can’t renovate a neighbourhood” - Lisa.

However, twenty percent of the sample group said that there is no separation; there are both equally important as one person said “both are important, because if you don’t feel at home in your own house, you will not appreciate the neighbourhood” - Wendy. Only 15% thought that the house was more important than the neighbourhood, one of the parents said “*I can drive where I need to go; besides there is no bad house in a nice area*” - Matilda.

As shown in Figure 4.1 and 4.2 from the information gathered from the interviews. The ideal factors that contribute to the suburbs of western Montréal show what elements are needed more than others. Interestingly, by looking at the factors, there is a slightly stronger attachment to a sense of place in the interior of one’s house, while there was more emphasis placed on cognitive space of the neighbourhood (single detached house

with yard, open space, children's playgrounds). This shows a strong relationship based on the information from the early part of the section dealing with interior and exterior that here is a stronger attachment to the interior than the exterior, in terms of home. Due to the fact that western society, particularly in North America is sedentary the home is primarily the house (Farr, 2008) and therefore creates a stronger bond than exterior space. Because neo modern suburbs are so car dependent we practically never come into contact with nature even though suburbanites perceive they are in "natural environment".

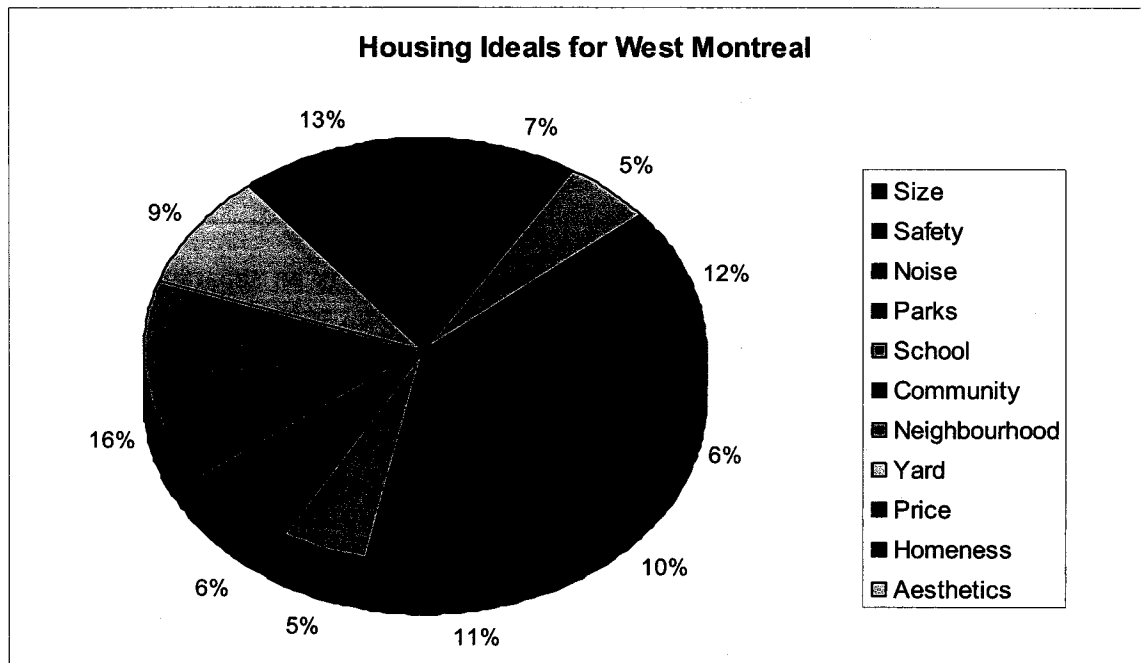


Figure 4.1 Housing Ideals for West Montréal

Source: field research

According to the results from the respondents that are represented in Figure 4.1, the majority of the qualities of the ideal house are mostly comprised of exterior elements such as parks, neighbourhoods, yards, schools, safety and noise. Many of the respondents said they deemed the exterior as more important because they can't alter their

neighbourhood. Therefore, the exterior plays a stronger role in the initial attraction, where the interior is the solidifier in the process. Once moved in, the importance shifts from the exterior to the interior because, as a few of the participants mentioned, most of the everyday living occurs inside the house, and not outside.

This figure also shows that the neighbourhood (exterior) plays an important role in the making of a home, and that it is not limited to the house. With proper use of design and morphology, we can create communities with higher density, as long as familiar landmarks are included in the design to establish a connection between the older communities and the eco-community. Therefore, the key is using the same components, but in a slightly different spatial configuration to give it the same feel as the older suburbs.

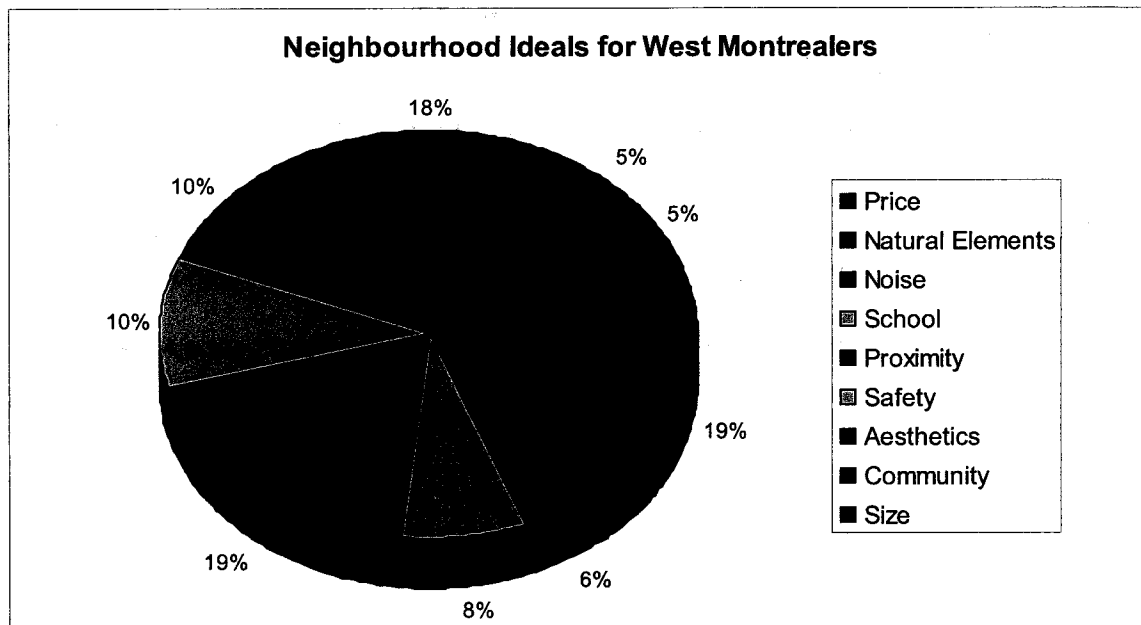


Figure 4.2 – Neighbourhood Ideals for West Montréalers

Based on the results from Figure 4.2, the most important factors that make up the participants' ideal neighbourhood is proximity (19%), natural elements (19%), and

community (18%). The participants felt that it was important that services, green spaces, entertainment and social networks, for the most part, had to be within relatively close distance. This was particularly true for the majority of the parents when it came to grocery shopping, and other household goods that had to be bought on frequent basis. An integral part of what attracts young families to the suburbs is the natural element such as parks, water, forests, and open spaces. The majority of respondents said that their neighbourhood had to be “green” preferably with mature trees and parks within in close proximity.

Indeed, according to the participants, the lack of natural elements in the urban core prevents them from wanting to move closer to the city. As Jane told me:

“I would love to live in the city, it’s so convenient. But, there are no green spaces, there’s way too much concrete. I would rather live in a place that has lots of trees than a place that is more convenient with a couple of trees that are 10 feet apart on the side walk”.

Community, participant’s social network of family and friends, weighed in about the same (18%) as proximity. In fact, for the majority of participants, proximity plays an important role in the relationship between community, home, and neighbourhood. A lot of the participants wanted to be close to at least one of the couple’s parents, and to live around other young families. During the interview, Agnes said that she was happy to have found a house that was in a neighbourhood with lots of young families.

The next two important factors in the composition of the ideal neighbourhood are aesthetics and safety. These are secondary factors, and play a role when deciding between neighbourhoods. After the first three are met, those neighbourhoods are based on the aesthetic value (ie architecture and cleanness), as well as how safe respondents feel in the neighbourhood. The tertiary factors are important but have the least effect on creating

their ideal neighbourhood. The results from Figure 4.2 can give planners, urban designers and landscape architects consideration what factors should be used and to what degree, when planning a community and neighbourhood.

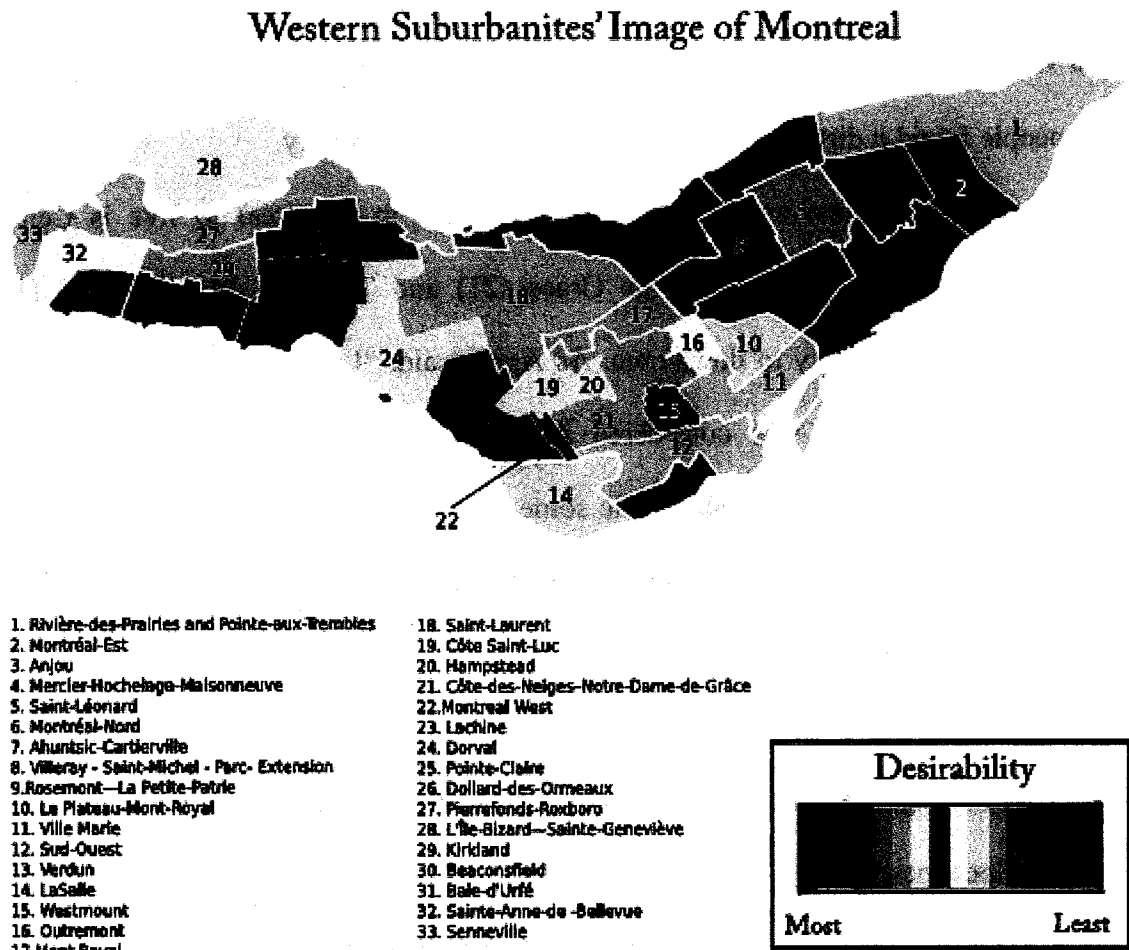


Figure 4.3 Western Suburbanites' Image of Montréal

Source: field research

Based on the comments from the respondents stated in Table 4.10, and that are attributed to the map (Figure 4.3), their ideals from a geographical perspective can be

categorized in roughly four sections: West Island ⁶, Central Montréal ⁷, Southern Montréal⁸ and Eastern Montréal⁹. In general, the West Island was the most ideal, with the exception of Westmount(15), a upper class inner city suburb. Most of the comments attributed towards the West Island were positive, in particular the mention of the natural elements, nostalgia, architecture and the “older” feel. There were only a few dislikes about West Island, and the majority of those comments were attached to Pierrefonds (27), some people found it dirty, ugly, and lacked a sense of community.

Aside from Westmount, the most ideal place in Montréal to live is Central Montréal, particularly Notre Dame de Grace (21) and Town of Mount Royal (17), because of their proximity to downtown. As Agnes said, “I like it because of the clean mountain air”. Lachine was considered neutral because the negative and positive attributes balanced each other out. While some of the respondents found Lachine to be old, dirty and uneducated, there were those that liked its affordability and proximity to water and downtown.

The images of the Eastern and Southern parts of Montréal (see Figure 4.3) generally have negative perception attached to those areas. This negative image is largely shaped by local news, social stigmas and lack of direct contact with those areas. In fact, some of the participants have never been to the Eastern and/or Southern parts of Montréal. The “worst” place that the participants found was Montréal East because of the socio-economic conditions and oil refineries, which made it feel dirty, and unsafe. The negative images are associated with social problems such as crime, lack of respect towards others

⁶ West Island boroughs : 24 - 33

⁷ Central Montréal boroughs: 15 - 23

⁸ Southern Montréal boroughs: 12- 14

⁹ Eastern Montréal boroughs: 1 - 11

and education, rather than environmental issues. On the other hand, the environment played an important role in the image construction of ideal neighbourhoods, which as seen on the map (Figure 4.3) are located in the central region of the older inner city suburbs such as Westmont, Notre Dame de Grace, and the southern part of the West Island. The majority did not comment on the size of the houses but rather on the sense of community. People felt a sense of connectedness because of the traditional styles of architecture (as opposed to modernism), and green spaces, particularly mature trees.

Non Ideal Boroughs of Montréal

Neighbourhood	Attributes
Montréal East	Factory, dirty, unsafe, different class of people, not very Jewish, don't know that area very well.
Pierrefonds	Ugly houses, spaces, no space, no community and terrible traffic
Montréal North	Too many apartments, very dirty, crime, violence, far from family, French
Verdun	Bad reputation , old, poor, not good education system, no land busy location
St. Leonard	Bad memories
Cote des Neiges	Too dense, crowded and rough
Point Saint Charles	Unpleasant
Hochelaga-Maisonneuve	Crime violence, poverty, bad, not safe
Villeray, Par extension	Crime, violence, location poverty, not bad housing, , not green
Lachine	Don't like the area , old poor and bad education
LaSalle	Congested and cramped, old, poor, don't like the education
Dorval	Dirty
South West	Older poorer, rundown parks and schools
Isle Bizard	Terrible traffic, single bridge and traffic
Bois Franc	Levittown, older, certain areas rundown
Plateau Mont Royal	No trees, higher age group, and cold
Ahuntsic-Cartierville	No respect within the community, rundown and far

Ideal Boroughs of Montréal	
Neighbourhood	Attributes
Isle Bizard	Big houses
Dorval	Quiet, near water, affordable, close to downtown
Baie – D’Urfé	Older
Pointe-Claire	Mature trees, old, country feeling, nostalgia, water, good houses
Dollard –des-Ormeaux	Houses and trees, community and quite
Westmount	Beautiful, appeal, different, close to downtown , community, older, charm, home, green, accessible
Notre Dame de Grace	More accessible to downtown
Lachine	Proximity, water, affordable
Kirkland	Like homes, close to work
Pierrefonds	Nostalgia
Mont Royal	Clean air, mountain
I'll Perrot	Water
Beaconsfield	Nostalgia, lake, older, maintained, fancy p/c, greenery, parks, schools, below the 20
Senneville	Water, beautiful small village, small village, large lots, and older

Table 4.10 – Respondent’s comments on Ideal Image of Montréal

Source: author, based on field research

Environmental

According to the literature review, the key to environmental change lies in the cultural perception, lifestyle and consumer behaviour. There is an established link between culture and one’s consumer behaviour (Henry, 1978), as stated in literature review, culture together with ideology create an image of home. People want to identify with that image, and therefore consume that image based on their lifestyle through there consumption patterns and process. This part of the interview deals with environmental image construct, incorporation of the environment in their lifestyle, and knowledge, awareness and understanding of ecological housing.

As indicated by the interviewees, the suburbs are the ideal place and space to raise a family because the amount of greenery, sense of community and as Samantha said “the open space makes for more fresh air”. The respondents found that the suburbs offer more space for their children and green space than the city. People perceive the suburbs as healthier because of the openness and the “fresh” air and the trees. Not only from a physical perspective, but for psychological ones as well: a sense of safety, a more peaceful and quiet environment, and less stress. Another attraction is because of the community network of their friends and family who are in the same region. But there are some downsides to living in the suburbs according to the interviews.

The environment is an important concern for the young families, when asked “*How important is the issue of environmental degradation to you?*” the average score out of 100 was 88. The scores ranged from 60 – 100. Those that gave more importance (80%+) to the environment focused primarily on their children said:

“We need a clean environment for our children, because if the environment is polluted it will have negative affects on the health of our children” – Shaniqua

“I would like to give it 100 but there is a lot of things happening in life and it’s not always on my mind” - Daniela.

The respondents that felt the environment was less important said:

“I am concerned, but in the grand scheme out of things it’s out of my hands” -

Betsy

“It’s just there”- Esther.

Environmental Image

The general image that people have is that the suburbs are better for the environment than the city; 45 % of the respondents said that they think the city has more pollution, less wildlife and preserved natural areas and less open space than the suburbs. There was only a small percentage of the respondents (15%) who thought that the suburbs were worse for the environment because of the pollution caused by traveling and the waste space required for lawns, and the excessive amount of maintenance required for the upkeep (water and fertilizers). Another 15% of respondents thought that they are equally the same in terms of environmental impact. The remaining 40 % of the respondents remained neutral on the matter because they “never thought about it” - Esther or “they don’t know” - Tiffany.

