SKIP THE DEVELOPER

COLLECTIVE PRIVATE COMMISSIONING - AN ALTERNATIVE MODEL FOR THE SUSTAINABLE REDEVELOPMENT OF POST WAR SUBURBAN HOUSING IN TORONTO

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COLOPHON

COLLECTIVE PRIVATE COMMISSIONING
An alternative model for the sustainable redevelopment of post-war suburban housing in Toronto.

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PREFACE

Almost 2 years ago, before I started this research as a part of a dual-track Master thesis in Real Estate & Housing and Architecture at Technical University Delft, John Heinz asked what I wanted out this. "You want to show what you can do, right?" and he continued as if the question was rhetorical. "No," - I interrupted - "I want to learn. I want to *really* learn something."

This graduation research has been a search in the true meaning of the word. The initial research plan was heavily modified many times as questions produced unexpected answers and even more questions. Fuelled by intense curiosity, as the old adage goes, the more you know, the more you want to know. Every step forward opened up new horizons and presented new paths. Many paths turned out to be dead ends or a long way to get to the same destination. But even these discarded paths offered different perspectives into the explored issues and have been crucial in forming the final, condensed, and streamlined research path presented in this report.

The investigation began from the my two sided interest and curiosity. First, there was an intuitive understanding that most Canadian built landscape is covered by suburban housing built since the Second World War. Many older suburban areas, built in the 1950's, are now at the end of their technical life-span and in the near future will need major renewal. Without entering the often emotionally charged debate of whether suburbs are good or bad, the question arises: "How can the renewal process be guided towards more sustainable neighbourhoods and city?"

Second, in recognizing the skilful manner in which the Dutch have managed their built environment and in particular their housing development, and the fact that TU Delft is located in the Netherlands, it seems logical to try to learn from the locals. The general question "What can the Canadian housing development system learn from the Dutch?" was used to begin the exploration.

Two years later, after countless struggles, disappointments and eureka moments, I feel that not only I have "really" learned something, but that I may have found some answers to my fundamental questions on the profession of architecture. My research has convinced me that Collective Private Commissioning is a method of development that can positively disrupt the whole industry including the role of architects and their relationships with clients. It opens the way for to a more collaborative future where housing can truly help the self-actualization of people involved in the collaborative process, and towards more modest architects who can renounce the image of the "creative genius" and share control of the design process with others.

This project would not have even gotten off the ground if it wasn't for Prof. dr. ir. Anke van Hal and Prof. ir. Dick van Gameren who took personal responsibility for my graduation when the dual-track program seemed to not exist anymore and went out of their way to deal with the ensuing bureaucracy and to accommodate my study wishes. They took time out of their extremely busy schedules to guide and encourage me with patience, enthusiasm and critical advice as I stumbled trying to solve the all mysteries of the universe with my project. For this I owe them both a great debt of gratitude.

I would like to thank Engbert van der Zaag for his patient technical advice and effort

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PART Ⅰ

1 - INTRODUCTION

1.1 Toronto's midtown suburbs

The challenges facing post war suburbs in Toronto, and Canada at large, are complex and multifaceted. A more in-depth analysis of the history of Toronto's suburbs, their present situation and their potential future is presented in Chapter 2 "Context". However, a short overview is presented here in order to place the definition of the problem and the research questions onto a contextual footing.

Suburban development took over Toronto's post-war housing development as it did in most of North America. Massive swaths of bungalows on large lots were built around the city center and nuclear families quickly moved in. Because the city of Toronto is a relatively young one, the vast majority of its growth in land and population has occurred in the post war period.

The early post-war suburbs, built between 1945 and 1965, also called "mature" suburbs, take up about a third of the land area of today's city. However, suburban growth continued spreading outwards unabated for decades, and has formed a vast urban mass that leaves the mature suburbs in a relatively central location. These homes, surrounded by just fields and trees when initially built, are now in truly urban locations often referred to as "midtown".

As is typical of suburbs, the vast majority of housing is composed of detached single family homes often on 60 feet wide lots. These homes were built quickly and cheaply with wood frame construction and cheap materials. 60 years later, many are in a very deteriorated technical state and require heavy investment in renovations and upgrading of technical as well as layout and design elements. However because of their location, land values have been rising rapidly and now their large lots are worth more than the homes themselves. This has encouraged owners to either rebuild a much larger and more expensive house on the lot or sell to speculative builders who will build 2 or more large homes where one post war bungalow used to sit.

Significant long term demographic shifts in Toronto's population mean that the large McMansions are as outdated as the modest post war bungalows that they are replacing. Households are getting smaller, affordability is lower, and lifestyles are changing. The city of Toronto has published a vision for development until 2031 which recognizes the challenges to the city as a whole and proposes large scale developments focused on regional centers and commercial avenues. However it fails to mention what happens behind the main roads.

Meanwhile the small scale of renovations as they currently occur, automatically limits potential for improvements to urban conditions such as collective and public places, changes to block structure, introduction of new functions etc. Future development along the same lines would result in an improvement of technical status of homes, but without any significant changes in density, function mix, public space, urban structure, or social cohesion.

1.2 General Problem and Aim

Problem statement

As stated above, the land values in post war suburbs will strongly encourage renovation and redevelopment. Although renewal is inevitable, it is not necessarily

moving in the right direction. Because of the land ownership structure and the nature of small scale development, the results will be lacking the features of sustainable neighborhoods – socially, economically, and environmentally. This course of development will fail to address the demographic and lifestyle shifts taking place over the next 20 years, and will not provide neighborhood improvements on an urban scale for the current residents. The results will have significant consequences down the road for the availability of appropriate housing options, social and psychological wellbeing, environmental conditions, transport, economic vitality, as well as a host of other social and economic indicators that determine the overall livability of the city. Therefore the problem can be summed up as follows:

> **If the renewal of post war suburbs was left to run its course, it will be a missed opportunity to foster social cohesion and environmental sustainability of the housing stock.**

Overall Aim

In response to the deficiencies of City of Toronto's plan in addressing the redevelopment of housing in the mature post-war suburban neighborhoods, new tools must be introduced in order to take advantage of this potential for sustainable renewal. Development should be guided towards the creation of complete communities as denser and more socially and environmentally sustainable neighborhoods.

Based on a number of studies on urban and suburban sustainability (Dunham-Jones & Williamson, 2011. Friedman, 2002. Tachieva, 2010. Schumacher, 2006. Mostafavi & Doherty, 2010) in combination with the author's judgement a set of desired charachteristics of a sustainable suburb were established in order to have a clear goal in mind while searching for alternative development methods. In short, the challenges, and the goals, are to guide the renewal of suburbs to:

- Provide **higher density** (from 10-20 to 50-150 units/ha**)**

- Provide **higher diversity** of dwelling units and therefore higher diversity of inhabitants

- Provide **collective and public spaces** and facilities to foster social cohesion

- Provide **commercial spaces** for economic activity

- Maintain the desired **qualities of suburbia**

- Provide dwellings that can **accommodate future developments** in demographics and living patterns

- Offer **better value** to current owners

- **Include current owners** and future residents who cannot afford to invest in large renovation/redevelopment

Improving urban diversity and resilience through a variety of dwelling types and functions and improving social cohesion by providing communal facilities, public spaces and work places would go a long way towards improving the urban quality of mature suburbs.

1.3 RESEARCH QUESTION

Initial literature research on sustainable suburban redevelopment, described in more detail in Chapter 2.5, discusses several strategies using standard processes of development to create more sustainable cities and communities. However, by depending on large scale, long term master plans that are judiciously designed and effectively carried out, a lot of faith is placed on the good will of private developers and the capabilities of local authorities to have the vision, the will and the continuity through political cycles to carry the plan out. Meanwhile European literature on housing redevelopment suggests that social cohesion and a sense of belonging, which can be formed through participative planning and design, is a major factor in determining long term viability of a community (Gruis et al. 2006). In addition, the quality of our social relationships and the "sense of community" are major determinants of our capacity for pro-environmental behavioural change (Meltzer, 2005). The enactment and success of measures for economic or environmental sustainability seems to be dependent on social sustainability making it a crucial element rather than a fuzzy afterthought that is "nice to have".

Additional investigations indicated that *Cohousing* is a development process that can produce the results aimed at, by virtue of its highly participative process and inherent environmentally conscious attitudes of members. Cohousing was introduced in Canada in the early 1980s inspired by American studies of Danish and Dutch developments. However, further analysis of Cohousing reveals that it is not a popular option of housing production despite being around for decades (for more on Cohousing see Chapter 3). Analysis of other forms of participative housing development showed that in the Netherlands *Collective Private Commissioning* projects (CPC, in Dutch called *Collectief Particulier Opdrachtgeverschap* or CPO) are much more popular than Cohousing (in Dutch called *Centraal Wonen*)and appear to have similar results in terms of social and environmental sustainability.

Therefore, keeping in mind the problem and aims mentioned earlier, the report revolves around one central question:

> **Can Collective Private Commissioning be a more effective option than Cohousing in contributing to a sustainable redevelopment of Canadian suburbs?**

This question can be broken down into three sub questions:

1. *What are the weaknesses of Cohousing in their application in Canada and how can they be addressed?*

2. *How does CPC as practiced in the Netherlands compare with Canadian/ American Cohousing?*

3. *Does CPC have advantages that would be transferrable and effective in popularizing it in Canada?*

These questions are explored respectively in Chapter 3 – "Cohousing", Chapter 4 – "Collective Private Commissioning", and 5 – "CPC in Canada".

The basic premise that underlies this report is that the standard process of development is insufficient in addressing the issues outlined above. That is not to

say that there is no room for sustainable development through a standard process or that Cohousing or Collective private commissioning should be the only methods of development, but rather that Cohousing and CPC are alternative tools that together with other methods, can help municipalities achieve their sustainability goals in the redevelopment of post war suburbs.

1.4   RESEARCH PATH AND METHOD

This research aims to find alternative modes of real estate development that would lead to a more sustainable redevelopment of Canadian post war suburbs. Towards this end, the research path can be seen as several back and forth steps between literature study and testing or confirming the understandings through interviews. (Figure 2). Each step provides new knowledge and brings up new questions which inspire the next step. The final conclusions incorporate the knowledge gained throughout the research process.

In this research literature study make for the bulk of the knowledge used to arrive at conclusions. The interviews are used to both confirm and expand knowledge from literature, and to obtain specific information related to the topic that helps to fine tune the results. The survey was meant as a triangulation exercise in order to confirm and fine tune the results even further (more on the survey in Chapter 5).

THE LITERATURE

The literature study is focused on North American and Dutch context in the study of Cohousing and Collective Private Commissioning. Studies on American Cohousing are used in conjunction with Canadian literature with the understanding that the two countries have many similarities in relation to the topic while a watchful eye was kept on the cultural differences that could affect results. CPC is a development process that is present in several countries under different names(such as *baugruppe* in Germany), however the literature examined is almost exclusively of Dutch origin in order to maintain clarity on the factors that affect the diffusion of CPC within a set system. This was also done in because of practical considerations such as available expertise at TU Delft, and the availability of rigorous and in depth studies by Dutch organisations on the built environment and CPC in particular.

It was the intention of the author to conduct field research through case studies on CPC projects in the Netherlands, however this plan was scrapped after gaining

Figure 1. Triangulation of research methods

Figure 2. Research Path
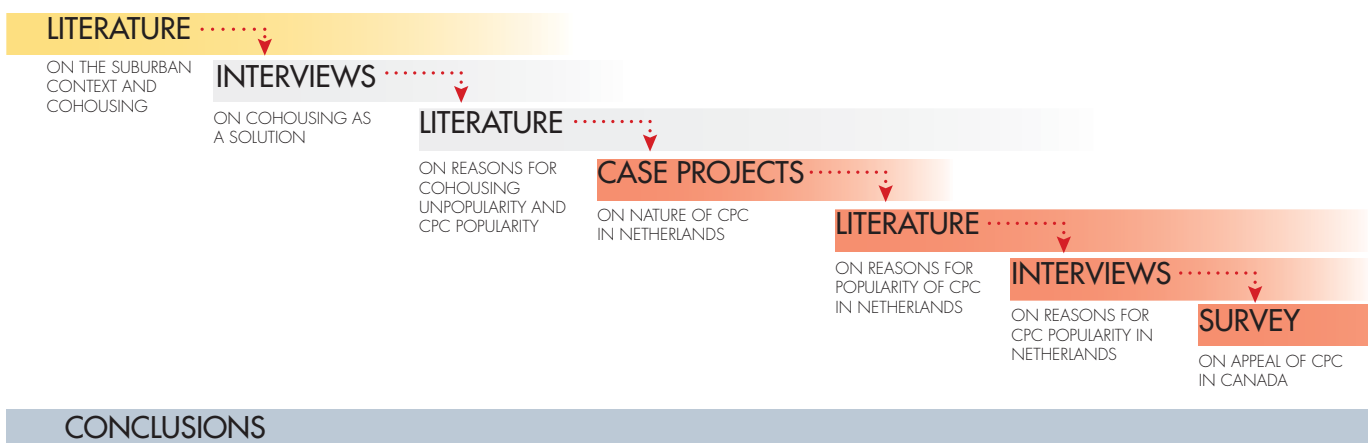
access to a draft version of an OTB Research Institute publication on participative housing (*Making room for people - choice, voice and livability in residential places*) development which revealed a series of studies and analysis on, among others, CPC projects. In particular the chapter titled "Possible futures of self-construction" presented the results of a study by SEV (Stuurgroep Experimenten Volkshuisvesting) which examined, through a wide range of quantitative and qualitative data, over 30 CPC projects built in the last 10 years in the Netherlands. The depth and scale of this study provides far more reliable information than possible within the limitations of this report and therefore this information was used instead of case studies. However, some of the basic information on 3 CPC projects (Waterspin, Vrijburcht, and EVA-Lanxmeer) is included as "Example Projects" in chapter 4.3.

In essence, this research project entails the use of two key studies, one on Cohousing (Jo Williams' "Predicting an American future for Cohousing") and one on CPC (Boelens and Visser's "Possible futures of self construction") in order to compare and learn from the dutch CPC using the framework of E. M. Roger's innovation diffusion theory presented by J. Williams in her study of Cohousing. The comparison is confirmed and refined through expert interviews.

THE INTERVIEWS

There were 2 interviews in Canada on Cohousing and 6 in the Netherlands on CPC. The subjects were a variety of professionals involved in different roles in CPC or Cohousing (for a full list of subjects and their qualifications see below and in Appendix) and the interviews were conducted at two different phases in the project. As such the goals and therefore the questions in each interview were somewhat different. Overall, the intention was to supplement and validate knowledge from literature review. Equally important was to explore and gain insights into issues that may not be readily apparent from literature but are critical nonetheless. For these reasons it was decided to use a Semi-Structured interview format. Principles and guidelines offered in "*Guide to Organizing Semi-Structured Interviews With Key Informant*" published by Institut National de Santé Publique du Québec (2009) as part of the "*Charting a course to safe living*" collection were used to plan and carry out the interviews.

The first phase of interviews was carried out in Ottawa in October 2011 with the purpose of understanding how Cohousing fit into the housing development system in Canada. Prof. B. Gianni of Azrieli School of Architecture and Urbanism at Carleton University and two residents of the TerraFirma Cohousing (the only completed cohousing project in Ontario at date of writing) participated in 1.5 hour interviews which tried to understand the academic as well as practical perspective on cohousing in Canada. These interviews revealed significant challenges to cohousing which lead to the next phases of literature review and study of case projects in the Netherlands.

The literature showed that CPC projects in the Netherlands had similar benefits but were much more popular than Cohousing and hinted at some of the factors that made CPC appealing. With this knowledge the second round of interviews with experts in the Netherlands was conducted in December 2011. The goal of these interviews was to confirm that CPC appealed more to Dutch people and get a deeper understanding on the factors that made it so. The subjects were professionals familiar with the process from different perspectives such as process management consultancy, architecture, academic research, municipal planning, etc. The topics discussed in the interviews were intended to draw out knowledge from the specific expertise of the subject.

1.5 RESEARCH LOGIC AND REPORT STRUCTURE

REPORT LOGIC

The research process described above is driven by a series of questions, the answers to which provoke new questions and so on. In this way an argument is built through logical steps which eventually arrive at a reasonable conclusion. These logical steps are briefly described below and serve as a blueprint for the report.

First, an analysis of the suburban context was conducted identifying the issues and some of the same solutions offered in literature. This step ends with the main research question "How can Canadian suburbs be redeveloped in a more socially, environmentally and economically sustainable manner?"

In response, the second step identifies cohousing as a mode of development which can offer solutions to issues discovered in part one, but lacks popularity. It provokes
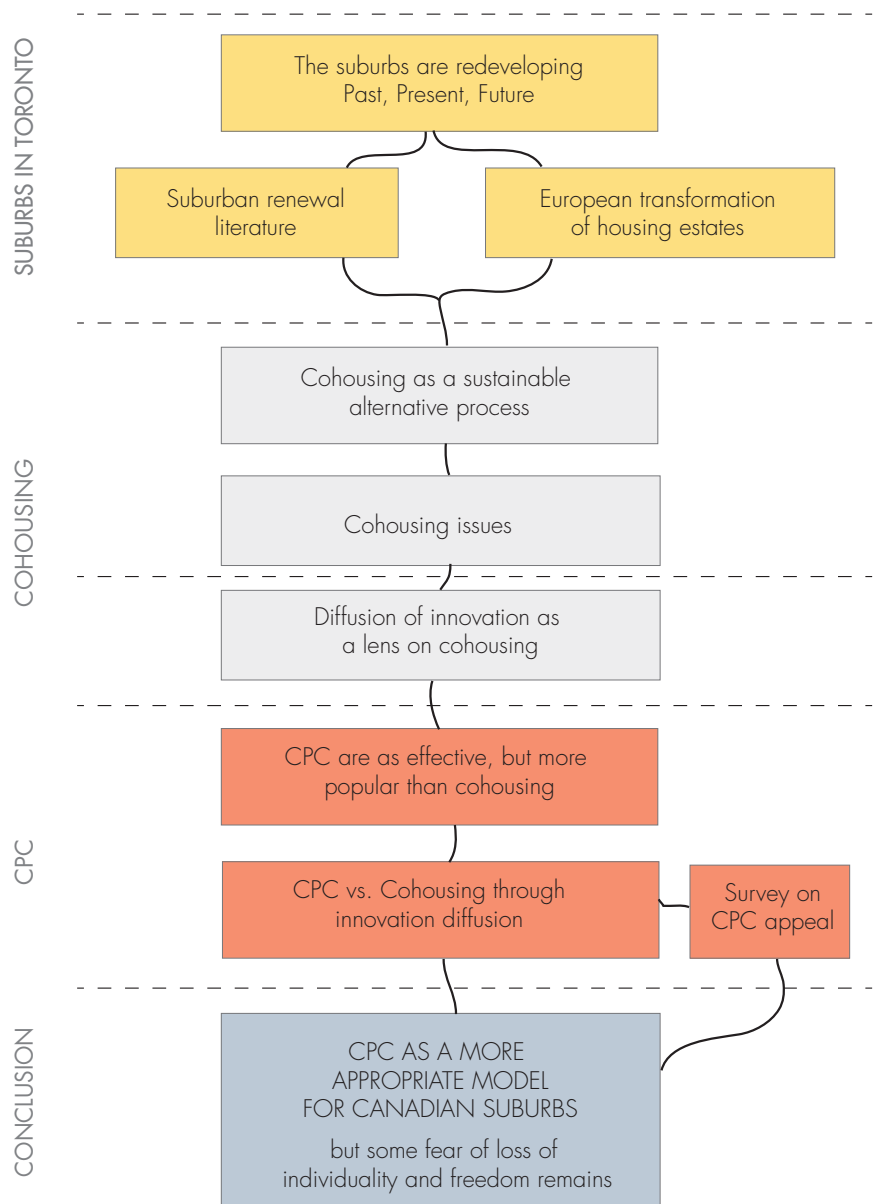

Figure 3. Research Logic

a new question "Why is Cohousing not popular?"

Step 3 looks in depth into the reasons for the lack of popularity using expert interviews and relying in large part on the dissertation of Jo Williams which analyses American cohousing through the "innovation diffusion" theory. Step 3 asks "How can Cohousing impediments be dealt with in order to increase participation in Cohousing?"

Step 4 answers the previous question by suggesting to entirely drop the idea of Cohousing and replace it with Collective Private Commissioning (CPC). Using criteria derived from Williams' analysis of Cohousing, CPCs were analyzed through literature and expert interviews, and the results showed that CPC shares the sustainability-related advantages of Cohousing but inherently avoids many of its impediments. Fear of loss of individuality and freedom is a significant issue that remains however, and the question arises "How can CPC projects in the suburbs deal with the apparent conflict between individuality and collectivity, in order to increase the diffusion of CPCs in Canada?"

The answer to this last question is explored through design tools in what constitutes Part II of the report. It undertakes a historical investigation of the notions of individuality and collectivity, and together with issues identified in part 1, establishes a concept for an architectural design. Finally, an architectural design project synthesizes the insights discovered throughout the research and applies them into an example case study - a hypothetical CPC development in a Toronto post-war suburb.

Report Structure

The actual research process has been anything but linear and predictable. Along the road there have been many side tracks, dead ends, and roundabouts. There have been many questions the answers of which turned out to be different than expected and then generated new questions, steering the investigation towards new grounds. For this reason the report below is not presenting the steps of the process in a chronological order, but rather in the logical order of the argument as described above. The parts of the process are organized into chapters as they fit within logic cycles whereby a question is asked, an answer is found, which in turn leads to a new question.

Part I contains literature and empirical research. In Chapter 2 is described the context of postwar Canadian suburbs in the past, present and a projection of the future. Chapter 3 outlines the Cohousing form of development, its history, features and current situation and discusses the impediments to cohousing. Chapters 4 and 5 offer CPC as a superior alternative to cohousing for suburban redevelopment in Canada. Chapter 6 offers conclusions on Part I and suggestions for future research on CPC.

One aspect of these suggestions is explored further with tools of architectural design in Part II. Chapter 7 discusses the notion of individuality and its architectural expression in suburbs as an important issue for CPCs being applied in Canada. Chapters 8 to 11 demonstrate an architectural concept and an example design for a hypothetical CPC project in a Toronto midtown suburb.

1.6 Relevance and Scope

SCOPE – FIELDS OF STUDY

The research touches upon a wide range of topics in the fields of sustainable housing development, urban planning, and the theory of innovation diffusion which relates to sociology, psychology and economics. However the focus is on studying the diffusion of Cohousing and Collective Private Commissioning as an innovation in sustainable housing development in post-war suburbs in Canada (Figure 4 & 5).

RELEVANCE

Academic:

This project fits within the Sustainable Housing Transformation (SHT) research programme of the Real Estate & Housing department at TU Delft, conducted in collaboration with OTB Research Institute. Specifically this research addresses questions of *product sustainability* such as "what do sustainable neighbourhoods look like and how is or should the housing stock be transformed to increase its sustainability?" (SHT Programme 2010).

In Canadian housing studies and practice the CPC development process is practically absent and this research attempts to make an introduction, with an emphasis on application in redevelopment of post war suburbs.

Social:

In the Dutch context, looking at CPC development process in relation to Cohousing can offer more focused insights into the weaknesses and strengths of CPC. These insights could serve as a guide for architects, consultants, collective groups and other parties involved in the CPC process to improve the participation and success rate of CPC projects, and in turn improve sustainability of their cities and neighborhoods.

In the Canadian context, the research provides an introduction of the CPC process and an understanding of CPC's potential for sustainable suburban renewal. It can help to incorporate CPC into the municipality's standard toolbox of real estate development. The introduction of CPCs into suburban neighbourhoods can raise awareness of alternative housing options, and increase both choice and quality of housing for residents.

This research is aimed at participants in Collective Private Commissioning projects, architects, consultants, contractors and municipal departments that may be involved in a CPC project or that wish to initiate one in Canada.
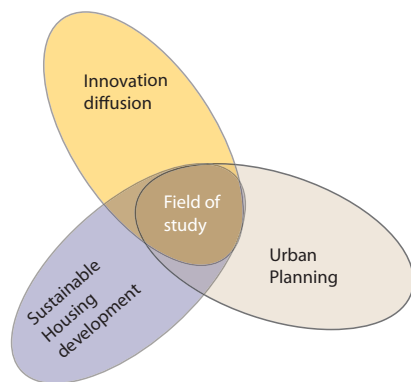
1.7 DEFINITION OF TERMS

Sustainability

The basic definition of sustainability, otherwise a broad and confusing term, is taken from a combination of the so called *Brundtland Report* and J. Elkington. Elkington identifies the 3 spheres that a sustainable business must engage as People, Planet, Profit (Elkington, 1997). In other words, there are three parts to sustainability: social sustainability, environmental sustainability, and economic sustainability, and a truly sustainable project performs well in all three. Bruntlandt's seminal definition of sustainability in the *Our Common Future* report (World Commission on Environment

Figure 4.Fields of Study
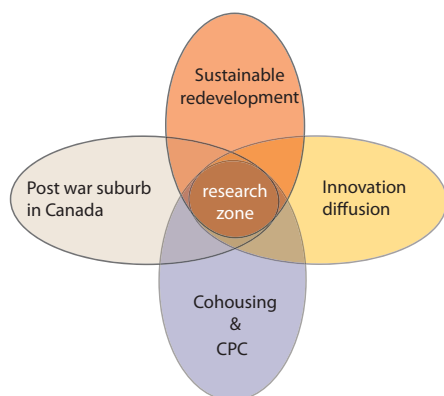
Figure 5.Research Scope

and Development (WCED), 1987), predates Elkinson's and introduces the concept of an interconnected system in time:

> *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (p.43)*

Based on these ideas, Dutch literature offers a useful framework for the interpretation of the meaning of sustainability that ties it to the built environment and architecture. The Delft Research Center for Sustainable Urban Areas (DRC SUA) subscribes to the Ecopolis Strategy which identifies four main perspectives (from Gruis et al., 2006 based on Duijvestein, 2004):

- planet or flows (linked to environmental quality);

- people or players (linked to social or process quality);

- profit or prosperity (linked to economic quality);

- project or areas (linked to spatial quality).

This results in a tetrahedron in which the perspectives and qualities are linked (Figure 6).

All four points of the framework are important for an integrated approach. However different researchers align their sustainability perspectives more towards one element or another. Opdam et al. (2000) identifies three generations of sustainability attitudes starting in the early 1980s. The first generation was motivated and focused on emotional and feelings of anxiety from the dire state of the environment. The second generation left emotions of measurable effects on the environment such as greenhouse gas emissions. The third generation, the most recent one, tries to link the environment with values and social stability (Gruis et al. 2006). NovioConsult and Storm CS (Gruis et al. 2006 quoted from Opdam *et al.*, 2000) describe it as follows:

"The third generation wants to simplify the everyday life cycle of people, the daily clinch between time and distance. It aspires to neighbourhoods where time and distance are the spearhead of the design. The neighbourhood must also be able to adapt to the life phase of the residents and changes in lifestyle. Buildings become more sustainable as a result, but what matters most is that the social quality of daily life is accorded central place. This is where the leap to sustainability is made."

The focus of this report is on the social and environmental sustainability of CPC projects. Economic sustainability is also a feature of CPC projects (Haan, 2011), Interviews). To people involved, CPC offers dwellings that are either higher value or cheaper than comparable properties. In long term considerations at the scale of the neighborhood and the city, CPC often offers diversity of functions and encourages employment and small businesses within the community. However economic sustainability is not discussed in detail here. The report, instead explores the relations between social, environmental, and project sustainability, with a slight lean towards project and social quality (Figure 7).

It is this view of sustainability that should be understood when used in this report.
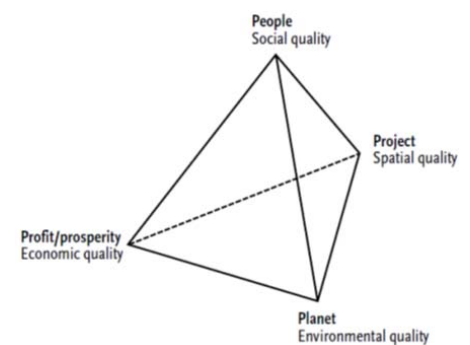
Figure 6.Conceptual Framework for Sustainability based on Duivestein (Source Gruis et al. 2006)
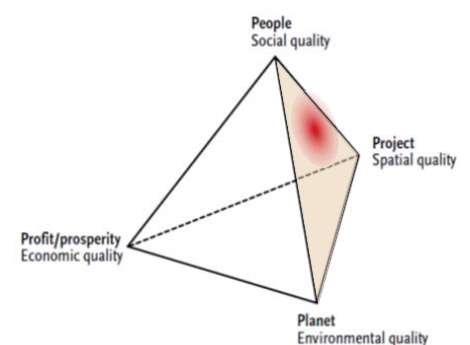
Figure 7.Sustainability as understood in this report within the framework

2 - CONTEXT - THE CANADIAN MIDTOWN SUBURBS

2.1. HISTORICAL DEVELOPMENT OF SUBURBS IN CANADA (THE PAST)

Canadian cities are, like most North American cities, epitomized by their vast sprawling suburbs. More Canadians live in suburbs - 53% - than in urban and rural areas combined (Friedman, 2002). Because of their relatively young age, Canadian cities have had the vast majority if not all of their population and area growth in a time when suburbanisation was the overriding form of development. In particular the immediate post-war period saw very rapid population growth and housing to follow.

The early suburbs of the 19th century were more like country cottages reserved only for the rich. The "modern suburban period" began in the 1920s and accelerated in the post-war period when three main factors came together to create an explosion of suburban construction (Bourne, 1996).

The first factor was demand based, with population rising very rapidly and rising incomes until the Great Depression. In the post war period there was a second wave of suburbanisation lead by demand from returning soldiers and the baby boom and based on government programs encouraging housing construction and full employment and consumerism. These led the Canadian government to estimate in 1947 that it needed 5 million new housing immediately and over 12 million by 1960 (Friedman, 2002).

The second factor was technological. Improvements in transport and especially the arrival of the automobile allowed access to areas further and further away from the city. The popularity of the automobile in the post war period directly affected the form and planning of suburban subdivisions. The Canadian suburbs were increasingly designed for the car.

Figure 8. Toronto suburbs in 1950s

Figure 9. Population growth in Toronto and other cities. Data compiled from Statistics Canada and the Office for National Statistics (UK).

Figure 10. Toronto buildings constructed pre-1901

Figure 11. Toronto buildings constructed post WWI 1919-1929

Figure 12. Toronto buildings constructed post WWII 1945-1965

Figure 13. Toronto buildings constructed since 1970

Figure 14. - Right - Land area and population of Canadian cities compared to London and Amsterdam

The third factor has to do with politics. Bourne argues that the homogeneity of suburbs came as a result of the new suburbanites' desire to isolate themselves from the problems of the city cores in combination with legal structures that allowed local governments to control their own land use (Bourne, 1996). F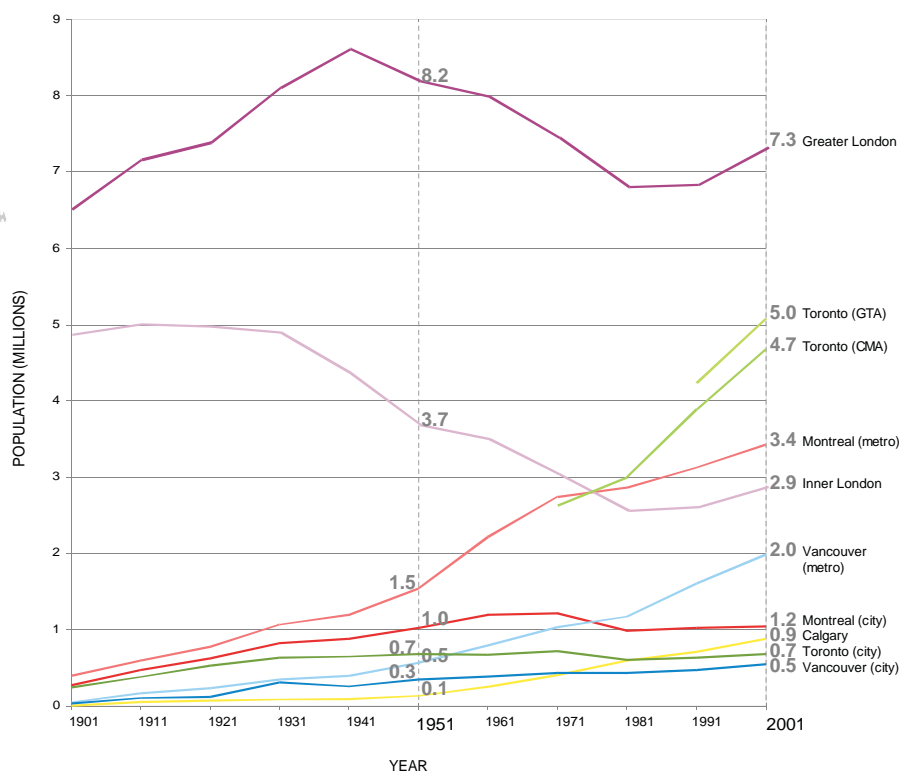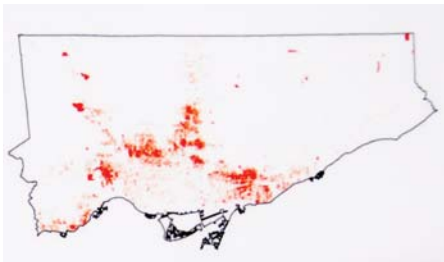riedman (2002) and Archer (2005) add that the direct and indirect involvements of the government in the housing market through subsidies and incentives affected what got built and by who. For example, after the war the federal government put in place a program that gave mortgage guarantees only for homes of 80-100m2 costing less than $8000 (Friedman, 2002). The government also put in place incentives that favored new construction rather than refurbishment, and single-family homes rather than multi-unit housing (Hulchanski, 2006). Because of the massive amount of housing needed the government encouraged very large developments which had the effect of eliminating small builders or merging them with big developers. By 1949 70% of all building was done by only 10% of firms (Sewell, 1977).

Another thing to notice is the decidedly private market oriented approach of the Canadian government in contrast to the public oriented "left-wing" British and Dutch – as well as other European - governments in the post war period. Humphrey Carver, a very influential urban planner in post-war Canada, in his 1953 book *Houses for Canadians* laid out a basis for urban development that was religiously followed for decades and still persists today (Sewell, 1993). Carver's vision was based on modernist principles, but with low density single family suburban housing developed by large private developers as the core of housing production in Canada. The emphasis on the private rather than on the collective in the Canadian suburban development is partly why apartments in residential towers surrounded by green areas, the CIAM model, were not as common in Canada as they were in European countries.

The cost of land was a decisive factor that allowed for the explosion of suburban subdivisions with single family homes. In an under-populated country, with only a few cities surrounded by endless farmland and forest, land costs were negligible. Land outside of city limits was also unregulated in terms of zoning and other ordinances that would apply within city limits. This allowed developers to be greatly inefficient in land management. It must me noted however that the size of the individual plot in working class suburbs of the post war was substantially smaller than in the first suburbs built in the early 20th century for the bourgeoise (Friedman, 2002).

LONDON = 7.7 Million

AMSTERDAM = 1.2 Million

MONTREAL = 3.6 Million

VANCOUVER = 2.1 Million

TORONTO = 5.1 Million

CALGARY = 1 Million

This resulted in new cheap suburban housing for the working class that was based on the individual lot, single family home with a garden, in subdivisions planned for the car – the American Dream. Because the cities were still quite young by the time suburbanization took hold, the downtowns were not large and well developed as they would be in older cities such as New York, Chicago, London or Amsterdam. This means that the first suburbs and even the early post war working class suburbs are in close proximity to the downtown cores. As the cities grew in population their land areas grew exponentially (Figure 10-13). Over 70% of housing stock in Canada is built after WWII with 83% of growth occurring in the suburbs. (Friedman, 2002)

To place this context in perspective Toronto can be compared with an established metropolis like London (Figure 14). It is easy to notice that Canadian cities look (and feel) very different from European cities. They cover larger areas and have far lower densities. What differentiates the urban form of Toronto from the urban form of London has to do with, among other things, the level of growth these cities were

Figure 15. Vancouver suburb

Figure 16. Toronto suburb
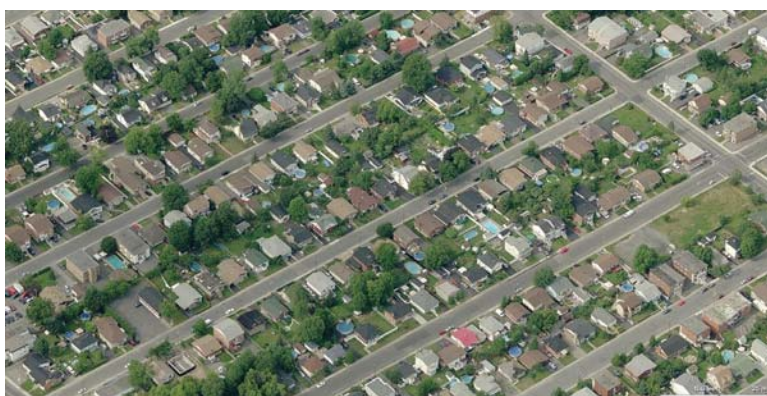
Figure 17. Montreal suburb

Figure 18. Montreal Plateau row housing built before WWII

Figure 19. Approximate area of Toronto suburbs built between 1945-1965 in context of GTA

in when suburbanization began. In 1900 London was an established industrial center and had a population of 6.5 million while Toronto was barely a town of 100 000. By 1947, when massive post-war housing construction programs were introduced, their populations were 8.2 million and 1.1 million respectively. Since then the population of Greater London has fallen to 7.7 million while the Greater Toronto Area has climbed to 5.6 million (as of 2010) and is projected to increase by another 2.5 million and surpass London by 2031 (Peel Data Center, March 2007).

