Collective self-organised housing and affordability

Evaluating aspects of CSO housing in relation to housing affordability for starters

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This reflection paper consists of three parts: 1. introduction of the topic of the graduation project in a societal context, 2. brief description of the research and design project, 3. reflection on research and design method and result.

Introduction

Each year about 33.000 starters enter the housing market of Amsterdam. Previously, these starters could appeal to distinct market segments for their first home in the city; depending on their income, they would either apply for social housing, search within the private rental segment or apply for a mortgage to buy a house. Due to privatisation in the 1990s, the economic crisis of 2008, and the receding power of the government in general, it now has become increasingly difficult for them within all of these segments to access housing that fits their needs and desires.

This effect is however not limited to the city of Amsterdam; throughout cities in Western Europe starters have problems acquiring their first home. Housing prices in capital cities are spiking as a result of the limited new-build housing stock due to limited construction during the economic crisis. (Boterman, Hochstenbach, Ronald, & Sleurink, 2013) Londeners between 18-24 years old spend approximately 80% of their income on rent. As this age group struggles to save any of their income for later, homeownership becomes further out of reach. As a result, home ownership declined from 60% to 50% in the past 10 years. (The Guardian, 2015); The decreased accessibility of the housing market is dealt with in different ways in different countries. In Sweden and the UK, there has been an increase in young adults living with their parents longer, and in many Western European countries intergenerational transfers of capital, often by family members, have become essential means of financing. (Kurz & Blossfeld, 2004)
Negative socio-economic implications of the decreased accessibility for starters, especially on the buyers' market, are postponed family formation and decreased fertility. In addition, the saving and consumption behaviour of these starters are affected on the long term because they are paying off their mortgage at an older age. (Doling, 2012)

Architects, among others such as urban planners, politicians, have understood the urgency to find a solution to this problem. Their proposals range from modular housing to floating houses, parasitic architecture and student-style accommodation and micro-apartments. (Dezeen, 2015)
Although conducted as part of an architectural degree, this research aims to understand the problematics around this theme in a broader financial and institutional context. Therefore, the developments which have caused the inaccesibility of the Amsterdam housing market for starters are framed in the next paragraph.

The Amsterdam housing market
Up until the 1990s, the distinct market segments in housing were responsive of the starters' demands. The wave of privatisation of the social housing market in the 1990s limited accessibility for starters, which had to resort to the private rental sector. The housing stock of this segment was also decreasing, due to the increase in home ownership from the 1980s onwards. The mismatch between demand and supply on the private rental market led to high rents, which could not be controlled either as they are responsive to the market and not controlled by the government. On top of these developments, the recent economic crisis has further reduced new built construction, and put more pressure on the existing housing stock. (Boterman W. , Hochstenbach, Ronald, & Sleurink, 2013) These developments have affected the current situation of the Amsterdam housing market, which will be further elaborated in the next paragraph.

Current developments
When renting, starters can either engage in the social housing market or the private rental market. The social housing market has become inaccessible for this group, because of the extensive waiting list, scaling up to 15 years. Furthermore, the private rental market is shrinking and is highly regulated; the less regulated segment of this market is too expensive for starters. (Boelhouwer, 2012) Combined, these effects have caused what is called the gap between social housing and the private market in which, among other groups, low to middle income starters are stuck.

When buying, the recent increase of stock and decreasing housing prices in the buyers' market might appear to be great opportunities for starters to gain access. To the contrary, the economic crisis has

caused the banks to install strict requirements for mortgage applications, which are hard to fulfil for starters, as they often work on a freelance or temporary contract basis. (Doling & Ronald, 2010)
In addition, the affordable segment of the buyers' market has shrunk, which strengthened the competition of more financially stable households who often surpasses the starter household in allocation. (Boelhouwer, 2012)

The inaccessibility of the sectors mentioned above, has led to an increase in illegal activity in informal housing markets and the acceptance of temporary contracts among starters. Many of the illegally sublet dwellings are enlisted as social housing, and therefore contribute to the emerging issue of waiting lists for social housing. Temporary contracts are often provided by owners that have trouble selling their house, or to prevent squatting in vacant residential or office buildings.
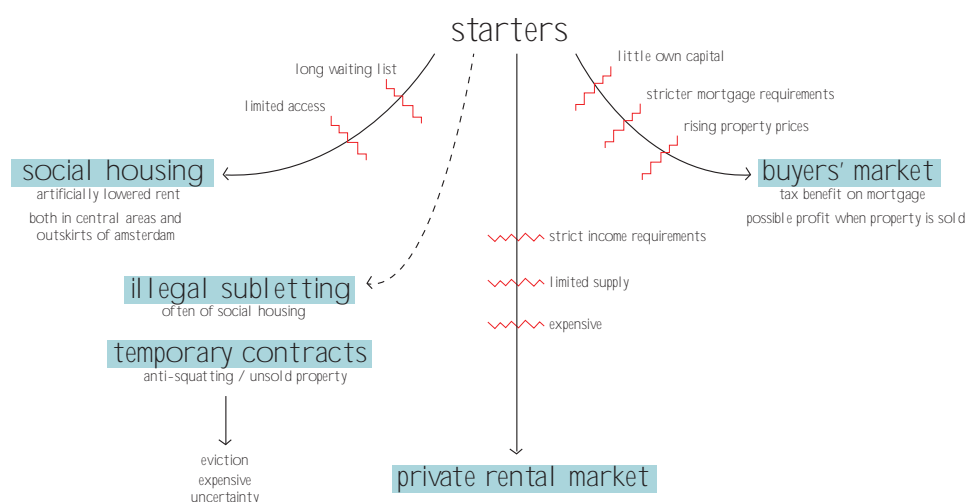