Source of Information	Television	Internet	Newspapers	Family and Friends	Government Publications	Radio
Degree of Influence (%)	75	35	25	25	15	5

Table 4.11 – Media as the source for influencing environmental image

As stated in the literature review, the construction of an [environmental] image is heavily influenced by the media, particularly local news which attempts to create awareness of environmental morals for consumers. Local news also provides information by promoting green business products and services which serves as source a foundation of knowledge about environmental design, behaviours and lifestyles. Since media has such a strong impact, it cannot only shape fads, trends, fashions and environmental

images, but it can also be a guide for norms, standards, rules by assigning values and meanings to the image, information and content transmitted. This information is then processed by people and based on one's pre-existing ideology and image; they can either accept or reject the information provided by either incorporating the information into their routine or not (Connolly & Prothero, 2003; Keum et al, 2004; Rapoport, 2001). This is an important aspect of image construction to be explored in order to find out the source, transmission and content of information with regards to the environment and environmental housing. The findings from this analysis will provide us with a reference point as to the scale of "greenness" of people's ideologies, images and lifestyle so that we can work on the strengths and weaknesses.

For this research, the most influential media source for image construction comes from television, particularly from information programs such as news, home improvement shows and documentaries (see Table 4.11). There are two basic functions that the media serves, the first of which is informing and defining environmental issues and behaviours, which it does through news and documentary type programs, and by promoting certain consumer products and certain lifestyles, that offer solutions to problems and are relayed through "do it your self" home improvement programs. The other function they serve, and one which is becoming increasingly more political, is informing voters about the various environmental policies and platforms offered by the different parties (Lorenzo-Dus, 2006; Suphachalasai, 2005). Therefore, the media informs and defines environmental ideologies from a political perspective. Local media, mostly news (television and newspaper), help not only to define and create local images of environmental lifestyle and housing, but also defines images within a regional context. In

the case of Montréal, peoples' images and attitudes towards other boroughs are often shaped by news, combined with personal experience(s) or lack of, associated with a particular area. The significance is that media tends portray a bias towards certain areas by focusing on specific negative aspects and while neglecting some of the positive attributes. Media also enhances technocentric attitudes, environmental solutions and lifestyles because it is seen by many as reputable source of information.

Ecological Housing and Environments

There is a strong connection between people's awareness and ideologies of environmental housing and the technocentric content displayed in the media. The results of the research showed that 90% of the participants have heard of one of the terms "eco", "sustainable" and/or "green". Based on the participants' responses, their image of an ecological home is comprised of predominantly two elemental criteria: materials and energy. The materials that the respondents said should be used in a green home would have to be recyclable and renewable, including natural materials such as cork and bamboo. The material must also provide the house or building with good structural support and must be easy to maintain, so that it can have a longer life span. There are also criteria based on the reduction of energy and heat consumption through the use of energy efficient products such as light bulbs. The energy source must come from an alternative green source, i.e. solar panels. There was mention of green roofs, which in suburban environments means a lawn on top of the roof and may include a variety of grasses and small shrubs. Grey water, which is the better use of recycling water was also mentioned, but did not play a dominant role in the image of ecological housing.

Ecological communities and neighbourhoods were not commonly known terms to the respondents; only a minority of 35% of them had heard of the term(s), but those that did related less to technological aspects and focused more on the communal and the local aspects of the area. One respondent mentioned that there should be community involvement in environmental education. Even those who had heard of the term had a deeper understanding of the issues; focused predominantly on the technology and science part because there is more awareness about the buildings than the communal aspect. While 90% of the respondents who knew about ecological housing i.e. green building, only 35% also heard about ecological communities and neighbourhoods. Those that did say they heard the term before provided me with a personal definition. For example:

“Environmental friendly material, and like in Sweden they would have to take a class on stewardship, and more depots for recycling and composting” - Agnes,

“The use of electric cars” - Peter,

“That there would be a reduction in car pollution and the use of gas, so there would be more walking or carpooling” - Daniela,

“More of a community feel such as having a local farm or community garden to support local business” - Betsy

“There should be a reduction of the use of water, its being over consumed, I think water meters are a good idea to reduce the consumption” - Fanny.

Although these technical issues are important and form an integral part of deep ecology, there is an evident lack of awareness concerning deep ecological issues. Terms like the ecological footprint, which is the amount of natural resources used in the process of making a product or service and measures the environmental consequences of our consumer habits, have become fashionable in certain circles. This is an important term to

judge our awareness and our concern about the consequences of consumer behavior and its impact on the environment, as it clearly demonstrates the lack of a feedback system. However, this concept was known to only 30% of the respondents, some of which could not remember what it really meant. A second concept that needs to be addressed is that of 'suburban sprawl', and sadly this scored less than the ecological footprint with only 25% of the participants being familiar with the term. Judging by the responses, vast majority were unaware of the environmental degradation that they cause as result of their current lifestyle and consumption habits.

Transportation

One of the main themes explored in the literature reviews was the contribution of transportation specifically automobile dependence and its contribution to suburban sprawl. This element of the design has a negative impact on the environments by converting ecosystems to road networks, and increasing air pollution caused automobile emissions. Automobile-based design acts as a barrier to the achievement of ecological housing because it allows for low density housing – both of which are heavily ingrained and dependent in the respondents' lifestyle. This type of design is therefore the ultimate barrier to the conversion to higher density more ecological housing.

My research found that 90% of the respondents were willing to give up their cars. Some of the reasons were: gas prices reaching \$1.50 to \$2.50/ l or if there was a pedestrian infrastructure set in place and that did not exceed 20 minutes of travel distance to amenities. Respondents complained the number one dislike about the suburbs is the travel time to see their friends, family and shopping. Although their social and

commercial networks have draw them to stay in the West Island, the area's low density housing, it increases the distance and makes it more difficult to go see one's friends and family. As a result people are dependent on their cars, which led to another complaint mainly that could not get to their desired destination by foot. As Bob said "*the time to get to anywhere whether friends or shopping is a bit annoying*" Jane mentioned "*things should be walkable*" Another drawback of having to be dependent on the car is the pollution created by the use of vehicles.

Neighbourhood Design

This study also used photographs to investigate the respondents' perceptions of five elements of neighbourhood design (commercial, residential, yards, parks and green space). The goal was to determine these elements in order to make the transition towards eco- communities more attainable. I asked interviewees to comment on photographs the five categories to get a general sense of the elements they liked and dislike. This research would provide a foundation for the design of the eco-community landscape.

Commercial Areas

One of the most important criteria that the respondents discussed during the interviews was the incorporation of commercial buildings into suburban design. The general finding was that parents with children need a place where they can do most of their shopping within walking distance, preferably all in the same location. As a couple of respondents said:

"Time is a factor when you have children, you have to come home from work tired, buy groceries and make dinner all with in a couple of hours" - Alfonso

“When I do the shopping for our family of four we tend to buy a lot stuff [groceries and baby supplies] and we don’t want to be lugging around a heavy load from place to place” - Fanny.

Although strip malls provided the accessibility that many of the parents desired, they did not like the aesthetics. Some found strip malls “*rather cold, you just want to get in and get out*” – Lisa. However, they seem convenient. Particularly in the case of the strip mall ((Figure 4. 4, C5), Danilea said it was “*sketchy and dirty*” - and Matilda said “*it makes me feel like I have to look over my shoulder*”. The most favourable design for the parents was the market, because of “*open space*” which allows for one to walk around with out “bumping into someone”. They also found that it gave them a sense that they were buying “*fresh and local products*” and the layout was aesthetic pleasing. The open space in the plaza (Figure 4.4, C3) was a “nice” feature but some of the respondents found it a bit too modern and “sterile”, while other liked the attempt of creating an open space with a few trees and fountain.

The respondents had a strong preference towards the aesthetics and layout of the traditional market over the conventional strip mall, despite its convenience. In fact, as a couple of respondents mentioned above they felt that strip malls in general were un-aesthetically pleasing and unsafe. Some of the respondents like the plaza in C3 and the protection offered in C4. So it seems the respondents prefer urban and reject suburban auto orientated commercial space. The ideal properties of commercial space and place would be a combination of traditional aesthetics and the convenience of a strip mall.

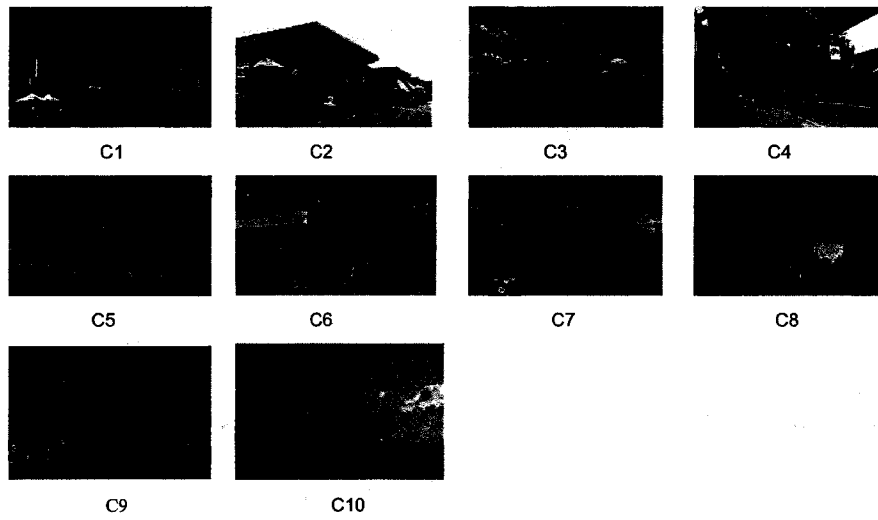


Figure 4.4 – Commercial Areas

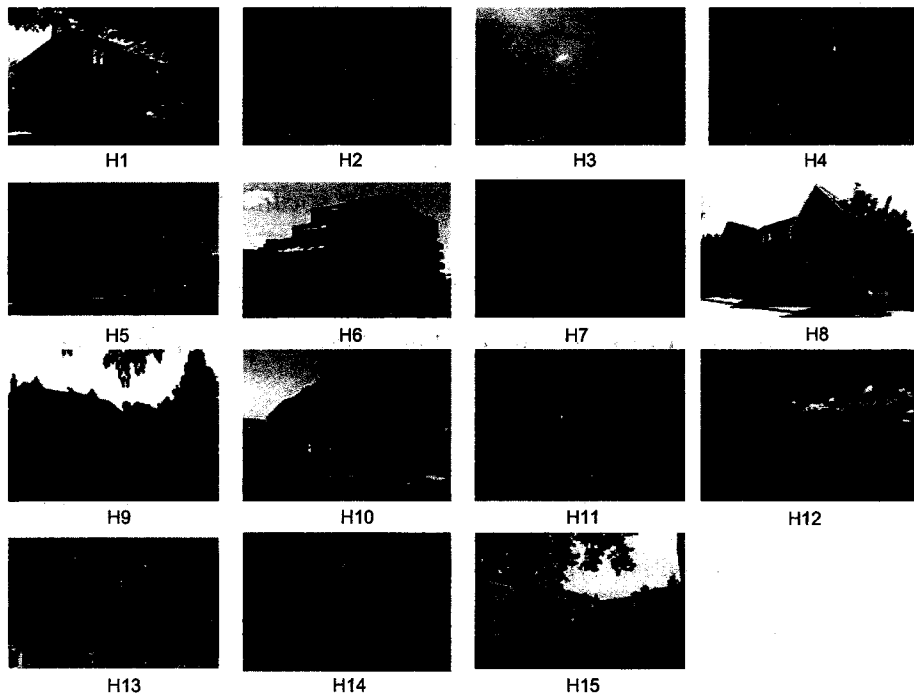


Figure 4.5 - Houses

Houses

The respondents were asked to discuss images of housing (Figure 4.5) Judging by their responses there are two evident features that are striking 1) the building typology, and 2) architectural / aesthetic style. According to the respondents the number one choice for alternative housing (to the single detached) is the semi detached. There were several reasons for this, the first and most predominant of which was the noise factor. The main concern was that the noise would disrupt their quality of life, especially if you have more than one neighbour. One parent was worried about the noise they made because they have three children. Another positive attribute of a semi detached house was the fact they still had access to a back yard, so that their children could play.

The typology that was least favourable was the condominiums. The main reason the respondents did not particularly like them was the lack of privacy, again the issue of noise, and safety. They were concerned that their children could fall off the balcony. Interior space was also an issue, because, generally speaking, multi-level units tend to have less space than detached houses and parents believe that children need access to large open space. As the literature review shows, this is part of the cottage country / country side myth, because in Europe the vast majority of families do live in some form of multi-level housing. Despite the fact that apartments and condos did score the lowest among the other two alternative typologies (row and semidetached) 80% of the parents said that they would move into an apartment providing their needs were met as Lisa said “if all things equal”. That would mean that the acoustics in the building such that one cannot hear the noise from the neighbour(s), interior spaces would have to be larger, and

in compensation for their backyard, they wanted a large child proof balcony with a courtyard and/or a park very close by.

There are stark differences in terms of the architectural and aesthetic preferences. The more favourable come from the traditional and vernacular, because said they have a “homey feel” a sense of continuity, which Froud mentions in her article about historical continuity and connectives as what in part “sells” a place (Froud, 2004). The vast majority of the interviewees did not like the modernist architectural style: they found them “cold” “uninviting” plus they looked “boring”. Habitat 67 (H2) was not deemed child friendly by the parents because they were afraid that the children could fall off and the architectural style as a couple of parents commented “way too much [out of the norm]” and “too funky”. As for the redevelopment condo (H7) there was not enough set back from the street which would reduce the privacy, increase the noise level, meant a lack of greenery.

Based on the comments from the interviews the most desirable (within the photo set) that would meet the needs of their needs and satisfy a higher density would be house H14. It has all the factors that the parents are looking for, traditional architecture, resembles a single detached house, play area for their children and greenery and trees. The other semi- detached houses were also favourable among the respondents.

Yards

According to the respondents, the main criterion was for a yard was that it be geared towards children. Some of the questions that came out of the interviews *were is this safe area for children, could they possibly hurt them selves, and do they have enough space to*

play? The second most important factor was the aesthetics of the greenery. As Lisa said “*I want a wilderness in a manicured way*”, clearly, (Figure 4.6) Y7 was the least desirable as it was seen as “*ridiculously messy*” , “*too much*” and “*looks like a jungle*” . Yards that were “too” planed such as Y3 and Y5 were pleasing to some but too “modern” for others- “*too corporate*” or “*looked like an old folk’s home*”. The manicured wilderness is displayed in the front yard – Y6, where there is some biodiversity and has more of a natural feel compared to the other yards of just lawn but at the same time it is organized. The backyard that was most accepted by the parents based on their comments is Y8, because it had a balance of openness, space for children and greenery. Based on the participants general attitudes, both the front and backyard have to be balanced, between lawn and a variety of vegetation in a manicured fashion.

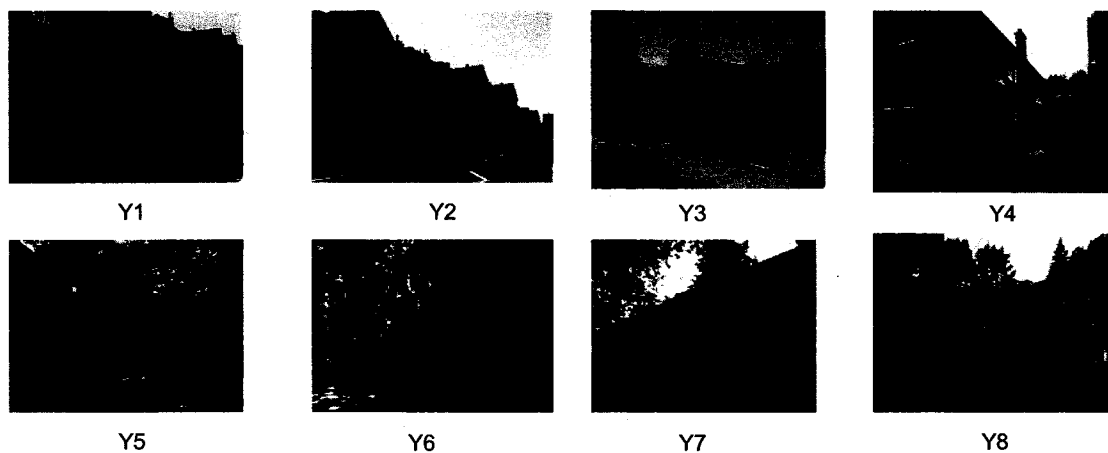


Figure 4. 6 - Yards

Parks

The parks had similar criteria as the yards: the space had to be child orientated or at least have a certain section that was designated for children. The parent's ideal park is multi-functional such as in photos P1, P6 & P7 (Figure 4.7)where there is "*space for children*", "*a place to have a picnic*", "*trees for shade*" and "*a place where you can play sports*". The integration of water, as in the case of photos P1, P11 & P14, was a desirable element in a park especially in P11 where there were ducks: parents like the fact there animals around, but some of the parents were concerned about the children's safety around water. Smaller parks seemed in general a "*waste of space*" or as Peter said "*it was put there, just to say there was a park*", however, it depended on the functionality of the park. The least favourite park was P5, because it was surrounded by cars, which leads to traffic, as Richard described the park "*very dangerous for a play area and I would only go there to take the dog to do his business*".

Green Space

Again, we can see parallel between personal green spaces (yard) and public greenery. The ideal green spaces are GS 2 & GS 4 (Figure 4.8) because of their balance between vegetation, openness and the use of water, as one parent said "*it made me feel like I was in an oasis in the city*". As in the case of GS 6 when there is lots of vegetation, there will be a mixture of opinions, some liked it because it felt "*rustic*", while others typically, female respondents felt "*scared, that someone or something could jump out ... [I] would feel better if there some lights*" - Matilda. Not enough trees as in the case of

GS 3 made it look “to *boring and uninviting*” “*cold and sterile*” although, some of the mothers liked this green space because “*it feels clean and safe*”, one person liked the “*modern*” aesthetics of this green space.