Toronto as the prototypical city

The pattern of suburban development described above applies with little variation to most Canadian cities and with a few variations in the case of older cities like Montreal and Quebec City (Figures 13, 14, 15). Even in these exceptions suburban form and conditions do not change. What changes is only the distance of the suburbs from the downtown cores, because these cities were founded and developed at earlier stages in Canadian history. For example, in Montreal the central office district is surrounded by a special pre-war housing typology of 3 storey multi-unit rowhouses arranged in a traditional urban grid (Figure 16). This is a fairly dense, diverse and popular living area. This typology occupies a substantial part of the city and can explain the high density of Montreal in comparison to Toronto or Vancouver. However, the post-war suburban housing that extends beyond this, is similar to other cities.

From this point and on, the research is focused on Toronto as a prototypical example

of a Canadian city. The post war housing built in Toronto resembles in many ways the developments in Vancouver, Calgary, Edmonton, Winnipeg, Ottawa and other cities. Although it was established earlier than many others, Toronto does not contain the historical residue that is present in Quebec City or Montreal. The choice of Toronto as a representative city is also based on the author's familiarity with the city and the availability of information on it.

2. 2. CURRENT STATE OF MATURE SUBURBS (THE PRESENT)

The working class suburban houses built soon after the war (1945-1960), the "mature suburbs" as they are sometimes called, are now about 60 years old. Their pre-sawn wood framing construction, at the time an innovative time and cost cutting technique, and low quality materials are at the end of their technical lifespan. Many homes are in need of either major renovations or to be demolished and rebuilt. The CMHC and federal government having recognized that a large part of construction now entails high level renovation have offered incentives with programs such as the Green Home financing or tax refunds for energy efficient windows to encourage the process and guide it towards more energy efficient choices (Canada Mortgage and Housing Corporation, 2012a, 2012b).

About two thirds of the area of what is now the Metropolitan Toronto Area was built between 1945 and 1975 (Figure 19). This is for the most part a large mass of bungalows on wide lots facing winding streets. Of course, suburban development did not stop in 1975 and has now become one continuous expanse of homes and strip malls stretched for over 100km called the Greater Toronto Area (GTA) (Figure 19, 20). This means that what used to be far beyond the city limits in 1950 is now so close to the downtown that it is considered "central" or "midtown".

The qualities espoused by the suburbs when they were built - safe, isolated, clean air, idyllic rural setting, free of noise etc. – are all but gone. Instead these suburbs are smack in the middle of a metropolis, with all its inconveniences – noise, pollution,

Figure 20. - Map of Greater Toronto Area municipalities

Figure 21. - Toronto midtown suburbs surrounded by urban features

Figure 22. - McMansions replace post war bungalows

high taxes, traffic congestion – and few of its advantages – active public spaces, efficient public transit, proximity to culture and entertainment, proximity to work etc. The subdivisions are surrounded by major arterial roads, high-rise housing complexes, light industrial zones, and low end shopping (Figure 21). Despite their urban location, they retain the same suburban planning and housing typologies: mono-functional land use, very wide roads, lack of public urban spaces, not walkable neighbourhoods, all subdivided into individual lots with the single family home as basic unit. The floor plans and sizes of homes are also out of date. Separated kitchens and compartmentalized space are out of touch with the recent social norms and technologies.

In the process of amalgamation of the City of Toronto the post war suburban neighborhoods that used to belong to other municipalities like Etobicoke, North York and Scarborough, are now within city borders. In the amalgamated city the post war suburbs make up a wide ring around the Downtown. The later suburbs, built since the 1970s, occupy the edges of the City of Toronto and continue further into the municipalities of the Greater Toronto Area (GTA) (Figure 19, 20)

Because of their locations in close proximity to the downtown, and despite the low quality of housing, the mature suburbs are characterized by high land values. The Toronto Star reported in April 2011 that, based on tax assessment data, the resale of redeveloped lots has pushed up the value of unrenovated bungalows in some areas to more than $800,000, mostly because of their land value (Farley, 2011). The current and planned availability of public transit helps to keep land values high. High land to house value ratios motivate investment in the houses through renovations, extensions or rebuilding. However, because of the area's traditional role as affordable housing, the existing owners cannot always afford to invest and a process of gentrification is taking hold. Upper-middle-class newcomers tend to demolish the original homes and rebuild larger, 3-4 storeys high, single family homes (Figure 18). With exploding property values, two-bedroom bungalows on 600 m2 lots are becoming prime targets of speculative builders. The poor technical condition of these wood-framed homes built 50-60 years ago makes it even more financially appealing to tear down the bungalow and build two or three 3-storey

rowhouses in its place, or gather a few adjacent homes and replace them with an apartment building.

The redevelopment of housing stock in the post-war neighbourhoods seems inevitable - either by existing owners or through gentrification renewal. The forces for redevelopment become stronger when considering that house prices have continued to rise, led by post war bungalows that rose by 20% between 2008 and 2010 (Farley, 2011), despite the 2008 financial crisis.

1.1 Projection of future re-development (The Future)

Fragmented land ownership

The very idea of the suburbs is based on the individual privately owned lot that carries the single family home. Despite the fact that post war suburban blocks tend to be very large in scale, they are made up dozens or hundreds of small individual plots usually following a standard 25 ft (8.3m) wide and 100ft (30m) deep or more. After the example set in the mid-1950s by the Don Mills project just north east of downtown Toronto, suburban development began using wide lots of about 60ft wide (18.3m) by 70ft (21.3m) deep. This situation makes it very difficult to acquire plots of land large enough to allow for densification of the area. The density and housing typology of the suburb seems to be hard wired. This landownership structure forces redevelopment that focuses on making houses larger but without any changes to density, to urban structure, or to public space. It makes land ownership a major roadblock towards a more sustainable neighborhood.

Demographic changes in GTA

As mentioned above, Toronto has grown very rapidly since the Second World War. It is now the largest city in Canada. The population of the whole metropolitan area, the Greater Toronto Area (GTA), hit 5.5 million people in 2006 (City Planning Division, 2007), and it is already at over 6 million in 2011. Because of its sheer size and its reputation as an employment center Toronto generates a strong gravitational pull for young people and new immigrants. The City of Toronto estimates that by 2031 the population of the GTA will be 8 million. That is an increase of 2.7 million (51%) over 30 years. Since the geographic area of the GTA is already overly extended, this growth will have to be accommodated within its borders. The GTA official plan estimates that only about 20% of the growth will take place within the City. The implication is that 80% (2.1 million) of new residents will be accommodated in the suburban areas of the GTA.

Figure 23. Population distribution by age group in Toronto (source: Peel Data Center)

Employment growth is also shifting to the suburbs. In 2001 the City of Toronto held about 50% of GTA's 2.7 million jobs. By 2031 the suburbs will have taken over with about 60% of all GTA jobs claiming virtually all new jobs in the next 30 years (Wright, 2009).

Just as significant for the housing market are the changes in household structures. The number of households will grow at a faster rate than the population. As stated above, the City of Toronto will grow by 20% until 2031. In the same period, the number of households is expected to grow by 25%. In 2031 the average household size will shrink to 2.65 people from 2.91 (Tyndorf, 2006). This is due in part to the increase in empty nesters as baby boomers get older and their children move out. Another reason is the changing social norms such as the fact that young people are getting married and having children at an older age than their parents did.
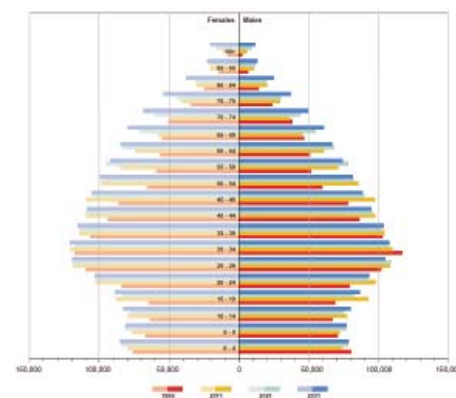
Figure 24. Projected Population growth in the GTA 1996-2031 (source: Peel Data Center)

Another demographic shift has to do with age. The present population column for the GTA looks, as in many cities and countries in the developed world, like a pinched circle with a lot of people in the middle age group but few at the bottom and even fewer at the top age groups. As of 2009 only 11.0% of the GTA's population is above 65 years old and 28% is in the baby boomer age group (Urban Development Services, 2003). By 2031 all baby boomers will be retired and their children will have had their own children. The 2031 population column will look much more evenly spread, and even a bit top-heavy. The number of elderly citizens will triple and will take up 20.7% of the total population (Urban Development Services, 2003).

However, the composition of population growth is quite different between the City of Toronto and that seen in the GTA. The outer regions of the GTA continue to attract young families seeking new "ground-related" housing with private outdoor spaces. On the other hand Toronto is home to the majority of GTA seniors and provides the rental housing alternatives, availability of cultural and community services, proximity to work, as well as public transport that remain attractive to singles and newcomers. Many Toronto seniors occupy ground-related housing (buildings smaller than 5 levels) in older neighbourhoods (City Planning Division, 2007). As they grow older, some seniors will decide to move out of their current homes to more suitable accommodations in the same neighborhood or elsewhere. As these homes change hands in the coming years, an influx of younger families will bring new sights and sounds to the City's older neighbourhoods.

These demographic changes will likely increase the need for smaller, more compact and more accessible housing types. They will also have critical, long-term effects on the demand for all services – including health, community and social services. These changes, together with developments in technology, also point to significant shifts in

Figure 25. Map showing the growth areas planned in the City Vision 2031

Avenues
Centres
Employment Districts
Downtown and Central Waterfront
Green Space System

TORONTO Toronto City Planning, Research and Information - February 2007
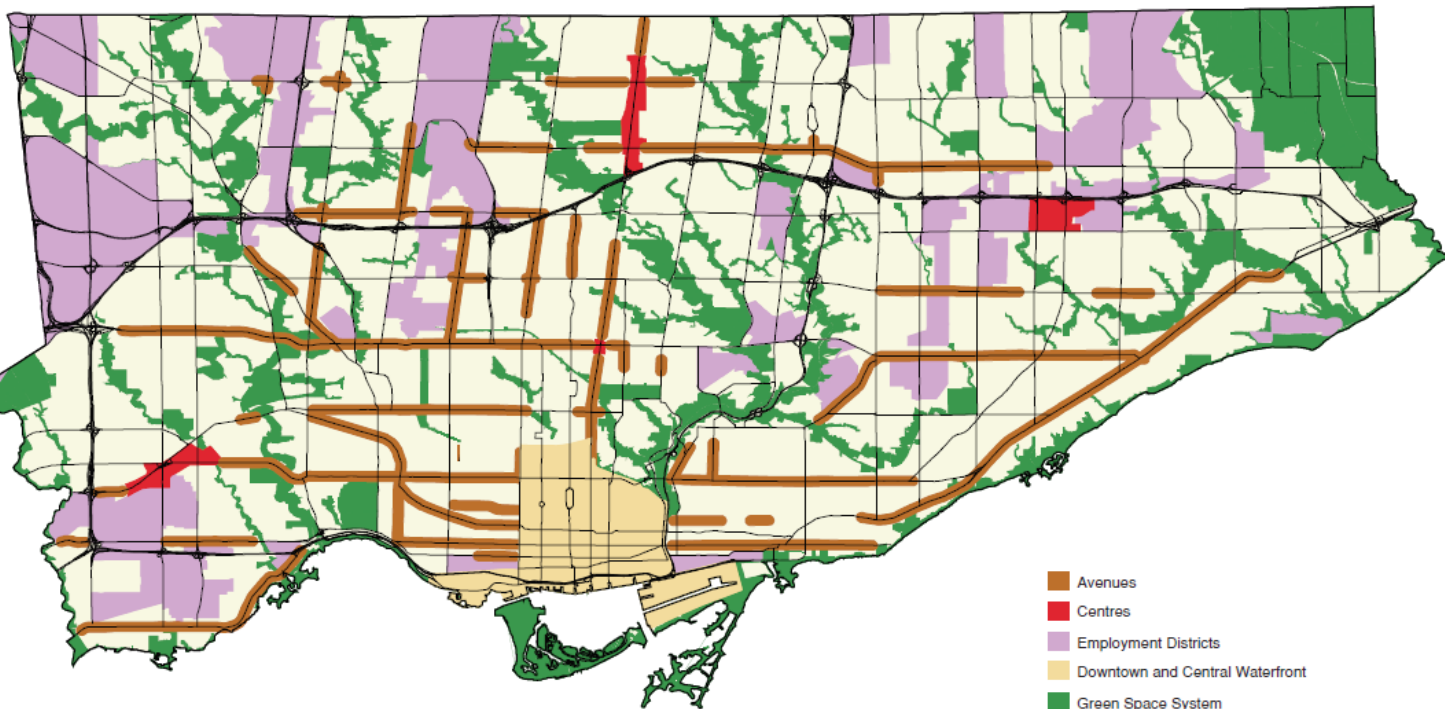
lifestyle patterns. The way the home is used will be transformed.

RESULTS OF FUTURE DEVELOPMENT

Assuming that the current zoning laws, planning system, and market situation do not significantly change, the future course of the redevelopment of post war suburbs will continue along the same trajectory. Since developer buyouts in these areas are difficult and rare, in the vast majority of cases the renewal will happen by owner or a small builder/investor on a house by house basis.

This has several implications. Firstly, in most cases the redevelopment will be carried out by unqualified people with little knowledge – or interest – in architectural design, market research, or future demographic developments and living patterns. In the cases when old houses are demolished and new ones are built, the FSI will rise significantly but the density – number of units/area - could only double at best. The individual developments would result in high architectural diversity, although not necessarily in high architectural quality. Urban quality would also suffer or at best, fail to improve. There will be a lack of coordination on the larger scale of the block or neighborhood which means the urban structure will remain the same. With urban structure unchanged there will be no chances to provide public or collective spaces or urban facilities such as small-business spaces, urban gardens, cafes, theaters etc.

2. 3. TORONTO'S VISION FOR 2030

The City of Toronto has recognized that there are housing challenges confronting the region and in 2006 the city council approved the Toronto Official Plan, updated in 2009 (Wright, 2009). The plan follows the renewal strategy of planning on different scales starting with the regional scale and then zooming in. It however stops short of addressing the block and building scales.

  The plan's stated objective is to accommodate growth in a manner that reflects Toronto's aspirations of being a livable and sustainable city. It takes a holistic view of sustainability that helps "to broaden our vision by considering the economic, environmental and social implications together, rather than using a single perspective. It encourages decision making that is long range, democratic, participatory and respectful of all stakeholders" (Wright, 2009, p. 2). It directs most of the new growth to a number of key areas of the City that can accommodate the magnitude of growth expected. These areas are the Downtown, four other Regional Centers, the Avenues, and the Employment Districts (Figure 25). The intent of encouraging growth in these locations is to: maximize the use of existing infrastructure; reinforce the City's urban structure; intensify and exploit development opportunities while protecting stable residential areas, and reduce land consumption across the broader region (Wright, 2009). In support of these growth areas, the City of Toronto has recently approved several new public transit projects including new subway and light rail lines that connect the regional Centers (CBC, 2012).

On the community scale the City envisions "vibrant neighborhoods that are part of complete communities" and "tree lined streets with shops and housing that are made for walking" (Wright, 2009, p. 2). A mix of residential and employment growth is seen for the Downtown and the Centers. The mixed-use Avenues will emphasize residential growth while the Employment districts will focus on job intensification. However the City's plan fails to act deeper into the blocks with the new developments, being content with just working on the facades of major streets.
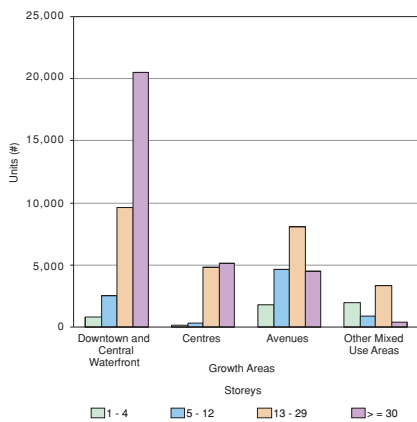
Figure 26. The building heights and number of units planned for the different growth areas.

Figure 27. The projected share of growth to be built in each growth area.

Figure 28. Severe height differences between avenue-side apartments and adjacent houses

While there are plenty of regulations that govern the relations of buildings with the street and collective spaces, this aspect of urban quality is not discussed in the City Vision. There seems to be no vision for the morphology of the city.

The growth plan covers about 25% of Toronto's geographical area. According to an April 2007 report (City Planning Division, 2007) the city is on track to accommodating its estimated population growth by 2031 and these areas will be able to accommodate that growth. That is because the building scale of these developments is very large. In the Centers 90% of the buildings are taller than 13 stories with 60% of those being taller than 30 stories (Figure 26, 27). Even in the mixed use "walkable" Avenues 66% are taller than 13 stories (City Planning Division, 2007). These ratios do not exhibit a balanced supply of housing type, but rather a two-type system where people can only choose between a suburban single family home or an apartment 30 stories in the air. The size and type of development encouraged in the centers and avenues are of a size that limits projects to only large scale developers edging out smaller firms and or other types of developments that do not have the initial financing necessary for large projects. These buildings do not correspond well with human scale and risk creating an unpleasant environment that discourages walking. The height difference between avenue-side buildings and the 1-2 story single family homes in the neighborhoods immediately behind them can segregate the residential communities from the avenues and from each other (Figure 28).

The remaining 75% of the city's geographical area currently taken up by residential neighborhoods, water, and park areas, is not expected to accommodate much growth and therefor receives no attention on the Official Plan. This overlooks the process of renewal already underway in some of the post war residential neighborhoods. By not addressing the redevelopment of the residential areas the city is missing an opportunity to densify in a more even manner, offering dwelling types that range from single family homes, to triplexes, low rise apartments, mid-rise apartments and high rise apartments. It is also missing an opportunity to build a strong base for "complete communities" which it could achieve by encouraging projects that build economic and social resilience through mixed-use and public spaces.

2. 4. Literature on suburban redevelopment
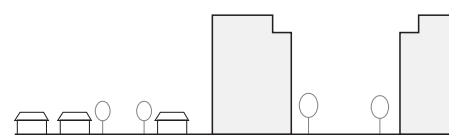
The academic discussions on suburbs have been common and passionate for decades but they have focused more on pointing out the horrors and values of suburbia (depending on which side you are on) in terms of social commentary or general planning principles such as zoning and traffic. Re-development of existing suburban areas is a relatively new topic and, until recently, there has been little offered in terms of practical solutions that take into account the development process together with the economic, social and political forces that shape it, in order to guide it effectively towards solving the issues and achieving the ideals formed in theoretical discussions. However, many of these topics have been thoroughly researched in Europe as they relate to the acute European issue of redevelopment of blighted post war housing.

Restructuring of Housing Estates in Europe

European countries such as the UK, Netherlands, Germany etc. have invested heavily on researching the conditions of their post war housing developments and what can be done to ameliorate the situation. As a result there is ample literature

on restructuring of post war housing estates. However European post-war housing is of a radically different form than its North American counterpart. There are two significant differences: typology and ownership structure.

European post-war housing consists primarily of mid-rise or high-rise apartments surrounded by large open public areas. The North American suburbs on the other hand are dominated by 1-2 story single family homes with ample private gardens and minimal if any public space. This means that in North America opportunities for infill development in open areas are extremely limited.

The other difference is that most European post-war housing is rental social housing, owned and operated by the public sector or some form of non-profit organization. This form of ownership makes it relatively easy to draw large scale and long term plans that can be consistently implemented. The individual ownership of small plots in N. American suburbs does not allow for this kind of holistic development unless a private party purchases a large number of contiguous properties and manages to convince the rest of the community as well as the local government of its intentions. For these reasons, a large part of the knowledge from European studies on restructuring of housing estates is difficult to use.

There are however lessons that can be valuable in the North American context. There seems to be a general consensus among researchers that improvements to the social cohesion of a neighborhood is as important as improvements of the physical condition of housing, and sometimes even more important (Gruis et al. 2006). Social strategies a can be a feasible alternative to large scale restructuring, particularly in cases when the main problem is not housing quality. Andre Ouwenhand asserts that "A planning process that takes proper account of the residents' views will have a better chance of success than an exclusively physical strategy•." (in Gruis et al. 2006). Several experiments with different forms of participatory planning in the Netherlands have shown that they result in stronger social cohesion, a key aspect of social sustainability, than housing developed through the standard developer controlled process (SEV, 2010).

Friedman, Dunham-Jones, and Tachieva on suburban renewal

When it comes to the renewal of North American suburbs the literature is sparse. What follows is a quick review of ideas from 3 recent books attempting to lay some practical considerations and examples on sustainable suburban renewal.

Ellen Dunham-Jones and June Williamson have published a collection of case studies of suburban renewal in the U.S. *"Retrofitting Suburbia"* (Dunham-Jones & Williamson, 2011). The authors begin from a new-urbanism and smart growth perspective advocates growth within the existing urban area. They see the retrofitting of post-war suburbs as both necessary and a great opportunity to transform unsustainable suburban properties into networks of more urban, compact, and connected places. The long term goal is to incrementally retrofit sprawl into a greener, polycentric metropolis.

The case studies in the book are all large redevelopment projects, some several hundred acres. The main vein of thought is that rezoning and redevelopment of failed retail sites can be used to revitalize the housing areas of ageing communities. There is an explicit assumption that the patterns of small, identical lots supporting similar single family homes are not going to change unless pushed by extraordinary events such as mass cashing in or foreclosures. The authors assert that large scale projects are needed to make any significant changes to the larger transportation,

regulatory and market systems.

Galina Tachieva's book *"Sprawl Repair Manual"* (Tachieva, 2010) is exactly what its title says. It offers a series of urban design solutions to improving different aspects of suburban sprawl. Rather than instant and complete overhauls a la modernism, it advocates incremental and opportunistic improvements on several urban scales.

At the regional scale activities such as sector mapping, assessment of potential for transit corridors, and selection of appropriate targets for repair should be performed. On the community scale design can comprise of restructuring sprawl into neighborhoods, corridors, and districts. The rule of the "pedestrian watershed", the 5 minute distance one is willing to walk to a destination, can be used to plan the mix of functions and define the open and civic spaces. The block scale is where one can deal with issues of pedestrian connections by transforming large blocks into a finer grain urban tissue. Last, but not least, is the building scale which is used to complement and support the design at the block and community scale by using building design and functions to form a more diverse and sustainable community.

 For Tachieva the neighborhood is the essential incremental unit. A resident should be able to fulfill all daily needs within the neighborhood which is sized at ¼ of a square mile, the pedestrian watershed, and offers a variety of type, size, and disposition of buildings, streets and open space (Tachieva, 2010, p. 23).

Tachieva asserts that early post war suburbs are urgent contenders for sprawl repair because their current deficiencies prohibit them from responding to the changing demographics and lifestyle trends. However, greening individual buildings, while commendable, is not enough to transform a neighborhood. She emphasizes that these suburban areas "will need major repair of the overall urban structure because … the societal, economic and environmental burdens of sprawl remain" (Tachieva, 2010, p. 7). The counterproposal is a transformation into a "complete community" that is: a. *economically* healthy because mixed use development provides employment and services within the community; b. *socially* healthy because of the diversity of residents and multitude of places for social interaction; c. *livable* because of the human scale of buildings and open spaces; d. *environmentally* healthy because of its compact size, walkability of streets which reduces car travel, and local food production (Tachieva, 2010, p. 21).

Avi Friedman, a professor of architecture at Mc. Gill University in Montreal, in *"Planning the New Suburbia – Flexibility by Design"* (Friedman, 2002) also offers an incremental transformation as the way to transform ageing suburbs into sustainable living areas. His approach however is even more gentle and sensitive. He is not so much concerned with sprawl as with the fact that ageing suburban neighborhoods are falling into disrepair and blight because they are not able to accommodate the changes in demographics and lifestyles that have occurred since their construction. He attempts to find a way that this and new housing can become flexible enough to accommodate changes but controlled enough to maintain a neighborhood identity and visual cohesion.

Friedman's main critique of suburban housing subdivisions is that they are over regulated by both municipal ordinances and by "neighborhood constitutions" set up when these houses were built over 50 years ago with the aim of preserving the character of the neighborhood. These regulations prevent any new additions as well as any significant modifications to the original buildings. The planning and regulatory processes made sense in the post-industrial metropolis – 60 years ago society changed relatively slowly. These planning and regulatory processes make

little sense for the 21st century Canadian, he argues.

Friedman proposes a new process and design approach of suburban redevelopment that recognizes its evolutionary nature. This process must be flexible but with guidance. He advocates a design and regulations that allow for small scale transformations that enable a neighborhood to develop holistically as the life situation of its residents changes. He offers examples on how this idea could work out in existing suburban neighborhoods, new buildings in existing urban fabric, and in completely new towns.

Ellen Dunham-Jones' examples rely on achieving critical mass – through massive investments into large scale redevelopments of "underperforming asphalt" – and hopes that the benefits of a brand new community will trickle out to the surrounding neighborhood and instigate change there.

Avi Friedman focuses on the building scale and recommends only small incremental changes to existing housing which would diversify the population, offer a variety of dwelling types, and lower moving rate but not change urban structure or provide any real increase in density or different typologies.

Tachieva's method of making the neighborhood the essential planning unit that is supported by the design at block and building scales, and aided by planning at the regional scale, seems to be the most comprehensive. However, Tachieva concedes that transformation of residential subdivisions of single family homes requires the difficult process of individual lot acquisition.

2. 5.   Conclusion

Redevelopment of the suburbs seems inevitable, but there are many obstacles in the way of a sustainable redevelopment. The City of Toronto's planning vision for 2031 aims towards a socially, environmentally, and economically sustainable city. However it sees development only through standard processes and is focused on regional centers and along main avenues, ignoring the massive areas of post war suburban houses behind the main thoroughfares. Standard processes of housing development are inadequate in dealing with the individual land ownership structure and in providing sustainable communities that consider not only economic but also environmental and social qualities.

In the ideas presented by Dunham-Jones, Tachieva and Friedman for the sustainable redevelopment of suburbs it is assumed that for significant change to occur a private developer, with the polite help and long term vision and commitment of local planning departments, will acquire large tracts of land and prepare, finance and develop an enlightened urban plan with appropriate architectural features and public spaces. They also focus mainly on blighted suburban areas where property values are low or falling, offering economic opportunities to private developers.

What is missing is an engagement of both current and future residents, who have a real stake in the development, in a way that avoids negative gentrification and moves beyond tokenism or mere consultation. As European literature on restructuring of housing estates suggests, a meaningful involvement of residents in the process of housing production would go a long way towards ensuring social sustainability and enhancing other sustainability aspects of a development.

Cohousing is a form of housing development that is already present in Canada and the United States, which seems to produce communities with high social cohesion, high standards of environmental sustainability and is based on a participative planning process where the future residents have decision making power and are heavily involved from the very beginning. It also has the possibility to engage the individual land ownership issue by involving current property owners as part of the collective in making decisions about the future of their property. Cohousing is further explored in the next chapter.

3 - COHOUSING

The last chapter looked at the contemporary urban environment in Canadian, and specifically Toronto's, post war suburbs and their expected future and suggested that there is an opportunity for redeveloping these housing areas in a more socially and environmentally sustainable way by engaging with current and future residents of a development. Cohousing is a development method that, its limited numbers notwithstanding, has shown around the world a remarkable propensity to produce communities with strong social cohesion and high environmental standards. In trying to explain simply the phenomenon of Cohousing, The American Cohousing Network (www.cohousing.org) says that "Cohousing communities can be regarded as an old-fashioned neighbourhood, bringing together the value of private homes with the benefits of more sustainable living, which means common facilities and good connections with your neighbours".

3. 1.   WHAT IS COHOUSING

WHERE, WHEN AND WHY

Cohousing is a form of intentional community which began in Denmark in the 1960s by a group of dual income professional families looking for time and effort savings through sharing of childcare and evening meal preparations (ScottHanson & ScottHanson, 2005). A few years later, independently from the Danish model, it started in the Netherlands. Cohousing has since spread to the rest of Europe, North America, Australia, New Zealand, Japan Korea and many other countries. Forty years later there are over 300 communities built in Denmark, about 100 in Netherlands, 95 in North America of which 10 are in Canada, and many more are in the planning stages (Bamford, 2005; ScottHanson & ScottHanson, 2005).

Figure 29. Scraplanet - One of the first Danish Cohousing (1973). House view and urban plan

The Cohousing model is seen as a direct response to perceived problems of 20th century society and cities such as social segregation, personal alienation and breakdown of community (Meltzer, 2005). People involved in Cohousing are trying to establish close personal relationships and more community-oriented neighborhoods than is usually possible to achieve in standard suburban or urban developments, while at the same time safeguarding their privacy and their individual dwellings and households (Bamford, 2005; Meltzer, 2005). Cohousing communities nurture a rich community by having shared facilities and organizing communal social, work, or entertainment activities.

Cohousing shares a lot with other forms of intentional communities and alternative lifestyles experimented with in the 1960s. It essentially places higher value on the social aspects of life rather than material possessions, it has strong environmental leanings, and considers housing as more than just people living next to each other, but rather as people living with each other (Meltzer, 2005). In other words it seems to be born from the ideological aspirations of social movements of the 1960s and has the "communal" as its *raison d'etre* (Interview at De Regie). However it differs from communal experimentation of the era, which were far beyond the acceptable level for most ordinary people, in avoiding exclusivity and isolation from the wider society(Meltzer, 2005). Cohousing projects are usually located within urban areas and maintains active relations with surrounding neighborhoods.

Figure 30. Wandelmeent - one of the First Dutch Cohousing (1977)

Bramford points out that cohousing is probably the closest to "mainstream society" in the range of intentional communities and utopian housing ideas. The primary intent of North American cohousing, like the Danish, has been a relatively pragmatic goal of creating a "normal" life setting where supportive relationships and a recovery of
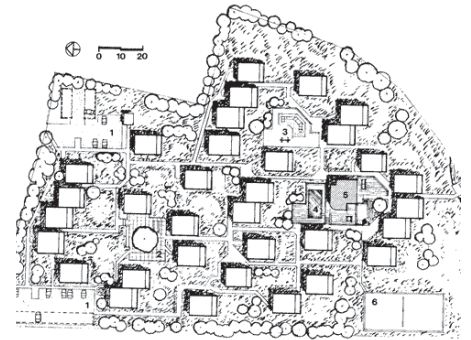
community can be developed (Bamford, 2005; Meltzer, 2005; Williams, 2008)

A North American Definition

It is often not quite clear what the "Co" in cohousing refers to. It could be COllaborative, COoperative, COllective, or COmmunal and so the concept becomes broader (Vestbro, 2010). The term and concept of Cohousing is translated, and therefore has slightly different meanings, in different parts of the world. A conference in Stockholm in 2010 on international collaborative housing (Vestbro, 2010) attempted to make sense of the varied terminology. In Germany it is often called *Wohngemeinschaft* (housing community), in the Netherlands it is called *Centraal Wonen* (central living) and Sweden *Kolletivhus (collective house)*. The Danish term is *Bofaellesskab* (*living community*) and served as an inspiration for "Cohousing", the term most used in English and also used in Belgium, Italy, and Austria.

The Concept of Cohousing spread to North America with the publication in 1988 of *Cohousing – A Contemporary Approach to Housing Ourselves* by Charles Durret and Kathryn McCamant. The book is based on a deep study of Danish cohousing and its definition of cohousing is still the one accepted in North America.

McCamant and Durret (1994) define cohousing as having 6 characteristics:

- **Participatory process** – the future residents are directly involved in the development process from the very beginning and have decision making power.

- **Social Contac Design** (SCD) – the architectural and urban scheme is intentionally designed to foster higher levels of social interaction and participation in social activities.

- **Extensive Common facilities** – besides housing units, cohousing always includes extensive communal facilities such as shared kitchen, play room, entertainment room, garden etc.

- **Resident Management** – after moving in, the management of the community is carried out by the residents themselves rather than from an external hired firm.

- **Non-hierarchical structure** – Decisions in cohousing are made together as a community using consensus.

- **Separate incomes** – there is no economic arrangements between the residents where income is coordinated by the community. While many cohousing communities have a fund for collective activities, they do not have a "shared purse".

In plain words, the US Cohousing Network defines cohousing as "a type of collaborative housing in which residents actively participate in the design and operation of their own neighborhoods."(www.cohousing.org), while the Canadian Cohousing Network describes it as a "combination of autonomy of private dwellings with the advantages of shared resources and community living" (www.cohousing.ca).

Chris and Kelly Scotthanson (ScottHanson & ScottHanson, 2005), from a more Canadian perspective, add a few more characteristics common in North American cohousing.

- **Optimum Community size** – about 12-30 dwelling units. Too many participants makes the group ungovernable, too few makes it difficult to build a resilient and diverse community.

- **Purposeful separation from the car** – Urban plans that separate the car from dwellings or that are car free.

- **Shared evening Meals** – Cohousing groups share meals several times per week as part of the social bonding.

- **Varied levels of responsibility for development process** – different groups have had different levels of input into the final product. This accounts for the so called "speculative" cohousing projects.

The participatory process of design and development is very important in Cohousing because, among other things, it establishes the social bonds that keep the community together after the completion. There are five key stages of the CoHousing development process: group formation; development structure; site selection; financing and ownership; and planning, design, and construction (Reuer, 1995). Overtime different development models for cohousing have developed depending on how each of these stages is handled. Williams (2008) has identified 3 models (also see table below):

- **Resident-led model** - entire resident group involved in the whole process

- **Partnership model** – residents and developers work together and share responsibilities and decision making power

- **Speculative model** – A developer led process similar to standard developments where the developer takes all risks and decision making power and hopes to form a community after the project is complete.

Of these, the Resident-led model is considered "the true cohousing" (TerraFirma

Figure 31. Development models according to Williams (2008)

Model	Resident-led model	Partnership model	Speculative model
Description of model	Entire resident group involved with the development and design process, as well as community formation	Partnership approach—developers and residents work together at all stages of the process	Developer led. Developer deals with design, development and community formation
Community visioning	All residents involved	All residents involved	Developer
Recruitment	All residents involved	All residents involved with professional help	Developer
Legal structures and financing	Resident led with professional help	Developer led	Developer
Design Process	Resident led with professional help	Developer led with resident input	Developer
Community development	Resident led with professional help prior to living in community and throughout life of community	Resident led with professional help prior to living in community and throughout life of community	Resident led once living in community

Figure 32. Retrofit Cohousing - Genesee Gardens, Lansing, Michigan.

Figure 33. Dense and urban Cohousing in Rotterdam - Centraal Wonen de Banier

Cohousing Interviews) because it emphasizes the social bonds built during the difficult first stages of the process and the social ideal that no profit is involved in the making of housing. Williams confirms that, at the other end of the spectrum, speculative cohousing has weaker social cohesion than resident-led projects, although it is still stronger than in neighborhoods built with the standard development model (Williams, 2008). However, the resident-led model is more difficult to realize.

A new model gaining popularity is called retrofit-cohousing, where people already living next to each other, open up their properties to retrofitting for social contact design. In other words, neighbors get together to share some of their property, while still maintaining their individual homes, in order to form collective spaces and build some collective amenities. Retrofit cohousing often happens in suburban areas where homeowners have large lots and few amenities and where the feeling of social isolation is stronger.

North European cohousing (except for the Danish model) is primarily rental housing and is most often subsidized by the government or other non-profit organizations. Swedish and Dutch cohousing are often quite dense and with an urban character, while Danish cohousing is more low rise and with a rural character, something that was carried over to North American cohousing. However in North America cohousing is almost always developed without any form of subsidies and with condominium style private ownership. About 30% of North American projects work with property developers (Meltzer, 2005).

In cohousing projects individual dwellings are relatively smaller and more modest than similar types of dwellings it the area because residents tend to trade some private space for common facilities in order to create a larger and more effective spaces as well as foster social cohesion (Bamford, 2005; Vestbro, 2010). Often cohousing communities include a common house that has a shared kitchen and dining area, shared laundry facilities, a workshop, children's play area, storage for large items etc. Outdoors, there is almost always a common garden, often growing vegetables, leisure spaces, playground, composting and recycling spaces, and sometimes there are even chickens and fish pond. However each unit is fully independent as any other house with its own kitchen, laundry facilities, and private outdoor space. The communal spaces are designed to facilitate social interaction, not to replace private space.

After moving-in cohousing developments are managed by the residents themselves. They organize into committees dealing with all the various aspects of running the community such as maintenance work, planning of use for the shared facilities, organization of shared activities. Participation in the management committees is seen as a duty and as contributing to the social cohesion of the community. The level of intensity of participation depends on the community, but all cohousing groups expect some level of contribution from all members. However Metzler explains that cohousing groups pay particular attention to "sustainable dynamics" whereby they aim to be large enough to allow members to occasionally withdraw from the collective for a while without affecting the social dynamics or the group's ability to carry out its duties, but not so large that people do not get to know each other. It is important to understand cohousing as both a housing type (a process and design) as well as a lifestyle (collaborative and sharing).

Cohousing communities unlike some other types of intentional communities are not exclusive or reclusive and often make efforts to keep active relations with the surrounding neighborhood. Despite misunderstandings by the general public, cohousers are ordinary people with ordinary jobs and, as Bramford (2005)

describes it, cohousing is a setting for "normal life". Over time cohousing has proved to form strong communities that maintain high social cohesion many years after moving in. This is partly because of the balance that cohousing strikes between privacy and community and partly because cohousers know what they are getting into well before moving in.

3. 2. THE BENEFITS OF COHOUSING

There has been a lot of literature examining the phenomenon that is cohousing from both sides of the Atlantic as well as from Australia and New Zealand. Cohousing has aroused such significant interest in part because it seems that, as Bamford (2005) put it, "in cohousing people can have their cake and eat it too!". Cohousing promises to be a win-win form of development where people can be part of a strong social group and yet preserve privacy, and at the same time resulting in a much more environmentally friendly behavior than average housing developments.

THE SOCIAL BENEFITS

An article in the Baltimore Sun in 2001 was titled " Cohousing is called the antidote to modern isolation" (Ridder, 2001) and chronicled the social experiences of cohousers that are unusual for people living in standard housing developments. Empirical research supports the idea that strong social relations and social cohesion are characteristics that define cohousing projects (Williams, 2008), much more so than the average neighborhood.

There are several factors that help to form greater social cohesion in cohousing. Perhaps the most important one is the participatory planning process which forms bonds between participants through sharing of dreams and visions, negotiations and compromise, and having a shared experience they can all relate to after the project is built (Williams, 2008; Metzler, 2005; Vestbro, 2010; Personal Interviews). Another significant factor is the design principles used in cohousing plans that lead to more frequent and more intimate social interaction (Jantine, 2008; McCamant & Durrett, 2011; Meltzer, 2005; Williams, 2008). The social cohesion formed during the development process phase is often maintained by the social structure and organization of the community after moving in. The nonhierarchical structure of the community coupled with shared activities and a general attitude of sharing and offering help to neighbors help maintain strong social networks.

THE ENVIRONMENTAL BENEFITS

In an article in the US Cohousing Network's Journal Coldham positions cohousing as a new form of community that also affects environmental behavior.

> *Cohousing's principle contribution to a sustainable society is that it offers another scale of social organization an intermediate scale between the single family and the town or municipality – thereby expanding the palette of technologies that can be applied. (Coldham, 1995)*

Certain sustainable technologies, such as centralized neighborhood heating, storm water management, or natural gray water treatment and reuse, can only be applied in groups of a certain size in order to be efficient and economical.

Metzler asserts that cohousing is the link between community and sustainability. A sense of community and quality of social relations determine people's capacity to "walk their environmental talk" (Meltzer, 2005). Aside from a pro environmental

Figure 34. The existing suburban plots that will become Fernwood Urban Village.

Figure 35. Fernwood Urban Village intentions

attitude that most cohousers possessed beforehand, the social cohesion and social networks in cohousing communities encourage people to be more aware of their behavior and support them in taking action. Social cohesion "facilitates ongoing manipulation of the built environment for social and environmental gain" (Meltzer, 2005).

In addition the fact that communities share many spaces, tools and other resources, makes for a more efficient use of energy and resources. Sharing of workshop tools, a darkroom, playrooms, common guest house, car-pooling, bulk buying etc. results in less energy and material used, less material waste and more efficient use of space. Williams' own empirical research supports Marcus and Dovey's (Marcus & Dovey, 1991) "assertion that cohousing offers a sustainable form of accommodation particularly if inclusivity is addressed"(Williams, 2008).

However social sustainability of cohousing is hampered by a significant flaw. Despite efforts to keep cohousing projects open to diverse groups of people, research shows that cohousing residents tend to be white, well educated, and affluent (Williams, 2008). High initial capital costs in particular have been a strong roadblock for lower income groups (Reuer, 1995; Williams, 2008). Dutch *Centrnal Wonen* display characteristics more representative of the overall population. The higher degree of heterogeneity in Dutch communities may be linked to lower costs resulting in part from government subsidies and support (Vestbro, 2010).

BENEFITS TO TORONTO

The participatory process of cohousing offers a tool that can help deal with the obstacles that individual land ownership places on suburban redevelopment in Toronto. Retrofit cohousing has already demonstrated how neighbours looking for something more from their neighbourhood can pool their resources, including their land, to create larger and more comprehensive developments that focus on social and environmental sustainability. The same logic can be applied to new cohousing developments where neighbours agree to pool their properties.

Among the very few Canadian cohousing projects there is already an example of how cohousing can encourage plottage – the assembling of land. The Fernwood Urban Village (Figures 34, 35) in a post war suburb of Victoria, BC, (http://fernwoodurbanvillage.ca) was formed in 2009 when a few neighbours decided to assemble their properties as well as another adjacent run down property, into a larger parcel and decided to build a cohousing project. Four large lots of single family homes totaling about 3000 square meters have been prepared for building 31 small apartments for singles and families without young children (empty nesters), in four main buildings around a common courtyard. Key features, typical of cohousing, are environmentally sustainable building practices, energy efficiency, an organic vegetable garden as well as a common house and shared guest rooms.

Four lots does not seem like big deal, but the increase in unit density from 4 to 31 (800%) is substantial and not possible through individual lot redevelopment. In addition, the assembling of land by the current residents, as opposed to a developer buy-out, avoids negative gentrification by simply adding to the population rather than replacing it. Also, the current residents have already established relationships with neighbours and in this way reducing NIMBY actions which often prove to be headaches in a developer's project.

The social benefits that come with the development of cohousing projects as described earlier would be beneficial in significantly improving the social cohesion

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in mature suburban neighborhoods in Toronto. Cohousing, because of its naturally open attitude towards the neighbourhood and society at large, not only increases social cohesion within its community but in the surrounding neighbourhood as well. The involvement of the future residents in the design and decision making ensures that homes will fit their needs, rather than a developer's supposition, and therefore more accurately reflect the demographic shifts in Toronto.

The environmentally friendly attitude of cohousing residents could also help improve the environmental sustainability of the post war suburbs through more sustainable buildings and lifestyles that focus on sharing resources. Their influence on the surrounding neighbourhood could amplify environmental awareness and exemplify environmental action.

3. 3. Cohousing does not catch on

A sobering conclusion of the "Living Together" conference in Stockholm was that despite its many advantages, "nowhere, in either yesterday's or today's world, has cohousing met with lasting enthusiasm in wider circles, nowhere has it been officially embraced as one important option to be made available in the housing market" (Vestbro, 2010, p. 11). In Canada, 20 years after the introduction of Cohousing, there are just 9 projects completed and 5 more in development. The vast majority of these are located in British Columbia, a province renowned in Canada for its social and environmental awareness. That means that a total of about 0.001% Canadian households live in a cohousing community. While it is slowly growing, the cohousing idea is certainly not taking over Canadian society.

Cohousing has failed to grab the public imagination in large part because it is very difficult to bring to realization and only a fraction of planning groups make it into a built community. In an interview members of TerraFirma, the only cohousing community in the province of Ontario, detailed a long and arduous journey from idea to moving in. TerraFirma was a planning group for 5 years, during which time over 100 people joined and then left as their life moved on. The group finally secured a site near the center of Ottawa in 1996, only to find that the neighbors were determined to stall the project. Despite being well educated, the neighbors succumbed to irrational fears and likened the group to WACO, an American extremist violent religious cult. They were afraid that group activities in the communal garden of cohousing would amount to orgies or other such things. The neighbors formed a NIMBY group and opposed the project at the city hall and in the courts for another two years. 14 years later TerraFirma has built good relations with the neighbours and some who are not part of the physical project have nonetheless joined the social community.

Difficulty finding an appropriate site and misunderstanding and mistrust of the cohousing idea by Canadians points to the fact that cohousing has no governmental support in Canada and instead, municipal planning departments themselves are also quite wary of cohousing, according to TerraFirma members and Prof. Benjiamin Gianni at Carleton University, Ottawa. According to Prof. Gianni (interviewed in October 2011), municipalities rarely see social cohesion in the suburbs or even environmental sustainability as issues they need to actively engage in. When a policy is formed, as in the case of Toronto, that does recognize both social and environmental issues as significant parts of the quality of life in the city, planning officials fail to understand the benefits of cohousing in this regard.

The lack of understanding and fear of unknown has left cohousing on its own to

find social acceptance and prove that it is a valid, and maybe advantageous, form of development. Cohousing has largely appealed to the white professional middle class, and especially to those with previous experience and interest in shared or collaborative living arrangements. In this very small niche cohousing has managed to secure its survival and even grow.

The Living Together conference on collaborative housing agreed that for cohousing "The issue is no longer survival, but expansion and extension to groups so far untouched and partnerships with actors that can ensure wider access to cohousing as a way of life" (Vestbro, 2010, p. 17). The conference attendees concluded that "the real challenge today is to try and get such a movement to take off" and spread to large parts of society, and for this to happen cohousing discussion requires a debate on basic issues far beyond the design and organization topics often mentioned. Cohousing needs to become attractive to people (single parents, starters, immigrant communities, and of course the elderly) who have the need for what cohousing offers but are not yet demanding it.

3. 4. Cohousing Impediments

In order to answer the question "How can cohousing become more popular?" one must first find out what are the impediments to cohousing popularity. Results from research interviews conducted with experts and cohousing members in Canada point to the same issues identified in cohousing literature. Among others, Williams (2008) has condensed the reasons that cohousing remains in limited demand into four categories

- Time and financial commitment,

- Financial risk and problems getting finance,

- Need for a great deal of management and technical expertise,

- Difficulties in competing for sites with developers.

Cohousing projects often take a long time to come to fruition (if at all), on average taking 3-5 years from group forming to moving in. Such long waits for a new home are not possible for everyone, especially when considering the footloose attitude of modern professionals. During this time cohousing groups meet regularly and require significant time and effort from the members. Such long time frames and group negotiations that can become intense also may lead to discouragement and loss of faith in project.

Unlike in a standard development process whereby the developer takes on all upfront financial investment in management, land, and construction costs, in cohousing the members themselves must provide the financing. This is particularly difficult and risky during the first stages of cohousing process when the group is not solidified and the chances of arriving to the final stage of moving-in are low. Financing of construction phase is also problematic since banks are not familiar with cohousing and may not offer favorable (if any) mortgages to cohousers who would otherwise have no problems obtaining a mortgage for developer built home.

Often groups need to make a payment for land that runs into the thousands of dollars and is not-refundable, so if for some reason the site does not pan out,

the money is lost. Since site acquisition or option to buy can require an at-risk investment of several thousands of dollars per household, low- and moderate-income households are often excluded. "Despite their wishes to represent a broader slice of the population, Cohousers are primarily middle class, left-wing intellectuals in their late 30's to middle 40's" (Reuer, 1995).

The housing development process is complex and full of hurdles. Cohousing groups must provide the management and technical expertise that a private developer would normally have on staff. If the group happens to have members with the appropriate skills, they can perform many of these tasks. However this puts the member wearing two hats into a difficult position and introduces significant risks in group dynamics. Groups often hire external consultants, which are expensive and increase the initial cost, and therefore exclusivity, of cohousing.

3. 5. ANALYZING COHOUSING USING INNOVATION DIFFUSION THEORY

Jo Williams (2008) has taken an interesting approach to analyzing cohousing weaknesses and offering suggestions for future dissemination of the cohousing idea. After finding out that cohousing is growing only slowly in the USA making up only 0.001% of American households, she asks whether "cohousing [will] be adopted by the mainstream or will it continue to be a niche market?". In order to find the answer to this question Williams looks at cohousing as a new technology or process trying to gain marketshare into an established (housing) market and analyses cohousing through the marketing concept of "innovation diffusion" developed by E. M. Rogers. Williams explains diffusion as the stage at which a product or process becomes more widely available within a population, based on Rogers' definition of diffusion as "the process by which an innovation is communicated through certain channels, over time among the members of a social system"(Rogers, 2003).

Adopters of innovations are divided in five categories according to their tendency towards accepting new ideas or products: the innovators, the early adopters, early majority, late majority, and the laggards (Figure 36). Innovators and early adopters are much more venturesome and tolerant towards risk and uncertainty that accompanies the adoption of new ideas. Rogers (2003) also considers innovators as "the gate keepers" of innovation, whose adoption allows access to the innovation
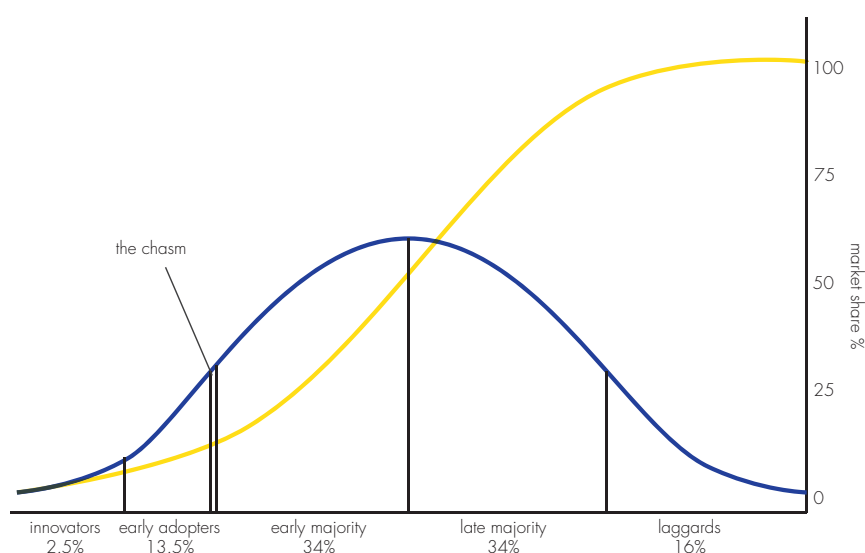

Figure 36. The 5 types of adopters in innovation diffusion theory

for the rest of society. A key concept in idea of the diffusion of innovation between categories of people is what is called "crossing the chasm". This concept recognizes that even if one manages to convince the innovators and early adopters, making the jump to the next group of early majority is extremely difficult. There is a chasm that separates early adopters from early majority. Crossing the Chasm would mean that cohousing is enter the mainstream, and is adopted by at least 15% of the population. Considering the very low adoption rate of cohousing in North America, just convincing the "innovators" to adopt the cohousing concept would be already be a huge improvement, and it would allow cohousing to pitch the rest of society.

Williams uses Rogers' characteristics of innovations, as perceived by individuals, which influence adoption rates as a set of criteria against which to measure the performance of cohousing. This allows her to assess Cohousing's propensity to diffuse. The five characteristics are:

- **relative advantage** - "the degree to which an innovation is perceived as being better than the idea it supersedes" and is measured in terms of economics, social prestige, convenience, and satisfaction.

- **compatibility** – the degree to which an innovation is perceived as being consistent with existing values, past experiences and the needs of potential adopters.

- **complexity** – the degree to which an innovation is perceived as difficult to understand and use.

- **trialability** - the degree to which an innovation may be experienced in a limited basis, such as a trial period or demonstration product with limited features.

- **observability** – the degree to which an innovation is visible to others. Seeing the innovation in action with its advantages and disadvantages helps diffusion.

Figure 37. Cohousing benefits and disbenefits based on factors that affect innovation diffusion. Source: Williams (2008)

Based on these characteristics, Williams arrives to a series of specific factors that advance or hinder the diffusion of cohousing, summarized in the table below (Figure 32).

Overview

	Strengths	Weaknesses
Relative advantage	Economic benefits and satisfaction	Convenience and social prestige
Compatibility	Consistent with emerging values and needs	Not consistent with existing dominant values and needs
Complexity	Less complex models emerging.	Cohousing is complex to understand. It also requires a great deal of resident expertise in production and operational processes
Trialability	Open events and activities in cohousing communities enable potential adopters to trial the lifestyle to an extent. Strong informal social networks between communities also helps to develop greater understanding of what it means to live in a cohousing community	Lack of rental units in communities reduces potential for trailing the lifestyle before committing to it
Observability	Interaction between cohousing communities and surrounding neighbourhoods has resulted in the incremental growth of some communities	Commercial marketing strategies are underdeveloped

Cohousing offers important relative advantages such as higher re-sale values, security, safety, increased feeling of empowerment. Higher re-sale values and security in particular are highly prized in North America. There are also other advantages of a more social nature such as greater social interaction, support, opportunities to share resources and expertise. Unfortunately in terms of observability, cohousing is disadvantaged because its key benefits of social and environmental sustainability are not visible from the outside.

These aspects of cohousing are compatible with emerging values of community and pro-environmental behavior, which is why for cohousing residents they carry more importance than the former economic and security advantages. However these features are not consistent with the strong current preferences of American society for individualism, freedom and privacy.

In fact, Williams identifies "*lack of cultural affinity*" with cohousing as being a key barrier to its diffusion. Cohousing is viewed with some suspicion due to its classification as a collective housing form which, when combined with social contact design principles, smaller private dwellings, and reduced privacy lead to a perceived image of cohousing as something strange and with negative connotations. For example, cohousing maintains independence and privacy, but the label "collective", "sharing" and "collaborative living" evoke negative images of 1960s hippy movement or extreme socialist cults where people surrender all individuality and identity for the sake of the group. Williams notes that a lack of rental units in cohousing cripples its trialability and therefore there is a missed opportunity to change misconceptions and convince new adopters.

Predictably, the level of resident involvement required, particularly associated with resident-led approaches, the time cost (in the production and management of communities), financial risk, difficulties in obtaining sites and need for expertise were also seen as a weakness of cohousing. The fact that residents are involved, and must understand, the development process leads to an increase in complexity of cohousing. Williams reports that even the concept of cohousing is confusing to people who often do not understand whether it is a housing type or a lifestyle, while it is both.

Williams also addresses the subject of Path Dependency – the tendency of a system to continue operating in the same manner and resist change. The housing development industry is by nature very conservative and resisting change and is a "key barrier to supply and adoption of new build cohousing models" (Williams, 2008). Resident-led approaches skip the developer and thus sidestepping part of the problem but must still face stiff resistance when dealing with local government and regulations which often do not favor cohousing and are notoriously path dependent. Canada and the US have a strong tradition and aspirations of self-built housing, attached to nostalgic images of pioneering settlers and the yeoman farmers. Williams suggests that cohousing "largely conforms" to this approach and could therefore appeal to people whose dream is to build their own home.

Weaknesses of Cohousing

The weaknesses of cohousing identified by Williams' research and interviews conducted in Canada (see chapter 1.4) are brought together in a list of topics or areas of concern that must be addressed in order to increase adoption rates of cohousing.

- Inconvenient and low social prestige

- Significant time and money commitment

- Difficulty finding land

- Negative perception of the collective housing label and negative past experiences with collaborative housing

- Less privately owned space

- Heavy involvement in post occupation activities

- Not consistent with dominant values and needs

- Individualism and freedom

- Privacy

- Great deal of expertise needed to manage the complex process

- Lack of demographic diversity despite efforts

- Lack of rental units to "try-before-you buy" the lifestyle

- Marketing strategies showcasing benefits and forming public opinion are underdeveloped

- Path dependency

- Current top-down approach towards supply of housing

- Delivery structures and expertise for cohousing are different

The list indicates that cohousing must overcome both practical and image problems. First, there is the lack of cultural affinity related to the underlying negative perception of "social" and "collective" labels and a fear of loss of individuality and freedom when engaged in collective housing. These image issues make cohousing a non-starter for many people who are put off by the concept before they have a chance to really understand it. Second, once people are convinced of the idea of cohousing, practical obstacles relating to time, money and land availability as well as path dependencies must be reduced.

Williams suggests a two prong approach to increase adoption rates of cohousing. A top-down effort would involve governmental organizations, private developers and realtors in order to reduce practical challenges and organize large scale marketing strategies. While a grass-roots approach would involve the cohousers themselves engaging in relationships with surrounding communities in order to share first-hand information about the benefits of cohousing and encourage incremental expansion of cohousing communities.

Cohousing in The Netherlands

In regard to Williams' recommendations Dutch experience with cohousing, or *Centraal Wonen*, offers guidance. In the Netherlands cohousing developed relatively differently from the Danish model. According to LVCW (*Landelijke Vereniging Centraal Wonen,* www.lvcw.nl) over 100 cohousing projects have been built in the Netherlands since 1977, and there is a mixture of rental properties owned by

social housing associations and owner occupied dwellings, or a combination of both in one project. In other words, Dutch Cohousing has the support of non profit organizations and improved triability due to abundance of rental units. Another difference is that cohousing complexes are usually divided into "social clusters" of 5-10 dwellings offering a more intimate scale of community and a base for collective activities.

The Netherlands is a society with strong traditions of collaboration, compromise, and resource sharing – what is sometimes called the "polder mentality". The Netherlands is also the country with perhaps the largest percentage of social housing in the world, about 60% until the early 1990s and about 45% in 2010. This social housing is managed by nonprofit associations which also invest in "housing-related, socially beneficial functions" such as schools, community centers, public parks etc. Despite a policy shift in the 1990s towards more individual home ownership, it can be argued that the perception of "social" and "collective" labels is far less negative, maybe even positive, in the Netherlands compared to the US and Canada.

Social housing associations have also had a direct role in the development of cohousing in the Netherlands. Cohousing groups almost always began with the initiative of their members, but in every case housing associations were quickly brought onboard. Housing associations offered several key advantages to cohousing groups: management expertise and housing development experience, financing of process costs, reduced final ownership or rental costs, and land acquisition – all this without the expectation of a profit. The backing of these large organizations as well as of local governments gave credibility to the cohousing concept.

In essence, what Williams suggests as remedies to US cohousing, is already present in a similar form in the Netherlands. If one considers that in The Netherlands there are about the same number of cohousing projects as in the US, despite a population 20 times smaller, it would seem that cohousing is much more popular in the Netherlands. This suggests that measures advocated by Williams would have a strong positive effect on cohousing diffusion. However, cohousing in the Netherlands remains a very small niche housing for only a fraction of 1% of the general population. Using the diffusion theory categorization one must conclude that cohousing, even within a supportive environment, fails to convince a significant portion of "innovators" (about 2.5% of population) to adopt the idea, and therefore is still very far from convincing early adopters, crossing the chasm and convincing the majority of population to adopt it.

Despite Dutch society's relative openness to collaboration and compromise, there is still a lack of cultural affinity with cohousing. In the last 15 years Dutch public and private institutions have largely abandoned cohousing recognizing that the collaborative lifestyle and ideology of cohousing is seen as excessive by Dutch population. However, still maintaining the understanding that in a collective people can achieve things that they could not achieve individually, local governments, housing associations, academic and research institutions as well as private developers have greatly experimented with a wide range of pragmatic participative design processes.

One interesting process that has emerged is called "Collective Private Commissioning" (CPC) or in Dutch called *Collectief Particulier Opdrachtgeverschap (*CPO). CPC developments exhibit very similar characteristics to cohousing in terms of their social and environmental sustainability but are much more popular. Several experts interviewed in the Netherlands consider CPC a "recession product" and point to fact that the number of projects has increased several fold since the 2008 economic

crisis (Expert interviews). This growth can be partly explained by the financial and economic conditions of the Dutch housing market have severely restricted large scale speculative development. In addition, local governments are making much more land available for CPC because large developers have stopped building. Since the crisis people have turned to CPC to realize their housing needs and CPC developments have become a method of new housing production that is taken very seriously as evidenced by the development of "CPC Handbook" for local and provincial officials and by the proliferation of conferences and courses on CPC development for architects, builders and consultants.

3. 6. CONCLUSIONS

This chapter has shown that cohousing is a mode of development that, if built in post-war suburban neighborhoods, has the ability to provide significantly more socially and environmentally sustainable communities. It helps to establish strong social networks and deep social relationships through its participative process, social contact design principles, the collective amenities provided, as well as the large number of collective activities organized and regularly attended by cohousing members. In addition to the high social cohesion, or perhaps because of it, cohousing projects also tends to be highly environmentally friendly often having organic gardening on site, energy efficient homes, and collaborative lifestyles that take advantage of resource sharing.

However, despite its significant benefits of standard housing development, cohousing has never been a serious option for housing provision available to the wider population (Vestbro 2010). This has been as true in North America as it has in its birthplaces in Denmark and the Netherlands. Over the last 3 decades cohousing has failed to widen its appeal beyond a very small group, where members tend to be white, middle aged, middle class professional workers who have open views towards collaborative living and often have had some experience with it beforehand.

Cohousing has several key weaknesses that prevent it from emerging out of the very limited niche market. The weaknesses can quickly be described as being image and perception issues related to social and collective labels, and practical issues related to time, money, land and complexity of process. Williams (2008) proposes that these issues can be solved with a combination of top down and bottom up approaches: using the strengths of government and private organizations to deal with practical issues; and using the interpersonal relationships of cohousers with the surrounding neighborhood to increase understanding of cohousing concept.

However, Dutch experience with cohousing suggests that even if the practical and image conditions improve, cohousing may never gain wide acceptance. Dutch experiments with participative planning suggest another process that is more popular.

When the goal is an environmentally and social sustainable redevelopment of post war suburbs, Collective Private Commissioning seems to deliver similar results as cohousing but on a much larger scale. What exactly makes CPC so much more popular than cohousing in the Netherlands, and would these features also make CPC more popular in Canada? In order to answer these questions CPC housing development process is examined in detail in the next chapter.

4 - COLLECTIVE PRIVATE COMMISSIONING

4.1. DUTCH COLLECTIVE PRIVATE COMMISSIONING AS AN ALTERNATIVE TO COHOUSING

The Netherlands is one of the countries where the concept of cohousing originated in the 1970s. The Dutch Centraal Wonen have some minor differences with Danish and North American cohousing, such as a more urban character and separation into small social clusters, but are essentially the same in the important aspects of collaborative process, social contact design, collaborative lifestyles and environmental awareness. Centraal Wonen is much more popular in the Netherlands than Cohousing is in Canada and USA, partly because of the much more favorable cultural inclinations and support from government and non profit housing organizations in the Netherlands. However Centraal Wonen still makes up only a very small fraction of Dutch housing.

In the 1990s attention moved away from Centraal Wonen as part of a broader ideological shift in Dutch society and politics that people should be less dependent on government. The idea of getting residents directly involved in the production of their housing became national policy with a Memorandum by VROM (The Ministry of Housing and Spatial Planning) called "Making Space, Sharing Space" in 2001. It aimed to increase the percentage of new housing produced through different forms of private commissioning from 17% in 1995 to 30% by 2010.

Collective Private Commissioning (CPC), as the name suggests, is private commissioning (an individual commissioning their own dwelling) undertaken in a group. As Boelens and Visser (2011) point out the memorandum does not seem to have had any effect on the ground other than raise awareness. In fact the ratio of housing produced through different forms of private commissioning has dropped to 11% (SEV, 2010). However, the fact that private commissioning is really the domain of the wealthy, the rapidly rising house prices in the past decade, and a severe shortage of buildable land in the Randstad area help to explain the drop in private commissioning. At the same time *collective* private commissioning has gained wider popularity particularly with starters priced out of the housing market (Boelens & Visser, 2011; DeRegie, 2008).

Figures 39 and 40 show the growth of CPC since its (re)introduction in 1981 in Eindhoven. During the 1980s CPC gathered little attention building a total of about 500 units. It grew steadily in the 1990s as part of the societal shift towards decentralisation and self sufficiency with the construction of about 1100 units. By

Figure 38. CPC projects in the Netherlands occur in urban, suburban and rural locations. From top to bottom:

Elzes - Amsterdam (completed 2012)
De Buitenkans - Almere (completed 2007)
Drijf-in - Lelystad (completed 2012)

this time it had caught the attention of policymakers and professionals, however as mentioned earlier, their attempt to help with the 2001 memorandum did not seem to have any effect. It is interesting to note that, as Boelen & Visser found out, while the percentage of PC and CPC dwellings as a sproportion of total new-built dwellings in the country tumbled between 2001 and 2005 (it fell also in absolute numbers), the number of new-built CPC units remained steady. In the next 5-year period, as the housing market became prohibitively expensive and then the financial crisis dragged to a halt most housing projects by commercial developers, the number of CPC projects exploded - both in absolute numbers and as a percentage. In this 5 year period CPC projects grew to a 11% of private commissioning projects (CPC + PC) and by 2010 they made up 1.5 % of total new-built housing in the Netherlands.

1.5% is still a niche market, however it shows that the majority of the "innovators" (who make up 2.5% of the total population according to the innovation diffusion theory) have already adopted the idea. The following 5-year period is expected to continue the trend according to already granted building permits. A survey of 357 professionals by Nirov and SEV in 2011 shows "great ethusiasm" and that they expect (C)PC projects to make up more than 20% of new-built housing by 2020 (Figure 42) (Nirov, SEV, 2011). Both, professionals and consumers, saw a lack of knowledge as the biggest issue for increasing the popularity of (C)PC.

Figure 39. PC and CPC number of new-built dwellings as a percentage of total new-built housing units in Netherlands. (source: DeRegie.nl, 2012)

PC + CPC
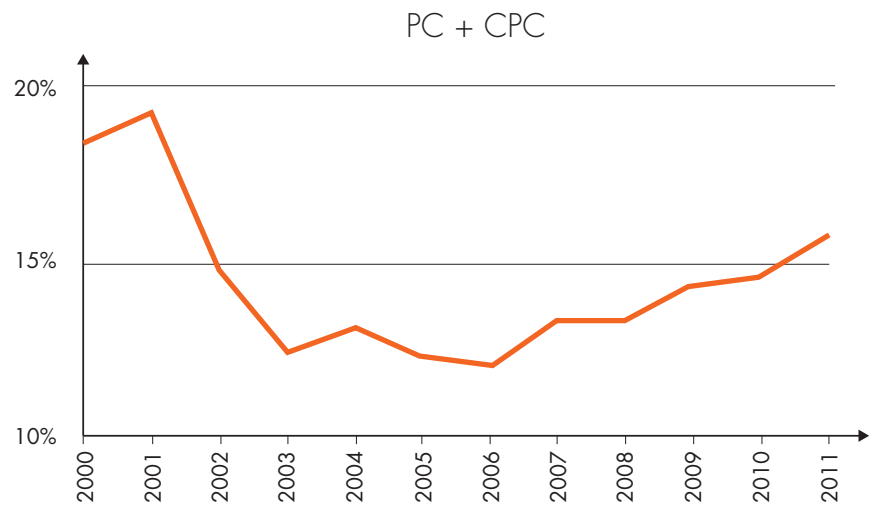
Period	Total
1981-1985	340
1986-1990	167
1991-1995	432
1996-2000	649
2001-2005	674
2006-2010	2.307
2011-2015 *	1.854
Total	**6.423**

Figure 40. Bottom and Right - Number of CPC dwellings completed since 1981. Since 2006 there has been a steep increase to about 1.5% of total new built housing. *Figures for 2011-2015 include projects whose completion date is unknown as of 2008 (source: DeRegie.nl, 2008)

CPC completions since 1980
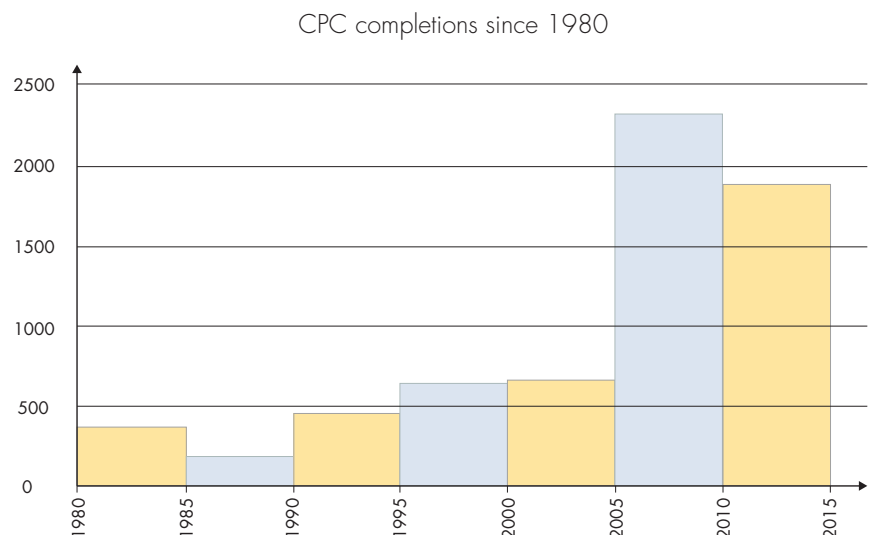
The CPC concept is interesting in this investigation because in about 20 years, and CPC projects have managed to take a larger share of new housing construction than Centraal Wonen has in 4 decades. Most of this growth is very recent and expected to continue, while Centraal Wonnen seems to have fallen off the radar of professionals and policy makers. CPC is also interesting to investigate because, in addition to being a rising phenomenon, it exhibits many of the same strengths and benefits as Cohousing, such as stronger social cohesion and higher environmental standards (Boelens, Visser, 2011).

Unlike the Netherlands, Canada is better known for pushing in the other direction, one of individual housing provided by market parties as a consumer product for the individual. Collective Private Commissioning is a form of development that does not exist in Canada and, because of its particular combination of collective and individual interests, could be an appropriate additional option to the current models of development. CPC developments, just like Cohousing, offer an opportunity to those who do not find their needs answered in standard blocks of flats or mass produced housing. "The suburban ready-made homes no longer meet individual modern dwelling concepts"(Gabriel, 2008) and commercial developers are risk adverse and not ready to experiment with new dwelling concepts. The CPC development process provides an opportunity for citizens to take matters into their own hands. The collective process of a CPC creates a synergetic effect where the result is more than the sum of its parts. It involves the future residents at very beginning of design process and therefore begins building social cohesion before the building is even built. In addition, as is often the case with cohousing projects, communal forms of living and group projects in CPCs provide a sound basis for integrating environmental concepts (Liese, 2008).

In Canadian suburbs CPC development can also be an answer to the practical development issue of individual land ownership, in the same way as Cohousing. Groups can acquire ownership of several plots while avoiding exploitative buyouts by commercial developers and at the same time stem gentrification by involving the current owners in the collective redevelopment. The people that get involved in collective developments tend to prefer urban living even for families. This can increase the density of mature suburbs that are now in urban surroundings by building multi-unit housing which has an urban character but that fosters stable social structures. Most importantly, CPCs can increase urban diversity by providing communal facilities, public spaces and work places in mono-functional suburban neighborhoods (Boelens & Visser, 2011; Liese, 2008; Qu & Hasselaar, 2011; SEV, 2010). Communal and public facilities is an aspect that is a regular feature of CPC developments, and a feature that is sorely lacking in current post-war suburbs, and that is indispensable to a future sustainable renewal.

4. 2. What is CPC?

Definition

Collective Private Commissioning (CPC, or CPO in Dutch) is a specific form of "participative planning". Participative planning is defined by Lei Qu and Evert Hasselaar (2011) in "Making Room for People" as "a planning process in which the participants (future occupants or people in the surrounding neighborhoods) are stimulated to become actively involved, are helped to form and express their ideas and eventually become co-producers of the neighborhoods and the city". There are several degrees of "citizen participation" that Qu and Hasselar (Figure 4444) describe after an adaptation of Arnstein's ladder of citizen participation from 1969.

Estimate the % of new-built homes that will be realized through (C)PC in 2020

Less than 10 percent — 22%
10 to 20 percent — 28%
20 to 30 percent — 25%
30 to 40 percent — 13%
More than 40 percent — 12%
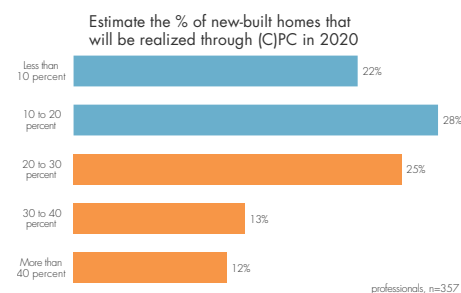
professionals, n=357

Figure 41. Optimist professionals estimate that more than 20% of total new housing will be produced by (C)PC in 2020 (Source: Nirov, SEV, 2011)

At the top of this ladder is "citizen control" which means that citizens or future inhabitants have a majority decision making power in the planning process.

The three forms of development with the most citizen control in order of less to more power are: Participatory Commissioning (MO from Dutch), Collective Private Commissioning (CPC), Private Commissioning (PC) (Boelens & Visser, 2011). As defined by Boelens and Visser (2011, p. 104), CPC is:

> "A form of commissioning whereby a collective of like-minded private parties acquire the piece of land or pieces of land and jointly decide how, and with which parties, the homes, private spaces and sometimes even public spaces are to be laid out and constructed".

In MO the end user is involved early in the process to make known his preferences but has no final decision making power and no risk. In PC, a traditional form of individual housing development, the end user has all decision making power and all risk (Figure 4342, 43).

Another CPC definition by Noorman (2006, translated from Dutch) states:

> "A group of individuals united in an association or foundation *acquires land and develops, with the help of an architect accompanied by consultants and contractor, a complex of (row)houses and / or apartments. Residents have control as an association or foundation for the entire complex and at the level of the house have individual control / choice. The risks are borne*

Figure 42. The comparative levels of user control over the design and planning process for different types of participative planning processes. (Adapted from Benders, 2011)
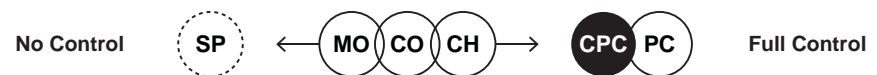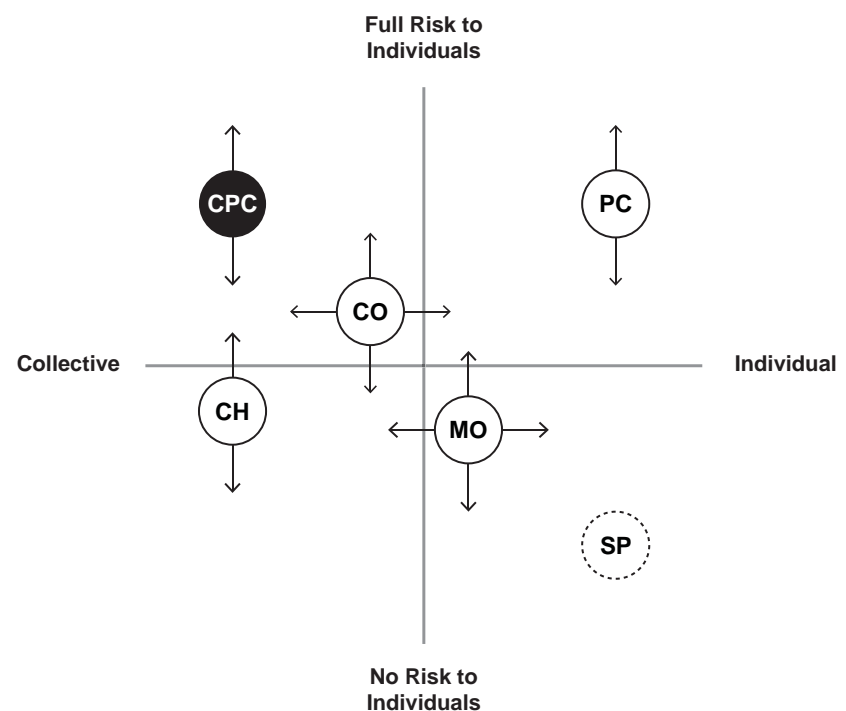

Figure 43. Comparative levels of risk taking by individual users and the level of collaboration with other users needed during the design and planning process for different forms of participative planning. (Adapted from Benders, 2011)

CPC: Collective Private Commissioning

PC: Private Commissioning

MO: Participatory Commissioning

CH: Cohousing

CO: Co-Design

SP: Serial Production (standard development)

Ladder of participation	Choice				Voice
	Traditional approach and design contest	Focus groups and participation procedure	Participative design	Self-developed individual or group housing	Collective development and cohousing
Ignoring	x				
Information	x				
Consultation		x	x		
Participation			x	x	
Decision making				x	x

by the association / foundation."