The photographs explored the respondents’ subconscious preferences of 5 elements of community design. The general findings are that the interviewees tended to like more tradition and vernacular architecture in terms of housing and commercial buildings. Balance between safety, child friendliness and clean aesthetics were consistent themes throughout the different scales of the use greenery in exterior spaces from the personal use of a yard to the public space of parks. The next section explores the respondent’s subconscious perceptions of the spatial layout of their ideal community neighbourhood by drawing community maps.

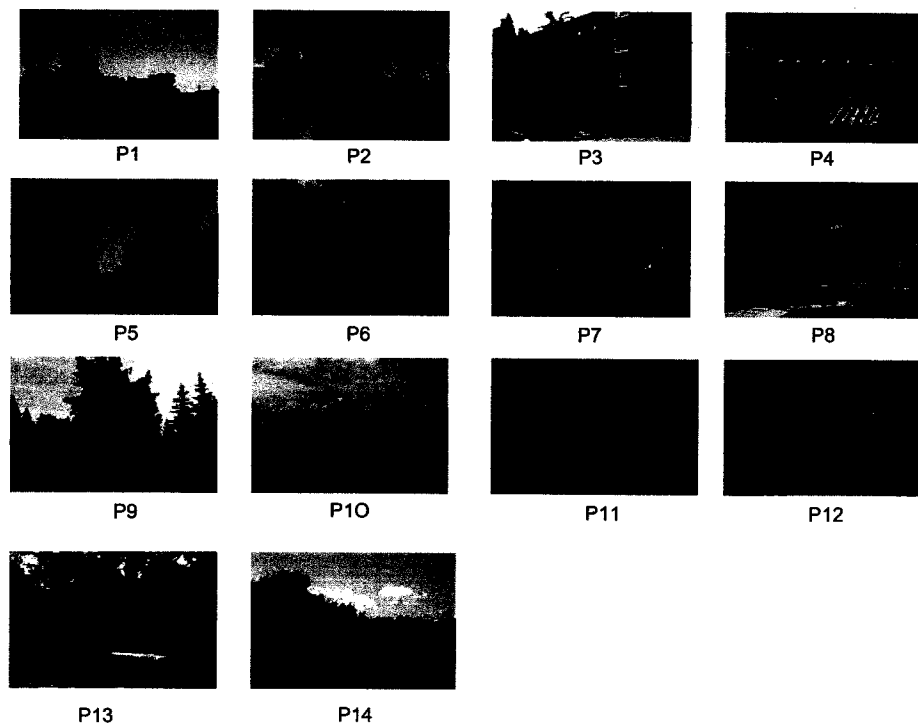


Figure 4.7 - Parks

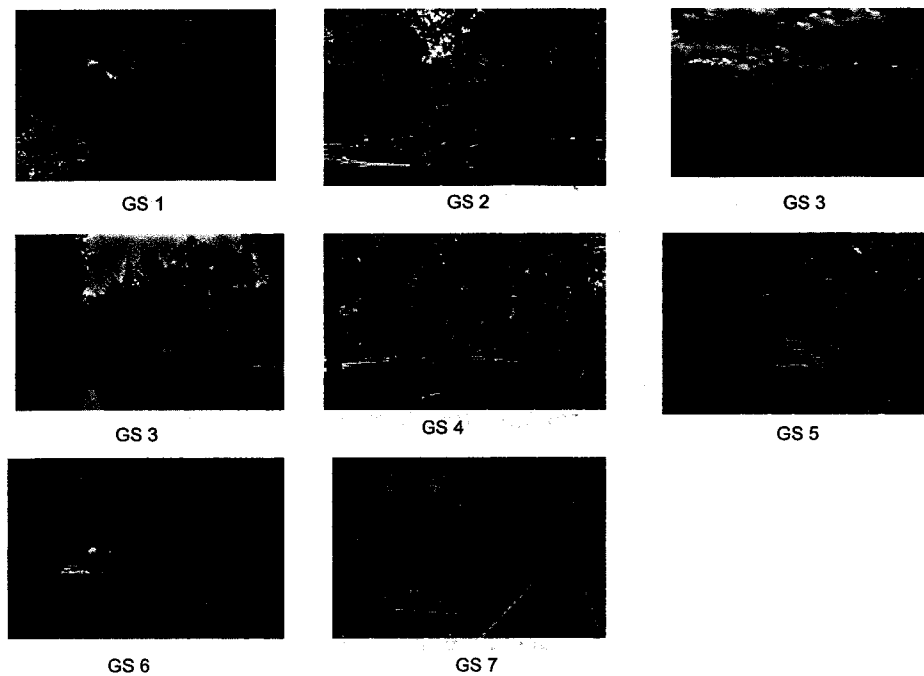


Figure 4.8 – Green Space

Community Maps

Community mapping is an effective tool in the development of eco-communities because it is a response to an individual's environmental perception and image (Fahy & Ó Cinnéide, 2009). I asked the participants at the end of the interview to map their ideal community design based on scale using walking distance (refer to Appendix G). The purpose of this exercise was to examine the essential elements required and to see if they had changed their views about ecological design during the discussions of the interview.

The maps ranged in artistic presentation from a well thought out representation to a "flow chart". The result is similar to the older towns from the West Island and inner city

suburbs of Notre-Dame-de-Grace and Westmount from the first wave in the early part of the 20th century. The older layout was typically a medium density residential area (semi-detached or row housing) that was surrounded by a mixture of commercial and residential zone that was in approximately 10 – 15min walking distance. Although this layout appears quite similar to the second wave, the main difference is that there is still a strong attachment to the single detached house. However, as discussed previously, the interviewees were willing to change this housing typology so long as their needs were met. It must also be noted that there were a few people who still felt attached to the spatial layout of the (neo) modern suburbs.

The average area of a community surface that would sustain the needs of the respondents would have a radius of a 30 minute walk. There was a rather large demand to have parks or natural elements located near the residential area with a maximum of a 10 minute walk. As Patty said *“I would like my children to have close access to parks, so that can be in close contact with nature”*. Commercial activity was another priority on their map; that ranged from a distance between a 5 to 20 minute walk - *“it would be really nice to do the groceries and then be home in about 10 minutes, rather than be stuck in traffic”* - Peter. The interviewees liked the idea of urban agriculture either in a form of a farm or community garden, that they have included as part of their community design.

The interviewees also wanted to incorporate their work into the community, which is something that was lacking in the second wave design, particularly with the rise of white collar jobs. Some of the respondents also added public transportation into the

design, particularly access to the metro (subway) and trains, in order to make travel beyond the community easier.

The synthesized community in (Figure 4.9) is a general representation of the participants' drawings based on my interpretation. Most of the participants drew their map in the form of a "flow chart" with their house in the centre. This is why I chose to use a circle and put the house in the middle, because it represents the shape create by the participants' drawings. Virtually all the houses were single detached and they either excluded other houses (in their map) or were clearly drawn apart from other houses This diagram shows the types of different activities that respondents preferred to have located nearby their homes, and the approximate distances that they would be prepared to walk to the location of those activities. There was no overall pattern, however in the specific layout of these activities and therefore their location as shown on Fig 4.9 is not intended to imply that any fixed order was attached to the relative positioning of these components by the 20 respondents. The community has diameter of a 60 min walk which is approximately 4.83km, or 18.30 km², (U.S. Roads, 1997)

The second interesting characteristic I noticed from the map was that generally the places were not clustered and or in a singular linear direction from the participant's house. Instead, each unit was isolated from each other and in multiple directions from their home with varying walking distances. In the construction of the place on my synthesized map, I took the least and most time traveled and I grouped them with places that were compatible such as: education and library, family and residential, and medical (dentist, clinic and hospital). I did notice that in three of the maps, that those participants

grouped parks and schools together. However, it does not warrant a relationship between the two as the sample size is too small.

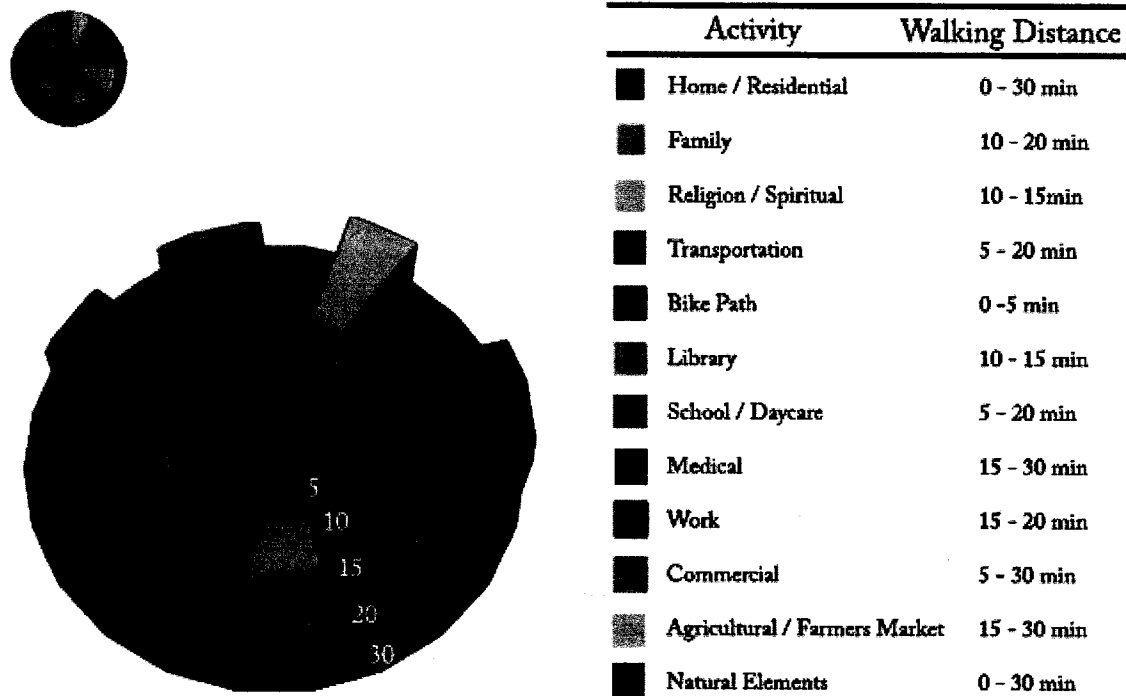


Figure 4.9 – Synthesized Community Map

Source: community maps of participants

One important insight that Figure 4.9 shows us is that this layout is quite similar to a post war suburb, except the fact the distance is from a pedestrian scale and not an automobile. This shows that it is not necessarily the distance between places, but rather the time it takes to travel to their destination. Interestingly, in abstract way it would resemble the design of a nineteenth and early twentieth century town, the very design that the New Urbanism movement is soliciting. However, the problem lies with the single detached housing which causes low densities, and therefore would make it more difficult to support the services and infrastructure of the community. By adding density with the

proper design and morphology, one can not only have a better chance at supporting the local economy, and at the same time increase potential area for well planed green and wildlife spaces. If we were to take the average density of the Western Suburbs 1694 (population /km²) and use it for the synthesized map (Figure 4.9) the approximate population of their ideal neighbourhood would be 31, 000. However, if we would use Montréal's density of 3, 715 (population/km²), the population of the community would be 58, 102, which be more likely to support the community.

CHAPTER FIVE – DISCUSSION, INTERPRETATION, & CONCLUSION

"A fifteen minute from walk away his house or place work would take the Montréaler into nature's wilderness and he was able to draw much of his food from fishing in the river. Who would believe that two centuries of progress were to transform the wide clear river into a revolting sewer and push back nature to a distance of more than an hour by car from the city"

Jean Claude Marsan (Marsan, 1990, p.123)

The previous chapters examined habitus and image of home, environment and the awareness of ecological housing of young families from the Western Suburbs. After examining the findings, there is a possibility transition from conventional low density suburban housing to a higher density ecological community could occur if the circumstances were favourable. The aim of this chapter is to investigate how design based on culture (image and habitus) and consumer behaviour can be used as the underlining "push (design) and pull (consumption)" factors in the creation of a transition from contemporary neo-modern suburban housing to ecological communities and neighbourhoods from the perspective of young families.

The chapter draws on information from interviews with parents of young children who reside in the western suburbs of Montréal, along with theories from diverse disciplines derived from the literature review. The chapter will be broken down into three parts: discussion, and interpretation and concluding thoughts. The discussion will review the findings from the previous chapters. The interpretations will look at the push and pull factors that will enable the young families to transition to deeper ecology. Finally, this segment also looks at the past and future to ensure that there is a transfer of "rootedness" to ensure that the families will have something to anchor while transitioning and also state the danger about relying too much on the past.

Discussion

Habitus and Image of Home

The findings from the interviews have been insightful and provided a good base for the process of transition. It is, therefore, necessary to discuss the main findings in this section of the chapter. As we have seen, the participants from the young families were mainly females in their thirties, married with children, have a bachelor's degree and live in a single detached house in the West Island. Most of the participants chose to live in the suburbs because it suited their lifestyle and by growing up there made them perceive the Western suburbs as the ideal family place. They also felt that the suburbs offered a child friendly environment, green and interior space that urban neighbourhoods could not offer. The participants said that the high density areas of Montréal are too polluted, noisy, overcrowded, lack of green space, unsafe and too expensive.

Half of the participants grew up in one of the suburbs in the West Island and 25% grew up in a suburban in Central Montréal. In my interviews, I found a strong relationship between the cognitive and relative space(s) of where they grew up with where they currently reside. Space was a predominant theme in the interview. I found that spatial attachment played a more important role in the make up of their home than a sense of place. According to my findings, only 15% of people developed a strong attachment to place. In fact, the three basic elements of home, based on the information the respondents provided me throughout the interview were three types of spaces:

- 1) Interior space of the house.
- 2) Green spaces (such as parks, lawns and proximity to natural elements).
- 3) Child spaces (such as play areas, parks, schools).

The interviews indicated an interesting relationship between the exterior and interior space, and place in the process of “home-making”. As mentioned in the literature review, the concept of home is dynamic. I found that to be true of home-making in the buying/consumption process. At first, it is place and exterior space that play the key role in home-making: when establishing a home generally the most important factor is the neighbourhood and community. This was confirmed in my findings that the majority of the respondents looked at their neighbourhood first before looking for a house. The neighbourhood had to meet certain criteria such as good schools, green spaces, proximity to commerce and adequate / access to transportation. It also had to provide a sense place that is family-orientated, safe and clean before the people would consider moving there. Once these criteria were met then they would look for a house in that vicinity.

Once the neighbourhood has been chosen, the importance of what constitutes home shifted from place and neighbourhood space to interior space of the house. Because most of the respondents are sedentary, the interior became the central loci for the everyday. That is not to say that the neighbourhood is no longer part of home, rather it switches from a primary to secondary focus, and is often taken for granted and therefore gets put aside into the background. So, it is important to note that although the neighbourhood may seem secondary it is imbedded in the habitus and plays a key role in home making and image construction.

The image of home is heavily based on the habitus and media. This was evident when the interviewees were asked their most desirable and least desirable place to live in Montréal. Those areas that were favourable had the “three” spaces and had a sense of community. Those places that were the least desirable did not meet the same criteria and

when discussing this part during the interview some of the participants told me that they never been to those parts of Montréal (particularly the north and east) and their image of those places were solely based on the local news.

Environment

The study found that there was a superficial understanding of the environmental issues partly because there is both a lack of a feedback system and of a sense of connectedness between the natural environment and lifestyle/ consumer behaviour.

Although there was a concern and willingness to help the environment among the respondents, my findings clearly show that their environmental image and lifestyles are technocentric, and therefore, derives from a shallow ecological perspective. However, I did notice that the majority of the people do want to make a genuine effort of transitioning to a deeper ecology. In fact, the overwhelming majority stated in the interviews that they were willing to give up their cars and single detached houses if it would to improve the environment. The problem that I found based on the research was that media perpetuated and established a technocentric image, of environmental solutions, lifestyle changes, and consumer behaviour that focused on environment issues and ecological housing.

Slightly more than half of the sample group thinks that the suburbs have less of an environmental impact because there is more green space than in the city, and more “wildlife” – such as birds and squirrels, and because they live in less dense area there is less pollution. Some of them said because their houses are newer and have better insulation so they would use less energy. People help to protect the environment by

recycling, buying environmentally safe / “green” products, reusing grocery bags, feeding the birds and squirrels, and driving a fuel efficient car.

The media played an important role in constructing the participants’ image and understandings of the environment and environmentally – sustainable housing. Television shows was the prime influence (particularly local news, documentaries and do-it-yourself home renovation and decoration shows). News and documentaries were seen as informative as acceptable source of environmental education. These shows tend to explain and define what the environmental issues are and what the causes are. The home improvement shows offer technological or product-based solutions to counter the environmental impact such as buying and energy efficient appliances, or using solar energy to heat water, or buying more energy efficient cars.

The people used the information from these shows as the basis for their environmental attitudes and practices. However, as these shows offer a technocentric base “education”. This fact was reflected in their responses, environmental images and their lifestyle and consumer behaviour. Technocentric views were also incorporated in the participants’ understanding of environmental housing. For instance, the respondents primarily base their criteria for environment housing on two factors, material and energy consumption. Based on the interviewees’ comments, only a few of them went beyond the shallow scope of technocentricity and included the element of community. Furthermore, none of the respondents mentioned a deep ecological approach that incorporated the natural (local) ecosystem(s).

Design

The needs and ideals that the young families provided through their interviews, photographs and community maps illustrate the basic elements that should be incorporated into the design of the ecological home. Here again, we can see in these needs the three basic types of spaces, green, child and interior. Judging from the community maps, most of the respondents preferred the traditional neighbourhood layout of the older inner city suburbs from the early 20th century opposed to the (neo) modern suburban design. Only a few people the respondents where reluctant to transition from their contemporary suburban design to a more walkable, pedestrian-friendly ecological design (henceforth, referred to as “eco-design”). This was also evident in their responses to the pictures that were shown. Almost all the participants liked the more traditional-looking houses as opposed the modern and their favorite commercial designs were that of the traditional market. My research shows respondents had the opposite aesthetic preferences for green spaces and parks compared to buildings. Most of the people I interviewed preferred a modern landscape. As Lisa said earlier “I like my wilderness manicured”.