These definitions are essentially the same in seeing CPC as process where the client is a group of people who are also the future residents and have full decision-making power at every stage of the project. What is missing from the definitions is just as important. There is no mention of social goals, community building, or collaborative lifestyles. Collective Private Commissioning is process, not a lifestyle, whose main aim is to offer participants a real say in their housing. It enables people to determine exactly where, with who, and how they live, without depending on choices available in the market.

MOTIVATION AND ORIGINS

The reasons which motivate people to start or get involved in a CPC vary widely but are based on the practical attitude of using the advantages of building in a group in order to realize their individual housing dreams. Based on 57 housing experiments, conducted under the auspices of SEV (30 of which were Collective Private Commissioning) Boelens and Visser (2011) found that often the motivation is simply to build their dream home, or to live with people with whom they have something in common. Other times people got involved in CPC because there were no homes on the market that would satisfy their needs. These needs sometimes were to build with friends, or to build on a more social or ecological manner. Interestingly, "a frequently heard reason for forming a CPC project was to develop a countervailing power to local authority plans, which were considered inadequate or even contrary to the needs of the specific group or association"(Boelens & Visser, 2011, p. 107), a case of constructive NIMBY action.

A custom made house is the main advantage of (C)PO. It is striking that one expects to be able to live there longer. Better ties with the neighborhood is (still) not an argument.

Key benefits of (Collective) Private Commissioning?

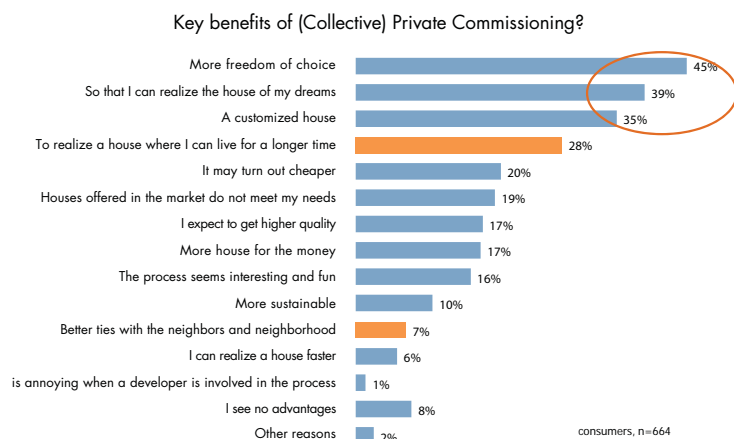|	
More freedom of choice	45%
So that I can realize the house of my dreams	39%
A customized house	35%
To realize a house where I can live for a longer time	28%
It may turn out cheaper	20%
Houses offered in the market do not meet my needs	19%
I expect to get higher quality	17%
More house for the money	17%
The process seems interesting and fun	16%
More sustainable	10%
Better ties with the neighbors and neighborhood	7%
I can realize a house faster	6%
is annoying when a developer is involved in the process	1%
I see no advantages	8%
Other reasons	2%

consumers, n=664

Figure 45. Survey of 664 consumers showing the key advantages that they see in (C)PC projects. (source: Nirov, SEV 2011)

Figure 46. De Spoorbaan - probably the first post-war CPC project in the Netherlands. Started in 1981, completed in 1984 (source: beib.nl, 2012)

The Nirov/SEV (2011) study conducted more recently than the one by Boelens and Visser surveyed 664 people (from the general population, rather than members of existing CPC projects). It found that, by a significant margin, the most important advantages that people see in the (C)PC process are about building a custom made house that fits their needs (Figure 45). Many of them also see themselves living longer in the same house if built through a (C)PC process.

Just as important to note is that environmental and social motivations are far down the list (Figure 45). Unlike in Cohousing, people do not usually see a CPC as way to achieve a socially and environmentally sustainable lifestyle. As pointed out earlier, however, CPC projects often end up possessing both strong environmental credentials, and social cohesion that is significantly stronger than in an average neighborhood.

The professionals who were asked in the Nirov/SEV study what they thought motivated consumers to choose (C)PC, gave a lot of importance to the desire to build a community with strong social ties. However they still gave much more importance to the desire to build a custom home (Nirov, SEV, 2011). This confirms the views expressed by experts in interviews conducted by the author. They see CPC as a practical way of achieving individual housing goals. They considered CPC a descendent of private commissioning, the tradition of building your own home, which was popular before World War II in the Netherlands and which still appeals greatly to Canadian individualist culture and "pioneering" mentality. CPC is often grouped with PC in both academic research and public policy.

Those interviewed saw Collective Private Commissioning and Cohousing as unrelated ideas and drew a clear difference between the two. CPC is a collective development process, a tool, to achieve individual goals that would otherwise be unreachable when acting individually. In Cohousing collectivity itself, in the form of a strong social network and meaningful social relationships, is part of the goal. Cohousing is an evolution of collectivity principles from the 1960s social movements. It is based on a collectivist ideology and still continues to be defined by collectivist principles – a less appealing concept for average Canadians. A CPC process can have cohousing as a result. Cohousing can be built using a CPC process, or not (as in the case of speculative cohousing). However the similarities between the concepts lead to confusing the two. Marcel van Lent, also co-director at De Regie, believes that the association of CPC with Cohousing may have hindered CPC diffusion.

Collective Private Commissioning was practiced , in a somewhat more primitive form, in the late 19th and early 20th century by the original organizations that have now become the Housing Associations in the Netherlands. After WWII these organizations were tasked by the government with managing the national housing reconstruction effort, effectively nationalizing them. The intense centralisation of housing production resulted in a kind of societal amnesia and people forgot that they could be more than consumers of housing, that they could take an active role it its production. Housing Associations forgot their original activities and in time lost the knowledge and expertise. Municipalities, which are in control of both land and building permits, forgot how to handle such commissions and tried to avoid them in preference of dealing with established housing developers.

According to BIEB, a CPC consultancy in Eindhoven (www.bieb.nl), collective private commissioning was re-introduced in 1981 in a neighborhood of Eindhoven. The process was used to deal with a situation where land was sitting unused because commercial developers were not into urban renewal projects (yet), and local residents were adamant against the construction of affordable housing in the

neighborhood. By forming a group of future residents who could plan and build their own housing the "SpoorBaan" association skipped the commercial developers and pacified the neighbors, while taking advantage of an otherwise unusable land. "De Spoorbaan" was formed in 1982 and completed 45 homes in 1984 (Figure 46).

THE PROCESS

The process of CPC is complex, varied, and unlike a standard development process, which tends to cause friction and delays with local governments not used to it. In a standard development process (Figure 47) a project initiative is undertaken by a private party with a real estate consumer in mind. The municipality makes sure the proposal fits with its planning vision and regulations. Building contractors and architects get involved in the design and construction of the project, which is finally delivered by real estate agents to the market where a consumer chooses (or not) to purchase the real estate product but carries no risks.

In a CPC process (Figure 48) the end user is not a consumer but rather a *co-producer* of real estate. The private developer/real estate investor is eliminated, although the number of parties in the process does not decrease because of an increased number of consultants. The initiative often originates from the future residents or from the architect. The group starts to form around an intention based on shared collective interests. Because the process takes a relatively long time the actors involved change continuously and frequently. Land position is not decisive as CPC projects take place on land belonging to local authority, private developer or land directly purchased by the group. The group is directly engaged in forming the vision, functional requirements and design of the project with help from architects, consultants and process managers. It decides on the contractor and project manager and, once the project is completed, it is involved in the maintenance and management of the collective property.

The key here is that the project initiator changes from a project developer to the end user and that, as a result, the profit motive is replaced by the aspirations and desire to build one's own home. In a CPC the process is of great importance for two reasons. Firstly, it is the discussions and negotiations between members of the

Figure 47. Standard development process. The user involved only at the very end, as a consumer.
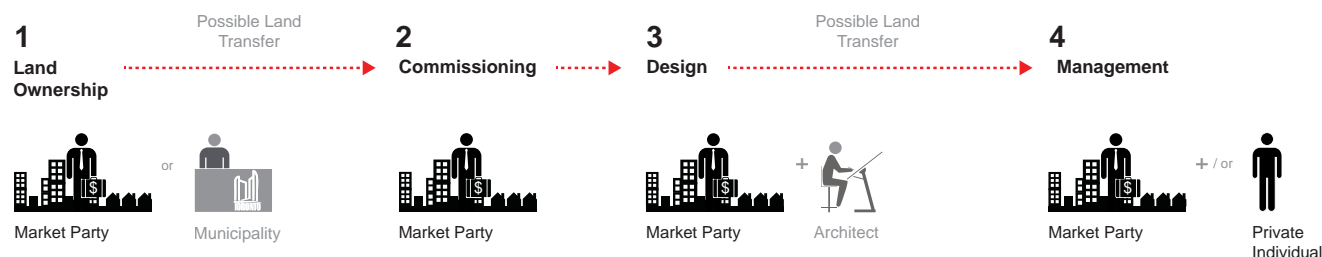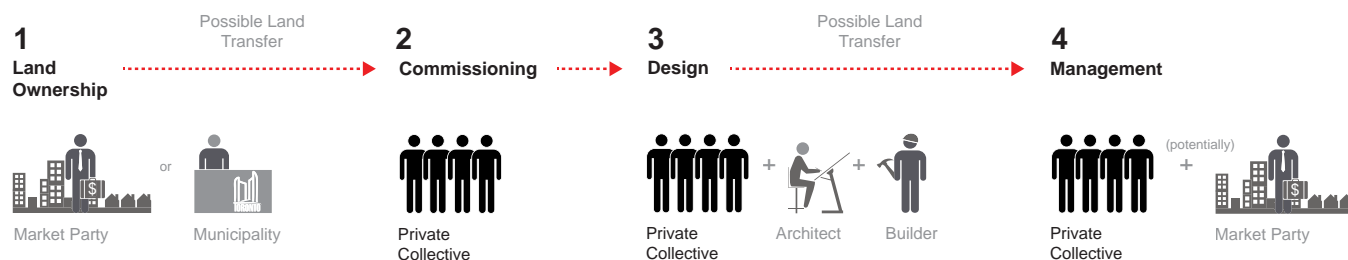

Figure 48. Process of CPC development. The group of users is involved from the very beginning.

collective during the process that determine the final quality of the project. Secondly, the process of collective design and negotiation is a group-forming process. Social cohesion is, inadvertently, built before construction is even started. The total social sustainability of the project and neighborhood is a combination of social cohesion built during a CPC process and the social cohesion fostered and maintained by the collective amenities within the project.

The Features

Essentially, Collective Private Commissioning is a synergetic collaboration that allows participants to do something that they wouldn't be able to do individually, namely to design and build their dream homes (and its surroundings). As such CPC developments have distinctive features.

The opportunity to design one's own home leads the participants to think deeply about their needs and what design features can accommodated them in the long term. The process of designing the home helps to forge an emotional attachment to the home. For CPC participants their house is not an investment, it is a home. Unlike a project developer who is usually interested in the house up to the point of sale, CPC participants invest heavily in quality materials and design (Boelens & Visser, 2011).

With the removal of the developer, and their profit margin, from the process the expectation is that in a CPC the cost of homes would be lower and the process would be shorter. However Boelens and Visser (2011) point out that data from SEV experiments does not support this conclusion, but the reverse. Negotiations within the group and discussions with other parties in the building system such as the municipality and contractors, who are not used to CPCs, stretch the process time. The participants' investment in quality negates savings, however higher quality also means higher property values which results in good value for money.

Environmental sustainability is often a part of the identity of CPC developments. In some cases the desire to live in an environmentally sustainable neighborhood is one of the main motives that forms the collective such as in the case of EVA-Lanxmeer in Culemborg and Waterspin in The Hague, Netherlands. Whether the collective considers innovative or more conventional sustainable measures, their value is judged in terms of long term economic, social as well as environmental benefits.

The synergetic value of CPCs is best indicated by the mix of functions and non-residential amenities often incorporated in the projects. What would have been the developer's profit is invested in amenities that the collective considers desirable and beneficial. A great and commonly cited example is the Eva-Lanxmeer neighborhood in Culemborg, which besides its environmental credentials, consists of 250 dwellings, 40.000m2 of offices and business units, an urban ecological farm, an information centre, wellness centre, congress centre, bars, restaurants and a hotel. Waterspin, a community of about 45 owner occupied and 30 social rental dwellings in The Hague, incorporates a communal garden and a pond that acts as a gray water treatment, common laundry facilities, a shared event space, a café, and a workshop. While Vrijburcht in Ijburg, Amsterdam has a program containing 52 dwellings, 16 workspaces, a theatre, a restaurant, a care centre for mentally ill children, a daycare, guest room, a greenhouse, central common garden, a workshop, a small harbor and a sailing school.

It is these additional functions that make Collective Private Commissioning projects special. They provide a range of activities for a vibrant and active neighborhood.

The collective facilities strengthen and maintain the groups formed during the design process. There is a scientific link between CPCs and strong social cohesion and it appears to be strongest where communal amenities are present(Boelens & Visser, 2011).

Group forming, which is the foundation of social sustainability, depends on the process of CPCs and afterwards on the built collective amenities. Group forming however is related to environmental sustainability as well. While environmental sustainability is not usually a priority in people's minds when starting a CPC project they are not against it, and embrace environmental measures that also have positive social and economic effects (Sanders, unpublished). Fred Sander's PHD research (unpublished at time of writing) indicates that group forming can lead to the adoption of environmental measures and vice versa, adoption of environmentally sustainable measures can lead to group forming. The connection between the two is made through what Sanders calls "package deals", a number of design features that are grouped together into a package that is overall desirable. These packages can be collective amenities or meeting places that perform several functions for the community. For example, wetlands serve as a collective park that is low maintenance, a waste water treatment, provides recycled water for laundry, is a habitat for wild life and gives residents a feeling of being closer to nature. Therefore packaging sustainable measures within collective amenities can lead to both social and environmental sustainability.

4. 3. THREE CPC PROJECTS IN FOCUS

CPC groups often have different motivations and ambitions and this reflects in the varied products of the CPC development process. There are wide variations in terms of their size, environmental measures adopted, collective facilities, type and diversity of dwellings etc. In order to illustrate these differences while still revealing the underlying process three CPC projects will be described below.

REITDIEP 'T DORP

Reitdiep 't Dorp (Reitdiep Village) is located in a suburb at the northern edge of Groningen as part of the Reitdiep Hemeweerd, a neighborhood plan where the municipality had reserved 1 lot (for 13 dwellings) for CPC and about 200 for PC projects. The group got off to a rough start as the individual lots adjacent to the site seemed to offer more quality and freedom for the price. People would regularly

Figure 49. Rietdiep 't Dorp street becomes an area for playing (source: zwartehound.nl)
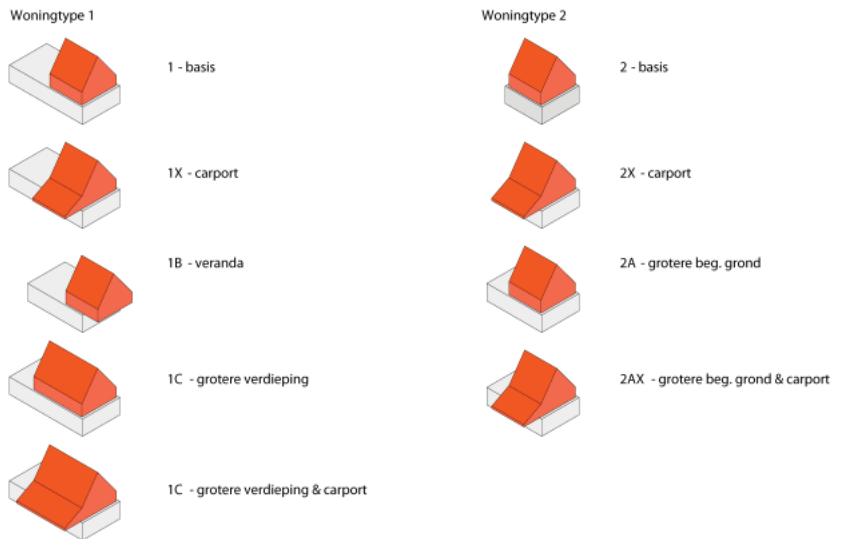
Figure 50. Reitdiep gray bases and orange roofs unify the project (source: zwartehound.nl)

Figure 52. The masterplan of Reitdiep 't Dorp made up of 21 detached homes. (source: zwartehound.nl)

Figure 53. Right - The Reitdiep typologies allowed for customization while maintaining a unified visual language (source: zwartehound.nl)

Links:
http://www.iceb.nl/voorbeeldprojecten/project.asp?code_prjc=8352

http://www.kuub.info/project.php?id=20#.UPV83WeDmSo

Uitbreidingsmogelijkheden

Woningtype 1

1 - basis
1X - carport
1B - veranda
1C - grotere verdieping
1C - grotere verdieping & carport

Woningtype 2

2 - basis
2X - carport
2A - grotere beg. grond
2AX - grotere beg. grond & carport

switch from the collective group to buying individual lots.

However the core group decided to go ahead and hire an architect and together, under the theme "A detached house for the price of a townhouse" developed a masterplan made up of intelligently oriented and accessed detached houses based on two basic typologies (Figures 52 and 53). The typologies are characterised by shared orange steeply pitched roofs and gray brick bases. This formed a unified plan and created the feeling of a village. However, on the inside the houses are fully customised to the wishes of the residents in order to achieve the different price levels of each resident.

This plan proved very popular and from 13 the group grew to 21 members and a waiting list. This required the changing of the plot layout and the addition of a street but it made the houses even more affordable. The project was finally completed in 2006 and consists of 21 detached homes from €180,000 - €300,000 (www.iceb.nl accessed January, 2013.)

Reitdiep 't Dorp is an example of the most basic idea of a CPC process in its clearest form: people forming a group in order to achieve together what they could not individually. There are no social or environmental ideals or motivations, and the result is practically a group of well-designed, customised suburban houses with a common visual identity. However, unlike in a standard suburb, Rietdiep has formed a stronger community because of the participative planning process, and the social ties are more likely to be maintained as the residents are less likely to move out.

Vrijburcht

Vrijburcht is located in Ijburg, a man-made island near the centre of Amsterdam. The initiative came in 2002 from a group of friends and Hein de Haan, an architect with experience in forms of collective planning and design. Hein de Haan became also the main consultant managing the group through the process, the project architect (as part of CASA, the architecture firm he directed), and a resident of the project.

Vrijburcht is an example of a CPC based on practical motivations that results in significant collective amenities. It was initiated because the members wanted to have an affordable home near the center of Amsterdam that also accommodated

Figure 51. Common courtyard of Vrijburcht, Amsterdam

Figure 54. Vriburcht south facade with the dock and cafe on the corner.

Figure 55. Vrijburcht program:

- 16 work spaces
- theatre (movies or performances)
- restaurant/cafe
- common house for mentally disabled children + house for their caretakers (social rent)
- children's day care center
- guest room
- green house (now used as a winter garden)
- common garden
- workshop
- dock and sailing school

(source: de Haan, 2011)

Links:
http://www.vrijburcht.com

needs such as a home office, disabled children etc. They could not find what they were looking for in the market and took advantage of the fact that the Amsterdam municipality had reserved a little space for CPC projects in the Ijburg development.

"Cheap square meters", as de Haan said, were the priority, so both the process and the design were optimised for savings. Only the absolutely necessary consultants were hired during the process as many of the tasks were taken on by the members of the group. The members also financed the whole process themselves until the beginning of construction. The "De Key" housing association was used as a backup partner for unsold units the cost of units was kept carefully under control in order to qualify for certain subsides. The design opted for standardized concrete structure that allowed individual infill. Long and narrow units were used so that as many people as possible could have a window on the south with a view of central Amsterdam over the water. Working units were combined with living units but were given separate addresses in order to qualify for tax breaks.

The group calculated the money saved through all the measures and decided to use half of that amount towards funding collective facilities and the other half keep as savings. Vrijburcht has only 52 dwellings but has a very extensive list of facilities (Figure 56). There are some collective activitiies but not very often. Usually groups of residents that share interests (sports, or children of the same age) will organise activities for the community. Most of the management and maintenance of the complex is carried out by volunteered retired residents or others that have a specific interests, such as a landscape designer that takes care of the common garden. Other maintenance work is contracted out. Environmental sustainability was not a significant issue for Vrijburcht.

Eva-Lanxmeer

Eva-Lanxmeer is a district in the municipality of Culemborg that is based on ambitious environmental goals and participative development. It is a CPC on a grand scale. The project includes a masterplan for at least 250 dwellings, parks, ecological farming, office space and work-live units, a school, community center, an education center on ecological building, and recently the addition of a zero-energy conference center and hotel to accommodate the intense interest the project has generated around the world.

It was initiated by a core group of 12 people in the early 1990s trying to define the requirements for a sustainable neighborhood on a human scale. In 1995 they
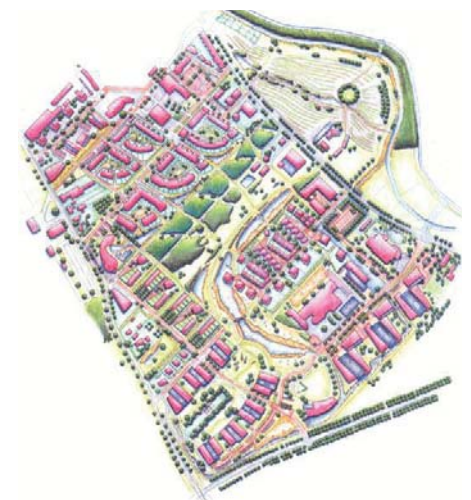

Figure 56. EVA-Lanxmeer masterplan showing houses organized in groups and surrounded by collective green space, a central park, a communal farm and a "town center"

Figure 58. EVA Center - Information Center on Sustainability with conference center, hotel, and Spa & Vitality facilities. Designed by Arjan van Timmeren as a "Living Machine".

Figure 57. Right - Dwelling units arranged around collective courtyards, with private backyards in EVA-Lanxmeer

Links:
http://eva-lanxmeer.nl
http://www.kwarteel.nl

Figure 59. Kwarteel - cohousing for seniors in EVA-Lanxmeer

Figure 60. Kwarteel - collective courtyard between two banana shaped wings.

published the EVA Concept, based heavily on the "People, Planet, Profit" paradigm. It aimed to create architecture that was in relation with landscape, integrate functions, use sustainable building materials, provide sustainable water and energy supply, reduce car usage, involve future inhabitants, and provide education and advice on sustainable building.

With this concept the EVA group approached the municipality of Culemborg which had already demonstrated interest on the topics of EVA Concept. In addition the municipality of Culemborg owned a large site that could not be built on (except with very strict environmental restrictions) because it was an aquifer providing water for the city. Together, the municipality and the EVA Foundation developed an urban plan according to the EVA Concept which was completed in 1997. It essentially outlined an ecovillage inspired by permaculture design - the idea that water, material and energy systems are integrated and create closed life-cycles.

The urban plan was large and envisioned many different initiatives within it, in addition to the EVA founders' homes. The first phase of construction completed in 1999 saw 55 dwellings go up. Since then several more housing as well as commercial projects have been built. They all have in common the participatory process and the ambitious ecological design.

Of particular note is the Kwarteel project - an example of how CPC process can produce a cohousing community. It was initiated by a group of friends, all over 55 years old, who wanted to live independently as long as possible in old age, and to encourage strong social bonds in order to avoid the crushing solitude when one's partner passes away. It is designed in two banana shaped wings wrapping around a collective courtyard crisscrossed with walking paths. The wings contain 11 and 13 dwellings each and are connected by the common house which contains a kitchen, a party room and a laundry room. All facilities are collectively managed by the members. When its social focus is added to EVA-Lanxmeer's ecological and participation requirements, Kwarteel becomes very much a Cohousing project.

4. 4. Comparing CPC with Cohousing

Williams identified the weaknesses of cohousing in the USA through the innovation diffusion theory. The implication is that if these challenges were mitigated, cohousing could become mainstream. However, in the Netherlands Collective Private Commissioning has already proven to be more popular than Cohousing. In order to find out what makes CPC more appealing to the Dutch, it can be compared with cohousing.

To make the comparison valid, CPC and Cohousing must be compared on their relative performance on the same set of parameters. In other words, to compare apples with apples and oranges with oranges. Therefore CPC is analyzed using parameters directly derived from the weaknesses of cohousing identified by Williams (2008) as described in Chapter 3.5.

The Parameters of investigations:

- Time and financial commitment

- Finding sites

- Perceptions of the collective and social labels

- Associations with past experiences

- Private space

- Privacy

- Individualism and freedom

- Communal Post-occupation activities

- Process complexity

- Diversity

- Lifestyle differences

- Marketing strategies

- Path dependency

  - Process familiarity

  - Expertise needed

Experts were questioned in semi-structured interviews (as described in chapter 1.5) on the above mentioned topics to establish whether CPC performs better in these areas and why (see appendix for the interview topics as well as the list of experts interviewed). In the end the experts were also asked a general question on why they think CPC is much more appealing to the Dutch than Centraal Wonen. The opinions of experts were triangulated with quantitative and qualitative data from 10 years of experiments with self-building (*Zelf-bowen in Nederland – 10 jaar experimenteren*) by SEV published in 2010 and other literature sources. The results are displayed in the in the table on the next page (Figure 60).

4. 5.   CPC ADVANTAGES OVER COHOUSING IN THE NETHERLANDS

Predictably, Collective Private Commissioning and Cohousing have similar difficulties in areas relating to the collective planning process which they have in common, such as significant time and financial commitments, difficulties securing land, process complexities and path dependencies.

Figure 61. Comparison of Cohousing and CPC according to parameters derived from Williams' analysis.

While at present there is relatively little awareness among average Dutch home buyers of CPC, the quickly developing marketing strategies of CPC reveal the rising support and involvement from government, non-profit organizations as well as the

Parameter	Cohousing	CPC
Time & financial commitment	High and necessary commitment	High and necessary commitment
Finding land	Difficult to compete with developers and can lead to NIMBY resistance	Difficult to compete with developers but NIMBY resistanceis less likely because of less negative associations
perception of the collective /social housing label and preconceptions of collaborative housing	Negative perception and negative associations with fringe social groups or with cults	The collective is less visible (only part of the process) or important. Can be associated to positive self-build traditions
Private space and privacy	Designed so that one can retreat into private space. Usually smaller private units and no individual back yards but gradients of privacy	Little difference from standard housing choices.
Involvement in post-occupation activities	Temporary withdrawal is possible, but overall it is necessary and demanding	Members can choose to manage themselves or hire outside contractors, or a combination.
Individualism and freedom	It is a lifestyle where community is a very important component. Individuality is still protected, but is considered an evolution of communal ideals from the 1960s. Community is the goal.	An extension of self-build traditions, not a lifestyle. Community develops inadvertently through social interaction during process, rather than a conscious choice. Individual housing is the goal.
Privacy	Privacy is actually protected, but perception from outsiders is that it is not.	Privacy protected and perceived so by outsiders.
Development Process	Complex	Complex
Diversity/Inclusivity	Diversity is a goal, but the vast majority are white middle age, middle class, professionals.	Diversity is not always a goal. Past CPC members have been largely the same as Cohousing members, but in the last few years CPC have become really popular with starters and seniors.
Lifestyle differences and Try-before-you-buy	Significantly different lifestyle to standard neighborhood. Rarely implemented rental units which are needed to showcase the benefits of the lifestyle.	It is a process not a lifestyle, so trial of lifestyle is not necessary. The process can be tried with very little risk.
Marketing strategies	Underdeveloped marketing, but has national networks and much academic literature on the subject espousing its benefits.	Underdeveloped as of yet, but quickly developing because of involvement from private and public organizations as well as startup companies trying to promote and facilitate the process.
Process familiarity	Unfamiliar process	Unfamiliar process
Delivery structures and expertise	Different from established process and has strong need for expertise	Different from established process and has strong need for expertise

private sector. The city of Almere has set aside large plots of land for PC, CPC and MO developments and has turned Homerus Quartier, a new section of the city, into an experimenting ground for such projects. It has also formed a separate organization to help streamline the development of (C)PC projects. Besides rising interests from architects and builders, CPC has attracted a host of start-ups offering services such as matching land owners with CPC groups, or websites that aid in forming CPC groups. Even commercial developers have taken note, seeing a potential for profit making, and are participating in CPC projects in order to learn about the process and find business opportunities. Sanders notes that future housing development could shift to a "development for a fee" model whereby developers charge a fee for managing the design and construction process of a CPC rather than the current model of making a profit after the sale of speculative real estate.

The involvement of these groups is also chipping away at the practical difficulties mentioned earlier by doing things like providing easier process and construction financing (by Rabo Bank and government subsidies), simplifying the process through experienced consultants (such as De Regie), and making the securing of land easier through non-profit middle men (CPO NH) or using architects as initiators (Hein de Haan Architekten).

CPC displays clear advantages to Cohousing in the areas relating to image and cultural affinity. From the very beginning motivations for joining CPC groups are often quite practical and much more in tune with current cultural values. By being simply a process and not having ideological attachments CPC can largely avoid the negative perceptions of collectivity and social collaboration and instead draws positive associations with its origins, the self-build traditions. This removes what is a key stumbling block for the diffusion of cohousing according to Williams (Williams 2008).

The lack of ideology also allows easy introduction to CPC for people who are not necessarily looking to build a strong community or live a collaborative lifestyle. But because of the collaborative process of CPC, social cohesion and deeper relationships with neighbors are inadvertent results. These are perhaps not as strong as social relationships in cohousing communities which bring together people who are committed to living in a positive social environment. But they are broader and more diverse because they allow in people who would otherwise have hesitated being part of strongly connected community, but later discover its benefits through personal experience. The social relations are more diverse also because unlike Cohousing CPCs are popular with lower income groups like starters and young families, although diversity in itself is rarely a goal.

When a strong community is a positive side effect rather than a predetermined goal, the fears of loss of freedom and individuality to the group are minimized. If CPC is associated with traditions of self-built homes which are emblematic of individuality, freedom and identity in housing, the fears individuality loss are lessened further. In CPC day to day management of the community doesn't have to be done by the residents themselves, as it is in cohousing. The freedom to choose whether to help out or hire an outside firm reduces the perception of signing up to a collaborative lifestyle which can have negative connotations, but it also reduces the ability to maintain strong social cohesion a long time after building completion.

Overall, Collective Private Commissioning offers a model of development that is more acceptable than cohousing to the general population due to its closer cultural affinity with both the current society and emerging social and environmental values. Cohousing promotes stronger social cohesion and is more consistently

environmentally friendly. CPC projects display social cohesion that, while not as strong as in cohousing, is a significant improvement over standard neighborhoods. In terms of environmental measures, CPC projects can range from highly sustainable integrated neighborhoods to simply better insulated homes. Cohousing and CPC share the same weaknesses that relate to their collaborative planning process, although the regulatory and business environment around CPC is rapidly improving.

4. 6.   Conlusions

This chapter has introduced Collective Private Commissioning (CPC) as an alternative to Cohousing based on its significantly higher level of adoption in the Netherlands and its ability to produce communities with similar levels of social cohesion and environmental sustainability. Collective Private commissioning is differentiated from Cohousing in being defined only as a process, leaving out all the social and environmental preconditions that come with Cohousing.

When the diffusion of CPC and Cohousing are assessed through the same parameters, derived from Williams' analysis, the differences between CPC and Cohousing are brought into high relief. In general, CPC is more popular in the Netherlands than Cohousing because it is a more open form of development. By being strictly a process, CPC can be attractive to anyone who, in order to build their own home, is willing to pool resources and collaborate with a group of people. CPC is a mode of development that is more malleable and can be used to achieve a wide variety of goals. Cohousing, on the other hand, places preconditions on the final product and therefore limits the field of interested people to those whose goal is to build a socially oriented and environmentally friendly community from the start.

In essence, by being more open to interpretation, CPC has established a stronger cultural affinity than Cohousing in the Netherlands. However, the question remains whether the advantages of CPC over Cohousing in the Netherlands would also translate into advantages in Canada.

5 - COLLECTIVE PRIVATE COMMISSIONING IN CANADA

5.1. CPC DIFFUSION IN CANADA

The previous chapter has explored the similarities and differences between Cohousing and Collective Private Commissioning in the Netherlands and has attempted to explain the reasons behind the faster and deeper diffusion of CPC as compared to Cohousing. The question remains whether the factors behind CPC popularity in the Netherlands would also make CPC a successful model for sustainable redevelopment of suburban housing in Canada.

The comparison of CPC with Cohousing in the Netherlands was done by using the weaknesses of cohousing as identified by J. Williams as parameters of investigation. In other words, the comparison revealed in detail which cohousing issues are present in CPC and to what extent. Returning to Williams' original analysis - using the factors of innovation diffusion as outlined by E.M. Rogers, i.e. relative advantage, compatibility, complexity, trialability, and observability - the results of the research from the previous chapters are assembled into an estimation of CPC strengths and weaknesses if applied in Canada (Figure 62 and 63).

The relative advantages of CPC include social prestige which comes from the value assigned to the ability to build one's own home and from the uniqueness of the design (as in cohousing), without being associated with collective label or collective

Figure 62. Strengths of Cohousing and CPC in Canada in terms of factors of innovation diffusion

Diffusion Factors	Strengths	
	Cohousing*	CPC
Relative Advantage	Economic benefits and satisfaction	Economic benefits, satisfaction and social prestige (from building one's own unique home)
Compatibility	Consistent with emerging values and needs [social and environmental sustainability]	Mostly consistent with current values and needs (individualism, freedom) and easily adaptable to emerging values and needs (social and environmental sustainability). No negative past experiences.
Complexity	Less complex models emerging.	CPC makes considerable use of external consultants and experts to simplify the process. It can attract the interest of entrepreneurs and businesses who offer services for a profit (especially in a weak economy)
Triability	Open events and activities in cohousing communities enable potential adopters to trial the lifestyle to an extent. Strong informal social networks between communities also helps to develop greater understanding of what it means to live in a cohousing community	CPC as process is partly familiar as it is related to PC. People can also get involved for part of a CPC process and then choose to continue or not. CPC is not a lifestyle and therefore there is nothing to try in that regard.
Observability	Interaction between cohousing communities and surrounding neighbourhoods has resulted in the incremental growth of some communities	The potential for involvement of real estate professionals allows the CPC to gain from their marketing resources and expertise. Direct observability of CPC results is possible through interaction with immediate neighborhood

* Cohousing strengths as presented by Williams (2008) in Table 8, pp. 280.

Diffusion Factors	Weaknesses	
	Cohousing*	CPC
Relative Advantage	[Financial and time related] Convenience and social prestige	Financial and time related convenience
Compatibility	Not consistent with existing dominant values and needs	Partly inconsistent because of collaborative process.
Complexity	Cohousing is complex to understand. It also requires a great deal of resident expertise in production and operational processes	The CPC process is complex to understand and carry out, requiring a great deal of knowledge by participants and professionals.
Triability	Lack of rental units in communities reduces potential for trailing the lifestyle before committing to it	Most people have had little previous experience in participative planning.
Observability	Commercial marketing strategies are underdeveloped	CPC, as a process, is not directly visible. It must be explained.

* Cohousing strengths as presented by Williams (2008) in Table 8, pp. 280.

Figure 63. Weaknesses of Cohousing and CPC in Canada in terms of factors of innovation diffusion

life styles. Private space is CPCs is also not necessarily smaller than standard developments of similar type. Both CPC and cohousing share the inconvenience of high financial and time commitments. CPC, as a process with no preconceived results, can accommodate both current and emerging values. However the collaborative aspect of the process can be partly incompatible with individualistic attitudes. CPC and Cohousing share the same complex and knowledge-demanding process, however CPC has shown it can attract the attention of, and makes extensive use of, private parties - from consultants to entrepreneurs - who can simplify the process and guide members. While triability is an important factor for cohousing, it has little effect on CPC since it is not a lifestyle and therefore cannot be tried. When considered as a process, CPC groups are relatively open and people can join and leave (i.e test) the group even in the late stages and with little risk. The same can be said for cohousing since the process is very similar. Even though the products of CPC are as observable as those of cohousing, the CPC process is not directly visible and it must be explained, thus hindering the spread of the idea. However, CPC can build up better marketing strategies because its main selling point is the same as that of PC. In addition, because of the higher potential for involvement by private parties it can gain from their marketing resources and expertise.

5.2. CPC AS A VIABLE OPTION FOR THE SUSTAINABLE REDEVELOPMENT OF MATURE SUBURBS IN CANADA

As established in the previous chapter, CPC projects tend to have similar sustainability credentials as Cohousing, and perform much better when compared to standard neighborhoods. This is largely due to the CPC collaborative process and the fact that unlike a commercial developer people are often willing to invest in environmental measures such as energy efficiency and collective gardens when building their own (dream) home. Since these characteristics are inherent to CPC, there is no reason to believe that they would change in the translation to the Canadian context.

It is worth noting that compared to the Dutch, Canadians generally see housing more as an equity investment than a home to inhabit, which could result in reduced willingness to invest in environmental measures with very long payback periods or features that do not have a direct influence on property values. However, in the Netherlands CPC residents exhibit much lower tendency to change homes than the average population. After going through the effort of the long CPC process, and realizing their dream home, few see a reason to move. In addition, CPC residents in the Netherlands seemed more concerned with improving the quality of their living condition and were not aware or did not care that this investment also improved the market value of their home (Boelens & Visser, 2011). The financial crisis has revealed the problems of using the home as an investment and the cooling real estate market in Canada is removing the incentives of doing so. As F. Sanders noted, CPC is a recession product and becomes more appealing when people are focused on the quality of their housing. The focus shift from quantity to quality that has taken place in the Netherlands since the crisis has not (yet) happened in Canada. Such a shift would be favorable to the diffusion of CPC.

The key advantage of CPC process over Cohousing is its closer affinity with current as well as emerging social and environmental values. The fact that CPC is only a process and does not espouse a collectivist ideals, but rather focuses on placing future inhabitants in control of their own housing, would be even more important in Canada than in the Netherlands. Attitudes toward citizen control and self sufficiency are stronger in Canada than in the Netherlands. Since collective private commissioning is an extension of private commissioning - a well known and desired form of development in Canada, CPC would avoid bringing up images of strange cults and extreme collective lifestyles (however inaccurate) that dog the cohousing movement. Instead it can align itself with the practice of building one's own home, an established and ongoing Canadian tradition, emblematic of Canadian "pioneering spirit", individuality and freedom.

The values of individuality and freedom are further appealed to by the fact that in a CPC there are no expectations or obligations to participate in the management of the community after construction. Some may feel much more comfortable paying for services than spending the time or effort themselves. This would not cause strain in the CPC community as it would in cohousing, where regular participation in community management and maintenance is seen as key to maintaining cohesion.

The formation of a well-connected and supportive community as a preset condition on the final product, a central tenet in Cohousing and a key attraction for its members, is something that turns off many Canadians before they even give it a try. CPC is only a process and has no preconditions or necessary characteristics for the final result. The motivations as well as the result are all up to the members. This would be an appealing situation for many Canadians and would widen the range of demographics that can see CPC as a solution to their housing issues.

The removal of social ideals has other benefits as well. In cases when several owners assemble their plots (as in the Fernwood Urban Village project) to build a CPC, it would allow them profit from the increased value that their land would gain because of the assemblage. This would be an important financial incentive for encouraging the redevelopment of post war suburbs through a CPC, and it can be strategically boosted further by changes in zoning regulations.

Compared to Cohousing, CPC developments would probably be better received by both NIMBY groups and municipalities who would be reassured by the fact that local homeowners are involved in the process and that the CPC is not perceived as

some fringe social group that would cause disturbance in the neighborhood and lower property values.

In summary, the advantages of CPC to Cohousing in the Netherlands appear to be also advantages that would give CPC an edge in Canada. Some of them, like avoiding negative perceptions and associations with fringe or outdated collective lifestyles, lessening of fears of loss of individuality and freedom, and eliminating expectations of time and effort spent on collective management of the community, would probably be even more effective in Canada than in The Netherlands. They are the sort of improvements that Williams suggests are need for the broader diffusion of cohousing, but are inherent to the working of collective private commissioning. As a result it can be argued that the CPC concept would have a more successful diffusion in the Canadian context than Cohousing has so far. By becoming more popular, and offering similar benefits to social and environmental sustainability, CPC can have a more significant impact on the redevelopment of post war suburban housing, and on cities at large.

The use of CPC developments is certainly not the only way to guide renewal towards sustainable neighborhoods. It is however a method of development whose built examples in Netherlands exhibit a clear superiority in terms of social and environmental sustainability when compared to standard housing developments nearby. The CPC concept has demonstrated that it is more popular than cohousing in the Netherlands because of cultural issues that should also resonate in Canada. However CPC is not a process for everyone and as such it can be limited in the scale of applicability therefore it is not intended to be a replacement of standard modes of development, at least not in the foreseeable future, it is only an additional development instrument.

5. 3.   A CPC in the Toronto suburbs

For a CPC project, the initiation phase of the process is very important as about 3 out of 5 groups fall appart at this stage (Sanders, interviewed December 2011). At this stage a core group of people give birth to the basic idea and intentions of the project and, crucially, secure an appropriate site where the project can be developed. This has to happen before the recruitment of more members begins and any concrete planning discussions take place. Securing a site for the project is often the single most difficult part of the process because CPC groups (as with cohousing) must compete with professional property developers who may have more resources and often higher ambitions on land development.

In the case of suburban redevelopment, Collective Private Commissioning may have an edge in this area since the land is compartmentalized and already in the hands of individuals. It is difficult for developers to assemble large sized lots because buyouts often run into a few people who hold out at the end and demand very high prices for their property. A CPC group can be formed by existing residents - neighbors brought together and spurred into action by a combination of the existing conditions of their properties and the basic motivations for a CPC discussed earlier.

As described in Chapter 2, the existing state of Toronto midtown suburbs is characterized by old houses in bad technical conditions and high property values. Naturally, most of the value of the property is in the land, encouraging heavy renovations or rebuilding of homes. Because of the lot sizes the new homes are either very large McMansions or two smaller homes (Figure 64). This however, does

Figure 64. Two new homes replace a post-war bungalow in Ottawa.

old house

mc mansion

2 new houses

house
land

house
land

house
house
land

Figure 65. Possibilities of single lot redevelopment showing that the total property value can increase but the value of land stays the same.
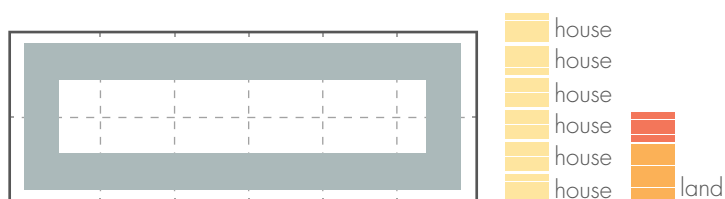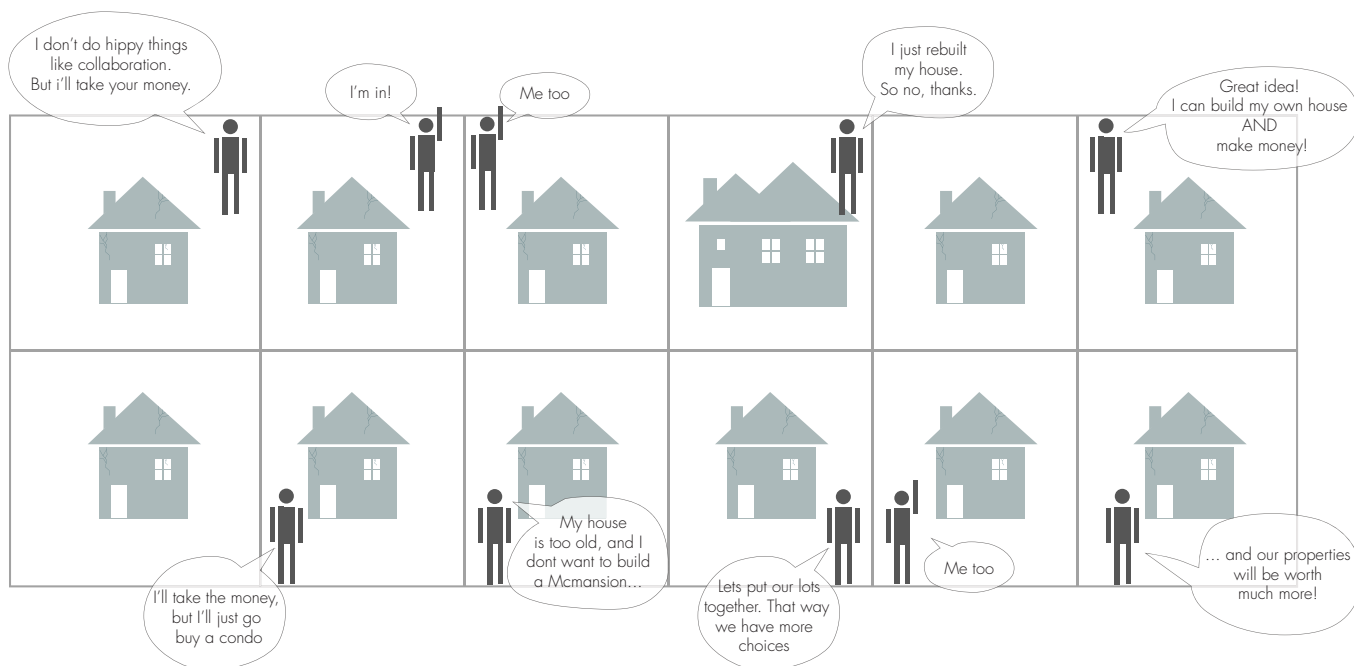

house
house
house
house
house
house
land

Figure 66. By building more dwellings as townhouses or apartment buildings land is used more effectively and its value rises.

not take full advantage of the land and its location. It is well known that the value of land derives from what can be done with it, and in the realm of development, what can be built on it. The higher value of construction on it, the higher the value of land. By assembling their lots, residents would open up new possibilities for higher density typologies that would dramatically increase the residual value of their individual property (Figures 65, 66).

The financial incentive by itself can be a powerful motivation factor in encouraging assemblage which would allow the development a CPC project.

Consider a possible scenario. Current residents of about 12 neighboring houses realize that their homes are in need of major renovations or may even need to be rebuilt, and that most of their property value is in the land rather the home itself. Some want to downsize but do not want to move out of the neighborhood. They understand that building a new small dwelling on a large valuable lot would be big waste of money, but they do not need a 300 m² McMansion. Others see an

Figure 67. Neighbors discuss the assembly of land and formation of a CPC.

opportunity to replace their current house with the house of their dreams, without spending any money, and maybe even making a profit. Others still, do not want to get involved in something that they do not have any experience in and do not worry much about the quality of their housing, but are happy to sell their home for a significant premium and move elsewhere. Finally, some neighbors who have recently rebuilt their homes see no financial or other incentives to participate (Figure 67).

The neighbors decide to pool together their lots into one large parcel that can built to a much higher density, thereby gaining the opportunity to design and build a new home while significantly increasing the residual value of their property. A core group of enthusiastic people establish a vision for the new development and form a jointly owned foundation that acts as a (non-profit) property developer. They advertise and recruit new members in accordance with their vision. Together they develop the design until it is ready for constuction. At this point money and property begin to change hands. The original owners complete the sale of their property to the CPC foundation in exchange for a 5% premium over its appraised (market) value. Those original owners that did not want to be involved in the CPC take the money and buy a house somewhere else. Those who stay on, together with the new members, make a financial commitment to the foundation through an option to buy contract. Once the construction is complete, the foundation sells the units to its members. The original owners contribute some or all of the value of their old property into the new one.

A pro forma calculation of the above scenario for a location in midtown Toronto, based on a pro forma calculation for the city of Toronto's own plan of redevelopment along the main avenues (Kozak, 2005), suggests that 10 adjacent neighbors can sell their properties at a 5% premium over the market value to a CPC group. On that land the group can manage the design and building of about 87 units (at an average of 120m^2) as well as extensive interior and exterior shared facilites (about 4000m^2). In addition to the quality, it could all be realized for a price below the market value. The full calculations can be found in the Appendix "Pro Forma Calculations".

Figure 68. The core group of original home owners establish a CPC foundation, establish a vision for the project and then recruit new members as necessary.

new members

core group

Most of the fictional scenario proposed above is similar to what happened in the Cohousing project of Fernwood Village in Victoria, BC. However, the lack of collective ideology and open ended results of a CPC process allow for new participation incentive - profit. While it may be considered "morally unseemly" to sell your land at a significant premium to your own Cohousing group, it is less likely that such a move would provoke negative reactions in a CPC group where participation is based on more pragmatic reasons. In other words, the current residents can take advantage of the increase in the residual land value that comes as a result of the assemblage, encouraging those who would otherwise hesitate, to join the CPC group. Moreover, some neighbors can agree to simply sell the land to the CPC group at a premium, while deciding not get involved at all in the group, a win-win transaction.

The direct financial incentive on existing owners towards land assembly can avoid
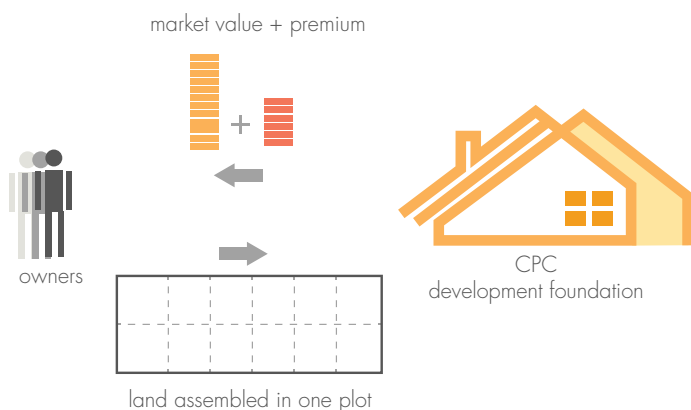
Figure 69.Original homeowners sell their lots to a CPC foundation in exchange for getting paid a premium on top of the appraised market value of their home.

Figure 70. Some of those original owners decide to become members of the CPC to build new homes with recruited members. Other owners simply take the money from the sale and move out.

Figure 71.The CPC foundations acts like a jointly owned property developer and once the homes are built it sells them (at cost) to the members.

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many of the difficulties associated with standard land acquisition by a developer. The current owners are in the role of both sellers and (to a lesser extent) buyers of the land where their new dream home will be built. This dual role can lead to a more responsible development, one with a better balance between underdevelopment (as is the case currently with the building of McMansions) and over-development (as is often the case with projects from profit driven developers). The direct involvement of current owners in the process also reduces the negative aspects of gentrification by maintaining local social networks and allowing existing owners to profit from their own property. These owners form a very motivated core group which facilitates the attraction of new members and group formation.

5. 4. SURVEY

The previous section has closed the loop back to the Toronto suburbs. It takes the dynamics of housing choice as related to CPC and Cohousing in the Dutch market and attempts to project a likely scenario of these dynamics into the Canadian culture and Toronto market. Despite the careful reasoning this is, of course, a leap that is made through a judgement partly based on personal experience and can have many pitfalls. Therefore it was decided to undertake a survey of Toronto residents in order to test some of the assumptions above and to arrive to a better understanding of the main conclusion's validity, that CPC would indeed be preferable to Cohousing.

SURVEY DESIGN

The strategy of the survey design was to try to understand the respondents' preferences on the features of CPC and Cohousing before the concepts are actually mentioned and evaluated. This was done in order to elicit preferences that can be affected by terminology or preconceptions and associations that might occur when "Cohousing" or "collective" or "social" are mentioned.

To this end, the survey was divided in 5 sections and used multiple choice questions, long answers, and vignette methods. The first section gathers general data on the respondents such as age, income, household, type of current residence etc. Section 2 tries to find out whether the respondents see a need for a new form of development by asking whether they are satisfied with their current living conditions and with the options available in the market. Section 3 attempts to understand the respondents' affinity for the features typical of CPC and Cohousing such as involvement in design, cooperation and compromise with neighbors, attitudes towards private and shared spaces, individual freedoms and community obligations such as post-occupation activities. While section 3 uses written descriptions to incite judgments, Section 4 makes use the vignette method towards the same goal.

The vignette method is used for two main reasons. Firstly it opens the possibility to open discussion a new topic that the respondents find important but that may not be included in the prepared questions. Secondly, the pictures, which are taken from real CPC projects in the Netherlands, are used to offer an image of what "community", "privacy" and "indviduality" can look like in a CPC and elicit responses on those topics without tainting them with descriptions full of loaded terminology. The methodology used for the construction of the vignette section of the questionnaire was derived from a distillation of principles for the design of research using vignettes by the University of Surrey, England (Barter & Renold,1999).

The final section of the survey introduced directly the concepts of CPC and Cohousing

through a short written description and asked respondents whether either of them sounded appealing, which one was more appealing, and whether they would consider getting involved in either (or neither) process in order to build their own home.

The full survey is included in the Appendix.

Survey Results

For logistical reasons and time constrains the survey could not fulfill the requirements of a scientifically valid study. A low number of respondents (n=11), non-random sampling and a non representative sample are the main reasons why results from the survey cannot be considered with scientific certainty and no generalizations can be made. As a result, the survey results became more a tool to "get a feeling" of attitudes towards CPC and Cohousing, with a clear understanding that more research needs to be undertaken in this direction. With this in mind, some of the results of the survey are described below.

The respondents were roughly evenly divided between single young starters and middle aged respondents living in a household with children. All live in urban or semi-urban areas with the majority living in single-family homes which they own. Incomes were also evenly divided between low (less than $40000/year) and middle class (more than $40000/year) but were not related to any other respondent characteristics. In general the respondent characteristics seemed to have no bearing on their answers.

Almost everyone (9/11) is satisfied with their living conditions and a majority is moderately or completely satisfied with market options. four out of eleven are "not really" satisfied. Stated reasons for lack of full satisfaction are price/value ratio and in one case "no sense of community in condos".

Almost everyone (9/11 respondents) is moderately or very interested in the opportunity to design their own home, a specific feature of CPC and Cohousing process. Most are also willing to cooperate and compromise with neighbors in order to get this opportunity.

Despite that most respondents (8/11) see an advantage to sharing spaces and amenities "if there is no loss to private space", there was a luke warm acceptance of the idea of sharing spaces and amenities with neighbors. Several comments brought up the issue of privacy and an acceptance of sharing when private amenities are not individually affordable. This brings out the advantage of CPC and cohousing process in pooling resources to achieve what individuals cannot on their own. When part of a community, the majority of respondents would prefer that participation in collective activities to be optional rather than expected, an attitude that shows preference for CPC communities over Cohousing.

The vignette section of the survey was revealing of the fears of loss of privacy and freedom touched upon in section 3. The 4 pictures of CPCs in Netherlands showing a community life and collective green spaces in row houses elicited a positive response from the majority. For all respondents (including those that said the pictures did not represent an appealing environment) the feeling of community and knowing the neighbors was a positive aspect. However most respondents (including those who found the images overall appealing) expressed a fear of loss of privacy which could come as a result of the tight community or because of the close proximity of

houses. The pictures showed row housing which is a higher density typology that is not very common in Toronto (a city that has shown a preference for either highrise condominium towers or detached single family houses, with little inbetween) and may have caused the impression of loss of privacy through proximity.

The second group of vignettes was employed to understand respondents attitudes towards collectivity and individuality. Most respondents (9/11) found the images to show moderately or strongly a sense of community. The perception of individuality/ freedom was more evenly split with roughly half respondents feeling that the images "moderately" represent a "strong sense of individuality", while the other half do "not really" feel that is the case. The comments indicated again a fear of loss of privacy and insisting on the private space which was perceived lost because of the collective courtyard. The façade uniformity of buildings in pictures 3, 4, and 5 was not mentioned but a preference was shown for pictures 1, 2, and 6 which show more interesting architectural solutions around the courtyard.

Once the CPC concept was introduced, the process sounded moderately (6) or very (4) appealing to 10/11 respondents and 1 person found it "not really" appealing. The majority of respondents (8/11) would be happy if a CPC was started in their neighborhood while 3 said they would not be happy about it. This indicates that a CPC has no negative associations and would provoke little NIMBY resistance. However, when asked to state a preference, 5 said they prefer Cohousing more, 3 preferred CPC more, and 4 preferred them about the same. In addition,to build their own home, 5 respondents would consider getting involved in a Coho group, while only 2 would consider a CPC group. 4 would not consider either of them.

These answers seem to be incongruent with the answers from the vignettes which show a preference for features of CPC rather than Cohousing. Despite that both CPC and Cohousing were briefly explained in the survey and that the majority of respondents said they were at least somewhat familiar with Cohousing, it is important to notice that there seems to still be confusion on what CPC and Cohousing really is. In one case a respondent commented that she lives across 2 cohousing buildings which are lowering her house value. This is very unlikely since there are no cohousing projects in Toronto (at least none that are registered on any of the online platforms for cohousing in Canada), and the respondent is probably confusing cohousing with coop-housing, a form of non profit housing development where owners buy a share of the building and the right to live there rather than buying their own unit.

Overall, the survey shows that there may be a stronger affinity with the features of CPC over Cohousing such as more emphasis on the individual and the practical pooling of resources for collective facilities without demanding participation in post occupational activities. However it also points out that even though people in general enjoy the feeling of community and social interaction, they would hesitate to get involved in such communities for fear of loss of privacy and individuality to the group which is an issue for both CPC and Cohousing.

As mentioned earlier, the results of this survey are not scientific and are only to be taken as suggestions for further research. In this regard, a better designed survey that conveys clearly what a CPC and Cohousing is without exhibiting a preference for on or the other might have clearer results. It might be even better for further research to be conducted through focus groups rather than a written survey which can oversimplify the "fuzzy" attitudes people have towards concepts of privacy, collectivity, sharing and individuality.

6 - CONCLUSION

6.1.   ANSWERING THE RESEARCH QUESTION

THE MOTIVATION

This research was motivated by a feeling that the current redevelopment of Canadian mature suburbs is continuing on an unsustainable path and that there is much we can learn from the effective management of the built environment by the Dutch. While redevelopment is largely unavoidable because of the technical state of ageing homes and market pressures, this in itself is not negative, and may even be positive if managed well.

In the city of Toronto the city planners recognize the challenges it faces such as demographic and lifestyle shifts, shortage of available land to accommodate growth, inadequate housing, inefficient provision of city cervices because of low densities, safety, social distress, degrading environment etc. and the effect that these have on the quality of life of Toronto citizens. This is why the Toronto's 2031 Vision aims to improve the social, environmental and economic sustainability of the city. However, the plan focuses almost entirely on development along main avenues and regional centers and ignores the suburban housing behind main avenues which cover the largest part the city's land mass and are already in the process of redevelopment.

The specific issues that come up in suburban redevelopment such as land ownership, segregated zoning, and regulations on density and form, require careful consideration and engagement. The current situation is leading to the replacement of old bungalows with new McMansions due to land ownership structures and the nature of small scale development among other reasons. The results of such development will be lacking the features of sustainable neighborhoods – socially, economically, and environmentally. The revamped neighborhoods will fail to accommodate the demographic and lifestyle shifts taking place over the next 20 years, and will not lack improvements on an urban scale for the current residents.

Thus, if the renewal of post war suburbs was left to run its course, it will be a missed opportunity to foster social cohesion and environmental sustainability of the housing stock.

THE RESEARCH QUESTION

Preliminary research revealed Cohousing as a potential housing development method that can provide communities with a much higher level of social cohesion and environmental sustainability than the standard development process. Cohousing has as part of its central purpose the creation of communities with strong social relations and social support which it achieves through the participative design and planning process and through heavy involvement in collective activities during the occupancy phase. Cohousing has proven these abilities in Canada, the USA, Netherlands and many other countries. However, since its inception over 40 years ago in Denmark, and over 30 years in North America, Cohousing has failed to widen its appeal beyond a very small portion of the population, where members tend to be white, middle aged, middle class professional workers who have open views towards collaborative lifestyles and often have had some experience with it beforehand.

Collective Private Commissioning is another development process that has shown to have similar social and environmental benefits as Cohousing. CPC shares the collective design and planning process with Cohousing but does not preclude any results. CPC is merely a development process that turns the final resident from a consumer of housing to a producer of their own housing, whatever form that housing

may take. Despite a late start, in the Netherlands Collective Private Commissioning has managed to become much more popular overall and appealing to a wider crossection of the population than Cohousing (*Centraal Woonen* in Dutch).

Therefore the central question for this research was:

> *Can Collective Private Commissioning be a more effective development option than Cohousing in contributing to a sustainable redevelopment of Canadian suburbs?*

The Insights

Several sub-questions, outlined in the introduction and mentioned now in the side text, have been used to guide the process of answering the main research question above. The results of these relatively separate investigations are detailed in the previous chapters and presented below in a unified form.

What are the weaknesses of Cohousing in its application in Canada and how can they be addressed?

A seminal analysis on American Cohousing by Jo Williams, in conjunction with interviews and other Canadian-specific literature, was used to understand why Cohousing had failed to become popular in Canada. Williams' analysis was particularly useful in identifying specific issues within a larger framework - the innovation diffusion theory. In this sense Cohousing is treated as a new technology trying to gain market share in an established housing market.

While Cohousing has many advantages to a standard development model, it was shown to have several key weaknesses which can be grouped into image or perception issues, and practical issues. The practical issues include things like large financial and time commitments, need of substantial expertise, competing for land with developers etc.. Image issues have to do more with the negative perception of Cohousing and what it stands for due to misunderstandings, lack of knowledge, or negative cultural connotations of notions such as collective, social, sharing and compromise.

Williams proposes that these issues can be solved with a combination of top down and bottom up approaches: using the strengths of government and private organizations to deal with practical issues; and using the interpersonal relationships of cohousers with the surrounding neighborhood to increase understanding of cohousing concept. The argument is that if the process is made easier through outside help and if only people really understood what cohousing is about, Cohousing would become much more widely adopted as a housing option.

However, many of the remedies recommended by Williams are already in place in the Netherlands, one of the first countries to use cohousing, and the results are not encouraging. Despite many of the practical issues of cohousing being resolved through the interventions of non-profit housing associations and despite the fact that the Netherlands has a culture famous for its sense of compromise, collective purpose and social welfare, cohousing has remained on the margins. To be sure, these conditions have made cohousing 15-20 times more popular in the Netherlands (in projects-per-capita terms) than in North America. But it is still a very small number of projects and in the last decade support from housing associations and government policy has shifted away from Cohousing and on to (Collective) Private Commissioning.

Collective Private Commissioning, a derivative of the 19th and early 20th century

practices that gave birth to the housing associations, and then forgotten until the 1980s, only really took off in the 1990s with reforms that liberalised housing production and placed emphasis on the independence and self-actualization of the Dutch citizen. Direct government suupport for (C)PC was declared in a 2001 memorandum which aimed to almost double the share of housing produced through private commissioning. While the memorandum had little effect on individual private commissioning the number of Collective Private Commissioning projects soared as skyrocketing house prices forced the budget conscious to pool resources. In only a few years Collective Private Commissioning has achieved higher rates of adoption, over a wider section of the population, than Cohousing has in almost 4 decades.

Some of the reasons for the wider appeal of CPC over Cohousing were determined through direct comparison of performance over a set of parameters. To gather information on CPC regarding these parameters expert interviews were conducted, and paired with results from a quantitative and qualitative study of over 30 CPC projects by SEV (*Stuurgroep Experimenten Volkshuisvesting*). This comparison revealed that, as expected, many of the practical issues such as land acquisition, financial and time commitment, and process complexity are shared between the two forms of development. It is to be noted however that there is a relatively new but significant involvement of the private sector, in addition to the public and nonprofit organizations, offering services that help CPC groups cope with these difficulties. Private sector involvement is very scarce for Cohousing. The financial and economic crisis has limited the space for developing business opportunities and as a result has helped intensify the interest of the private sector in CPC.

CPC exhibits a clear advantage over Cohousing in dealing with image and perception issues. This is in large part because CPC is merely a tool, devoid of ideologically preconceived results, that people can use to achieve a wide variety of goals. The origins of CPC from traditions of self-build housing grant it a favorable perception by people who associate self-build housing with freedom and individuality. However, the collective design process of a CPC which entails significant amounts of negotiation and compromise negatively affects feelings of freedom and individuality. In addition, because of the collaborative process, sometimes CPC is mistaken for forms of collaborative housing such as Cohousing or Eco-villages, which leads to further fears of loss of privacy and individuality. Marcel van Lent of *De Regie* noted that despite significant improvements since the 2001 memorandum, the average Dutch citizen is not really aware of CPC, and often conflate it with Cohousing which they are more familiar with.

 The lack of social or environmental preconditions allows easy access to people who may not be (at least initially) interested in these topics. This does not mean that CPC projects are never formed around social or environmental issues. Sometimes they are. But, often they are formed for more practical reasons and end up incorporating social and environmental issues during the collective design and planning process. Fred Sanders noted that "Noone is *against* environmental sustainability. Some people just have different priorities." (interview December 2011). If an environmental measure does not infringe with people's goals, or has additional benefits (is packaged), then it is incorporated in the project.

Overall, CPC has the advantage of being a more open and malleable model of housing development which allows for a final result that is limited only by the participants themselves. In being only a process, a tool, CPC can be appealing to anyone willing to pool resources and collaborate with future neighbors in order do design and build their own home. This openness and adaptability has allowed CPC to cultivate cultural affinity in the Netherlands.

How does CPC as practiced in the Netherlands compare with Dutch as well as Canadian/American Cohousing?

The advantages mentioned above have resulted in a faster and wider diffusion of CPC in the Netherlands, and it is the opinion of the author that these advantages would retain their value in the Canadian context. Since Collective Private Commissioning is not yet known in Canada, it obviously receives no backing from any public or private organization and therefore many of the services that help overcome practical issues for CPC groups in the Netherlands would not be available in Canada (at least initially). In this sense, the practical problems of process complexity and financial and time commitment would be equally valid for CPC and Cohousing in Canada.

One significant problem for cohousing groups is competing for sites with developers. CPC, when taking place as suburban redevelopment, has the ability to deal with this issue by providing a new incentive - financial gain. The economic advantages of land assemblage, in combination with the desire to build the dream home and other motivations for joining CPC, could encourage existing neighbors in a suburb to create their own plot for a CPC project by joining together their properties. In this way CPC in the suburbs provides a new incentive to join the process - that of profit - and at the same time deals with a critical hindrance to the process.

The advantages on image and perception issues would have the greatest impact in the diffusion of CPC in Canada and could allow it to gain support in areas where Cohousing cannot. Canadians are generally much more liberal and individually minded than the Dutch. Values of privacy, freedom and individually are celebrated in Canada at least as much as in the Netherlands. On the other hand, notions of the collective and the social are more likely to conjure up negative feelings. As such, CPC's lack of predetermined social goals and absence of expectations on participation in collective activities could avoid bringing up images of strange cults and radical collective lifestyles, and CPC would be appealing to Canadians as much as it is to the Dutch.

Through careful phrasing, especially in the first introductions, Collective Private Commissioning can become directly associated with its origins as a collective form of Private Commissioning, i.e self-build housing. The idea of building one's own house is very important in Canadian culture. It brings back nostalgic images of pioneering families and yeoman farmers that settled the country in the 19th century. In Canada building one's own home is often a symbol of pure independence and freedom and something many aspire to. This idea is so integral to Canadian culture that, unlike in the Netherlands, there are laws that protect the right of any Canadian to build their own home even without the professional help of an architect or engineer. In this sense, CPC can claim even closer cultural affinity in Canada than in the Netherlands and, considering that lack of cultural affinity was one the key impediments to diffusion of Cohousing according to Williams, it would give CPC an edge in its pursuit of adoption by the general population.

Many of the points mentioned above are the sort of improvements that Williams suggests are need for the broader diffusion of Cohousing, but are inherent features of Collective Private Commissioning. While CPC can benefit from government support, that is not necessary for its wider or deeper diffusion, in part because CPC has the ability to arouse interest from the private sector as demonstrated in the Netherlands. Relative independence from the public sector is significant in Canada where public policy towards housing is of a "hands off" variety and where almost everything is entrusted to the private sector. As a result it can be argued that the CPC concept would have a more successful diffusion in the Canadian context than Cohousing has so far. By becoming more popular, and offering similar benefits in terms of social and environmental sustainability, CPC can have a more significant impact on the redevelopment of post war suburban housing, and on Canadian cities at large.

ATTAINMENT OF THE RESEARCH AIMS

The aim of this research was to identify alternative models of housing development that could guide the redevelopment of post-war suburban housing in Canada towards more socially and environmentally sustainable neighborhoods. Specifically the goals were to:

- Provide **higher density** (from 10-20 to 50-150 units/ha**)**

- Provide **higher diversity** of dwelling units and therefore higher diversity of inhabitants

- Provide **collective and public spaces** and facilities to foster social cohesion

- Provide **commercial spaces** for economic activity

- Maintain the desired **qualities of suburbia**

- Provide dwellings that can **accommodate future developments** in demographics and living patterns

- Offer **better value** to current owners

- **Include current owners** and future residents who cannot afford to invest in large renovation/redevelopment

Collective Private Commissioning has been identified as a development process which can result in higher density through the pooling of adjacent properties by neighbors; often results in projects with significant amounts of collective and public spaces which in turn foster social cohesion; involves current owners and stems negative gentrification by either including them in the new development or offering financial benefits; often results in projects with a diversity of functions and dwelling units; provides both individuality and community as determined by the residents; and is more likely to result in projects which are mindful of long term changes in demographics and lifestyles. While much of this can also be said about Cohousing, CPC is more likely to be widely adopted by Canadians and therefore can have a larger impact on the issue of sustainable suburban redevelopment.

FINAL THOUGHTS

Despite significant advantages in positive image perception in comparison to Cohousing, CPC is still likely to be dogged by fears of loss of privacy, freedom and individuality, either because of its collective design process or because of misunderstanding of the process and confusing it with other forms of developement (such as Cohousing, Coop housing, Eco-Villages etc.). Such reactions are present in the Netherlands and would probably be more likely to occur and more intense in Canada, as indicated by the results of the survey. Greater understanding of the CPC process through direct experience or information campaigns that exhibit the actual conditions in already built CPC projects could reduce this fear enough to convince participants to join a CPC group. During the design and planning phase much can be done through careful design decisions to affirm and allow room for expression of individuality and freedom, while still promoting collective activities and a social conscience. This line of thought is followed in Part II of the report where an analysis of the meaning of individuality and community in suburban housing leads the way for a design that tries to grapple with the issue and serve as an example case of what a CPC project could look like in a Toronto suburb.

6. 2. Suggestions for Further Research

This research can be seen as having two main parts - an investigation on the advantages of Collective Private Commissioning over Cohousing; and the projection of whether CPC would be a (more) helpful tool in the redevelopment of Canadian post-war suburbs. The second part is partly based on the author's understanding of Canadian and Dutch cultures and a survey which does not warrant confident conclusions. Naturally this leaves a room for researcher-bias (despite efforts to minimise it) and would benefit greatly from verification by other researchers and more in-depth studies.

It would be particularly interesting if the survey conducted for this research was replaced with a rigorous study which can lead to confident conclusions on Canadian's attitudes towards features of CPC as well as their willingness (and reasons) to engage (or not) in a CPC. It is the opinion of the author that a new study use methods such as focus groups and interviews, in addition to or instead of a written survey, in order to better gauge the nuances at play.

It would also be interesting to study the tendency or likelihood of suburban homeowners to organize themselves in groups order to form synergy for constructive purposes (whether it is a CPC group or not), rather than obstructive purposes (such as the very common NIMBY groups). Identifying the drivers that influence constructive group forming in the suburbs and how they relate to CPC could help boost the formation of CPC groups.

One of the premises of this research is that CPC projects in Canada would result in projects similar to those in the Netherlands which have significant social and environmental benefits. The author considers this to be a likely event, however it is by no means a certainty. Investigating the kind of buildings and neighborhoods that CPC projects could result in Canada could a direction for further research.

Finally, the role of public, non-profit, and private sectors in the promotion of CPC in Canada can be investigated based on experience in the Netherlands as well as other countries, such as the German *baugruppe*.

PART II

7 - INDIVIDUALITY AND COMMUNITY

7. 1. Individuality as a Challenge

Post war suburban housing is not an isolated phenomena contrived after the war. While a significant part of its form is a result of housing shortage, demographic situation, government policy and economic concerns, the many ideological principles and expectations in suburban housing can be traced back to the 18th century and the evolution of bourgeois villas. In fact, the basic premise of the suburban single family home is the idea that the home, as the ideal private property, is the basic representation of its owner's individual freedom and achievement, and central to that idea is the notion that the owner is an individual with unique characteristics and the freedom to explore, develop, and express those characteristics.

The view that we are all individuals, that there is a "self", is so embedded in western culture, especially the (North) American culture, that the thought that some time ago people were not individuals seems strange if not impossible. However the notion of individuality is a relatively new one that was developed, as new concepts usually are, at a time of fundamental social and economic changes in the late 17th century England by John Locke.

Locke was part of a philosophical movement called the Enlightenment which has laid the foundations of modern Western ideologies, politics, values and principles. Specifically, the Enlightenment philosophy developed new ideas of government, property, and selfhood.

John Locke's "Two Treatises of Government" (1683) was an articulation for a free and democratic parliamentary monarchy at the base of which was the idea that all men are born free and equal and have the right to the pursuit of happiness (Szelényi, 2009). Since the concept of a rule by consent was incompatible with traditional beliefs in a predetermined social, political and spiritual hierarchy of being, Locke elaborated on the notion of selfhood and its inherent ability to own property. Essentially Locke was making the radical distinction that it was the individual person who owned the self, rather than the king, state or church. Ownership of the self was the most basic form of property that each was inherent in each man, and the self was a domain where the individual person had absolute sovereignty (Archer, 2005).

The notion of the independent self also required a rethink of the idea of property. Prior to Locke the underlying paradigm was that all things, including the people (not accidentally called his "subjects"), belonged to the King by divine right. The king would then bestow parts of his property to others for management and protection while retaining ownership, and therefore a degree of control, over his domain. Locke needed to detach the political self and make it an "unassailable authority" (Archer, 2005). In order to do so a man must maintain basic independence through private ownership of land. Locke's notion of private property was based on the idea that all that was on Earth was created by God for all us, but man owned himself and the fruit of his labor (Szelényi, 2009). It was this application of one's labor that turned a piece of land belonging to all into a private parcel of land - "Though the water running in the fountain be everyone's, yet who can doubt, but that in the Pitcher is his only who drew it out?" (John Locke quoted in Szelényi, 2009). In essence Locke inextricably tied the notion of selfhood and the private ownership of land, a connection that has had profound consequences on the expression of the self.