All of the photographs that were the closest to resembling “real wilderness” scored the lowest, primarily because of aesthetic taste and the fact some of the women felt unsafe because someone or something could be “*hiding in the bushes*”. The green spaces that were the most desired were multi functional – there was a place to walk, picnic, a place for sports and had allocated a space for children to play (i.e. playground).

Although transportation is not at the forefront of the sample group’s image and ideals, it is a vital component of design. As stated in the literature, transportation was

one of the most important technological innovations that allowed the suburbs to develop and grow. The same can be applied to eco-housing. For people are willing to give up their cars, there must be a proper transportation system in place, that serves their needs. Most importantly, there needs to be an increase in frequency and more efficient routes.

According to my interviews, urban agriculture was a desired component of community design, as was evident in some of the community maps. All the respondents said they wanted urban agriculture during the interviews. They liked the fact that they were able to get fresh local organic produce and help the local economy. The only negative comment was that some were afraid of the smell that it may produce.

Within this section of the chapter we have covered the main mechanisms that are required to transition the majority of these young suburban families from their conventional low density suburban houses to a deeper ecological home. In summary they include semi – detached houses on residential streets within walking distances of commercial are with large parks, schools and open green spaces.

Interpretations

This part of the chapter focuses on how to transition from a token ecology, which is the technocentric contemporary neo-modern ideology, image and design, to deeper ecological approach to housing that balances / harmonizes the built and natural environment. The second part deals with the transitional ecology: the push and pull factors for the transition process. This part is based on Taoism's yin and yang to explain the transition as a complementary Eastern philosophy with that of the Western concept of ecology.

Taoism (the way) uses the yin and yang to find a path towards harmony by accepting and integrating paradoxes and dualities, which is a valuable approach to transitions. It uses the push and pull concept. This is only a “guide” because each suburb has different cultural norms and histories and therefore there is no one universal absolute that applies to every situation and context as stated in the literature review (Donaldson, 1969; Jayne, 2006; Gad & Matthew, 2000; Harris, 2004; Smith, 2000). According to Taoism, in order to achieve transition towards eco-design, housing and communities, it is necessary to achieve harmony with the natural environment on a personal level by incorporating with deep ecological principles into one’s lifestyle. Only then can attainment of eco- development can be achieved on a macro level. Another component of Taoism is balance which is another aspect included in deep ecology, in that we have to find a balance in the opposing forces or paradoxes. Human activities must and should be incorporated with the natural environment since we are both part of the same ecosystem (Nuyen, 2008).

The first section in this part briefly examines how the habitus of the Western suburbs became a token ecology, while the second section focuses on the push / pull mechanisms required to transition to a deeper ecology. If we want to create a deep ecological image and design ideology that can be adapted for transition, there must be an understanding of the history, geography and cultural attitudes of the suburban community. Cognitive space provides a visual link to the landscape that allows the individual to gain a sense of familiarity. These visual cues it can trigger the individual’s memory and experiences that will enable what Froude calls fluid transferable “rootedness” of a place and space attachment. This might entice the individual to make the transition from their

low density suburban neighbourhood in to a medium / high density ecological community (Froud, 2004). At the same time, it is important not to predispose ourselves based on the past design and ideologies for contemporary and future context(s).

Token Ecology

I propose that Token Ecology is a term that can be used to describe the current superficial use of a few selected species of flora and fauna that are incorporated in modern and contemporary design by architects, designers and planners in a attempt to market their design as environmentally-friendly. It is a by-product of several components: existing built and natural environments, socio-cultural norms, the economy, and media construction. Since token ecology is based on those principles that already dictate our everyday lives, it is easier to accept them without real questions.

Token ecology stems from a response to modernization in which nature is stripped from its functional form of a diverse ecosystem and repackaged into mere symbolic representations, resulting in a form of mass produced systems of economical and rational (standardization) efficiency. It was done deliberately for mere “aesthetic” considerations and as a selling point to show that the suburbs have more green spaces than the city. It stresses on the notion of quantity of space over quality of environment. Over time, people have accepted this type of landscape as being natural because it is loaded with symbolically coded meanings and branded with loaded terms such as ecological, sustainable and/or green.

The use of token ecology in urban design, planning and (landscape) architecture has had a tremendous impact on the habitus, image and ideology of the young families of

the Western suburbs. As described in the literature, the habitus of home is defined by memories and experiences that are superimposed on the spatial configuration and landmarks of the home's space that helps to create a sense of place (Ærø, 2006; Blunt, 2005; Easthope, 2004; Kauko, 2006; Leonard, Perkins & Thorns, 2004).

Based on the findings from my research there is a positive relationship between modern token ecology and the respondent's image of home, environment and environmental housing. This is evident in transformation of the Western suburban landscape from the second wave "cottage country", to modernism and finally to neo-modernism. For example, if you look at the photographs of the neo-modern suburb in Appendix H, it can be seen that the architecture echoes the traditional architecture of the late 19th and early 20th century, while the landscape is still dominated by the openness of the modern suburb of the 1970s.

What these findings appear to suggest are that the designers, planners, developers and other actors involved in shaping the built and natural environment have made the mistake of continuing to go back in time and using those designs as a basis for contemporary of suburbs, without adjusting to contemporary social, economical and environmental conditions such as reduced biodiversity, an increasing population and finite natural resources. Media aids with the continuation of token ecology because of the technocentric information it provides and promotes. Without the concepts of deep ecology token ecological designs, images and consumer behaviours will perpetuate themselves by their own push and pull mechanisms.

The literature suggests that developers, designers, builders and government are the ones who physically create and shape the built and natural environment (Harris, 2004;

Moran, 2004; Matthews, 1985; Brindley, 1998). The nature of this industry is rather conservative, and as also mentioned in the literature review, has changed little since the creation of the post war suburbs in the late 1940s (Belzer, et al, 2004; Jamieson, Cosijn, & Friesen, 2000; Ellis, 1999; Dagger, 2003; Scott, 2001. Any change has been a “rehash” of previous design ideologies and principles (Appendix B, for the chronology of environmental design ideology and principles) and as time progresses, there is further separation from the original local ecosystems. Municipal governments are just as conservative as the actors in the housing industry. They still adhere to the same Euclidean zoning principles devised by modern planners from the 1950s, based on rationality, categorization, standardization and separation between the built and natural environment (Belzer, et al, 2004; Ellis, 1999; Friedman, 2002; Harris, 2004; Lucy, 2006)

Another aspect of token ecology is the construction of the image through media and advertising. The media, as Cottle mentions in his article, through various relationships between technologies and actors, (managers and audiences) produces culturally constructed concepts of nature (Cottle, 2004). Podmore also explains that media can help create one’s habitus and can be used as a mechanism for image (Podmore, 2008). Thus, it could be argued that the media, particularly local news which attempts to create awareness of environmental issues for consumers creates a technocentric image and habitus of home (Connolly & Prothero, 2003; Keum et al, 2004; Rapoport, 2001). This assertion was confirmed by my research where respondents commented on the direct impact of the media on their understanding of eco-housing and the environment,

Advertising also plays a crucial role in the construction and promotion of the image of ecological habitus (Brownill, 1994; Cheung, Sidney and Ma, 2005; Gold &

Gold, 1994, 1990; Jayne, 2006; Sturken, & Cartwell, 2001; Ward, 1994, 1998). The literature tells us that marketing, social attitudes and regulations are used to shape, encourage and perpetuate the technocentric character and structure of suburbs (Aitken, 1988; Brunckhorst, 2002; Harris, 2004; Nicol & Halseth, 2000). These findings were echoed in my research: the participants often said that they tried reduce their environmental impact by buying “environmentally friendly” products and services, as a consequence of the adverts they had seen. Unfortunately, If a token ecological housing development is packaged and branded as being “green”, “sustainable” “environmental” , people will automatically assume that it is total ecological housing, and therefore, buy into its token ecology design in the mistaken belief they are consuming a the genuine ecological home.

Based on my findings, one of the main criteria for “home-making” was children’s space. Interestingly, this is a topic that has been generally overlooked by many geographers, consumer behaviourists and designers. This issue is important to the construct of the child’s image and habitus of place and space of the built and natural environment (James, 1990; Matthews, & Limb, 1999; Ross, 2005; Thomson & Philo, 2004). Children’s “play” areas are far more complex than adults appreciate. They are also spaces and places where children socialize and construct their world(s). If we provide them with a token “play” as seen in virtually all playgrounds (which are based on the adult gaze) are we benefiting the psychological maturation of the children?



Figure 5.1 – Swing Set



Figure 5.2 – Playground

Without any deep ecological ideology and values we would be perpetuating a false image and habitus for ecological design further separating us from true harmony with the natural environment without even noticing. Designers would still be duplicating elements from past designs, and media and advertising would promote these “new” designs as environmentally friendly housing.

Transitional Ecology

Transitional ecology is a term I will use to describe the push and pull approach that will allow transition from a token ecology to a deep ecology. This section will be divided into two segments: “push” and “pull”, focusing first on design and consumer behaviour, and second, on lifestyle elements and mechanisms. The yin and yang concept will illustrate how these two forces work to create a transition.

“Our choice of lifestyle, that stubborn adherence to the wrong course, remains a significant barrier to improved health and prosperity of individuals and families as well as to the viable future of our communities and country “ (Farr, 2008, p. 41)

Pull

In this section I will discuss the factors that will attract young families to ecological housing. These factors are primarily focused on the neighbourhood scale and deal with elements that stimulate the home environment. These are based on the data from my interviews. These factors include: transportation infrastructures and systems, the three primary spaces (interior, green and child), the role of media, aesthetics and proximity.

The Three Primary Spaces

Interior Space

These three spaces, according to the responses I received from the young families that I interviewed are the foundation of home making. As we saw in the findings and discussion, this theme was prevalent throughout all of interviews. According to the findings of my research, most people spend the majority of the time inside their house and this therefore forms their Home's space and place. This is a finding that is corroborated by Farr (2008).

The amount of functional space was the utmost importance for the respondents. As Agnes said "If you have a family of four, you need lots of room for storage, family activities like cooking and playing, plus you need your own space as well; otherwise things can get pretty hectic". This is a one of the major deterrents to higher density housing as Matilda commented on their views about condos "Before we had children, we were living in an apartment close to the city. We really liked the area, but when we decided to have kids, there was simply not enough room in the condos, and those that did

have enough room were way out of our budget. So we decided that the West Island was a better option. We could have the space we need for a decent price.” Therefore, if we want to attract parents to a higher density housing typology (whether it be multi-residential condos, or row housing or semidetached) there needs to be enough interior space incorporated into the design of the building to suit the needs of the young family. Otherwise, the transition will never occur, because the argument for moving to the suburbs is because of the amount of affordable space.

There is also another level to interior space, the sense of privacy. The majority of the parents did not like higher density buildings because of the noise factor that their children or their neighbour’s children can produce. Here are some of their comments about noise and high density housing from two parents:

“We have three children full of energy in the house. It would be unfair to our neighbours if they heard them screaming, yelling or running around. The interior walls of apartments and semidetached houses are not really that sound proof and quite thin, and it would be virtually impossible for us not to make that much noise. I am pretty sure the last thing our neighbours would want to hear is a crying baby at three in the morning” - Fanny

“When I come home from work I want to be in a relaxed environment, I really don’t want to hear what’s going on in my neighbour’s house, it would ruin my mood ... the problem with living in a condo you have four people living beside you, one on the top and bottom, and two on the sides, it doesn’t really appeal to me that I might have to listen four people’s lives. Semi-detached and row housing are not so bad because you have only one or two beside you ... it helps if your neighbours are parents of young children, if your baby cries at one in the morning, chances are if they have a baby they will be up too ... One of the reasons we bought a single detached house is that we can make all the noise we want” - Lisa.

So another element of design that needs to be incorporated and invested is the acoustics of the interior space. Otherwise, the image of higher density housing being noisy will remain a barrier to transition.

A third issue of interior space is access, the transition space from the exterior to interior. As a part of the photo survey component of my interviews some of the parents brought up the issue of stairs. There was a common consensus among the parents that stairs in a multi-story building was definitely a barrier to living there. Three issues arose from the conversations: safety of the children, the elderly and ease of carrying goods. A few of the parents were afraid that their children could fall and get severely hurt.

“Even though my kids have tons of energy and would have no problem climbing up the stairs everyday, actually come to think of it, might be a good way to relieve some of their energy ... hahaha ... My main concern would be if we lived on the third or fourth floor while going up or down the stairs if they tripped. It could be a long way down for them and they could really hurt themselves on the edges of the stairs”. - Lisa

Samantha brought up a reasonable point about the elderly “If my parents were coming to visit us and if we lived in a condo it would really have to depend on how they are feeling. Some days their health is not so good, my father is starting cardiac problems and if he has to walk ‘X’ amount of stairs it might not be so good for his health”.

Finally, there is the issue of transporting goods into higher density dwellings. A few of the participants told me that because of their children, they buy more stuff and would not want to carry it up a few flights of stairs.

“Between raising two children and working we don’t always have time every few days to do our shopping, normally we do our shopping about once a week and buy in bulk. It would be an absolute nightmare trying to bring all of our stuff up a few

stories; we would have to make a few trips. It would be very annoying considering I am already tired and I have to go back to get more stuff once I step into home. An elevator would really help; we could load it up and only do one trip”. – Patty

Including the needs of the parents, whether it be adding an elevator into a multi residence building, or reducing the noise and providing sufficient space (so that a family can live comfortably at an affordable price), greatly increases the potential of attracting young families towards higher density housing.

Green Space

Green Spaces are very important factors when choosing a home both on the neighbourhood and house scale. According to the academic scholars van den Berg , Hartig & Staats “research in environmental psychology suggests that people’s desire for contact with nature serves an important adaptive function ,namely, psychological restoration” (van den Berg , Hartig & Staats, 2007, p. 79). They are also an indicator of people’s images, ideals and understanding of “nature”. Green spaces range in size from a large park to the intimate backyard, and my respondents told me that this one of the most important factors they considered when looking for a home.

“I want my son to grow up surrounded by nature like I did. I think it’s important that he develops a relationship with nature. I wanted a house that was walking distance from at least two parks.” – Matilda

“I wouldn’t want my children growing up in the city, it’s too dirty, there’s no trees, just cement where ever you look. In the suburbs there are lots of trees and grass; it’s also healthier to live there because the air is cleaner, the trees help to filter the pollution” - Fanny.

Based on the informations from my interview with the parents and their responses to the photographic survey from the interviews, it is clear that they prefer the modern green spaces, - open space, grass and mature trees. This is also true for individual's lots. Lisa commented about backyards. "I like [green space,] the modern look - it's neat and tidy, I don't like to feel that I am in a dirty place and I don't want to feel that I'm in a jungle, it's too messy and it's an eye sore" .

As discussed in the literature review, many scholars attribute modern green spaces in the suburbs as a key component to the countryside / cottage-country myth, people romanticise about these spaces and are drawn to the values that are a mere symbolic representation of the genuine natural environment (Bryant, Coppack & Mitchell, 2000; Donaldson, 1969; Filion, Bunting & Gertler, 2000, Harris, 2004; Hopkins, 1998; Marsan, 1990; Matthews, 1985; Olson, 2000; Smith, 2000). One of the elements of the country side myth, (or in the case of West Island, the cottage country myth) is that the suburbs, as one responded declared, is "*a healthy option*". According to the interviewees, the suburbs are the ideal place and space to raise a family because the amount of greenery, sense of community, and, as Tiffany said, "*The open space makes for more fresh air*".

An attachment to modern aesthetics is also a hindrance to eco-design because by its very nature it is token ecology. To attain deeper ecology in our urban environments, there must be wilderness that people can access. It is important to have these spaces so that people can reconnect with genuine nature and to revive native ecosystems to create biodiversity. However, it would be impossible to have "wilderness belts" without a buffer zone in an urban environment. Based on the participants comments from the photographic survey some felt that it is scary, unsafe and to a lesser extent unappealing.

However, since such “wilderness belts” seemed to instill misgivings in the vast majority of my respondents it is clear that buffer zones around “wilderness areas” would be required in an urban environment. Modern landscape architecture can play a role by providing a transition zone between the built and “wild” environment. In this way, the parents have open space for a sense of security and, at the same time, the native ecosystem can be restored and protected.

Child Space

It is quite clear that main reason why parents choose to live in the suburbs is because of children. In fact my research has found that the parents perceive the suburbs to be a child friendly environment in which to raise their children. “This image is one of the strongest impediments of fundamental change within suburban neighbourhoods” (Halseth & Michael, 2000 p. 66). One of the primary issues related to children is space; the parents interviewed said that they need more space for their children, which is why they want a large interior space, backyard and parks with play areas.

The backyard poses a barrier towards eco-housing, because it decreases density and contributes to token ecology because of its relatively few flora and fauna. In general, parents feel that the advantage of having a yard is that there is a place for their children to play in a safe and secure environment. I asked the participants during my interviews if they would be willing to give up their backyards if they had a balcony that was large enough and had access to a park within less than five minutes walking. The majority (90%) of parents said they would strongly consider moving into a higher density type of

housing as one of the parents said “I find the city just isn’t child friendly, if my needs were met then I would consider the possibility” - Wendy.

Another important issue that has to be addressed in eco-design is the play areas of children. As mentioned in the discussion, this is an important place for them in which they learn cultural and social norms about society, as well as the built and natural environment. So, it is important to incorporate more biodiversity in the design of these areas. Furthermore, the children should have serious input into the design process. Adults think they know what children want and take their needs for granted. “Children are seemingly invisible on the landscape. At best, they are provided with some sort of token space, commonly a playground, but otherwise they are required to fit into the alien environments of the adult world” (Matthews & Limb, 1999, p. 66).

Neighbourhood

As discovered in the findings the neighbourhood is the first step in home making; it is what initially attracts residents. Therefore, it is important that eco-design incorporate the particular needs and ideals of the parents.

“When I was buying my home, I wanted to choose a neighbourhood that felt right; I have to feel at home. There is no point in buying a home because the house looks good and you don’t like the location, I guess you could adapt to it but, it wouldn’t be the same.” – Daniela.

In sustainable development, there is too much emphasis on the architecture of the building, and a lack of attention on the urban design, which is why young families do not want to live in the city.

Since the aim is to counteract suburban sprawl, it is important to find out how close families would be willing to move towards the urban core. That way, we could strategically plan for projects or developments (redevelopment and rejuvenating preferred) that have a strong potential to start deterring housing mobility beyond the West Island towards the city's core. Although some of the respondents were slightly hesitant about moving into the core because of their negative image, many of the participants would consider moving on the outskirts of downtown Montréal.

"I don't mind living closer to the city, but my needs have to be met. I would love to live in Westmount, but the houses there are way over what I can afford ... so if there was development that incorporated my needs [the primary space] at an affordable price, why not" -Jane.

Based on the information provided by the participants from my interviews, there could be the potential for the development of an eco-community that would attract neo-modern suburbanites from Montréal's western suburbs on the edge of the borders of Westmount, St. Laurent and Lachine (Figure 5.3).

Potential Area for Eco- Community Development in Montreal



Source: author, based on field research

Figure 5.3 Potential Area for Eco –Community Development in Montréal

Transportation

As stated in both the literature review and in the findings from my research, transportation plays a key role in the attractiveness and longevity of a development. When suburbs such as the West Island were initially developed, the train allowed quick access from the city, and the automobile allowed production of modernist low-density housing to thrive (Bourne, 1996; Friedman, 2002; Fillion, Bunting & Gertler, 2000; Grant, 2000; Harris, 2004; Matthews, 1985; Miller, 2000; Newman & Kenworthy, 1999). The same can be said for eco-communities. There must be a proper public transportation system and infrastructure set in place that will allow for higher densities and pedestrian-friendly environments. According to the majority of my respondents, the current public transportation system does not provide sufficient service.

“ I would take the public transit but I find that they [buses] only come in half hour intervals, and they take way too long to get where I am I want to go. Why should I spend money on public transit if it takes me an hour to get where I want to go and only 15 minutes by car?” – Patty

“The last thing I want to be is stuck on a bus in rush hour traffic, it’s often over crowded and I don’t want to stand for an hour, especially in the summer time. No way! At least in my car I am sitting and I have a/c [air conditioning]” – Peter.

Over-crowdedness and space in general on public transit was a common complaint among the parents. As Esther said, “I have two kids with me when I do the groceries. If I was to take public transit when I do my shopping it would be an absolute nightmare. The seating is so cramped, there is a good chance that I can’t sit with my kids and there is zero storage space for the stuff that I bought ... it really makes it hard to take public transit when I can just hop in my car and not worry about these issues”. This is an interesting and valid point. That the design of the mode of transportation is simply not equipped to deal with needs of the contemporary family. There needs to be family sections, or at least proper storage facilities, incorporated in to the vehicles otherwise society is merely contributing to token ecology, by providing a token transit system that does not serve the needs of its users take seriously the principles of ecology. Part of incorporating deep ecology into our lives is to re conceptualize the modern mode of transportation.

Proximity

According to my findings from the interviews (as shown in Figure 3.2 of the previous chapter) issues of proximity are as important as green space. This is also

illustrated in my respondent's community maps (See Appendix G). This is particularly true among parents as they wanted to spend more time with their family, rather than shopping. For them having commercial and work areas is really important.

"I really hate shopping after work, I am tired as it is the last thing I want to be doing when I'm tired, is pissing around looking for parking and driving to one store to pick one thing and then driving half way across town to pick up another thing. I want to basically get in and get out, so I can spend more time with my family ... During the weekend I don't mind browsing too much, but even then I have my limits" - Richard

"Ideally I would love to have my work within walking distance so I don't spend so much time and money traveling, plus I get to sleep in ... haha. If it's in a half hour walk that would be great and I could get some exercise and fresh at the same time!" - Jane

The last comment brought up an interesting point about the relationship between work and housing, which is something that is very important to eco-design. According to Jarvis, the proximity of work spaces does have an impact on the quality of life, but those with strong suburban values are willing to put up with the commute (Jarvis, 2001, 2003). The problem of relying on twentieth century design ideologies is that there was a separation of residential, office, light industrial and commercial zones. Although it might be slightly utopic to think that a community could provide all its residents with nearby employment, higher density neighbourhoods it would reduce travel time and distance. As Jarvis suggests, not all people in the household work in the same location, so there is a good chance that at least one person is going to do some traveling (Jarvis, 2001, 2003).

Aesthetics

Although not crucial to the overall the home-making process, aesthetic considerations are, as Patty said “*An important factor when buying or selling a house*”. There is strong evidence in the findings in my research that the parents do not like modern architecture. For example, some the adjectives that they used to describe the modern houses in the photographic survey were “*cold*”, “*uninviting*”, “*boring*”, and “*lifeless*”. Renowned architectural scholar Witold Rybczynski provided his thoughts on modernism in his book *Home: A short history of an idea*: “It was only when my wife and I built our own home that I discovered at first hand the fundamental poverty of modern architectural ideas. I found myself turning again and again to memories of older houses, and older rooms ... what made them feel so right”. This what Froud would describe as “transferable rootedness”, a link from the past to the present as sense of nostalgia, which she says is one of the keys to success of new developments (Froud, 2004). The trick is not to recreate the past, but to incorporate transferable elements that create “rootedness” in such a fashion that it conforms to a deep ecological design. Otherwise, designs will further contribute to the perpetuation of token ecology.

The problem of Token Ecology, in part stems from some of the architectural and design schools that push modern design approaches on to their students. It seems counterintuitive that modern architecture be applied to environmental design because it is primarily driven by technological and engineering developments, which separate the built and natural environment. Although neo modern houses may not have a cubic appearance, they still embed modern ideologies in the design such as standardization and separation of the built and natural environment (see Appendix H).

Media

Based on the research from my interviews and research evaluated in the literature review, it is clear that the media plays a key role in the development, image construction and understanding of housing, environment and eco-housing. As shown in my findings, local media is key in shaping local images of neighbourhoods. However, due to the lack of knowledge and expertise in the media, superficial ideologies and images that could considerably hinder progress towards ecological communities and lifestyles are unintentionally perpetuated. If media can enforce token ecology, it can do the same for deep ecology, providing programs that incorporate deep ecological ideals.

Push

The last segment dealt with factors that attracted the young families towards an eco-housing, the “push” mechanism that gives the incentive to buy and consume eco homes, and their lies the “push” towards transition.

Government

As seen in the literature review, the federal and municipal governments played a key role in promoting and establishing the suburbs by offering loans and subsidies to developers and consumers who bought suburban housing in the 1940’s. The local governments are also responsible for the maintaining token ecology in the built

environment by using Euclidean zoning, which is the separation and categorization of land use by its function (Ellis, 1999; Friedman, 2002; Harris, 2004; Lucy, 2006).

Part of the problem is that politicians and some planners still adhere to modern concepts of environmental planning and therefore fund projects based on their technological innovation. These actors need to be better educated about deep ecology, and planners and politicians then set up policies and funding according to deep ecological principles.

Affordability

One of the barriers is the cost associated with environmental housing, as the parents told during the interviews. Some of the comments about the issue from the respondents were *“It’s not really affordable, I can’t afford to spend thousands of dollars, I have a family to feed”* - Claudia ... *“I would be in environmental house if it saved me money”* – Lisa *“If all things were equal [price and space], so essentially it would be a tie breaker”* - Daniela. Part of the problem is that new technology can be expensive, but using deep ecology in the design such as passive solar and housing typology can reduce the costs. As stated in my findings the respondents found that a fair price for housing should not exceed \$300,000.

Concluding Thoughts

The findings from my research offer hope that the eco-communities can be realized, if we integrate the needs of the residents into the design and at the same time adhere to deep ecological principles. I feel that there was genuine interest from the young

families in my study area wanted to contribute to the enhancement of the environment and better housing. I found that even though token ecology is deeply embedded into our western culture, with education and understanding, change is possible. One small example from my interviews provides an example. When one of my respondents realized that their community map and that it looked nothing like their neo modern suburban neighbourhood, they had an epiphany. They told me that they did not realize that what they considered “normal” had such a negative impact on the environment and told me that they really wanted to change their ways.

Based on my research there are three basic spaces that make up the foundation of the family oriented Western Montréaler’s home: child space (play area), natural elements and interior space. According to the participants of my study, the underlying reason why they chose to move to the westerns suburbs is because the suburbs offer those spaces while the city does not. The participants wanted ample play areas for their children so that they could “run around”. The participants felt that living near green spaces and natural elements was important because it provided a place and space for their children to play, better environment for their children’s health, aesthetics, and sense of connection with the natural environment. Finally, the interior space plays an important role because that is the majority of their everyday is spent. This space is critical for storage and for children’s play and private quarters.

Ironically, the image that the participants have about their homes and the Western suburb is contradictory to their lifestyles and habits. The participant’s perception is that living in the suburbs is being more “environmentally friendly” than in the city. However, they are not aware about the negative realities of their suburban homes and lifestyle.

They do not realize that this form of development is substituting the natural ecology for a token ecology -perceived modern green space(s) as “natural”. The participants’ views on the environment and ecological housing, community and neighbourhoods are generally very technocentric. Based on their answers from the interviews their perception about eco-communities is that there are lots of mature trees. The building is made from reused or recycled material with reduced energy consumption and/or from an alternative source such as solar power and geothermal. The problem lies in the image construction of eco-communities from the media which heavily focuses on technology and science part of eco communities and fails to incorporate lifestyles and building typologies

Even though 95% of the participants are willing to move to a higher dense community, there is a contradiction between what said in the interview and what they drew on their community maps. Only two people included mixed use in their maps, while the other had detached housing and was separated from other land and building uses. The reason for this as mentioned above is that there are no tangible developed [deep] eco-communities and that designers still continue with modern approaches and designs. Therefore this prevents prevent a push and pull relationship between the built and imaginary landscape of attaining deep ecological image for housing and community. If the proper cultural infrastructures were implemented the awrness and education of deep ecological ideals and images people would be more likely to transition to an eco-community.

Although there is much criticism in the academic world about suburbs and suburbanites, I can understand the allure that some of these cities have. When I was taking photographs in Pierrefonds and Dollard-des-Ormeaux, (even though I got lost), I

found that there indeed were lots of green spaces and on one occasion, I saw a park that had the makings of good design of “wilderness belt”. That being said a few mature trees do not constitute genuine nature even though they may seem to be forests.

Future research should avoid criticism and instead focus on ways to incorporate consumer behaviour and deep ecology into the design process. After all it is the residents that buy the houses. The key is to make families aware of their actions, so that they will demand eco-housing, and at the same time their needs to be a supportive infrastructure to allow this to happen. Although technology is important, it is culture and lifestyles that will ultimately shape our environment.

Limitations and Scope

Community design, ideologies and images are complex subjects and therefore, I cannot cover all the issues that pertain to the topic due to the work constrictions of a master's thesis.

- Due to the scope and complexity of design issues my research will make general statements design recommendations as case study for a “guide”.
- There was also the issue of participant fatigue during the interviews (two hours) so at times comments, descriptions and discussion were not as robust as they could have been. However there was enough repetition with the “smaller” description to provide a sufficient detailed account.
- Due to lack of time caused by family or work obligation, a few parents did not fully complete the interview (neighbourhood mapping). However there was enough repetition within the section to provide a sufficient general account, which is the aim of thesis.
- West Island as entity within itself is rather complex, due to word restrictions, access to information and the scope the historical references are focused on the following suburban cities within the West Island: Dorval, Pointe-Claire, Beaconsfield, Sainte Anne de Bellevue and Senneville.
- The suburbs in West Island are diverse and offer a range of demographics. For the purpose of this research, the review of suburban ideals will be limited to the traditional middle and upper class “cottage” suburb.

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APPENDICES

APPENDIX A - Environmental Ideologies and Design

Name of Design	Founder(s)	Date	Objective(s)
Environmental Utopias 1890 – 1939			<ul style="list-style-type: none"> - Founded design and ideologies that shaped the design of “Green Communities” In the 20th Century - Was created to counter the sanitary, over-crowdedness and lack of green space in industrial cities - Helped create a more thought out design and plan for cities and town, rather than (quasi) organic settlement - This applied to mostly to English merchants and middle class communities
Garden City	Ebenezer Howard	1898	<ul style="list-style-type: none"> - Reaction to the dreadful human health conditions of the dense and congested 19th-century industrial city. - Regional polycentric city surrounded by agricultural belts for local food production. - Conceptually designed for social reform, but was primarily used for wealthy merchants and the middle class communities - The aim was to meld country life with city convenience
City Beautiful	Daniel Burnham	1890	<ul style="list-style-type: none"> - Used beauty as a source and inspiration for creating moral and civic virtue - Helped shape urban design and aesthetic construction, and the relationship between the built and natural environment; particularly in the United States.

Broadacre City	Frank Lloyd Wright	1920s	<ul style="list-style-type: none"> - Anti-urban, decentralist with a focus on individual lifestyle: freedom, privacy, and private property - Attempted to harmonize housing with the surrounding greenery - Design ideology was based on agrarian lifestyle and new technologies (automobile and electricity) that aimed to free people from the city
Regional Planning Association of America	Clarence Stein	1923	<ul style="list-style-type: none"> - Influenced by Garden City - Based heavily on technologies: automobiles, regional highways, and telecommunications. - Pedestrian friendly with public open spaces for residents to socialize - It was thought that this would allow balance between the built environment and ecosystem(s), and to foster an organic relationship between people and their living space
International Congress of Modern Architecture (Towers in the Park)	Walter A.G. Gropius Le Corbusier Josep Lluís Sert Alvar Alto	1928	<ul style="list-style-type: none"> - Providing adequate shelter and enhance sanitation and health - Though that high rise buildings would solve many social problems and increase the amount of open space - Heavily embraced the usage of automobiles - Modern ideology for architectural styles: simple, cubic, standardization, and open
Radiant City	Le Corbusier	1933	<ul style="list-style-type: none"> - A modern architectural based vision that proposed urban renewal on a large scale - Envisioned vertical garden on high-rise towers built on vast open spaces - Aimed to cure over-crowdedness, pollution, and sanitary living conditions associated with the industrial city. - Standardization was key to improving public health and livability

Design With Nature 1940 - 1979		<ul style="list-style-type: none"> - Ecology gained popularity as discipline, philosophy, methodology, and approach. Stemmed from biology - During the 1960's ecology was based on the premise that ecological balance was homeostatic - In the 1970's chaos and complexity theory were introduced and brought a new understanding about ecosystems: They are unpredictable, unstable and dynamic - Introduced categorization and the heavy use of functional zoning in urban design and planning 	
A Sand County Almanac	Aldo Leopold	1949	A new environmental ethic and the emergence of deep ecology
Silent Spring	Rachel Carson	1962	Popularized scientific concerns about the destruction of the environment
Design with Nature	Ian McHarg	1969	<ul style="list-style-type: none"> - Influenced by Carson and Leopold - Absolute rejection of the city - Applied land suitability to quantify and design ecological values of critical natural resources (e.g., hydrology, soils, vegetation, wildlife, and scenery). - Attempted to determine regional areas that could be developed with the least disruption to ecological functions. - Developed land classification and suitability analysis such as: agricultural lands, natural areas, lake and river basins, scenic vistas, and recreational areas. - Strongly supported the harmony with nature dimension of green communities, in which urban form follows landscape ecological function. - Strongly influenced New Urbanism and contemporary green design

Smart Growth Aka "Smart Sprawl"	Senator Henry "Scoop" Jackson	1970	Emerged from the Nixon Administration's Legislation
	Govenor Tom McCall (Oregon)	1973	Law requiring municipalities to designate Urban Growth Boundaries (UGBs), zoned parcel of land (similar to a park) beyond the built environment that development is prohibited
	Govenor Roy Romer (Colorado)	1995	Coined the term Smart Growth
Green Design 1980 -2009	<ul style="list-style-type: none">- Attempt to provide holistic solutions to counter sprawl- Green became the buzzword of the 1980's – because of the colour it was inherently symbolically charged. One could identify them politically (light to dark green) and as result it created an image that could be marketed and consumed symbolically and physically through the design and architecture of the built environment.- Going "green" was becoming mainstream and profitable. As a result Green washing emerged, the false image tat a product or service benefited the environment- The 1990s was trying to push the green concept deeper by trying to incorporate long-term strategies. As a result "sustainability" became the buzzword and was heavily influenced by the Brundtland Report (1987). However, the report was wrongfully interpreted and neglected parts of the definition form the report. As result it provided a technocratic base for contemporary design, ideology and policy- Introduction of lifecycle models for energy and material flow – "cradle to grave" and "womb to tomb"		
Ecological Functionalism	Evelyn Moller	1982	Devised a ecological check list for product and manufactures, which was the base of ecology and design
The Green Designer	Design Council (UK)	1986	<ul style="list-style-type: none">- Created a design that was influenced by politics, corporative and industrial initiatives.- Attempted to integrated environmental solutions into business products and services- Emergence of the environmental industry- The goal was to create products that are durable, recyclable and reduce energy use

Ecological Design Association		1989	Integrated deep ecology: “ The design of materials and products, projects and systems environments communities which are friendly to living species and planetary ecology.” (Madge; 1997: 48)
Brundlant Report		1987	<p>- Has become the Neo Modern ‘manifesto’ for “sustainable development - to meet the needs of the present without compromising the ability of future generations to meet their own needs. This statement reinforced technocentric views in contemporary environmental design and ideology.</p> <p>- The report also mentioned “perceived needs are socially and culturally determined, and sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecological possible and to which all can reasonably aspire” (Chiu, 2004, p.65).</p>
Striking Visions	O2 Group	1993	Created visions of sustainable lifestyles, taking a long-term view of the changes in attitudes needed to bring this about, and how design can make a new consumerless world possible
New Urbansim	Peter Clathorpe Andrés Duany Elizabeth Moule Elizabeth Plater - Zyberk Stephanos Polyzoides Daniel Solomon	1993	<p>- A contemporary polycentric ideal of green communities based on the dense pedestrian-scale and architecture of the towns from the 19th century</p> <p>- Concerned with sense of place and social cohesion</p> <p>- Promotes high-density development pattern mixed use (homes, shops, schools, public spaces),</p> <p>- Inspired by Garden City, I.C.M.A. and Ian McHarg</p> <p>- Smart Code: an open framework that replaces older zoning codes, wit more integrated zoning</p>
Transit Oriented Development	Peter Calthorpe	1993	<p>- Pedestrian oriented, high density with a maximum of a 10 minute walk</p> <p>-Train station as focal point</p> <p>-A regional node of mixed use buildings (office, residential, retail, and civic)</p>