Locke's proposition of an independent individual self nullified old definitions of the self and one's relation to society, leaving a spiritual and intellectual existential vacuum. While before one could define himself in relation to an authority, the individual self was undefined. How can you be sure of who you are anymore? It is in fact this uncertainty that, according to John Archer, has resulted in a challenge that is still fundamental to contemporary society : the obligation to explore, define and articulate a person's individuality and selfhood

(Archer, 2005).

7. 2.   Individuality and the Historical Genesis of the Suburbs

The unrelenting search for instruments of articulation of the individual self and Locke's linking of private property with selfhood leads to a natural adoption of the family home as an embodiment of the individuality of the owner. John Archer makes explicit the genealogy of the suburban home to Locke's writings:

"The early 18th century invention and evolution of the compact single family house on its own parcel of private property may well be seen as a response to challenges of selfhood identity, individuality, and property… an evolution hastened by pressures and opportunities of advancing capitalism and the possibilities afforded by membership in the bourgeoisie." (Archer, 2005, p. xvi)

The emerging class of the bourgeoisie had particular interest in Locke's notion of selfhood and embraced the challenge to articulate their individual identity and for this the private dwelling became necessary to self-fulfillment. Archer (Archer, 2005, pp. 1-22) explains how architecture and housing in particular have played an instrumental role in the process of both articulation and transformation of the identity of the inhabitants. The writings of John Ruskin and Thomas Rawlins in the 18th and 19th centuries explicitly linked architecture and its role in the articulation of identity. They demanded that the home be designed so as to suit the "temper, genius and convenience of the inhabitant" as well as have enough "blank stones" to be able to age with its owner and become a record, monument almost, of his identity. With the help of architects the clients transformed the private dwelling, the most intimate type of property, into an instrument whose design could effectively construct their individual identity. An architectural type, the typology of the bourgeois compact villa, was the result.

The dwelling, through its properties of location, landscaping design, exterior and interior design, offered the clients and architects an instrument that could define their identity in two ways. Firstly, the dwelling would help impart the inhabitant's (more precisely the adult male head of household) public identity – that which identified this individual over others in society – often expressed by architects with the choice of traditional "styles" like Tudor, or Tuscan. The location of the dwelling in a suburb was itself an expression of the owner's identity as a member of the bourgeois. Secondly, the home could help build the individual self by inculcating domestic virtues through careful design of floor plan and interior decoration (Archer, 2005).

The bourgeois villa was a dwelling type partly developed to accommodate the new economic, social and political conditions of the bourgeoisie and the comforts and well-being that these conditions provided. But this new type of dwelling was from the beginning also imbued with the Enlightenment ideas of self, individuality, property and capitalism by providing new types of private spaces, new relations of interior spaces and functions, and new relations of houses to each other and the city (Archer, 2005, p. 173).

To be sure, in the 300 years since Locke's writing, his ideas have been superseded several times by more recent and nuanced notions of individuality, especially expanding into the relation between the individual and society which was absent in Locke. But the fundamental challenge nonetheless has remained to present times – the freedom of determining one's selfhood comes with the obligation to do so. The notion that dwelling is necessary to self-fulfillment was reinforced by others (such as Heidegger who equated the activity of "dwelling" with living, with being), to the point that by now it has become an article of faith in (North) American culture (Archer, 2005, p. 3).

A building may be made to suit the temper, genius and convenience of the inhabitant.

Thomas Rawlins

7. 3.   THE SELF-MADE-MAN AND THE SINGLE FAMILY HOME

The concept of a "self-made man" was coined in by senator Henry Clay in 1832 (Archer, 2005, p. 175). It is a key American ideal which advances the image of America as a land of opportunity, where hard working individuals (labor is still what gives man property and protects his individuality) could pursue their own self-interest. The self-made man as understood by Clay and his contemporaries was that of a bourgeois entrepreneur who own manufacturing plants or large farms, rather than the older variety of merely self-sufficient artisans or subsistence farmers.

For the American white male head of household, the self-made man was an attractive ideology to follow. It was an ideology that fit well with the new republican form of government and the laissez-faire capitalist economic system. For a country in the process of making itself the parallel with "self-made man", energetic, entrepreneurial, and hard-working, was both real and aspirational. The political and economic prosperity of the nation is advanced by harnessing on a mass scale an individualized imperative for private self-fulfillment. A country literally built by individual men trying to "make it".

These economic and political conditions pushed the detached single-family dwelling, as linked to the individuality of the self-made man, into the popular mind and gave it a stronger ideological position. The single-family home was a key "apparatus that could sustain and advance the economically and politically more liberated self in a world of competitive individualism" (Archer, 2005, p. 176) – an apparatus to help the "self-made man" in "making" the self.

THE TERM "AMERICAN DREAM" STARTED TO FUSE WITH THE "DREAM HOME" - A DETACHED SINGLE-FAMILY HOME IN THE SUBURBS.

FUSION OF THE "AMERICAN-DREAM" WITH "DREAM HOME"

The self-made man was the actualization of what for many immigrants to the New World was a dream – the "American Dream". John Archer (Archer, 2005) describes the "American Dream" as a fuzzy concept that was never properly defined but liberally used and it seems to be universally understood. It was initially related to the rags-to-riches story of immigrants "making it", overcoming long odds and disadvantages. The two parts of the term denote two components necessary for its achievement – firstly, that the dream is an opportunity for new and fresh initiatives to achieve one's dreams, and secondly, that it is only in America that one (everyone!) gets such unfettered opportunities for self-realization. The promise being: in America the "intensive and independent efforts to improve one's lot in life will be rewarded."(Archer, 2005, p. 251) The American Dream was the dream of self-fulfillment, of the full realization of the self.

Sometime in the pre-war period, and even more so in the post war period, the term "American Dream" started to fuse with the "Dream Home" – the detached single-family home in the suburbs. In "The dream Deferred" (1976) Samuel Kaplan described to detail what the dream home means to the post-war American:

The dream of most Americans is an attractively packaged comfortable single family home set off from its neighbors on a well-landscaped plot in an economically, socially, and racially homogeneous community of good schools and convenient shopping. It is a dream not of challenging, involved life-style rich in excitement, of the possibility of fantasies come true but rather of a leisurely life-style, of privacy, health, security, status, and few conflicts… to the majority of Americans it is suburbia that still offers the greatest hope of that dream (as quoted in Archer, 2005, p. 291).

While the dream was still about the economic success of the independent individual,

the way it was imagined changed. The "dream home" became the physical proof of the achieved "American dream". The aspiration to a dream home, and its implied success, fit better with the post-war middle class "organization man" than the rags-to-riches story which belonged to wilder times of the entrepreneurial self-made man.

The two have gotten so intertwined that in a recent slogan of the Federal National Mortgage Association (in the U.S.) declared "We are in the American Dream business!"(Archer, 2005, p. 260). The dream home attested to the economic and domestic success of the middle class, allowing idealized suggestions of pastoralism and the self-made man, while avoiding the risks involved in actually practicing competitive individualism. By fusing with the Dream Home, the American Dream objective became much easier to achieve. Now everyone could achieve self-realization – with a 5% down payment and a mere $80 monthly mortgage.

By the 1950s the idea of the Dream Home, and its association with the American Dream, had become a national paradigm, and that was no accident. The message that the Dream Home – the dream of self-realization – was now open to the fast expanding middle class carried significant political and economic connotations. While the notion of a "Dream House" had been around for a while, it was Herbert Hoover's work as secretary of commerce and later president that gave it wide spread recognition and acceptance (Archer, 2005, p. 263).

(Archer, 2005) Hoover saw the widespread ownership of a dream home, specifically a detached single family house in the suburbs, was seen as a way to protect American capitalist system the threat of Bolshevik ideas. Ownership of their dream home gave people both a feeling of achievement, and a stake in the existence of the capitalist system of wealth accumulation. For Hoover the fate of the nation rested on "…in every child [being] implanted the ideal of an owned home as the center of happy family life"(p. 264). Ownership of the single-family home became a national ideal and a patriotic duty.

During the depression, as President, Hoover went further and said: "To own one's own home is a physical expression of individualism, of enterprise, of independence and of the freedom of spirit" (as quoted in Archer, 2005, p. 293). Soon after, in 1934, The Federal Housing Administration was established. Its Canadian equivalent, the Canadian Housing and Mortgage Corporation was established at the end of the war in 1945. Both were intended to promote home ownership and assist the private sector in the production of housing. The range of subsidies and regulation these agencies offered had a great impact in the form housing built since the war – and their support leaned heavily on the suburban single-family home for the middle and working classes. For example, until the mid1950s the CMHC offered mortgage guaranties only for detached single family homes, between 80m2 and 100m2 and costing less than $8000 (Friedman, 2002). The symbol of individuality and realized selfhood had become a bungalow in the suburbs.

7. 4. The Commodification of the Dream Home

The American Dream was now a distinct physical object that one could design, build, sell and buy. As private corporations geared back into commercial economy from the war economy, it became obvious that a large part of domestic economic growth was going to revolve around GIs returning, building their families and pursuing the American dream. Since the federal government had already invested heavily in promoting suburban housing as the symbol of this dream, the corporations tagged along. Both, the production of the houses themselves and the products to fill them with, were part of the business of selling the dream.

The American Dream was a distinct physical object that one could design, build, sell, and buy.

The new dream homes were produced like any other product, by large corporations, in massive quantities, with a few if any options for personalization. Soon companies packaged their products as an indispensable part of the dream home – the furniture, the appliances, the car. For example, General Electric Corporation released an advertisement in 1948 in Life Magazine (Figure 2) titled "General Electric has made your Dream House come true!" Beside the title is an image of a detached suburban house with greenery all around, and in the middle of the ad there is a large picture of a modern kitchen presumably outfit with GE appliances. At the bottom right, the connection of the appliances to the dream is made explicit "General Electric will plan your Dream Kitchen – Free!" The underlining of the word "your" emphasizes that this is not just any dream, it is your individual dream!

The importance of the house interiors in the expression of identity and individuality became even more important when the large tracts of "identical little boxes" that suburbia is often derided for, became a pervasive method of development. In these homes the exterior expressed individuality only in the fact that it stood detached and isolated

THE STANDARDISED HOMOGENEOUS SUBURBAN ENVIRONMENT IS A DATUM OF OPPORTUNITY - A TABULA NOT-QUITE-RASA UPON WHICH ONE CAN UNDERTAKE MULTIPLE AND DIVERSE ACTS OF INDIVIDUATION.

John Archer

Figure 73. General Electric advertisement - the commodification of the "dream home"

from the neighbors. The drive towards articulating selfhood moved inside the house, in personalizing and equipping the spaces with objects that reveal the owner's individuality. In this sense the post-war suburban resident diverged from his 19th century counterpart whose articulation of the public self engaged the wider society, and rather focused his efforts on the expression of the private self. This phenomenon was called "Cocooning" by marketing professionals and was used as an activity or lifestyle category for which products could be produced and marketed.

The process of definition of one's individuality through the use of mass produced consumer products is a controversial one. The range of choices offered by manufacturers limits the range of "individualities" one can build. John Archer (2005, p. 337-341) presents the two opposing ideas on the role of mass produced objects on individuality through the debate between Theodor Adorno and Walter Benjamin on relations among art, mass culture, and democracy. Adorno assumes the stance prevailing in critiques of suburban conformity that mass produced commodities resulted in mass produced identities – cookie-cutter homes produce cookie-cutter people. Even though the consumer has an array of choices, these are choices designed by someone else (a marketing team perhaps). Adorno takes aim at what he calls the "culture industry" which robs people of opportunities they otherwise might use to explore their own ideas and define their individualities – "The diner must be content with the menu" (p. 338). Benjamin does not deny the existence of a culture industry that offer consumers a large variety of preselected choices. However he argues that people are usually habituated to such mass produced content do not absorb it mindlessly but rather understand it from their own perspective. Essentially people see mass produced products as objects to be used to achieve their own individual ends. The fact that we can all buy standard wood boards of 2x4 inch at the same store does not mean that we will all use them exactly the same way for the same purpose.

John Archer falls squarely on the side of Benjamin rejecting as elitist the idea that the consumption of mass produced products results in a lack of or false individuality. Instead he offers the idea of the standardized homogenous suburban environment as a "datum of opportunity" – a tabula not-quite-rasa, a set of given conditions and customs, upon which one can "undertake multiple and diverse acts of individuation"(Archer, 2005, p. 337). The standardized suburban home is considered as a platform from which one begins their discovery of the self.

Around the development of suburban housing, and accessories for it, was ramping up, a new concept appears and gains prominence in marketing theory – Lifestyle. Based on theories from the field of psychology, lifestyle marketing changed the way consumer behavior was seen and by extension how products were sold. Alfred Adler, one of the most notable early scholars on the subject, saw lifestyle as a patterned way of life based on the uniqueness and ultimately subjective actions (rather than re-actions) of an individual making choices, but he also recognized similarities between individuals and coined them lifestyle typologies (Anderson, 1984). Others proposed that people bought products not in isolation or as symbols but as smaller components of larger symbols, or as part of a "lifestyle package"(Anderson, 1984). In other words, a single product alone does not constitute a lifestyle, it does so as part of an ecosystem of products exhibiting similar values and aspirations.

This marketing theory was heavily used, and still is, to continually upwardly redefine the American Dream and the Dream Home. The bar of aspirations was endlessly raised and the goalpost continually moved, as people aspired to live like someone better, richer or more famous. That could be achieved, of course, by the latest product offerings. The suburbs were built in part and continue to be built in part to satisfy people's continual search for an individual and independent lifestyle, in the form of consumerism, and never quite reaching it.

THE RANDIAN, INDIVIDUALIST MYTH RESTS ON A FUNDAMENTAL MISTAKE. MARKETS WITHOUT MORALITY, INDIVIDUALS WITHOUT COMMUNITY, LIBERTY WITHOUT ORDER. NONE OF THESE ARE ENOUGH.

Will Munsil

Initially the dream was simply "to own a house". Then the dream evolved to encompass various ways of making the house "stand out" and personalizing it by providing extended private spaces and equipment for each resident. Subconsciously people seemed to realize that the articulation of the individual self is not the same as the articulation of the difference between selves. The role of house was not to just realize the dream, but to make the dream distinctive from all the other dreams. And in return, these highly personalized spaces would reshape and build new dreams and new definitions of the self.

7. 5.   Definitions of Community

So far the notion of individuality is mentioned largely in isolation from other forces, which, of course, is an artificial state. Even in Locke's definition of the individuality and property, there is an implied necessary relationship between the individual and society in the form of a government by consent, whereby the individual surrenders some of his freedoms to the community at large for the sake of security (laws and justice system).

Community can be understood in two forms. There is community in the small scale and physical interaction, where neighbors interact and participate in common activities. Here community is built by direct and personal contact between individuals – the building of personal relationships. However, knowing your neighbors, joining groups and socializing is not enough to create what William Whyte called an authentic community. A community in the broadest sense, according to the eminent French sociologist Emile Durkheim, is formed when there are shared values, norms, and beliefs - a collective conscience. Collective conscience is formed not just when people have similar values, norms and beliefs, but when the people become aware of that fact, and act together to enact, promote or defend those values, norms, and beliefs (Lukes, 1990).

Durkheim sees collective consciousness as the glue that keeps the modern society together. This sounds like an idea that shuns and oppresses the individual identity for the sake of the collective, but that would not be correct. In fact Durkheim, in an ingenious inversion of the two terms, considers individualism as precisely that ideology that constitutes the collective consciousness of modern societies – i.e the modern society is unified by the idea that the individual is sacred. In the seminal essay written in response to the Dreyfusiste affair called "Individualism and the Intellectuals", he claimed that "…the only ideology capable of ensuring the cohesion of a complex industrial society is when 'the individualist cause is truly national' " (Lukes, 1990, p. 167). Durkheim makes a strong case for the protection of the individual by society because the interests of the individual are vital to those of society. In essence he was saying that what makes modern society work the way it does is the diversity of its members. It is the diversity, or individuality, and our ability to accept and encourage it that allows us to form a unified society that is more than the sum of its parts.

Individuality and community are often, at first sight, perceived as opposites. They are considered not only incompatible but outright antagonistic, damaging to each other, and in a constant dirty fight for superiority on people's mind. Adam Smith, the father of modern American capitalism, writing not very long after Locke, proposed that the private individual was the basic unit of nature and society, and that private individuals exist in competition with each other, striving to maximize their own gain. This explicitly positions the individual as above of and in opposition to the collectivity. A position that is well ingrained and still dominant in the American (and Canadian) psyche.

An extreme version of Smith's view of the individual as involved in a fight to the death with the collective is contained in Ayn Rand's writings. Her depiction of the pursuit of individual

THE INDIVIDUAL IS UNIQUE IN THE SENSE THAT HE HAS A HARMONIOUS RELATIONSHIP WITH THE COLLECTIVE AND A GENUINE SOCIAL RESPONSIBILITY, YET CHOOSES NOT TO WEAR A SOCIALLY ACCEPTABLE FACADE BY REFUSING TO ACCEPT THE PREVAILING STANDARDS .

Carl Rogers

fulfillment held back by the different forms of the collective was based on extreme and idealized characters with pure ideological convictions. The image of the heroic individualist, in the mold of Howard Roark or Rearden, continues to be very appealing.

Durkheim's analysis of the relationship between the individual and the community is much more subtle. Theories developed later but what are called "humanistic" psychologists view the relationship between individuality and community in a similar way. Carl Rogers saw the individual as unique and able to make free choices, but that also "has a harmonious relationship with the collective and a genuine social responsibility, yet chooses not to wear a socially acceptable façade by refusing to accept the prevailing standards"(Ranjani, 25/02/2010). Abraham Maslow also believed that individuality and the collective are complementary. Famous for his theory on the hierarchy of needs, he placed the concept of "self-actualization" at the top of the hierarchy. Maslow's self-actualized man is one who has answered the challenge put forth by Locke. However the self-actualized individual is not ego-centric but unique. Uniqueness can be achieved through the use of psychological freedom (from outside authority) with self-discipline. "Individuality, therefore, is a never-ending process"(Ranjani, 05/02/2010) about the development of our talents and capacities.

What seems to emerge from 20th century intellectual debate is a sense of agreement that not only are the two notions of individuality and community not antagonistic, but they coexist in harmony, are interdependent and mutually reinforcing. In response to The Atlantic Magazine's question "What is the American Idea" for its 150th anniversary in 2008, one reader wrote:

> *It is a misconception to think that the American Idea promotes the individual at the expense of the collective. The American Idea promotes the individual for the sake of the collective. By valuing the differences between people we acknowledge that the potential of each individual is different and that the potential for our collective nation is infinite.*   *Anna Crawley.*

7. 6.   INDIVIDUALITY AND COMMUNITY AS ONE CONCEPT

Since John Locke introduced the notion of the individual self, that notion and the one of community have been heavily discussed. The search for the definition of selfhood has taken up the single family home as its main instrument. It has also been made clear that these notions had direct effect on the dwelling – becoming the ideological force behind the rise and popularization of suburbia. We now have a more subtle understanding of individuality and community, but individualism is still running rampant as ever. There little difference between our current understanding of the notions of individuality and community and that of the 1950s. In the intellectual circles we knew then, and know now, that individuality and community are complementary and interdependent concepts, not only in a philosophical sense, but also in the real world. However, in the common psyche individualism was, and still is, paramount and largely in opposition to community.

There is a disconnect between what planners and designers know and what people want (and what developers sell). Here a clarification must be made between the term individuality and Individualism because one does not imply the other. One can express their individuality without being individualistic. Individuality is about the pursuit of self-fulfillment within, and indeed with the help of, a collective, yet willing to refuse societal constrains that do not seem right or fair. Individualism, on the other hand, cuts off the individual from society, and in the Rand-ian sense, places a society as a roadblock that must be overcome at all costs on the road of self-fulfillment. Individualism positions the

individual as necessarily at odds with society - it isolates the individual.

The appeal of individualism from a psychological perspective is that it is much easier to achieve than individuality. While individuality takes patience, moral strength and cultivation of the self. It takes careful consideration of one's place in a collective, one's expectations as well as responsibilities to the collective but also to the self. This is difficult, and always an ongoing process. Individualism on the other hand is something more akin to a teenage rebelliousness. It comes with a good dose of entitlement and immaturity. To be individualistic one simply needs to pursue their desires at all costs, even at the expense of the system that enables them to such pursuit. Individualism does not require self-control or self awareness, only the determination to go after your goals. Individualism can be viewed as an action associated with a goal. As such individualism is easy to see and understand. It's fruits are visible when the goal is achieved, and when it is not achieved one can always blame the society. It is worth noting that individualist acts usually take place and are facilitated by a collective system. In other words, individualism needs the collective even though it does not recognise it.

It may be that the collective and individualism are mutually exclusive since no collective can exist for very long without its members willing to contribute as well as take from the collective. However it is a false dichotomy to force a choice between individuality and the collective. As detailed earlier, these two concepts not only can coexist peacefully but are really interdependent. A strong society necessitates strong individuals, and if one wants tob build individuals they need a strong collective. As the old adage goes, it takes a village to raise a child.

7. 7.   A COHESIVE APPROACH TO BUILDING FOR A COLLECTIVE OF INDIVIDUALS

The relationship between individuality and the collective has always been there, but importance was placed on home as expression of "owner's Genius". The sense of community, of a common purpose was taken for granted. in modern times it has been corrupted individuality have become perceived as opposites and as a tradeoff.

The fact that people need to feel both part of a collective and individually fullfilled is something that is not lost on the marketing boards of real estate developers, the same people who have built suburbia. One needs to simply glance at a few advertisements selling new suburban homes to see words like "community" and "village" feature prominently and are often realized by creating homogeneous neighborhoods - in both people and buildings. The "community" is then maintained through extensive restrictions on what can be done on the private property. While individuality is easily satisfied with detached homes (even if only 50cm apart) sporting overly complicated roof lines. Garages are now placed where windows used to be in order to protect from the neighbors, making for a streetscape of garage doors.

RESPONSIBLE REEDOM IS THE BASIS OF
SOCIAL COHESION

These suburbs, just like the older ones, fail not only on providing a community but also on providing individuality. Instead they have taken the worst of both worlds - they have become too collective and too individualistic. Both ideas are taken to extremes resulting in neighborhoods that are based on conformity and isolation. The suburbs have become places that promote conformity rather than community, that are defined by exclusivity rather than inclusivity and are intolerant of outliers. In this sense the collective really is a negative thing - the group has become the tyrant. It may not be coincidental that the same places promote isolation rather individuality. A false sense of independence and freedom of action is created by making visually explicit the signs of individualism, such as a detached house, and making invisible the control mechanisms such as the owners

association. Expressions of individuality are contained within the walls of the house, in fear of endangering the maincured image of community. By forcing individual expressions to be hidden and at the same time designing plans that give no chances of casual social interaction it is no surprise that isolation from the immediate neighborhood becomes the norm.

In order do achieve healthier neighborhoods and residents that enjoy both community and individuality a different approach to design must be considered. In response to the twisted transformation of the relation between individuality and collectivity and its simplistic translation by developers into a few visible features, a more balanced strategy is proposed that takes into account the mutually necessary and reinforcing attributes of these concepts.

INDIVIDUALITY **AND** COMMUNITY

DURKHEIM'S "**COLLECTIVE CONSCIOUSNESS**"

Figure 74. The strategy to build Collective Consciousness.

The intended result is to achieve the kind of deep rooted social cohesion that Emile Durkheim called the "collective consciousness". Collective conciousness requires spaces for both the expression of the self and the nurturing of social relationships. In order to create a synergetic relationship between collectivity and individuality the concepts are considered together at all times but remain as distinct elements. This allows for fine tuned application and avoids a generic space that is everything and nothing at the same time.

Individuality and collectivity play distinct roles in our lives and are more or less prominent depending on the situation. In an architectural context this is understood as individuality and community appearing in different relation to each other at different building scales (urban, building, unit). At each scale there are different priorities and corresponding strategies for the expression of individuality and collectivity.

The final goal is to build a neighborhood that offers opportunities for self expression rather than isolation. A neighborhood that is based on understanding of one's place in a community and one's rights and responsibilities to it. A neighborhood that offers a community which is not defined by exclusivity. And a neighbrhood based on a social community rather than forced conformity.

DESIGN SCALES
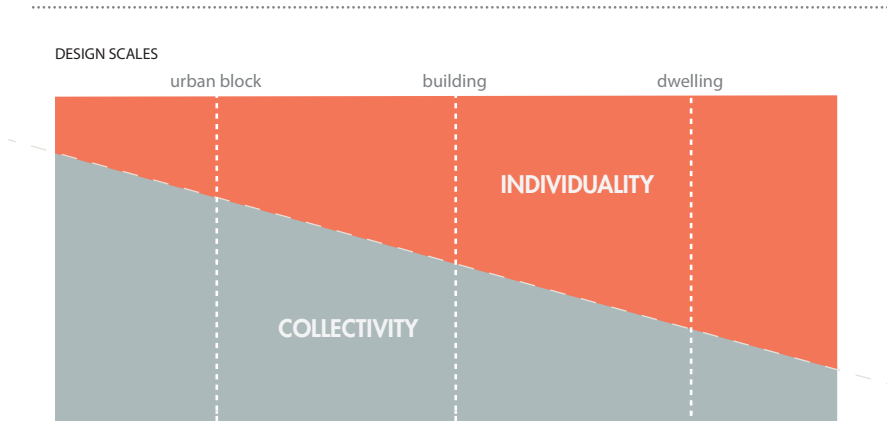
Figure 75.The fundamental approach to designing for collective consciousness.

conformity

community

isolation

individuality

Figure 76. From a development that creates community through forced conformity to one where community is formed through a shared sense of belonging
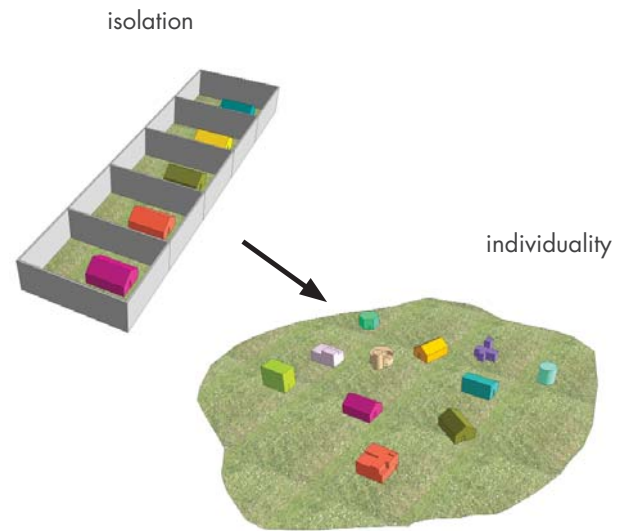
Figure 77. From a development that offers isolation to one that offers space for expression of self through social interaction
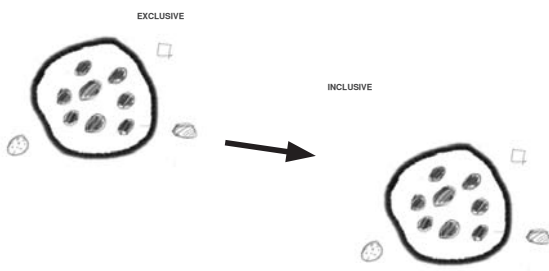
Figure 79. From an a community formed by exclusivity to one formed by being inclusive.
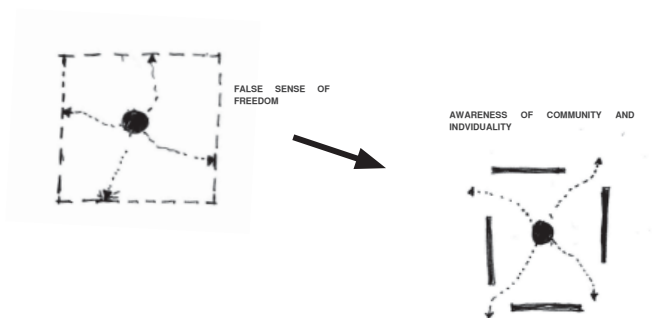
Figure 78. From a development that gives off a false sense of freedom while severely restricting it, to a development where the limits of both community and individuality are made apparent.

8 - THE SITE

8. 1.   Site Selection

The design exercise is taking into account the CPC process by assuming that local residents come together to form a building group as described in Chapter 5.3. After agreeing to collaborate, the group forms a vision for their new homes - the type of housing and the type of people they want to live with. For this purpose a fictional group has been created based on characteristics of average CPC projects in the Netherlands, such as ages and incomes, combined with typical attitudes and cultural traits of Canadians, such as DIY interests and the preference for a workshop area (often in the garage or basement). The detailed characteristics of the target group and a programme of requirements are listed below.

Target group(s)

40% - middle aged
  - 45 - 65 years old
  - empty nesters downsizing
  - substantial finances
  - accessibility
  - comfort + community

30% - families with children
  - young children
  - working downtown
  - safety in community
  - live near friends

30% - starters
- no children
- "creative class"
- close to downtown and entertainment areas
- self employed / crafts

Shared values
  - eco-aware
  - many work at home or have home-office
  - DIY interests
  - arts/crafts appreciation

Special Common requirement: Extensive Workshop area

Program

•	60 - 80 dwellings	~120 m² LFA
•	parking x1.5	120 cars
•	Workshop, Storage for equipment	1000 m²
•	Common garden, Playground	1500 m²
•	working space/offices, commercial, events	800 m²

Total dwelling space	**7000 - 10000 m²**
Total Amenities	**3000m² + 1500m² parking**
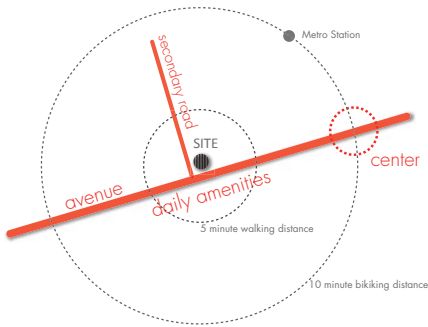
Figure 80. Criteria for site selection

CRITERIA

The research in this report focuses on the sustainable redevelopment of Toronto suburbs, as an instance of suburbs in Canada. It is logical then that a design proposal for a potential CPC be located in Toronto. The suburbs built between 1945 and 1965 make up a large part of the city (see map below), therefore based on the group characteristics above, a set of criteria was established in order to narrow down the selection (figure 81).

THE LOCATION

According with these criteria the area around Lawrence Heights was selected for offering public transport nearby (busses and metro), being close to Yorkdale and within easy access of both Eglinton Center and North York Center. The area also has a dense concentration of post war buildings.

The site comprises a full block 187m long by 67m wide for total of over 1 ha. It is bordered by Duffering Street to the west and is one block south of Lawrence Avenue West, between Cork Ave., Claver Ave., and Corona St.. Dufferin St. and Lawrence Ave. are in the City's plan as "Avenues" to be redeveloped in midrise and mixed use.

Figure 81. Regional centers, Avenues and post war suburbs in Toronto

8. 2.   SURROUNDINGS

The sorrounding area is a bizzare mix of building functions, sizes and typologies. There are big box stores north of Lawrence and as well as a shopping mall. On the south side it is mostly housing although there are some low end shops along Dufferin. The area southwest of the site is populated by typical post war bungalows while accross the street on Dufferin there are 15 storey condominium and rental housing.

regional centers

avenues

buildings constructed between 1945-1965

In theory such a mix sounds like a good idea as providing a lively, and resilient neighborhood with plenty of chances for social interaction. However this is not the case for many reasons. Perhaps chief among these is the fact that this is not a walkable neighborhood because of the massive scale of buildings and roads and in some cases the complete lack of sidewalks. The distribution of functions is such that it makes for lengthy and unpleasant walks from home to most of the daily needs. It is also worth noting that while there is plenty of private green spaces, there is only one public park.

Overall, the impression of the site is one that is entirely designed for the car. The human element is absent on the streetside.
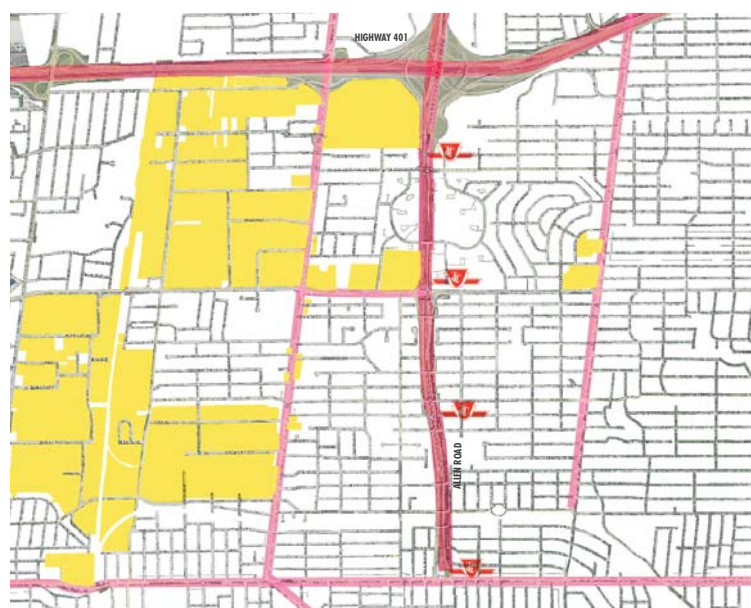
Transport network and commercial zoning

Urban morphology

Ermal Kapedani

Surroundings

Site in context

Zoning functions

- residential
- social housing
- shopping
- commercial/office
- schools + amenities
- parks

Lawrence avenue at Dufferin

Height in storeys

1 - 3

4 - 6

7+

Ermal Kapedani
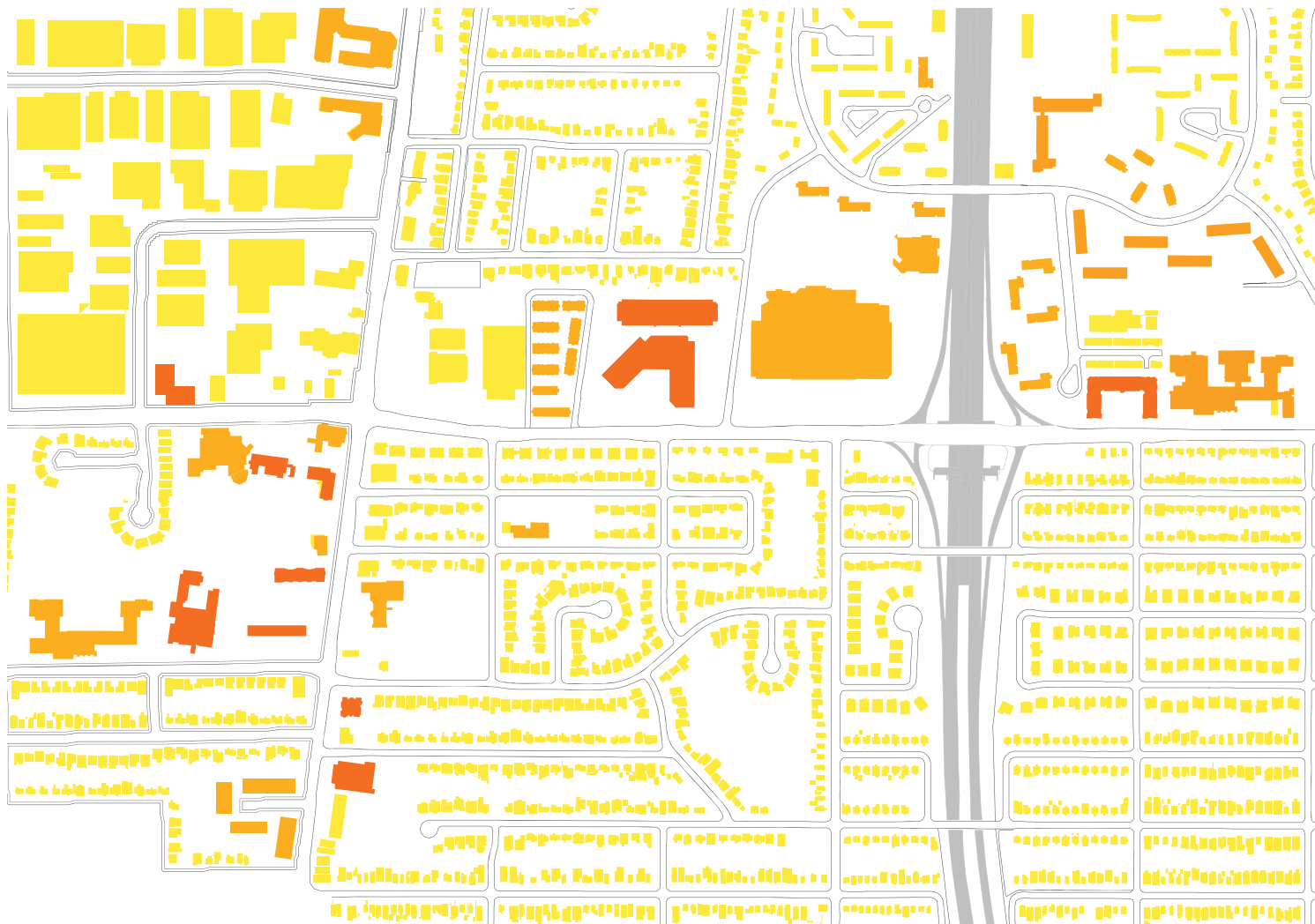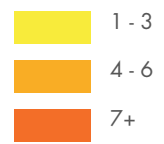
8. 3.   Existing and proposed

The site comprises a full urban block with 10 detached single storey homes, 2 shops and 2 new homes. The full block was used for this design except for 2 houses. These were left out as it would be reasonable to expect that their owners would not want to participate in a CPC since they had recently rebuilt their homes. Along Dufferin there are two low end shops with large parking lots and little street presence.

The proposal focuses on changing the morphology towards a more unified and denser block with a more urban character. The new buildings come up close to the street with both residential and commercial functions while creating public and collective spaces within. The proposal offers spaces for people rather than cars.

existing conditions
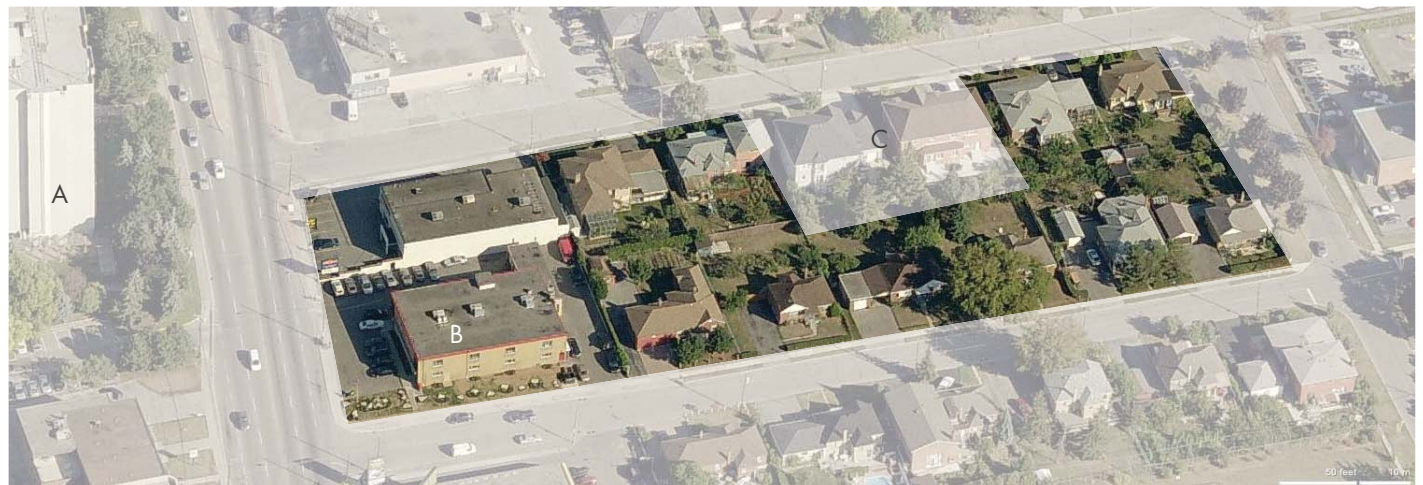
existing condition

proposal

existing condition

proposal

Ermal Kapedani

9 - THE URBAN BLOCK

THE COURTYARDS

When viewed from an urban scale, the site comprises a (almost) complete urban block. At this scale the individual is often represented by the social group he belongs to since the individual himself is often too small to make a significant impact. At the scale of the urban block the expression of the collective identity, the common identity of a group of individuals, is of key importance. This expression is simultaneously communicating collectivity to individuals within the group- since it does not focus on a specific individual - and communicating individuality to the society at large - since the common identity of the group is still quite unique at the scale of the city and society.

For any CPC group the basic identity is the collaborative process that all members have participated in. They often work in committees which focus on different aspects of the planning and combine their work towards a better whole. This aspect of collectivity was the inspriation for the organization of the block around 3 interconnected courtyards with different identities.

In order to form 3 courtyards while still maintaining the formal integrity of the urban block the traditional European 18th and 19th century block typology was taken as a basic model. Then the southwest and southeast corners of the block were trimmed to open up visible and easily accessible public spaces. The volume of the block was then stretched and cut in order to define the courtyard spaces and give each courtyard 3 access points.

3 connected courtyards

basic european block typology
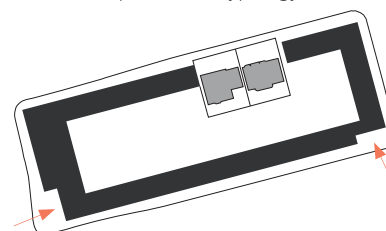
cut corners for public space
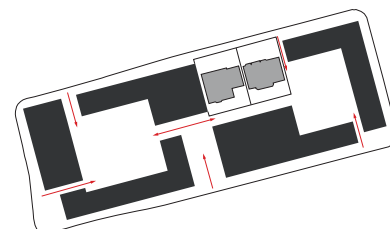
block volumes shaped to form the couryards

proportions of individuality and collectivity at urban scale

network of collective and public outdoor spaces

masterplan - ground level

collective and public program

These access points connect all sides of the block and form a new route through it where the courtyards serve as resting spaces. The outdoor public and collective spaces are reinforced by situation public and collective programs around them. Functions such as a common house, workshop, cafe and theater, offices, and shops give people reasons to go to and move through these spaces. These functions activate the collective and public spaces of the complex.

A Network of Interaction

Accessible and activated spaces become particularly important when considered as part of the whole neighborhood which at the moment contains only one public park and no pleasant public spaces, other than a shopping mall which can only be accessed by car. The public park is sorrounded by only residential buildings and offers no activities other than walking. In short, as usual in post war neighborhoods of Toronto, there is no street life or public urban life to speak of. In this sense the smaller, more intimate and more accessible spaces of the design offer new opportunities for social activity for residents as well as neighbors.

If one could imagine that other CPC projects with similar features were repeated elsewhere, instead of one large inactive park, there would be a series of diverse activated locations. Together, these spaces can form a network that activates the whole neighborhood by providing attraction points that encourage movement, social interaction, and perhaps new interventions, throughout the neighborhood.

Bird's eye view - looking north

A network of small public and collective spaces

Ermal Kapedani

10 - THE BUILDING BLOCK

10. 1.   Two-Faced Buildings

The masterplan is composed of several distinct volumes. Each volume acts can be considered a building made of several instances of the same typology. The positioning of the buildings and their relationship to each other is what guides the spaces and movement through the plan. At this scale there is a more balanced expression of individuality and collectivity. This does not mean that the expression is somehow an "average" between the two, or that they play out evenly in everywhere. Rather it means that each is properly accommodated and given its own place to unfold.

Post war suburban houses, such as those that surround the site, as well as brand new suburban developments usually attempt to provide a communal feeling through homogeneity - in people and buildings. The heavily advertised "community" is often a euphemism for "rich people only" or "houses in pink brick only". Homogeneity, and its effect on the all-important property values, is maintained through enforcement of increasingly strict regulations that control what the dwelling and its surrounding (private) space can look like. The buildings however are designed for minimum community with very large set-backs and elements such as car garages presenting the neighbors with an antisocial wall. The post war houses are set back even further and often there are no sidewalks along the street. The lack of a collective identity is betrayed by the fact that the greatest chance for

DESIGN SCALES

urban block   building   dwelling

INDIVIDUALITY

COLLECTIVITY
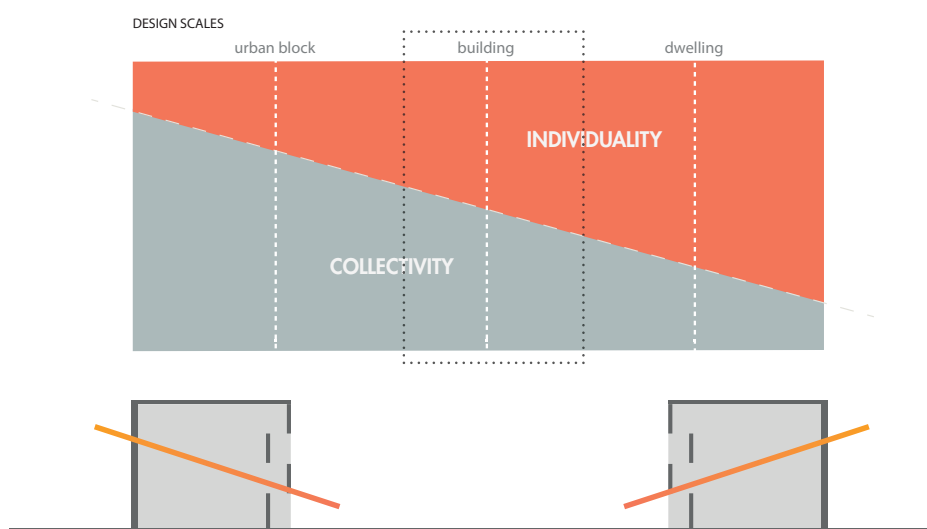
Street edge in old and new suburbs
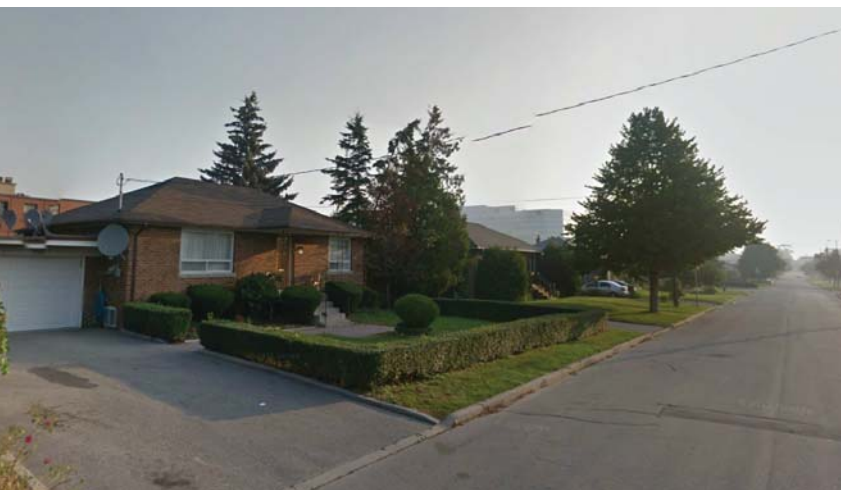
social encounters seems to be between the front door and the car, which is often in the garage. Individuality is just as shallow, often simply associated with the fact that the house is "detached" and perhaps with some unnecessarily complicated roof lines.

The design proposal intends to foster a community through acknowledging and respecting the individuality of the members and at the same time bringing attention to the fact that they belong to a shared group. To do this the buildings are designed with two faces - a collective street side facing society; and an individual face towards the common courtyard.

The Collective Face

The street facades of all buildings are fixed and are not meant to be changed. They come up to the street as much as possible and are separated from the sidewalk by a small raised

Cork avenue, looking west

South facade

section through all 3 courtyards , looking south

The masterplan includes 3 main typologies - 2 types of row houses in groups of 4 - 6 and apartments. The groups of houses act as buildings that define the space around them forming the courtyards and passages.

Access from street and interior of block

Groups of typologies form "buildings"

West facade

section through garden courtyard, looking west
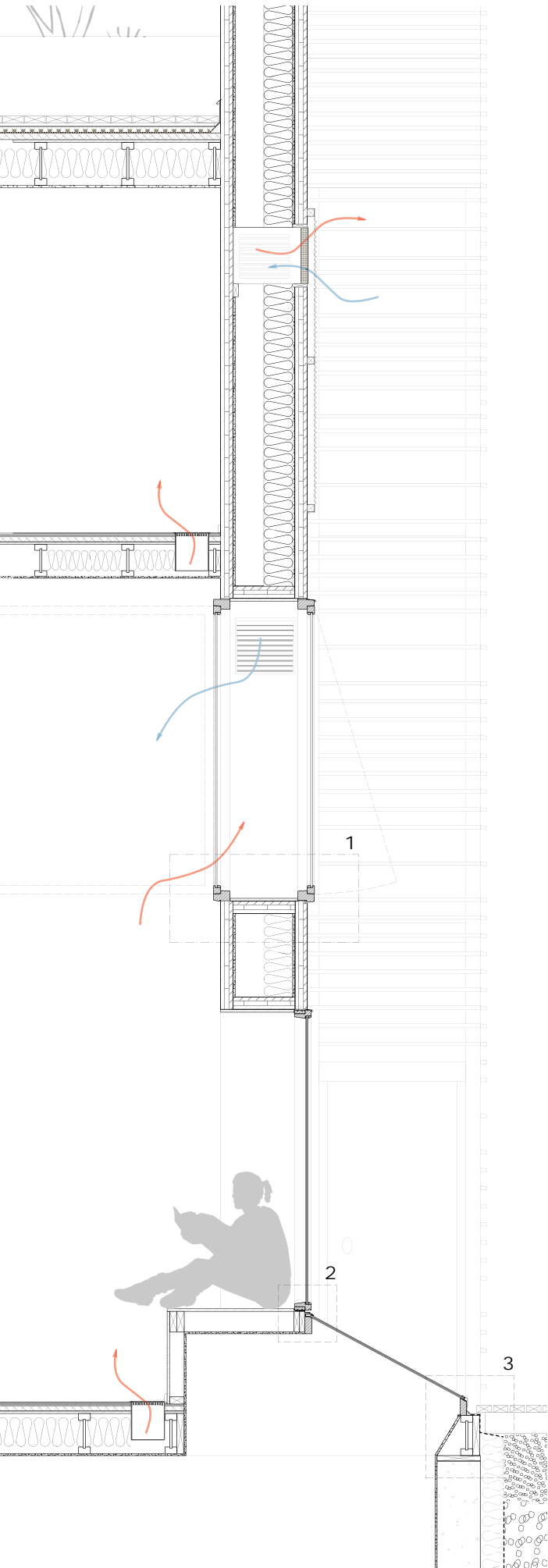
front yard defined by planters. The buildings use similar materiality and architectural detailing and proportions. These features unify the project and bring it a visual collective identity. Architectural elements such as overhangs have been used to connect the buildings to each other and unify the block further.

On the other hand there is a conscious attempt to exhibit the collective identity of the inhabitants without resorting to homogeneity and loosing the salient point that the group is made up of individuals. The entry ways have been emphasized as vertical elements that indicate the individual units within the building. The front facades are designed with 60cm deep walls which house double windows. The space between the windows can be painted at will and can be used as display cases exhibiting personal items of the residents such as sculptures and plants.

1
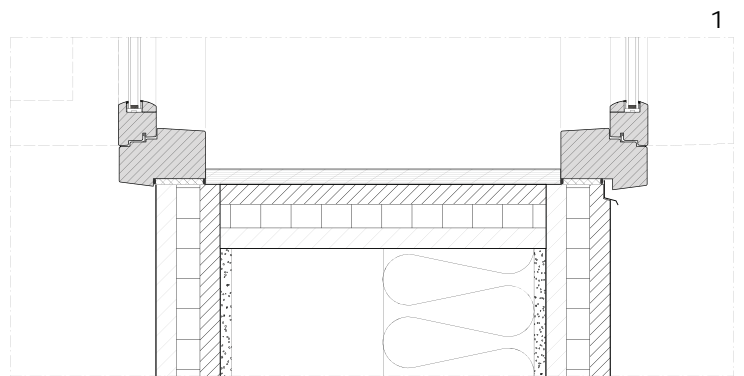
60cm deep double facade
is an inhabited space

Personal objects and plants can be
placed between the windows
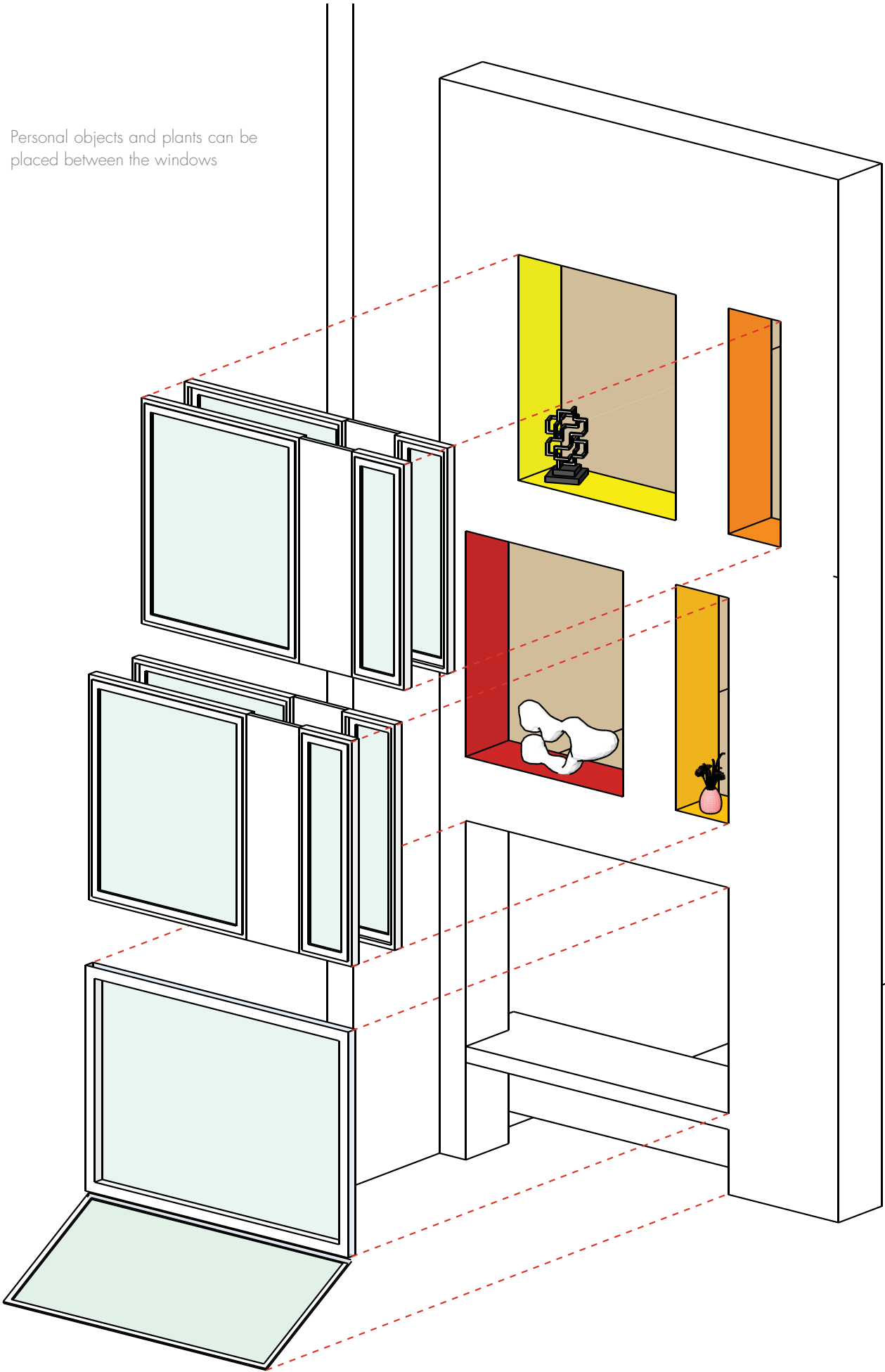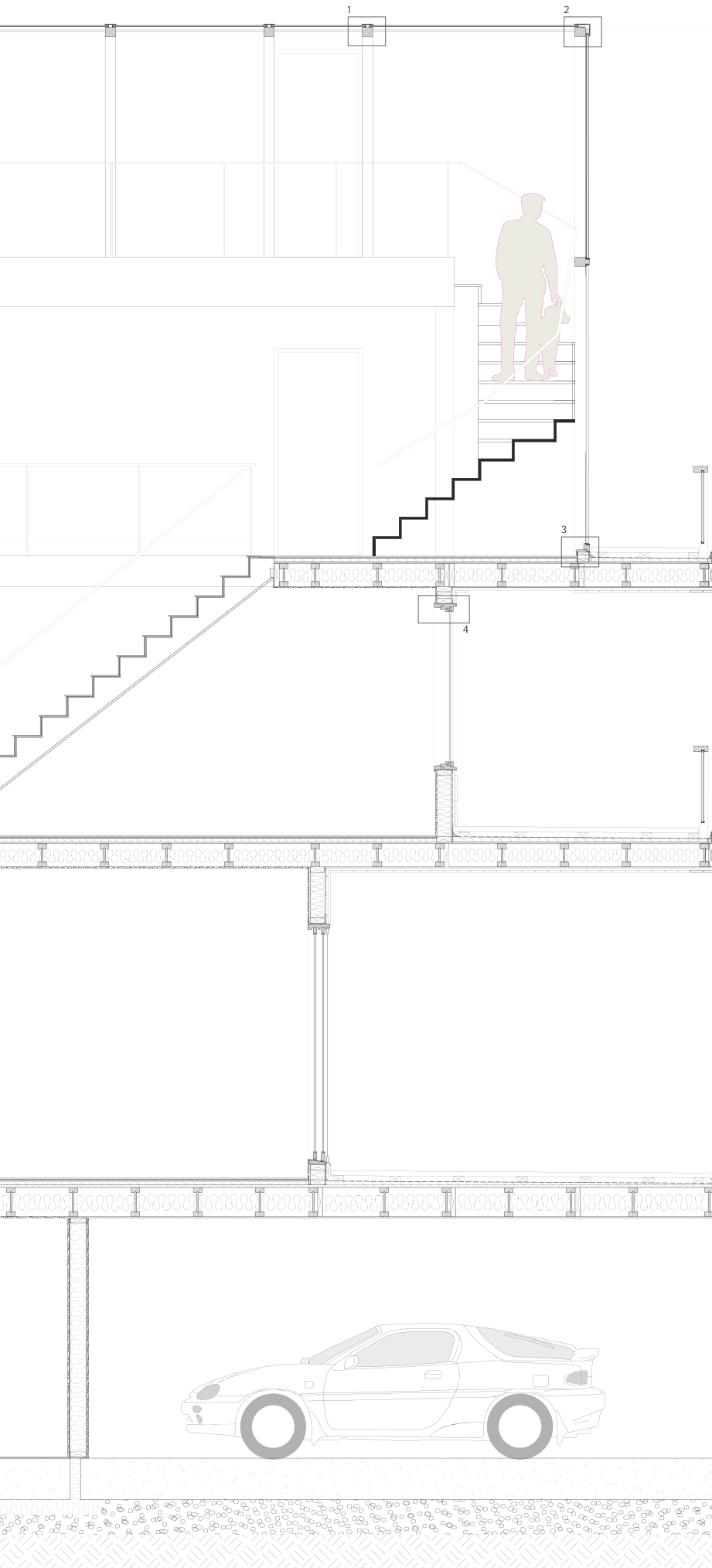
Section (left) and elevation (right) drawings of back facade shows its varied positions, materiality, and composition.

The Individual face

On the courtyard side the buildings, and their units, have a more free and distinct definition. Most features on the courtyard facing facades are free to be manipulated and moulded towards personal needs and preferences. The choice of materiality, color and composition of these facades is left to the inhabitant as long as the architectural elements follow a 0.6m vertical grid which helps to keep a level of coherence throughout the plan. The grid and proportions are used in the front facade as well. The mosaic of facades facing the common courtyards is an appropriate symbol of how a group made of many distinct individuals can form a coherent collective image.

Ermal Kapedani

The structural system based on 2 fixed walls
and infill allows for flexible back facade

pond courtyard

THE STRUCTURAL CONCEPT

The combination of fixed and flexible facades simultaneously is made possible by the structural design. The structural concept is a tweaked version of shell construction - fixed shell structure with interior elements filled in at will. The main load bearing structure is on the partition walls and front facade which are built with laminated wood board panels (from KLH or Lenotec). The material acts similar to concrete but with an important advantage - it is not thermally conductive. This property of wood allows for the partition walls to be built at 16 meters long while the infill (the living space) can be made at various lengths. The wood partition wall is first an exterior wall in the front, becomes an interior wall and then again an exterior wall at the courtyard side.

The wood structure also has the advantage of being easy to work with and a locally sourced sustainable material. The material allows for the free placement and relatively easy movement of back facade walls since it requires no structural adjustments. The rest of the infill structure such as floors and inner walls are build with the standard wood framing technique that is ubiquitous in Canada.

The natural wood materialization in the street sides and interior ties the complex together, as do repeated architectural elements such as windows and entryways under a 0.6m grid While the world is faced with the collective image of the group, within it the inhabitants are encouraged to highly personalize their living space and exhibit that individual touch to others.

garden courtyard

11 - THE DWELLING

11. 1.   DWELING ADAPTABILITY

The three dwelling typologies - the apartments, the courtyard house, and the expandable house - are designed with different occupants in mind but they all have in common the adaptability aspect. By adaptability here it is meant the potential for the house to accommodate medium or long term changes to lifestyles - a growing family, ageing, work-at-home etc. - without large scale renovations being necessary. The adaptability goal is important for several reasons.

Firstly it allows for diverse types of residents to live in the same basic shell unit but adapt it according to their own physical or budgetary preferences. It also maintains the diversity so people do not have to move out as time moves on and their living conditions change. This greatly aids in the strengthening of social cohesion.

Adaptable units greatly facilitate the personalization of dwellings on the interior but also the expression of individuality to the surroundings. Adaptable elements in the units are used as tools for individual self expression.

Finally, the adaptability of housing serves as a safeguard from future shifts in demographics, lifestyles and economic conditions. This is an issue for the owners of the dwellings but also for the city at large as housing that is incompatible with contemporary expectations becomes blighted and a burden to society.

The row houses of the beautiful and lively Plateau district in Montreal were the inspiration for the dwelling unit designs elaborated below.

The 3 typologies

DESIGN SCALES

urban block   building   dwelling

INDIVIDUALITY

COLLECTIVITY
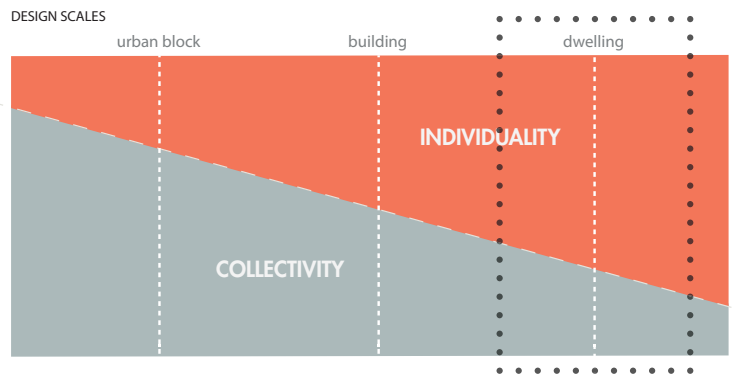
Montreal Plateau townhouses with exterior staircase access

Advertising for suburban houses aimed at families with children

11. 2. APARTMENT TYPOLOGY

The two buildings containing apartments are located the short ends of the block and are used to respond to surrounding buildings. The building on the west edge of the site facing Dufferin St. contains commercial spaces on the ground floor facing the public square and the widened walkway. This face of the building is kept solid and monumental in order to establish the building among the other outsize objects in the surroundings such as the housing towers accross the street and the 6 lane street itself. The side of the building facing the courtyard has been softened by inserting private houses which merge with the apartment building and blend in with the other housing typologies by using similar architectural elements.

The apartments are arranged along a double loaded corridor, common in Canada, but with an uncommon feature. The corridors are flanked by double height spaces which act as the living rooms for two floors of apartments. These generous communal spaces project outward from the otherwise simple volume of the building and draw attention to the collective aspect of the building. They are a weather protected version of the collective courtyards. The spaces are activated by the vertical circulation and provide light to the corridors.

The apartments are all designed as single floor units of differing sizes and aimed at young people on a budget or elderly who want to avoid stairs and downsize but want to take advantage of the collective indoor and outdoor spaces.
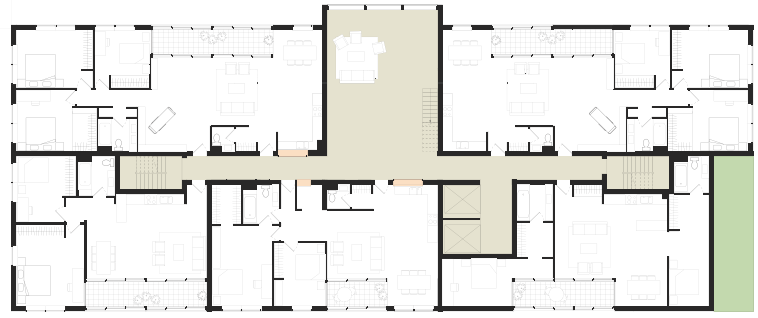
level 3
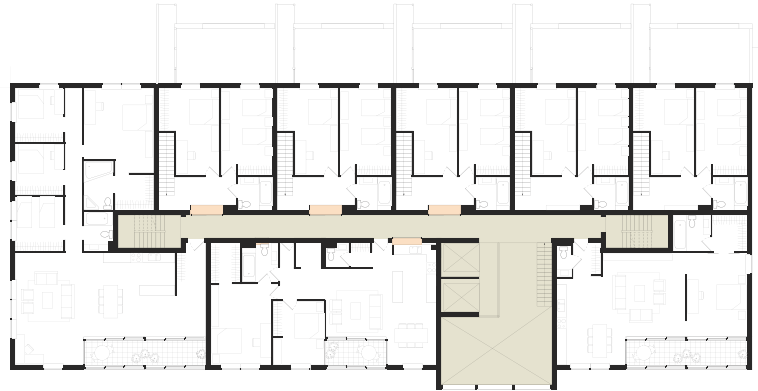
level 2

level 1
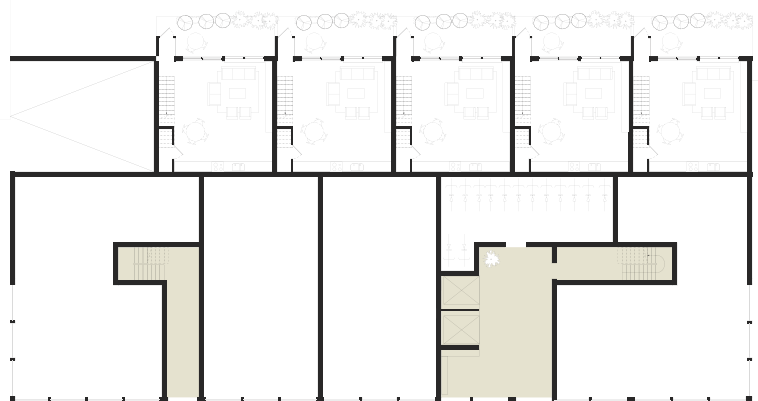
level 0

11. 3. Courtyard Typology

The courtyard typology is an interesting solution to a problem presented by the 32m depth of the building volume. The basic design for this typology contains 2 dwellings although it can be converted into 1 or 3 separate dwellings.

The courtyard here is used as both an outdoor space for one of the units and as a source of natural light and fresh air. The volume has been sculpted with considerations of privacy and daylight in mind.

The design of one dwelling is aimed at ageing couples or families who want to stay in a large house with a garden while having a one level dwelling. All spaces of the house are grouped around the courtyard and have direct access to it. This dwelling can be expanded to take over the ground floor of the adjacent dwelling in order to increase the size of the ground level. The second dwelling is a family house on 2 or 3 floors with a patio and a roof terrace.
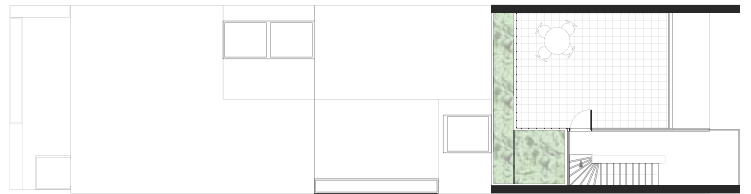
roof level
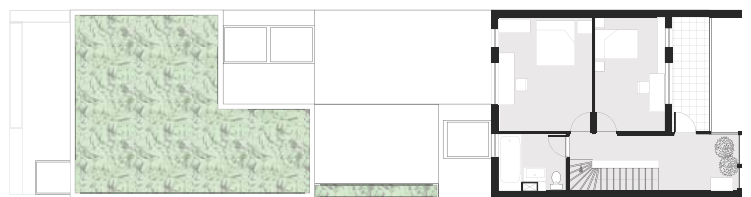
level 2

level 1
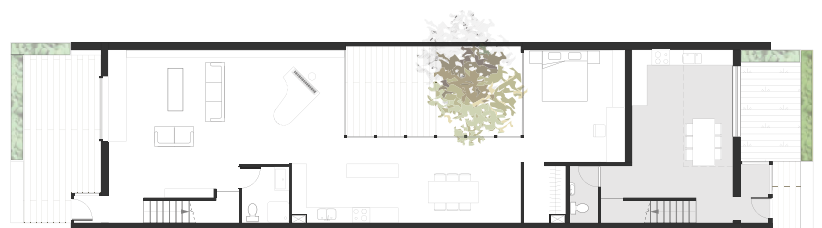
level 0
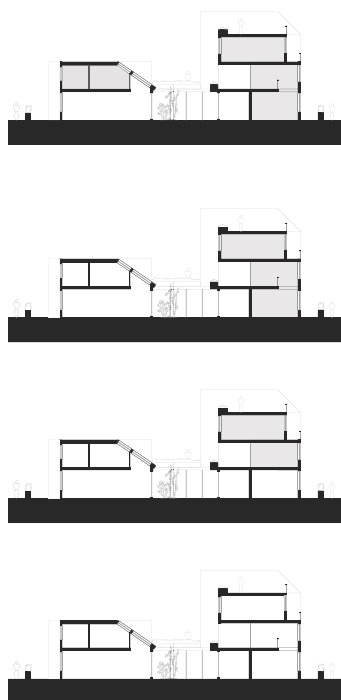
typology partition options
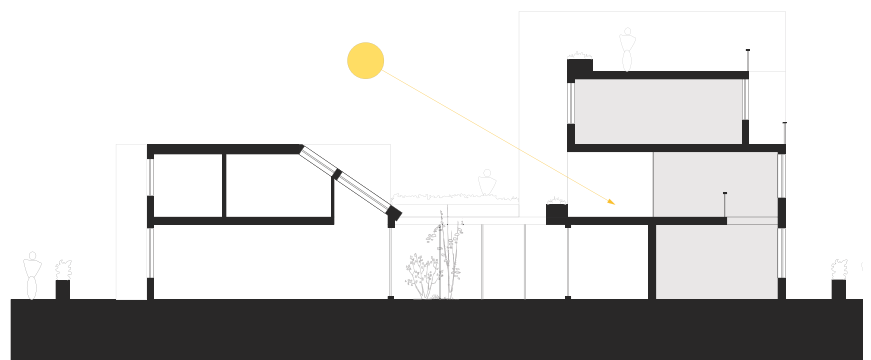
2 dwellings - section through courtyard

The staircase is both a transition
space and a reference point.
it is both a vertical and a
horizontal datum that connects
the different spaces of the house.

The staircase is an interesting
space in its own right that allows
for individual inhabitation.