			<ul style="list-style-type: none"> -A variety of public transportation systems trolleys, streetcars, light rail, and buses, -Supports alternative modes of transportation bicycles, scooters, and rollerblades -Reduced and managed - - Parking within a 10-minute walk from town center / train station * This concept has been in Montréal since 1861
<p>United States Green Building Council (USGBC)</p> <p>Leadership in Energy and Environmental Design (LEED)</p>	<p>David Gottfried</p> <p>Richard Fedrizzi</p> <p>Michael Italiano</p>	<p>1993</p> <p>1996</p>	<ul style="list-style-type: none"> - Influenced by Rio Summit - Catalogues theory, practice and technology of “environmental” buildings. - Includes participants outside architecture such as engineers, planner and entrepreneurs - Certifies / standardizes buildings according to a “check list” and certain prerequisites
Eco City	Richard Registrar	2006	<ul style="list-style-type: none"> - A centrist vision aimed at becoming a self contained living system - More extreme than Le Corbusier’s Radiant City - Creates artificial land in the sky with multiple levels of terraces and low energy consumption - Vertical mixed use urban centers 70 stories high, housing a population of 250,00 - Urban activity accessible by foot. - Integration of urban agriculture between food productions and home - Aimed to reduce ecological foot print

Sources: Berke, 2008; Bhatti, 2001; Chiu, 2004; Farr, 2008; Guy & Farmer, 2001; Hess, & Weintraub, 2004; Jarvis, 2003; Jepson, 2004; Li, 2004; Lee, 2005

APPENDIX B – Smart Growth Principles

Principles of Smart Growth

1. Create Range of Housing Opportunities and Choices

Providing quality housing for people of all income levels is an integral component in any smart growth strategy. Housing is a critical part of the way communities grow, as it constitutes a significant share of new construction and development. More importantly, however, is also a key factor in determining households' access to transportation, commuting patterns, access to services and education, and consumption of energy and other natural resources. By using smart growth approaches to create a wider range of housing choices, communities can mitigate the environmental costs of auto-dependent development, use their infrastructure resources more efficiently, ensure a better jobs-housing balance, and generate a strong foundation of support for neighborhood transit stops, commercial centers, and other services.

No single type of housing can serve the varied needs of today's diverse households. Smart growth represents an opportunity for local communities to increase housing choice not only by modifying their land use patterns on newly-developed land, but also by increasing housing supply in existing neighborhoods and on land served by existing infrastructure. Integrating single- and multi-family structures in new housing developments can support a more diverse population and allow more equitable distribution of households of all income levels across the region. The addition of units -- through attached housing, accessory units, or conversion to multi-family dwellings -- to existing neighborhoods creates opportunities for communities to slowly increase density without radically changing the landscape. New housing construction can be an economic stimulus for existing commercial centers that are currently vibrant during the work day, but suffer from a lack of foot traffic and consumers in evenings or weekends. Most importantly, providing a range of housing choices allow all households to find their niche in a smart growth community -- whether it is a garden apartment, a rowhouse, or a traditional suburban home -- and accommodate growth at the same time.

2. Create Walkable Neighborhoods

Walkable communities are desirable places to live, work, learn, worship and play, and therefore a key component of smart growth. Their desirability comes from two factors. First, walkable communities locate within an easy and safe walk goods (such as housing, offices, and retail) and services (such as transportation, schools, libraries) that a community resident or employee needs on a regular basis. Second, by definition, walkable communities make pedestrian activity possible, thus expanding transportation options, and creating a streetscape that better serves a range of users -- pedestrians, bicyclists, transit riders, and automobiles. To foster walkability, communities must mix land uses and build compactly, and ensure safe and inviting pedestrian corridors.

Walkable communities are nothing new. Outside of the last half-century communities worldwide have created neighborhoods, communities, towns and cities premised on pedestrian access. Within the last fifty years public and private actions often present

created obstacles to walkable communities. Conventional land use regulation often prohibits the mixing of land uses, thus lengthening trips and making walking a less viable alternative to other forms of travel. This regulatory bias against mixed-use development is reinforced by private financing policies that view mixed-use development as riskier than single-use development. Many communities -- particularly those that are dispersed and largely auto-dependent -- employ street and development design practices that reduce pedestrian activity.

As the personal and societal benefits of pedestrian friendly communities are realized -- benefits which include lower transportation costs, greater social interaction, improved personal and environmental health, and expanded consumer choice -- many are calling upon the public and private sector to facilitate the development of walkable places. Land use and community design plays a pivotal role in encouraging pedestrian environments. By building places with multiple destinations within close proximity, where the streets and sidewalks balance all forms of transportation, communities have the basic framework for encouraging walkability.

3. Encourage Community and Stakeholder Collaboration

Growth can create great places to live, work and play -- if it responds to a community's own sense of how and where it wants to grow. Communities have different needs and will emphasize some smart growth principles over others: those with robust economic growth may need to improve housing choices; others that have suffered from disinvestment may emphasize infill development; newer communities with separated uses may be looking for the sense of place provided by mixed-use town centers; and still others with poor air quality may seek relief by offering transportation choices. The common thread among all, however, is that the needs of every community and the programs to address them are best defined by the people who live and work there.

Citizen participation can be time-consuming, frustrating and expensive, but encouraging community and stakeholder collaboration can lead to creative, speedy resolution of development issues and greater community understanding of the importance of good planning and investment. Smart Growth plans and policies developed without strong citizen involvement will at best not have staying power; at worst, they will be used to create unhealthy, undesirable communities. When people feel left out of important decisions, they will be less likely to become engaged when tough decisions need to be made. Involving the community early and often in the planning process vastly improves public support for smart growth and often leads to innovative strategies that fit the unique needs of each community.

4. Foster Distinctive, Attractive Communities with a Strong Sense of Place

Smart growth encourages communities to craft a vision and set standards for development and construction which respond to community values of architectural beauty and distinctiveness, as well as expanded choices in housing and transportation. It seeks to create interesting, unique communities which reflect the values and cultures of

the people who reside there, and foster the types of physical environments which support a more cohesive community fabric. Smart growth promotes development which uses natural and man-made boundaries and landmarks to create a sense of defined neighborhoods, towns, and regions. It encourages the construction and preservation of buildings which prove to be assets to a community over time, not only because of the services provided within, but because of the unique contribution they make on the outside to the look and feel of a city.

Guided by a vision of how and where to grow, communities are able to identify and utilize opportunities to make new development conform to their standards of distinctiveness and beauty. Contrary to the current mode of development, smart growth ensures that the value of infill and greenfield development is determined as much by their accessibility (by car or other means) as their physical orientation to and relationship with other buildings and open space. By creating high-quality communities with architectural and natural elements that reflect the interests of all residents, there is a greater likelihood that buildings (and therefore entire neighborhoods) will retain their economic vitality and value over time. In so doing, the infrastructure and natural resources used to create these areas will provide residents with a distinctive and beautiful place that they can call “home” for generations to come.

5. Make Development Decisions Predictable, Fair and Cost Effective

For a community to be successful in implementing smart growth, it must be embraced by the private sector. Only private capital markets can supply the large amounts of money needed to meet the growing demand for smart growth developments. If investors, bankers, developers, builders and others do not earn a profit, few smart growth projects will be built. Fortunately, government can help make smart growth profitable to private investors and developers. Since the development industry is highly regulated, the value of property and the desirability of a place is largely affected by government investment in infrastructure and government regulation. Governments that make the right infrastructure and regulatory decisions will create fair, predictable and cost effective smart growth.

Despite regulatory and financial barriers, developers have been successful in creating examples of smart growth. The process to do so, however, requires them to get variances to the codes – often a time-consuming, and therefore costly, requirement. Expediting the approval process is of particular importance for developers, for whom the common mantra, “time is money” very aptly applies. The longer it takes to get approval for building, the longer the developer’s capital remains tied up in the land and not earning income. For smart growth to flourish, state and local governments must make an effort to make development decisions about smart growth more timely, cost-effective, and predictable for developers. By creating a fertile environment for innovative, pedestrian-oriented, mixed-use projects, government can provide leadership for smart growth that the private sector is sure to support.

6. Mix Land Uses

Smart growth supports the integration of mixed land uses into communities as a critical component of achieving better places to live. By putting uses in close proximity to one another, alternatives to driving, such as walking or biking, once again become viable. Mixed land uses also provides a more diverse and sizable population and commercial base for supporting viable public transit. It can enhance the vitality and perceived security of an area by increasing the number and attitude of people on the street. It helps streets, public spaces and pedestrian-oriented retail again become places where people meet, attracting pedestrians back onto the street and helping to revitalize community life.

Mixed land uses can convey substantial fiscal and economic benefits. Commercial uses in close proximity to residential areas are often reflected in higher property values, and therefore help raise local tax receipts. Businesses recognize the benefits associated with areas able to attract more people, as there is increased economic activity when there are more people in an area to shop. In today's service economy, communities find that by mixing land uses, they make their neighborhoods attractive to workers who increasingly balance quality of life criteria with salary to determine where they will settle. Smart growth provides a means for communities to alter the planning context which currently renders mixed land uses illegal in most of the country.

7.

Principles of Smart Growth

Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas

Smart growth uses the term "open space" broadly to mean natural areas both in and surrounding localities that provide important community space, habitat for plants and animals, recreational opportunities, farm and ranch land (working lands), places of natural beauty and critical environmental areas (e.g. wetlands). Open space preservation supports smart growth goals by bolstering local economies, preserving critical environmental areas, improving our communities quality of life, and guiding new growth into existing communities.

There is growing political will to save the "open spaces" that Americans treasure. Voters in 2000 overwhelmingly approved ballot measures to fund open space protection efforts. The reasons for such support are varied and attributable to the benefits associated with open space protection. Protection of open space provides many fiscal benefits, including increasing local property value (thereby increasing property tax bases), providing tourism dollars, and decreases local tax increases (due to the savings of reducing the construction of new infrastructure). Management of the quality and supply of open space also ensures that prime farm and ranch lands are available, prevents flood damage, and provides a less expensive and natural alternative for providing clean drinking water.

The availability of open space also provides significant environmental quality and health benefits. Open space protects animal and plant habitat, places of natural beauty, and

working lands by removing the development pressure and redirecting new growth to existing communities. Additionally, preservation of open space benefits the environment by combating air pollution, attenuating noise, controlling wind, providing erosion control, and moderating temperatures. Open space also protects surface and ground water resources by filtering trash, debris, and chemical pollutants before they enter a water system.

8. Provide a Variety of Transportation Choices

Providing people with more choices in housing, shopping, communities, and transportation is a key aim of smart growth. Communities are increasingly seeking these choices -- particularly a wider range of transportation options -- in an effort to improve beleaguered transportation systems. Traffic congestion is worsening across the country. Where in 1982 65 percent of travel occurred in uncongested conditions, by 1997 only 36 percent of peak travel occurred did so. In fact, according to the Texas Transportation Institute, congestion over the last several years has worsened in nearly every major metropolitan area in the United States.

In response, communities are beginning to implement new approaches to transportation planning, such as better coordinating land use and transportation; increasing the availability of high quality transit service; creating redundancy, resiliency and connectivity within their road networks; and ensuring connectivity between pedestrian, bike, transit, and road facilities. In short, they are coupling a multi-modal approach to transportation with supportive development patterns, to create a variety of transportation options.

9. Strengthen and Direct Development Towards Existing Communities

Smart growth directs development towards existing communities already served by infrastructure, seeking to utilize the resources that existing neighborhoods offer, and conserve open space and irreplaceable natural resources on the urban fringe. Development in existing neighborhoods also represents an approach to growth that can be more cost-effective, and improves the quality of life for its residents. By encouraging development in existing communities, communities benefit from a stronger tax base, closer proximity of a range of jobs and services, increased efficiency of already developed land and infrastructure, reduced development pressure in edge areas thereby preserving more open space, and, in some cases, strengthening rural communities.

The ease of greenfield development remains an obstacle to encouraging more development in existing neighborhoods. Development on the fringe remains attractive to developers for its ease of access and construction, lower land costs, and potential for developers to assemble larger parcels. Typical zoning requirements in fringe areas are often easier to comply with, as there are often few existing building types that new construction must complement, and a relative absence of residents who may object to the inconvenience or disruption caused by new construction.

Nevertheless, developers and communities are recognizing the opportunities presented by infill development, as suggested not only by demographic shifts, but also in response to a growing awareness of the fiscal, environmental, and social costs of development focused disproportionately on the urban fringe. Journals that track real estate trends routinely cite the investment appeal of the “24-hour city” for empty nesters, young professionals, and others, and developers are beginning to respond. A 2001 report by Urban Land Institute on urban infill housing states that, in 1999, the increase in housing permit activity in cities relative to average annual figures from the preceding decade exceeded that of the suburbs, indicating that infill development is possible and profitable.

10. Take Advantage of Compact Building Design

Smart growth provides a means for communities to incorporate more compact building design as an alternative to conventional, land consumptive development. Compact building design suggests that communities be designed in a way which permits more open space to be preserved, and that buildings can be constructed which make more efficient use of land and resources. By encouraging buildings to grow vertically rather than horizontally, and by incorporating structured rather than surface parking, for example, communities can reduce the footprint of new construction, and preserve more greenspace. Not only is this approach more efficient by requiring less land for construction. It also provides and protects more open, undeveloped land that would exist otherwise to absorb and filter rain water, reduce flooding and stormwater drainage needs, and lower the amount of pollution washing into our streams, rivers and lakes.

Compact building design is necessary to support wider transportation choices, and provides cost savings for localities. Communities seeking to encourage transit use to reduce air pollution and congestion recognize that minimum levels of density are required to make public transit networks viable. Local governments find that on a per-unit basis, it is cheaper to provide and maintain services like water, sewer, electricity, phone service and other utilities in more compact neighborhoods than in dispersed communities.

Research based on these developments has shown, for example, that well-designed, compact New Urbanist communities that include a variety of house sizes and types command a higher market value on a per square foot basis than do those in adjacent conventional suburban developments. Perhaps this is why increasing numbers of the development industry have been able to successfully integrate compact design into community building efforts. This despite current zoning practices – such as those that require minimum lot sizes, or prohibit multi-family or attached housing – and other barriers – community perceptions of “higher density” development, often preclude compact design.

Source: <http://www.smartgrowth.org/about/principles/default.asp>

APPENDIX C - Charter of New Urbanism

The Congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework. We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment.

We assert the following principles to guide public policy, development practice, urban planning, and design:

The Region: metropolis, city, and town

1. Metropolitan regions are finite places with geographic boundaries derived from topography, water sheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.

3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.

The neighborhood, the district, and the corridor

10. The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
11. Neighborhoods should be compact, pedestrian-friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and park ways.
12. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
13. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.

14. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, high way corridors should not displace investment from existing centers.

15. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become available alternative to the automobile.

16. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.

17. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.

18. A range of parks, from tot-lots and village greens to ball fields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

The block, the street, and the building

19. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.

20. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.

21. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.

22. In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.

23. Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.

24. Architecture and landscape design should grow from local climate, topography, history, and building practice.

25. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.

26. All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource efficient than mechanical systems.

27. Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

Source: http://www.cnu.org/sites/files/charter_english.pdf

APPENDIX D - Environmental Impacts caused by Suburban

Development

Spheres of the Earth	Natural Resource(s)	Effect(s)	Activity(ies)
Biosphere	Ecosystems Human Population	Loss of Species Diversity Malnourished population	Clear cutting for new urban developments Construction Materials Road and Highway Construction Importing and consuming goods form poor living condition and using their environment to feed us Fossil Fuel Extraction for energy Increase in population and material consumption Poaching for exotic species as interior décor or captivating for entertainment ie zoos Suburban Sprawl
Litho - / Pedosphere	Raw Materials Arable Land Tree Cover	Soil Erosion and Poisoning Water run off Fossil Fuel leaks from automobiles Loss of Agricultural Land Loss of Forests	Use of automobiles Clear cutting for new urban developments Construction Materials Road and Highway Construction Suburban Sprawl Toxic pesticides and herbicides

Hydrosphere	Seas/ Oceans Rivers/ Lakes Ground Water	Death of Fish Water pollution	Pollution from urban environments Sludge and sewage from Built environment Fossil Fuel leakage from recreational watercraft Plastic bags discarded and picked up by the wind Dams – supporting energy consumptions
Cryosphere	Glaciers Polar Icecaps Polar Seas	Melting of Ice	Excessive carbon dioxide
Atmosphere	Air	Greenhouse Effect Smog/ Acidification Ozone Layer	Concentration of carbon dioxide from emissions of vehicles and energy. Suburban Sprawl

(Source: Vlek; 2000, Vlek & Steg; 2007)

APPENDIX E – Consent Form

ETHICS PERMISSION

Following the procedures set out at Concordia University for conducting interviews with members of the public, the questions and practice of my research have gone through two committees (thesis and ethics) to ensure both that the correct ethical procedures have been put in place. There are a few items to take note before starting the process:

- 1) You have the right to stop the interview at any time.
- 2) If you do not feel comfortable answering a question you can skip it.
- 3) You and the information you provide will be anonymous.
- 4) The information that is been gathered is for academic use **only** and will **not** be sold for a commercial gain.
- 5) The contents of the interview can not be shown to a third party and can not be used for commercial or academic gain.

* If you have any comments or concerns you can reach me at: sustainable@rocketmail.com . If I do not address your issues or have any complaints you can contact the chair of the Department of Geography, Planning and Environment, Dr. David Greene at [greene@alcor.concordia.ca](mailto:green@alcor.concordia.ca).