11. 4. EXPANDABLE HOUSE TYPOLOGY

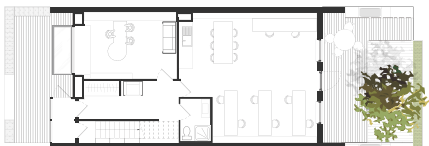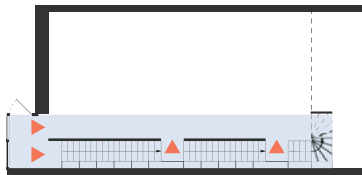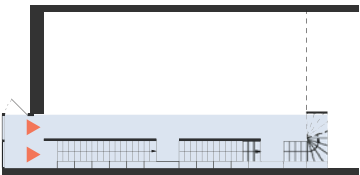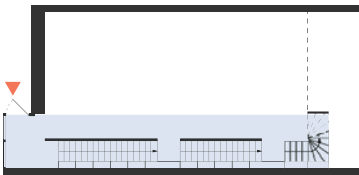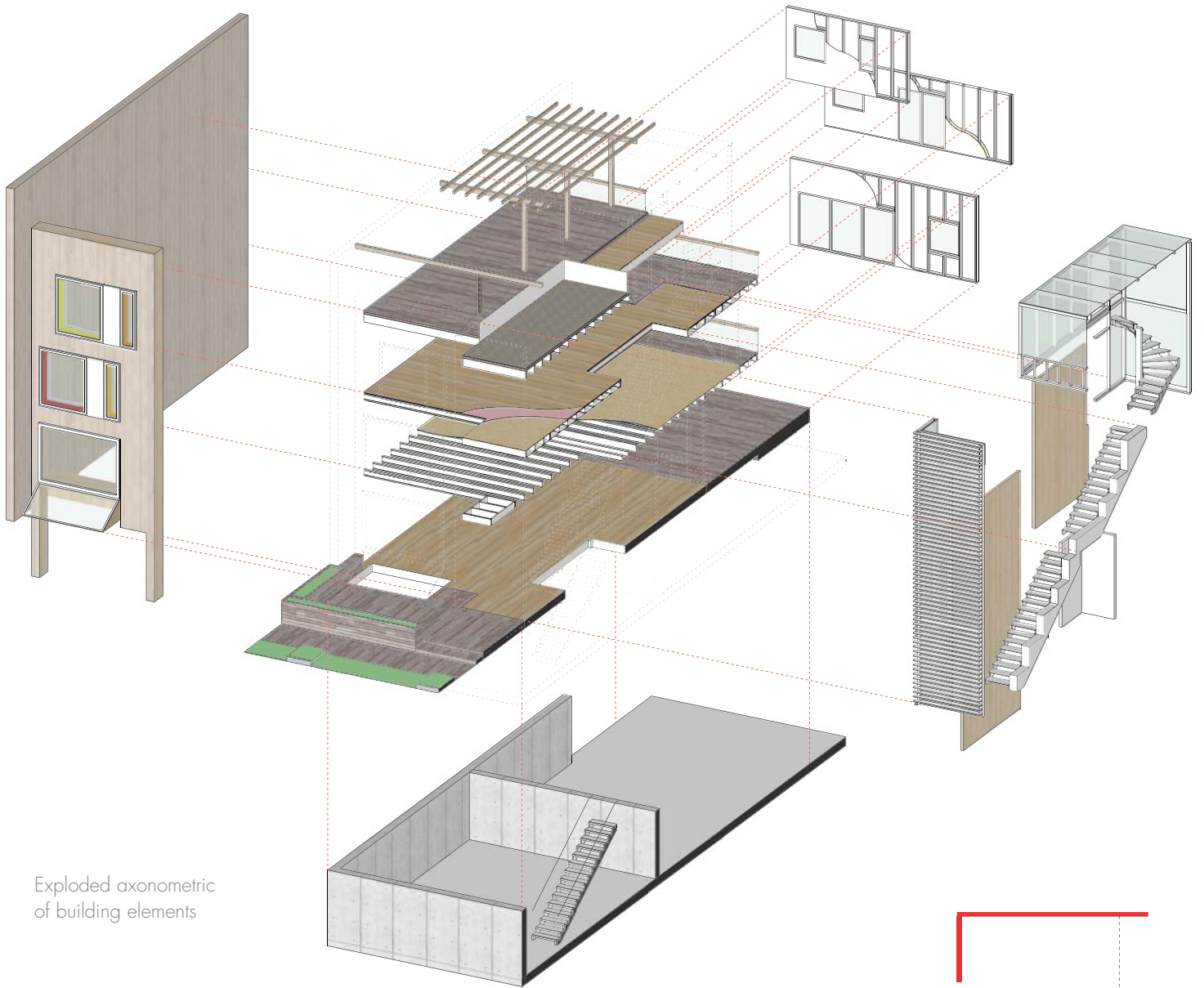Circulation and living volumes are separated
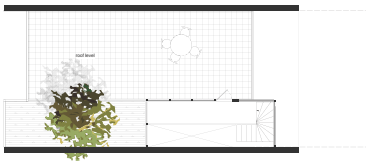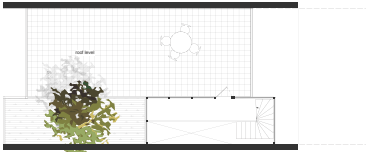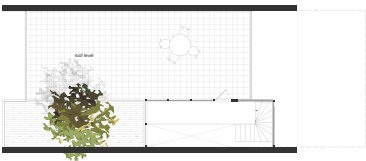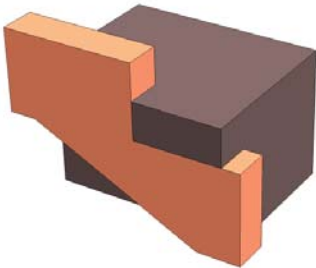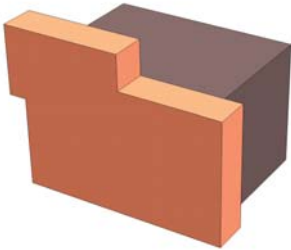
roof

level 2

level 1

level 0

1 family house 215 m²
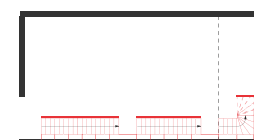
1 office space   85 m²
1 maisonette   125 m²
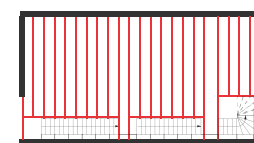
3 appartments   75 m²

Exploded axonometric
of building elements

solid wood load bearing walls

stairs and interior vertical elements

floor structure in wooden joists

1

roof - wall connection

2

floor joits attached to loadbearing walls

section through living room

Ermal Kapedani

FRONT FACADE CONSTRUCTION

1

2

3

2

basement window details

3

1
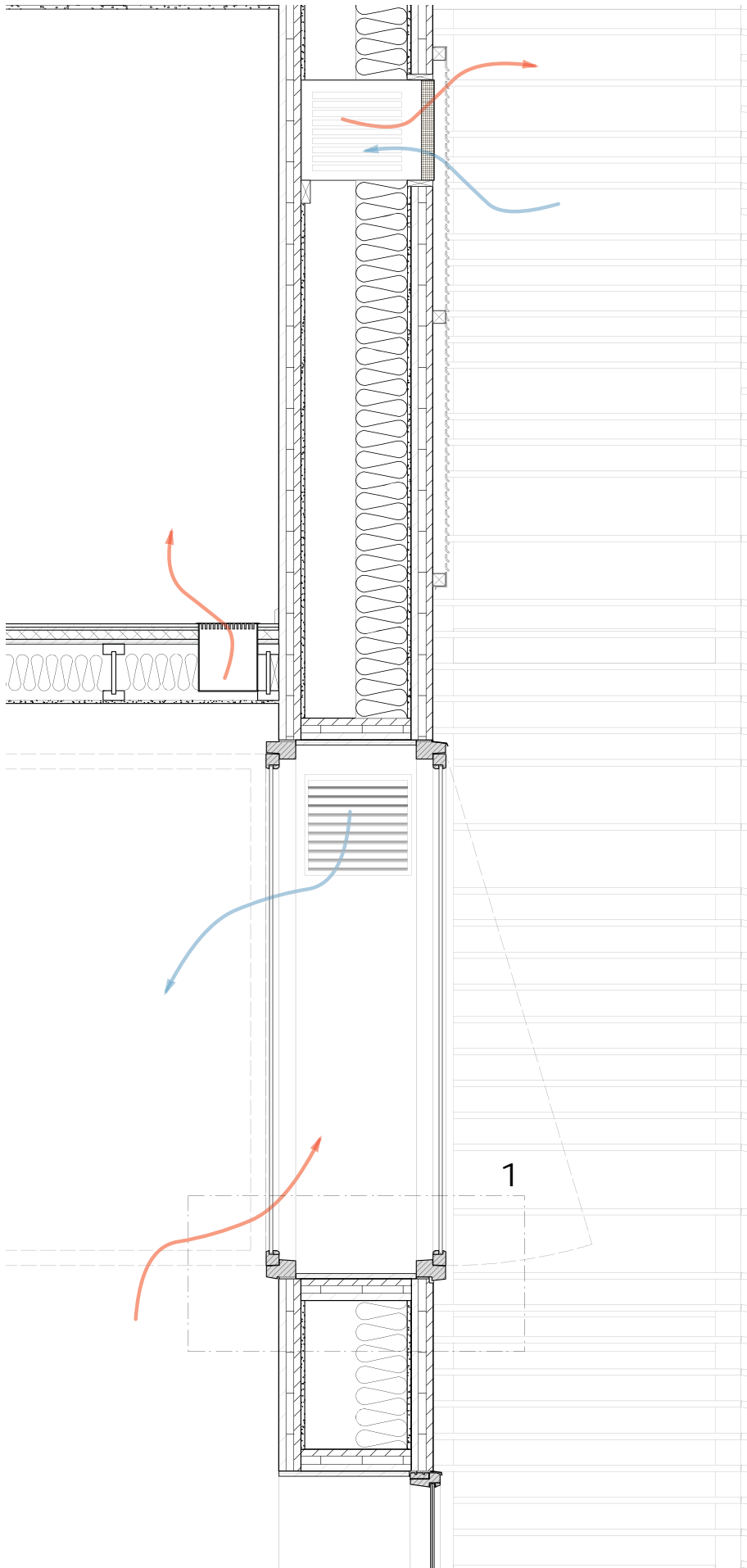
natural ventilation system

Ermal Kapedani
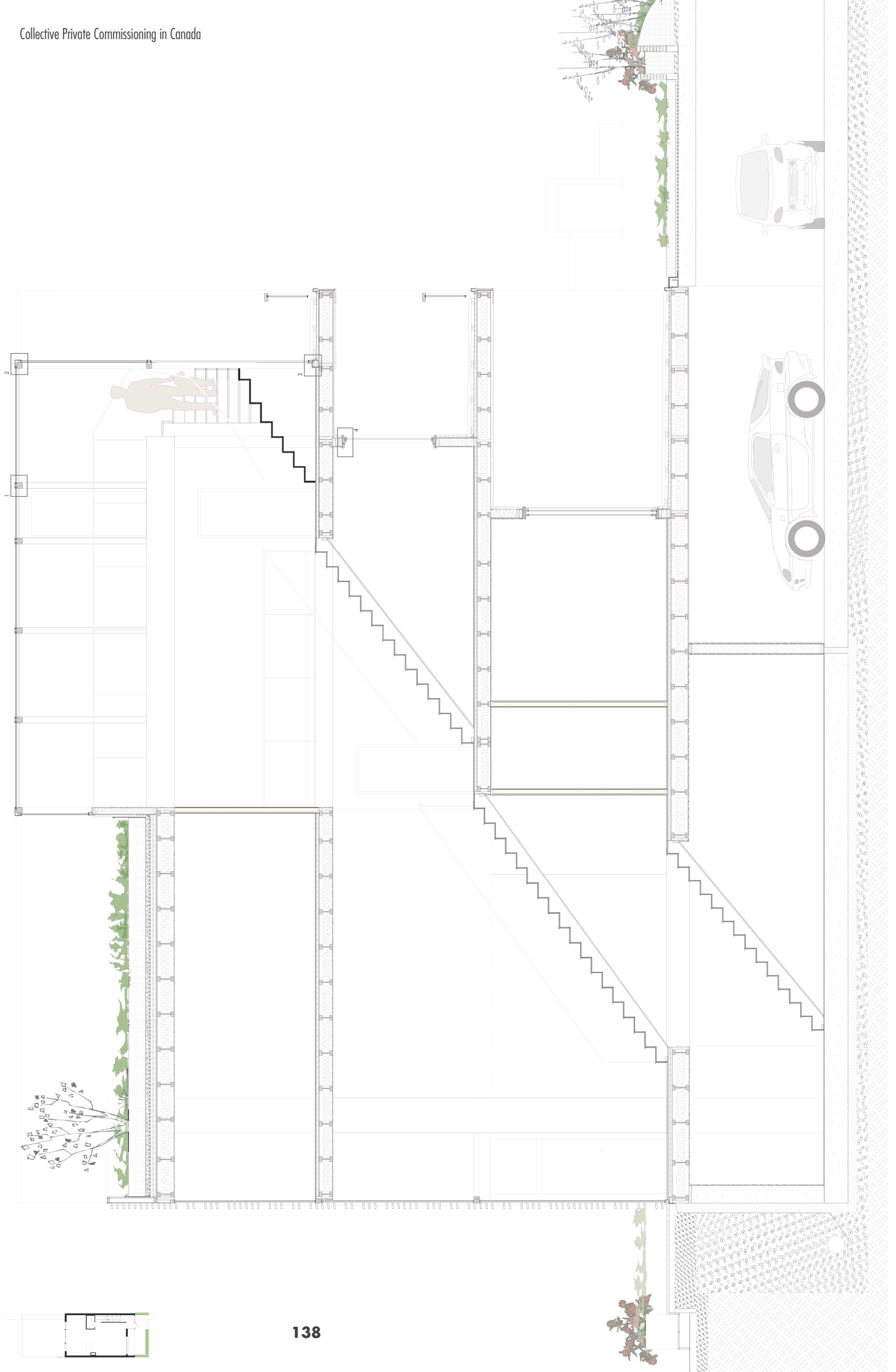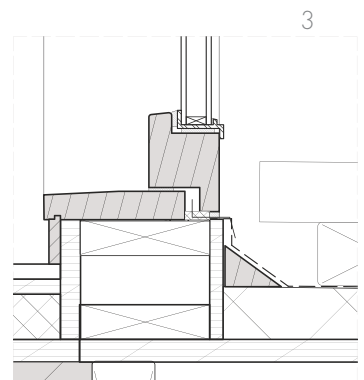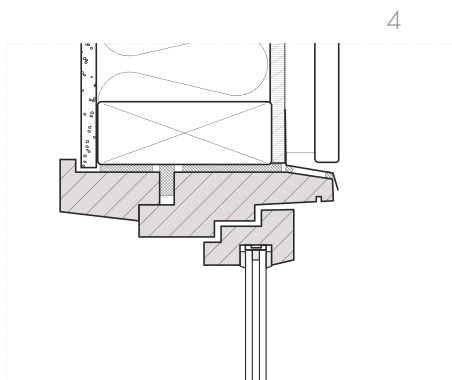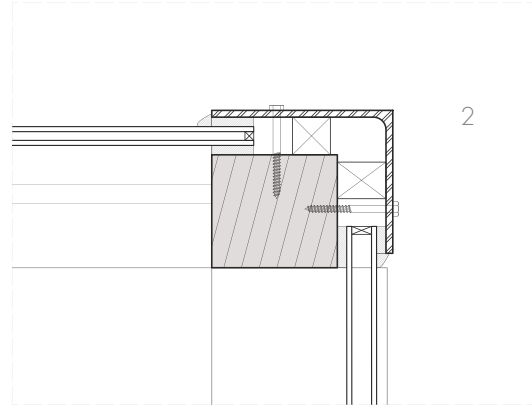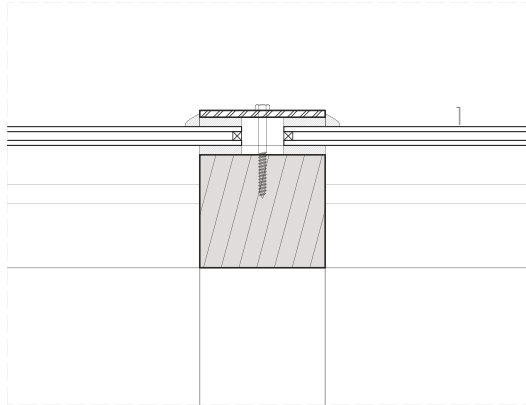
details of skylight over stairs

Ermal Kapedani
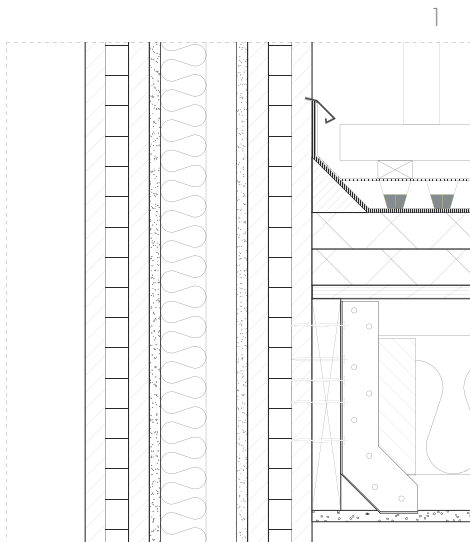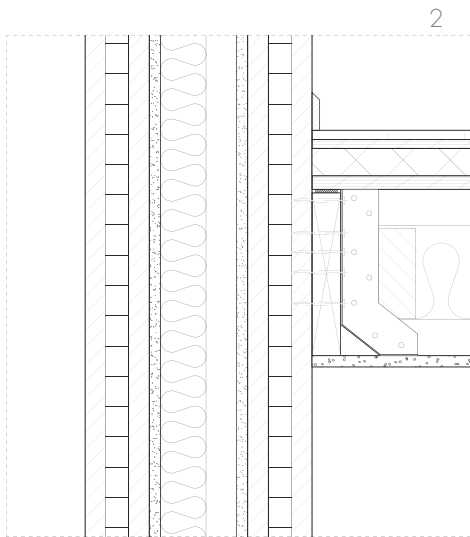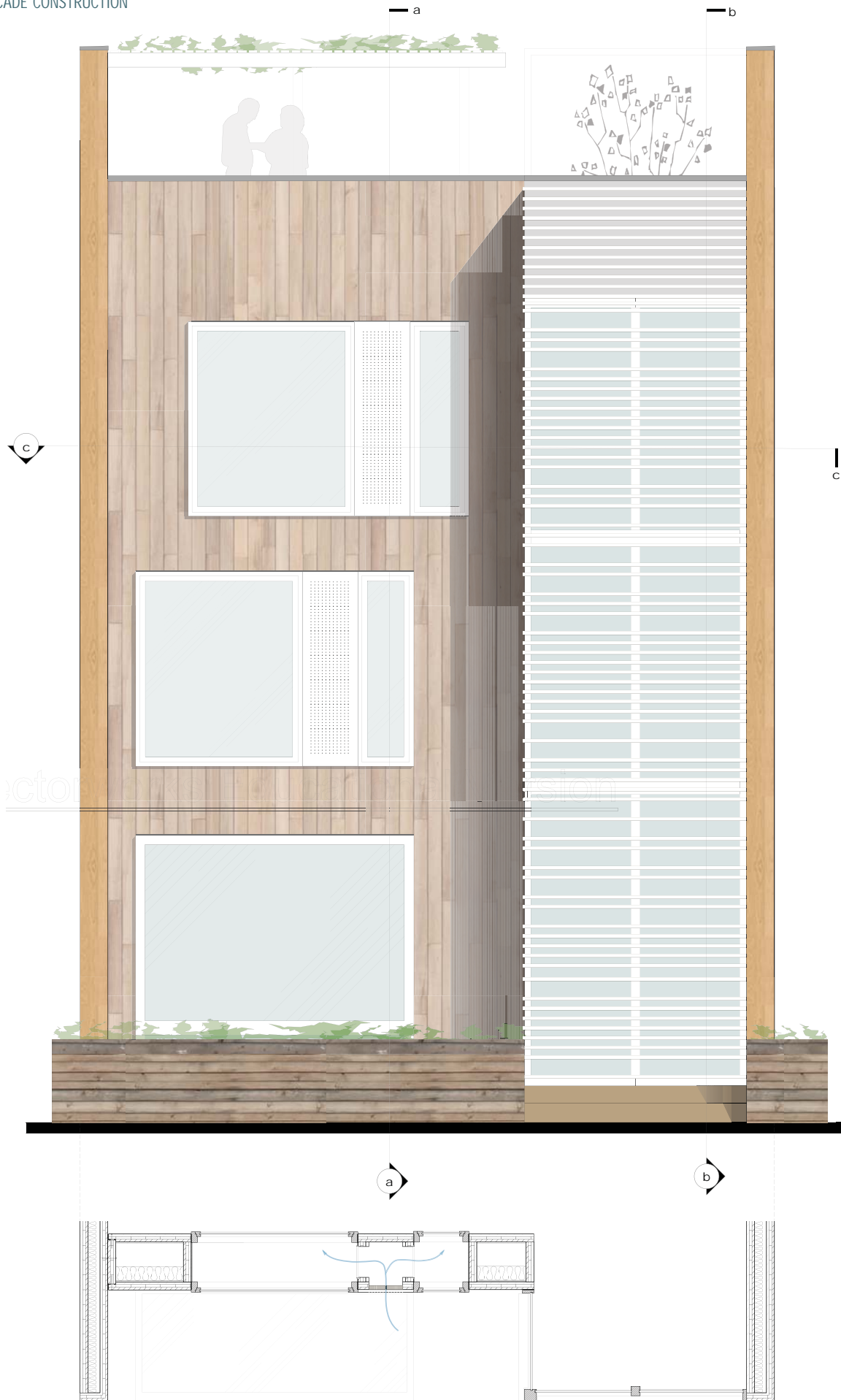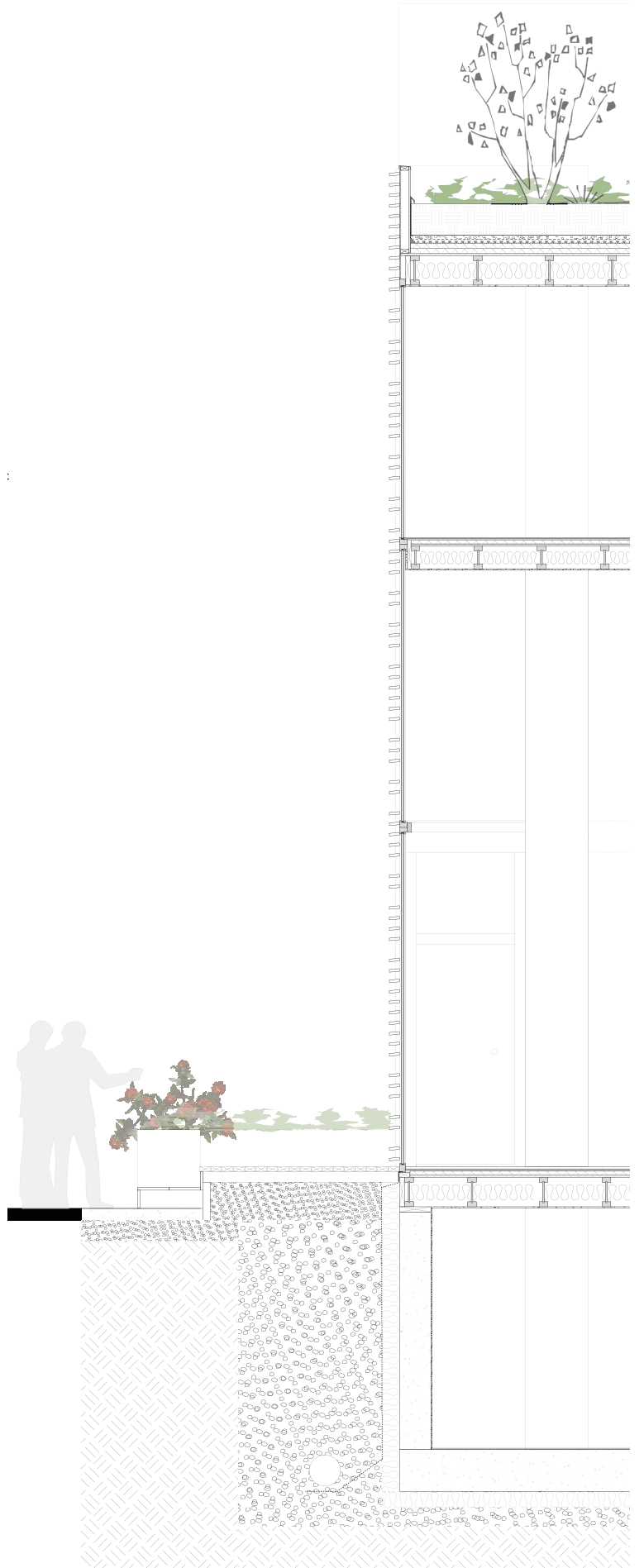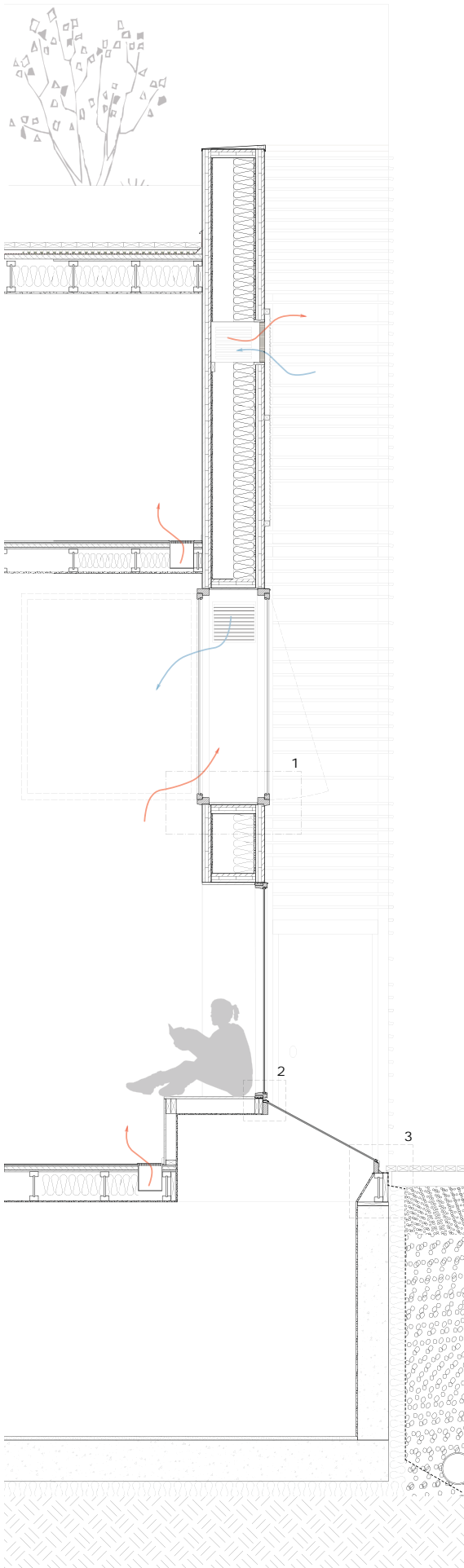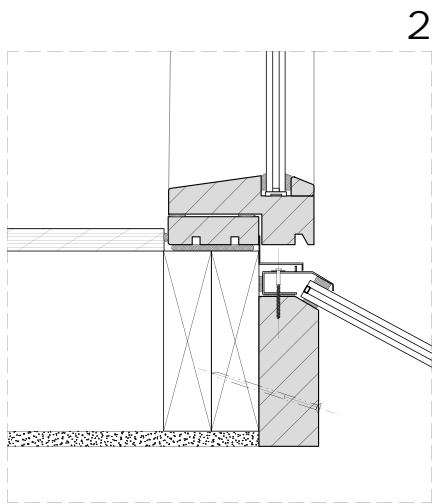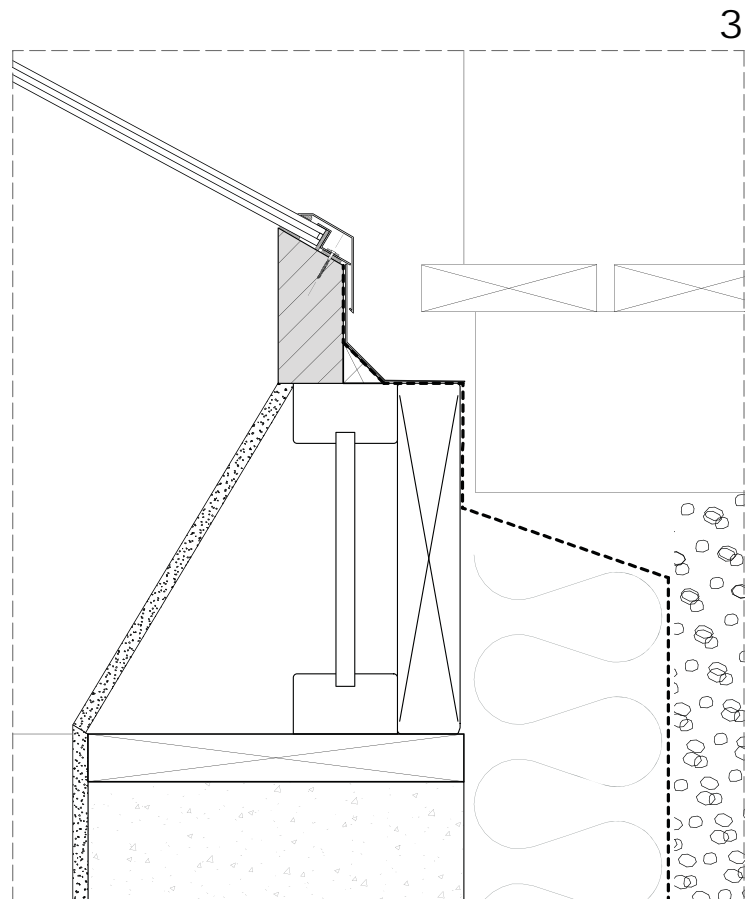
12 - APPENDIX

12. 1. INTERVIEWS

TYPCAL INTERVIEW SCHEDULE

There were several interview subjects each with their own specialized knowledge on the topic. The interveiw questions were adapted to get the most out of each subject's knowledge, and often new important questions came up during the semi-structured interview. For this reason, this interview schedule is only a basic format that shows the general topics discussed, but was then modified to fit the subject.

Introduction:

1. Thanking the interviewee for agreeing to the interview

2. asking if it is OK to record the interview

3. Introduce myself and the topic of my research.

General Questions:

1. How did you get involved in CPC/Cohousing? What is your role in the process?

2. What is your opinion on people taking control of the production of their housing?

Questions on CPC/Cohousing popularity:

1. How popular/accepted would you consider CPC (in Netherlands)/Cohousing (in Canada)

2. Why do you think it is this (un)popular? (briefly)

3. Do the Dutch/Canadians know and understand the concept?

4. Those who do know it, what do they like/dislike about it?

5. What would be a few key improvements that would make CPC/Cohousing more popular?

Questions on Supporting actors:

1. How does someone in your role as (....) contribute to the CPC/Cohousing process?

3. How important do you think your role is in successful completion of a project?

3. What other actors do you think are crucial/unnecessary to the CPC/Cohousing process? Why?

4. What role does the public sector play? how effective is it? how can it be improved?

Conclusion:

1. Thank the interviewee for their time and thoughts

LIST OF INTERVIEW SUBJECTS AND THEIR DETAILS

Name	Organisation	Role	Time and place of interview	Key points
Signy Fridrikson and Steve Fick	Terra Firma Cohousing	Residents	October 11, 2011 At their residence in Ottawa, Canada	- Cohousing is a fantastic idea but it is not popular. - The vast majority of people including the municipality do not understand and do not appreciate Cohousing - Very difficult finding land to build on
Benjamin Gianni	Azrieli School of Architecture and Urbanism, Carleton University	Associate Professor, director of Urbanism program	October 11, 2011 At Carleton University, Ottawa, Canada	- Sustainability is not something on the municipality's mind - Cohousing sounds nice, but has been around for a while and hasnt caught on - It faces cultural and financial head winds.
Marcel van Lent	De Regie bv.	Director. De Regie is a CPC consultancy firm	December 6, 2011 Amsterdam, Netherlands	- CPC and Cohousing are unrelated, they have very different origins and goals - Many Dutch people are not well informed but those who know CPC like it. - Housing Associations make a big difference, so does the municipality. But private developers are not as useful - There is much more attention now because of the crisis
Hein de Haan	Hein de Haan Architekten	Architect, intiatior and manager of CPC projects	December 8, 2011 Amsterdam, Netherlands	- CPC should be promoted as providing affordable custom made homes - The best way to promote CPC is to build more of them - i.e. word of mouth. - architects can take center stage in the process - they can initiate their own projects, becoming independent from developers just like the CPC members. - avoid as many external parties as possible, they cost lots of money
Anne Jo Visser	SEV	Researcher. co-author of research report on CPC	December 15, 2011 TU Delft, Netherlands	- Motivating factors and prioriteis for CPC participants are not what professionals expected - This has (sometimes negatively) affected the results of CPC projects - CPC groups could use the help of the government but it must be done carefully - The best thing government can do is to promote CPC and raise awareness.

Name	Organisation	Role	Time and place of interview	Key points
Fred Sanders	TU Delft, NH CPO	Phd researcher at TU Delft, Director of NH CPO - an organization that matches CPC groups with land owners	December 19, 2011 TU Delft, Netherlands Note: Fred Sanders was consulted in many earlier occations on the topic of CPC	- CPC is a reccession product - CPC offers a way for many private parties to make money by simplifying and removing the snags in the process - CPC has great potential but it needs nurturing, especially on the issue of land - Social cohesion is a double edged sword, there can be too much of it
Theo van Rijn	Almere Municipality	Project manager at the Homerus Quartier project in Almere	December 21, 2011 City hall, Almere, Netherlands.	- Almere is doing a lot of experimenting with forms of participatory development - It takes a strong public figure with the will and passion to push the involvement of municipality in CPC - CPC are complicated for municipality. they prefer PC. - The best thing that external actors (municipality, contractor, architect etc.) can do is to reduce their own path dependencies. Almere had to set up a whole new division of land development for the Homerus Quartier project.

Note: Evert Hasselaar, although not directly part of the interview study, was also a great source of information and answered many questions as the tutor of an elective course on sustainable building methods.

12. 2. Pro Forma Calculation

The form and values of the calculation below are based on the pro-forma analysis "Mid-rise economics" presented by Adrian Kozak of Barry Lyon Consultants, for the *Mid-rise Symposium*, November 2005. It was intended to show the economic viability of the City of Toronto's plan of redeveloping the low rise buildings along the main avenues into mid-rise mixed-use buildings.

The construction costs here have been taken from Kosak and adjusted for inflation while sale prices have been taken from www.mls.ca.

Costs and Revenue

Land Costs

# of lots assembled	10
premium over market value	5%
price per lot + premium	$472,500.00
demolition cost	10000
total area m2	6510
Total land costs	**$4,825,000.00**
land costs/m2	$741.17

Costs

new construction GFA	14322	amenities GFA	2000
hard construction cost per m2 GFA	1600		1000
hard construction costs	$22,915,200.00		$2,000,000.00

		costs per m2	cost per unit
soft construction costs	40%		
total construction costs	**$34,881,280.00**	**$2,435.50**	**$292,260.41**
Site + construction	**$39,706,280.00**	**$2,772.40**	**$454,925.54**

Revenues

average size of unit m2	120
# of units	87
average market price/ m2	$4,000.00
market price/unit	$480,000.00
total market revenue	**$41,894,800.00**
revenue if units sold at cost	**$39,706,280.00**
total residual land value after construction	**$7,013,520.00**
Residual land value/m2	**$1,077.35**

Housing Form Data

Existing housing form		
FSI	0.58	
Density	15.36	units/ha
New housing form		
Density	134.07	units/ha
FSI	2.2	
Average # of floors	4	
footprint %	55.0%	
garden area	2929.5	
collective space/dwelling	22.91	m2/dwelling

Financial Benefits to CPC Participants

Existing owners who do not participate receive:
$472,500.00 ($22500 in profits)
Existing owners who partecipate in CPC receive:

17574.4627 + a new 120m2 dwelling

total profit/savings for participating owners:
$42,648.93

New CPC participants receive savings:
$25,074.46

12. 3. SURVEY QUESTIONNAIR

Ermal Kapedani
Delft University of Technology

This survey has been designed to gather information on housing preferences as part of a masters thesis in Architecture and Real Estate & Housing. It will take about 10 minutes to fill out. Please fill the form out and send it back to info@ekapedani.com before March 10, 2012. Your input is greatly appreciated!

SECTION 1

1. Age

2. Your current living location and dwelling type

A. location
☐ Urban
☐ Suburban
☐ Rural

B. dwelling type
☐ Apartment
☐ Row house / Semi-detached
☐ House

3. Your annual income

☐ 0 - 20 000
☐ 20 000 - 40 000
☐ 40 000 +

4. Your household type

☐ Individual
☐ Couple
☐ Couple with children

5. Do you have, or plan to have, a home-office / work-space?

☐ Yes
☐ Maybe
☐ No

6. Do you rent or own your home?

☐ Rent
☐ Own

SECTION 2

1. Are you satisfied with where you live now?

☐ Yes
☐ No

2. How satisfied are you with the options currently available in the housing market?

☐ Not at all ☐ Not really ☐ Moderately ☐ Completely

3. If you are not satisfied, what do you think is missing?

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│                                                         │
│                                                         │
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SECTION 3

1. To what extent does the idea of being involved in the design of your own home appeal to you?

☐ Not at all ☐ Not really ☐ Moderately ☐ Completely

2. Would you be willing to cooperate with your future neighbors in the design of your housing complex (apartment building or block)?

☐ Not at all ☐ Not really ☐ Moderately ☐ Completely

3. How comfortable are you with shared spaces and amenities?

☐ Not at all ☐ Not really ☐ Moderately ☐ Completely

4. If no private space is lost, do you see a benefit to sharing communal spaces or amenities
(such as a garden, a play area or a workshop)?

☐ Not at all ☐ Not really ☐ Moderately ☐ Completely

5. Would you prefer to live in a community where participation in collective activities (such as maintenance, operation of amenities, gatherings, etc.) is expected or optional?

☐ Expected ☐ Optional

Additional comments on this section:

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┌─────────────────────────────────────────────────────────┐
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└─────────────────────────────────────────────────────────┘
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SECTION 4

image 1

image 2

image 3

image 4

1. Do these images, in general, represent an appealing living environment to you?

   ☐ Yes
   ☐ No

2. What do you find appealing?

3. What is not appealing?

image 1

image 2

image 3

image 4

image 5

image 6

4. Do these pictures represent a place with a strong sense of community to you?

☐ Not at all   ☐ Not really   ☐ Moderately   ☐ Completely

5. Do these pictures represent a place with a strong sense of individual freedom to you?

☐ Not at all   ☐ Not really   ☐ Moderately   ☐ Completely

Additional comments on this section:

SECTION 5

Collective Private Commissioning (CPC) and **Co-housing** are two alternatives to the standard method of housing development which provide residents with an opportunity to greater input in the design and management of their living environments.

What is Collective Private Commissioning?
In a CPC project the prospective residents have direct involvement in the design of their dwellings as well as full decision making power for the project. This process is carried out without the participation of a commercial developer, but with the aid of consultants, and usually involves 20-60 people. The group of future residents, through negotiation and compromise, make decisions on common areas and features while decisions on individual units are made on an individual basis. The tenure form is usually as a condominium, and once the residents move in, they can choose to manage the maintenance and operation of the property themselves or hire professionals. In a CPC individuals have the opportunity to use the advantages of the group to achieve their individual dreams.

1. Does this process sound appealing to you?

☐ Not at all   ☐ Not really   ☐ Moderately   ☐ Completely

2. What would be your reaction if this type of project was initiated in your neighbourhood?

☐ Not happy about it!   ☐ I would not care.   ☐ I would welcome it.

3. *Co-housing is a similar concept to CPC that has already been applied a few times in Canada.*
   Are you familiar with Co-housing?

☐ Not at all   ☐ Not really   ☐ Moderately   ☐ I live in it!

What is Co-housing?
Co-housing is a form of development that uses the same collaborative process as a CPC with the future inhabitants involved from the very beginning. In Co-housing, however, the sense of community is the driving force behind the project. Residents join together with the goal of achieving high level of community while preserving privacy.

How does Co-housing compare to CPC?
In this way Co-housing differs from a CPC. In a CPC the collaboration of the residents is used simply as a tool in the production their individual homes. CPC can be seen as a stripped down version of Co-housing since collective living is a primary focus of Co-housing and is not a necessary element of a CPC. In a CPC the level of collectivity of the final development depends entirely on the wishes of people involved. Participation in the collaborative process, however, usually leads to a strong community within CPC projects.

4. Which one sounds **more** appealing to you?

☐ Co-housing   ☐ CPC   ☐ About the same   ☐ Neither of them

5. Would you consider getting involved in a CPC or in a Co-housing group to build your own home?

☐ Co-housing   ☐ CPC   ☐ It's not for me!

Additional comments on this section:

[ ]

That's it!

Please save the file and e-mail it to   *info@ekapedani.com*

Thank you for your thoughts and time.

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