I herby read and understood the above items mentioned and are ready to participate in the research process.

Participant #1

Name

Signature

Date

Participant #2

Name

Signature

Date

APPENDIX F – Interview Guide

Name: _____

Part 1 – General Housing and Neighbourhood

Instructions: Answers the questions with as much detail as possible. If you want you can write more than the space provided. Remember if there is a question(s) that is unclear please get in touch with me so I can clarify it for you. 514-485-5394 or sustainable@rocketmail.com Thanks.

- 1) Where did you grow up? (Can be more than one area / city)

- 2) What are 5 similarities and 5 differences between your current house and the house(s) that you grew up?

[illegible]

- 3) Are you trying to live in a similar or duplicate the environment that you grew up in?
Why?

4) What are five factors that you look for when buying a house?

5) What are five factors that you look for before moving into a neighbourhood?

6) Why did you choose this house and neighbourhood over other areas?

7) What were three other areas that you were considering? Why didn't they make the final choice?

8) How did you find your current house?

* Mark / check the box or replace the box with a "x". You can mark or "x" as many boxes as you need. If there are more than one box or "x" please put a numerical value beside the category based on the order of sequence.

Example: If you bought your home because you saw an advertisement in a magazine by a developer, then went to their website which made you visit one of their demo homes; that would mean you would have 5 checks: advertisement, magazine (1), developer, developer's website (2), developer's demo house (3)

Advertisement ☐

- Newspaper ☐
- Magazine ☐
- T.V. ☐
- Poster / Billboard ☐
- Internet ☐
- Classified ☐

Realtor ☐

- Sign in front of the housing ☐
- Realtor's Website ☐
- Personal Connection / Word of Mouth ☐

Developer / Builder ☐

- Demo House ☐
- Housing Trade Show ☐
- Developer / Builder's Website ☐

Sign in front of housing ☐

- Realtor ☐
- Developer / Builder ☐
- Generic / sale by owner ☐

Friend / Family / Word of Mouth ☐

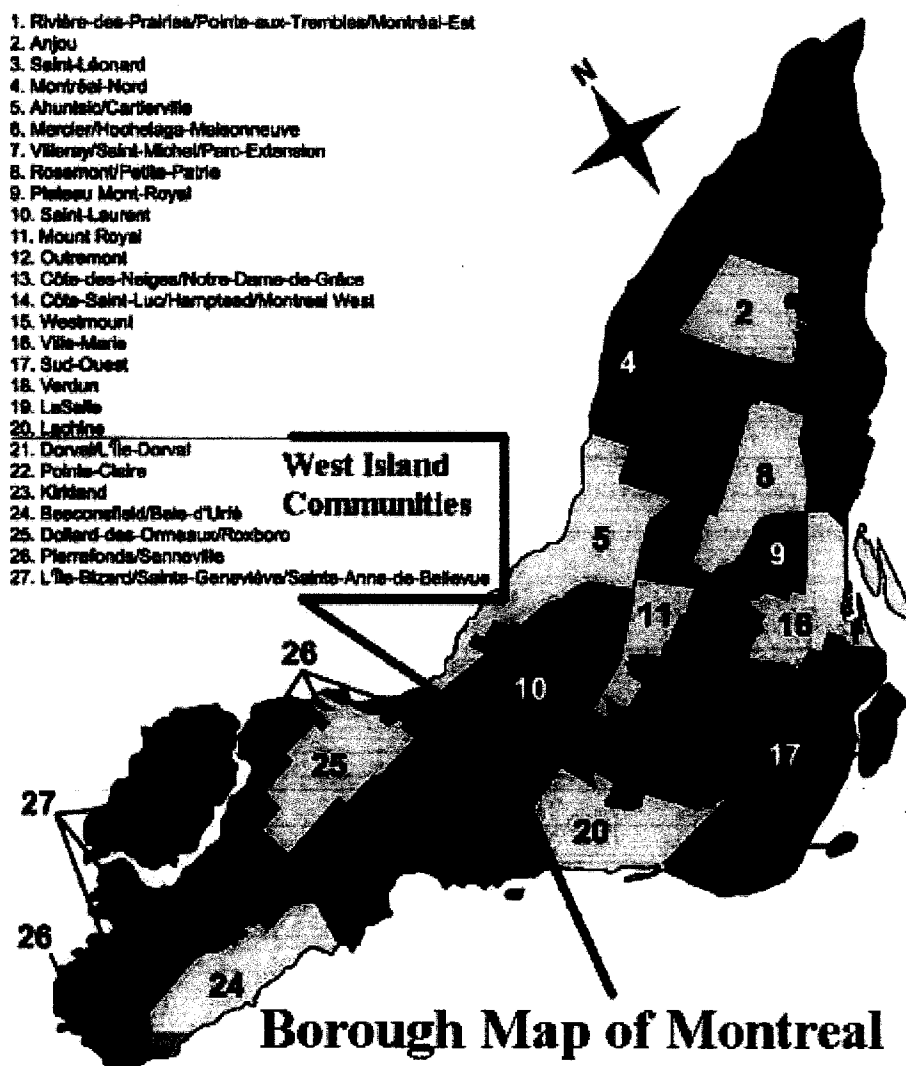
Other ☐

9) Describe your ideal house and neighbourhood?

10) Which is more important to you the house or neighbourhood?

11) Which is more important to you the inside of the house or the exterior or the façade?
Why? How would you rank their importance in terms of percentages? (interior x %, exterior y %, and façade z %)

12) Based on the map below rank the top 5 ideal place you want to live and the 5 worst places you would want to live. Provide a brief description why. Place the numerical value ascribed to the location in your list, you don't have to write / type the names down



Borough Map of Montreal

Source: Canadian Environmental Assessment Agency

Ideal

1) ____ Why? _____

2) ____ Why? _____

3) ____ Why? _____

4) ____ Why? _____

5) ____ Why? _____

Worst

1) ____ Why? _____

2) ____ Why? _____

3) ____ Why? _____

4) ____ Why? _____

5) ____ Why? _____

Part 2 – Photographs

For each photograph please provide some comments about what you like and dislike. Feel free to express yourself ie “*it looks like crap*” or “*this is the best thing since slice bread*” remember your identity is being protected say what you want.

Part 3 – Green Housing and Neighbourhood

Instructions: Answers the questions with as much detail as possible. There is no right or wrong answers.

1) What are your likes and dislikes about living in the suburbs?

2) Would you consider living closer or in the city?

3) What are views and attitude towards the city (Montréal)?

4) How close would you live to the city?

5) At what amount of an increase in gas prices would you consider moving closer to the city?

6) Do you take public transit? Y/N. If no, why?

7) Give your general overall impression on the public transit system in Montréal.

8) Public Transport: Rate your preference towards the public transit method that you prefer if you had to use it on a daily basis (1 being first choice):

train __, metro __, bus __, street car / tram __

9) What is your general opinion about the following:

Train

Metro

Bus

Street Car / Tram

10) Would you like to give up your car if necessities were located in walking distance?

11) Would consider having a small farm and or community garden in your neighbourhood?

12) What are some reasons you would or would not live in a city

13) If your concerns were incorporated in the design of an alternative housing typology and community would you consider buying it? *Ie if the interior space of a condo was the equivalent to your current house.*

14) Do you find that your house and neighbourhood is better for the environment than one in the city?

15) How do you think that your house and neighbourhood helps the environment?

16) How do you help clean the environment?

17) How important is the concern of environmental degradation? 100 being the most important _____
Why?

18) Have you ever heard of green or sustainable buildings?

19) Have you ever heard of green or sustainable neighbourhoods?

20) If the buildings in the slide show were sustainable / green would that change your decision?

21) Have you ever heard of suburban sprawl?

22) Have you heard of ecological footprint?

23) Where did you hear or get the information about what is environmentally friendly, sustainable housing / neighbourhoods, eco- footprint and sprawl?

24) Would you consider moving to a different type of housing and/or neighbourhood because of the negative environmental impacts of your type of housing?.

Part 4

As a part of sustainability, affordability plays a crucial factor along with environmental issues and your concerns / needs. This part of the interview is just to get some basic demographic information that will help make sustainability more of a reality and to benefit yours and other families in the future. I want to assure you that the information provided will **not be shown or shared with anybody and will only be used for the purpose of this research**. If you need further explanation to this relevance please call me at 514-485-5394 or email me at sustainable@rocketmail.com.

Please, tick the box that best describes your situation. If your are doing this by email replace the box with a "x"

Sex:

Female ☐

Male ☐

Age:

Less than 20 years ☐

20-24 years ☐

25-29 years ☐

30 – 34 years ☐

35 – 39 years ☐

40- 49 years ☐

50 – 59 years ☐

60 – 64 years ☐

65 years and greater ☐

Marital status:

Single ☐

Common law ☐

Married ☐

Occupation and/or Job title: _____

Education:

* Please choose highest attained.

Less than high school education ☐

High school ☐

College / CGEP ☐

Bachelors ☐

Masters ☐

Doctorate ☐

* In addition to your formal education have you received any other type of certificates ☐, diplomas ☐, or accreditation ☐ If no, leave blank.

Do you currently live in a:

Condo / Apartment ☐ Semi – Detached / Town House ☐ Row Housing ☐

Single Detached House ☐ other: _____

What is the price range of your current investment for housing?

Less than \$200, 000 ☐

\$200,000 – 249,999 ☐

\$250,000 - \$299, 999 ☐

\$300,000 – 349,999 ☐

\$350,000 - \$399, 999 ☐

\$400,000 – 449,999 ☐

\$450,000 - \$499, 999 ☐

\$500,000 – 549,999 ☐

\$550,000 - \$599, 999 ☐

\$600,000 – 649,999 ☐

\$650,000 - \$699, 999 ☐

\$700,000 – 749,999 ☐

\$750,000 - \$799, 999 ☐

\$800,000 – 849,999 ☐

\$850,000 - \$899, 999 ☐

\$900,000 – 949,999 ☐

\$950,000 - \$999, 999 ☐

Greater than 1,000,000 ☐

If you are or were to look for housing this year what type of housing would you look for?

Condo / Apartment ☐ Semi – Detached / Town House ☐ Row Housing ☐

Single Detached House ☐ other: _____

If you are or were to look for housing this year what would be the price range you would have to invest?

Less than \$200, 000 <input type="checkbox"/>	\$200,000 – 249,999 <input type="checkbox"/>	\$250,000 - \$299, 999 <input type="checkbox"/>
\$300,000 – 349,999 <input type="checkbox"/>	\$350,000 - \$399, 999 <input type="checkbox"/>	\$400,000 – 449,999 <input type="checkbox"/>
\$450,000 - \$499, 999 <input type="checkbox"/>	\$500,000 – 549,999 <input type="checkbox"/>	\$550,000 - \$599, 999 <input type="checkbox"/>
\$600,000 – 649,999 <input type="checkbox"/>	\$650,000 - \$699, 999 <input type="checkbox"/>	\$700,000 – 749,999 <input type="checkbox"/>
\$750,000 - \$799, 999 <input type="checkbox"/>	\$800,000 – 849,999 <input type="checkbox"/>	\$850,000 - \$899, 999 <input type="checkbox"/>
\$900,000 – 949,999 <input type="checkbox"/>	\$950,000 - \$999, 999 <input type="checkbox"/>	Greater than 1,000,000 <input type="checkbox"/>

What do you think would be a fair price to pay for suitable housing based on your needs?

Less than \$200, 000 <input type="checkbox"/>	\$200,000 – 249,999 <input type="checkbox"/>	\$250,000 - \$299, 999 <input type="checkbox"/>
\$300,000 – 349,999 <input type="checkbox"/>	\$350,000 - \$399, 999 <input type="checkbox"/>	\$400,000 – 449,999 <input type="checkbox"/>
\$450,000 - \$499, 999 <input type="checkbox"/>	\$500,000 – 549,999 <input type="checkbox"/>	\$550,000 - \$599, 999 <input type="checkbox"/>
\$600,000 – 649,999 <input type="checkbox"/>	\$650,000 - \$699, 999 <input type="checkbox"/>	\$700,000 – 749,999 <input type="checkbox"/>
\$750,000 - \$799, 999 <input type="checkbox"/>	\$800,000 – 849,999 <input type="checkbox"/>	\$850,000 - \$899, 999 <input type="checkbox"/>
\$900,000 – 949,999 <input type="checkbox"/>	\$950,000 - \$999, 999 <input type="checkbox"/>	Greater than 1,000,000 <input type="checkbox"/>

What is your family's Household Income:

Less than \$40, 000 ☐

\$40,000 – 49,999 ☐

\$50,000 – 59,999 ☐

\$60,000 – 69,999 ☐

\$70,000 – 79,999 ☐

\$80,000 – 89,999 ☐

\$90,000 – 99,999 ☐

\$100,000 -125,999 ☐

\$126,000 – 150,999 ☐

\$160,000 – 175,999 ☐

\$180,000 - 199,999 ☐

\$200,000 – 225,999 ☐

\$226,000 – 250,999 ☐

\$260,000– 275,999 ☐

\$280,000 - 299,999 ☐

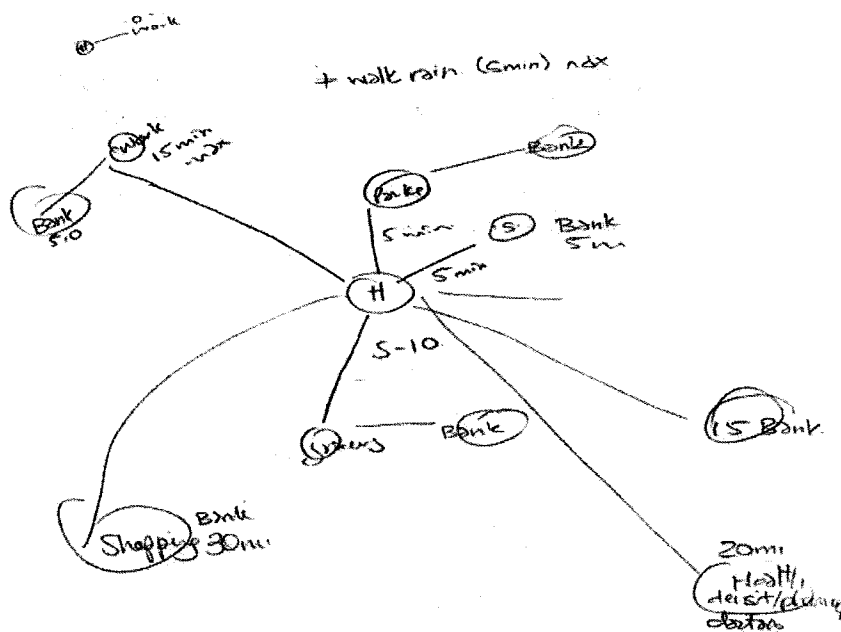
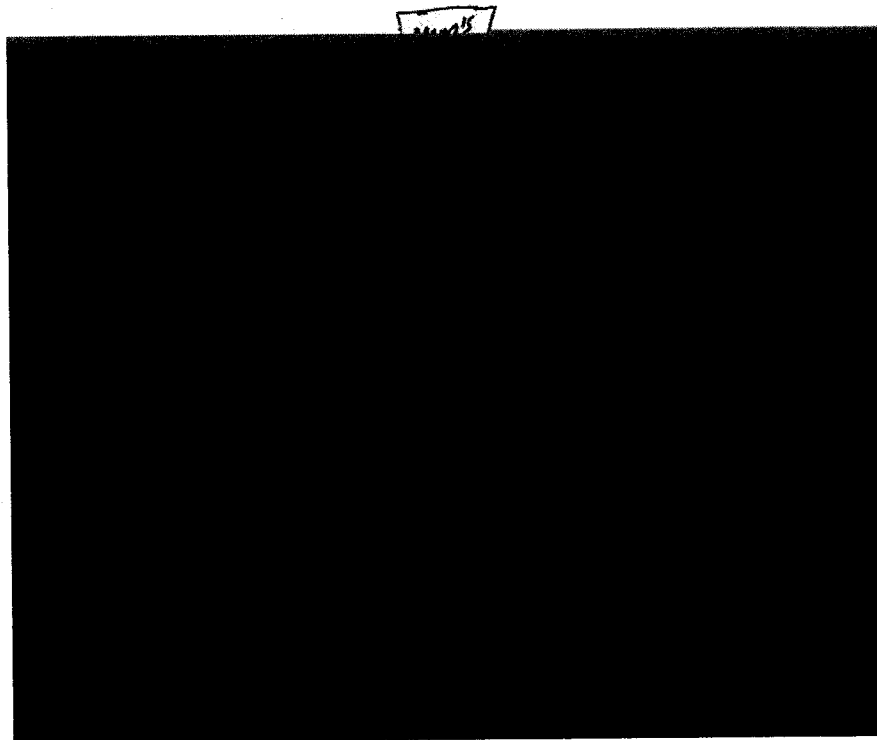
Greater than \$300,000 ☐

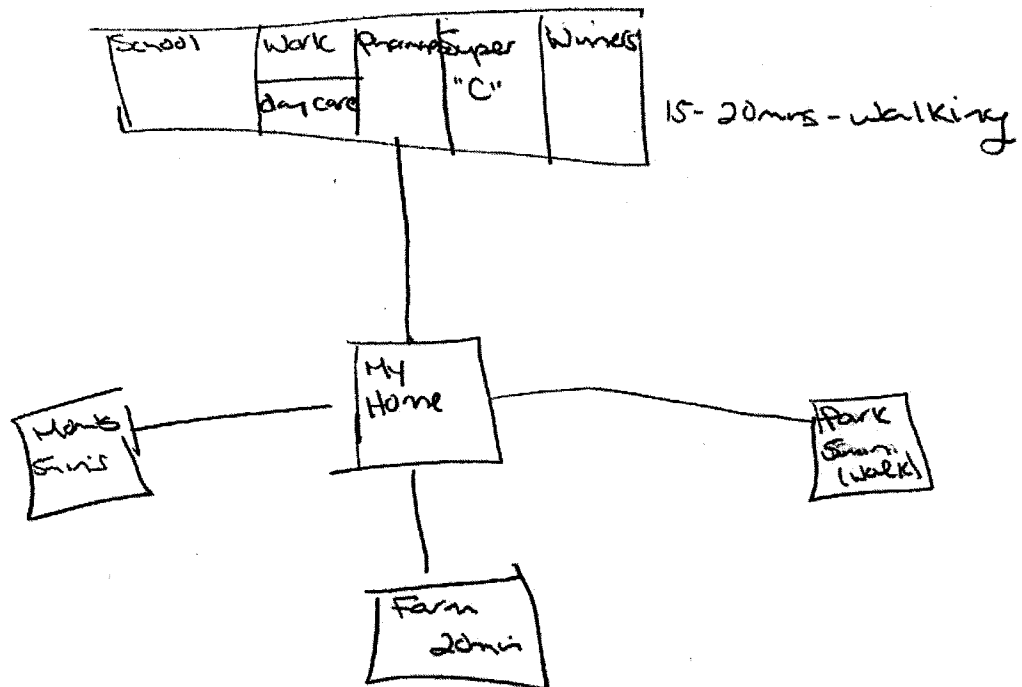
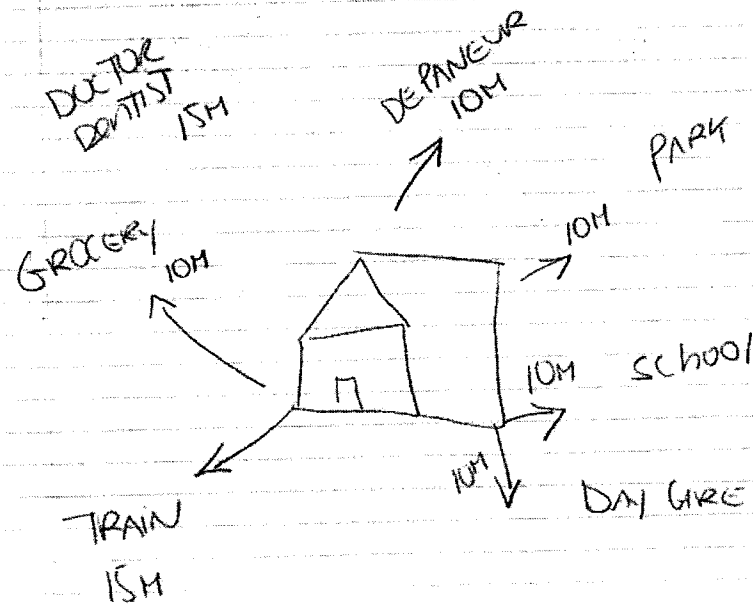
APPENDIX G – Community Maps

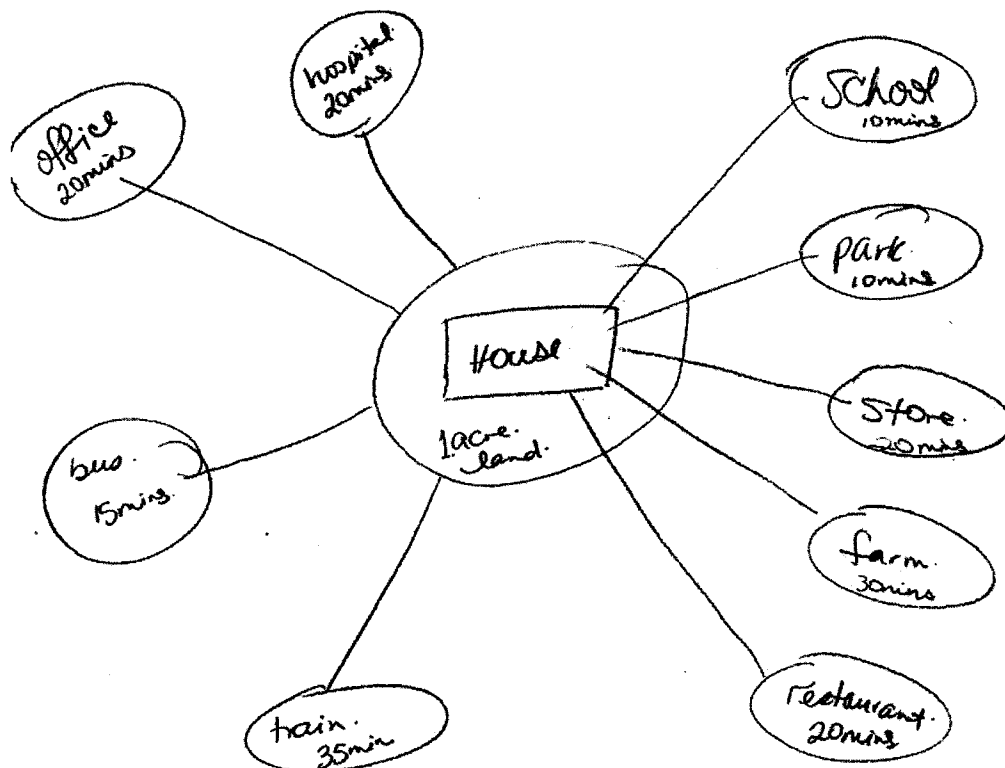
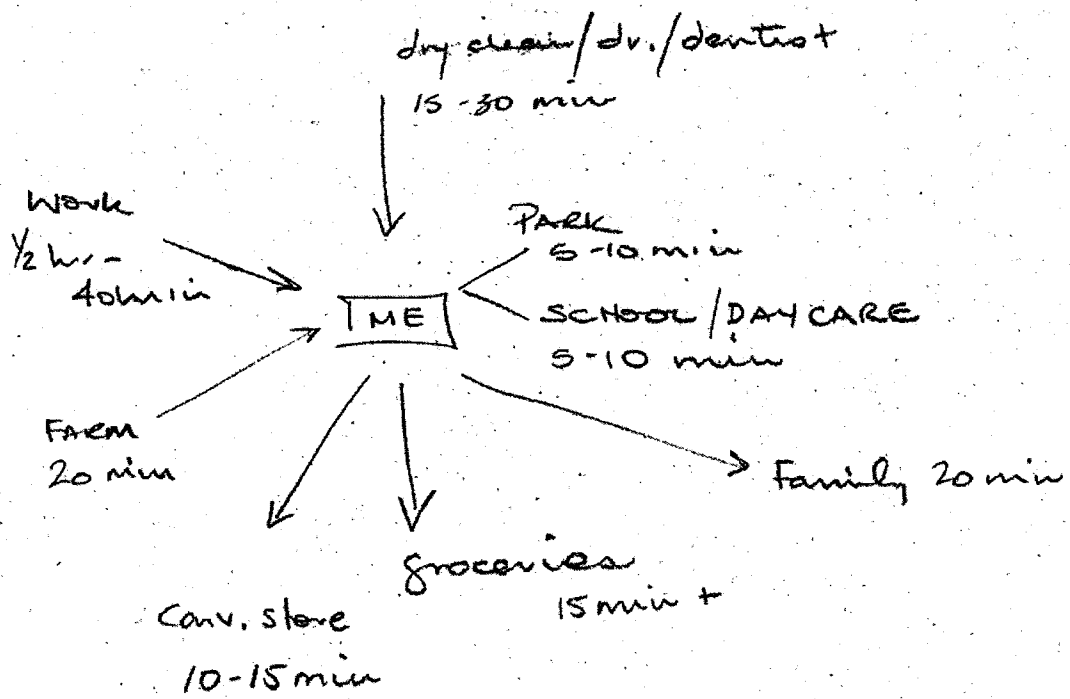


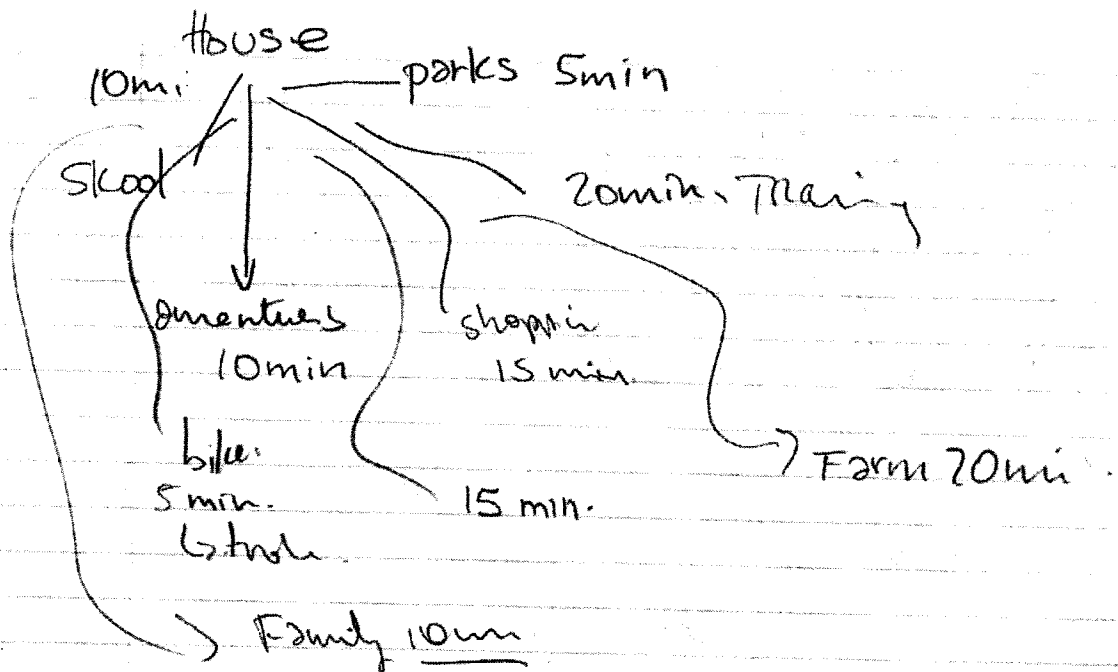
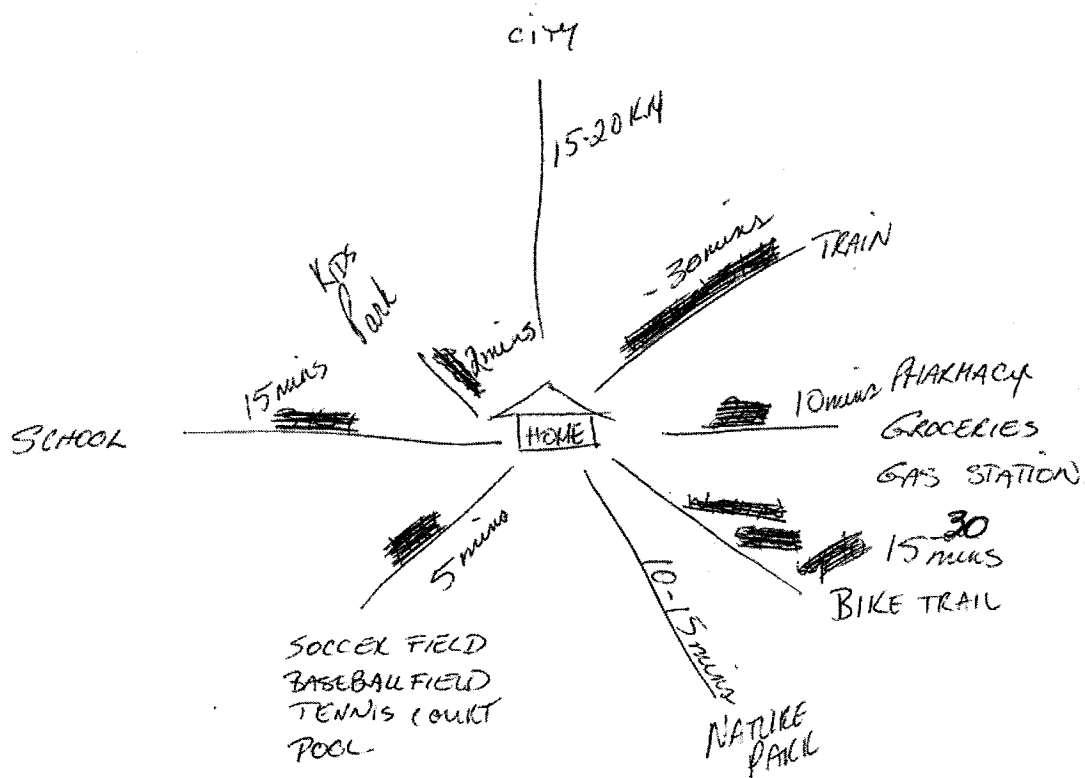
2011-2012

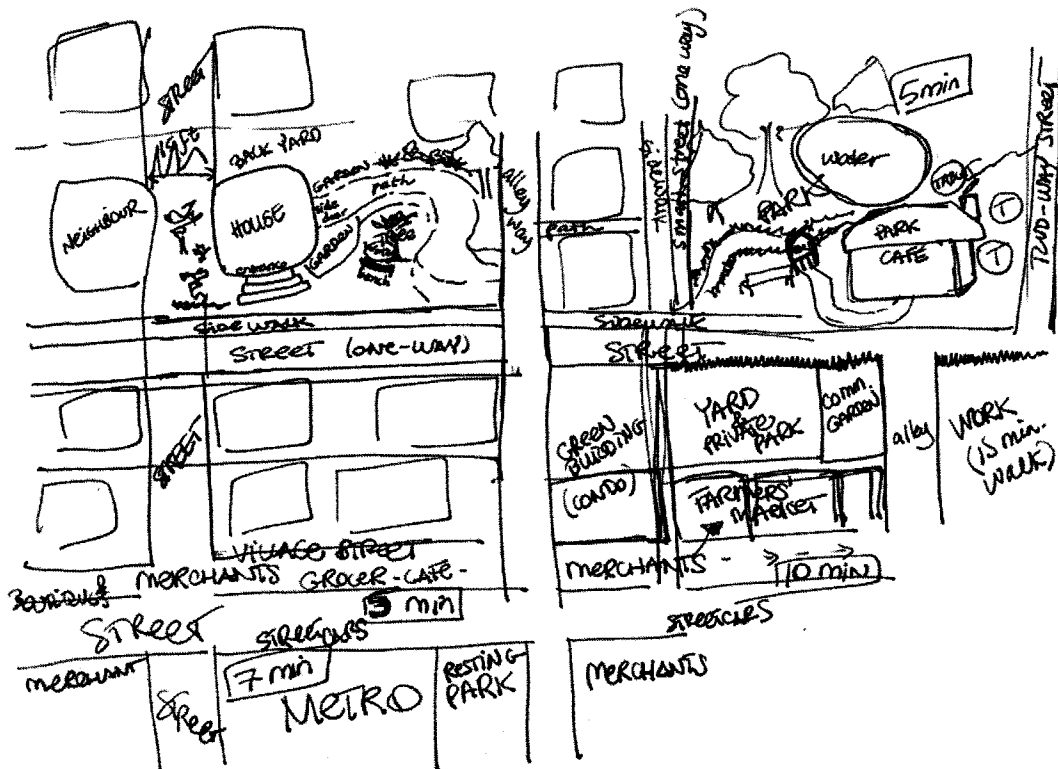
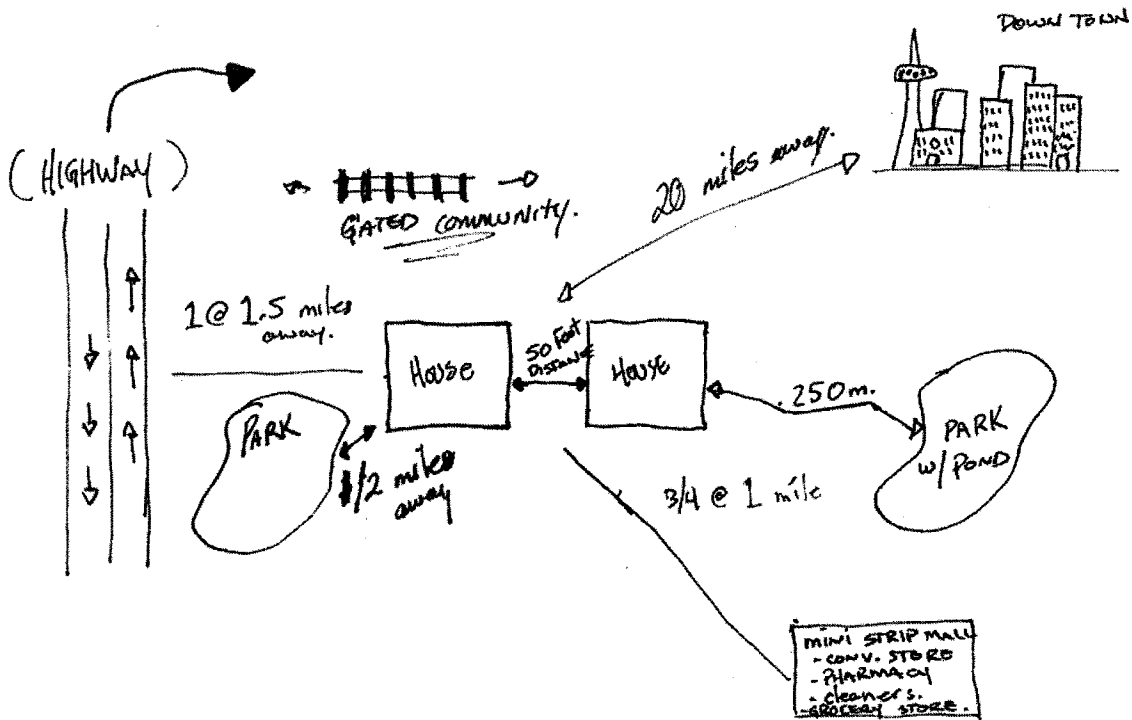












APPENDIX H – Neo-Modern Suburbs of Western Montréal



Vaudreuil-Dorion



Neo - Modern



Modern

Pierrefonds-Roxboro (neighbours)



Dollard-des-Ormeaux



Pointe - Claire



Vaudreuil-Dorion



Dollard-des-Ormeaux



Kirkland



Vaudreuil-Dorion



Vaudreuil-Dorion