Figure 1: housing markets available to starters (based on Hochstenbach & Boterman, 2014)

As the illegally sublet sector tends to be expensive, and the living situation of residents in both sectors is uncertain, as eviction can quickly be effectuated by the owner, these emerging markets are undesirable alternatives for starters (see figure 1). (Hochstenbach & Boterman, 2014)
Much research has been done on how these issues can be solved on an institutional level, by changing policy, strategic urban planning or investments. This research however takes the institutional and economic situation as a given, and aims to find ways in which citizens can organise themselves to 'create' affordable housing amidst the overstrained housing market.

The emergence of (collective) self-organisation (CSO) in housing
Decentralisation, increased self-reliability and demand for participation and custom-made solutions, are themes that have been of concern in building culture in the past decades. (Tummers, 2015) The network society and its associated individualisation and social fragmentation causes an increasing need for a renewed collective self-esteem, and a greater need of people to link with their surroundings (Dowding et al., 2000). Aspirations to have a sense of commitment to the living environment and a desire of for collectiveness, can be met with collective private commissioning. (Gameren, 2013)

How can CSO housing help starters?
Collective self-organised projects are not exclusively utopian or community housing experiments, but also pragmatic answers to societal need such as everyday service, energy- or cost-savings and accessibility. Although research has not exclusively confirmed that collective self-organised housing is in fact more affordable than regular consumer-based housing, there are illustrative case studies in which lower income groups have been succesfully been included in CSO projects. (Tummers, 2015)

While much research focuses on costs compared to regular construction (SEV, 2010), affordability is linked to the financial limits of a certain group. Therefore, a CSO project can objectively be more expensive than a top-down constructed project, whereas solidarity funding or manipulation of property prices within the group can make these projects more accessible to lower income groups than regular consumer-based housing. (Tummers, 2015)

Research and design project

Typically, the majority of self-organised housing initiatives are driven by upper middle class citizens with own capital and financial security. Among participating households, families with children and middle-aged empty nesters are overrepresented. However, projects with strong do-it-yourself mentalities for starters are appearing. (Boelens & Visser, 2011) The ambition of the research is to establish collective self-organized housing as a feasible alternative to a more passive consumer-driven housing culture for this group too.

Therefore, the core of this research is the evaluation of aspects related to affordability, as determined in literature, specifically directed towards accessibility for starter households.
The results of the research can be used to inform architects, but also other initiators or contributors, about the aspects of collective self-organised housing projects affecting housing affordability for starters.

Research method
The research consists of both literature and a multiple case study. A literature study is conducted to define key themes and aspects related to affordability in collective self-organised housing projects. These form the basis for a multiple case study of three European cases. The focus of this multiple case study is an evaluation on how the CSO groups have dealt with the aspects related to affordability, as identified in literature. Subsequently, the information found on each aspect will be compared between the three cases in the synthesis. Conclusions can be drawn between the 3 cases in general in relation to affordability. In the end, recommendations are made for the Amsterdam case, which has been the starting point of this research. These recommendations comprise implications of the general conclusions relevant to architects involved in future CSO projects in Amsterdam.

The data for the multiple case study is collected through websites, publications, and interviews with residents and involved architect(s).

Societal relevance
The exclusion of low to middle income starters might threaten Amsterdam as a 'creative metropolis'. Companies are establishing themselves in Amsterdam because of the 'human capital'. As globalisation has enlarged the area of employment for graduates, starters will compare various cities according to income, monthly expenses such as rent, tax etc. (Hassink, Dröes, Manshanden, & Steegmans, 2012) The general trend for starters to pay an increasing large part of their income on housing might stimulate migration to more financially attractive cities. (Clapham, Mackie, Orford, Buckley, & Thomas, 2012) Therefore, it is necessary to counter further privatisation of the housing market, in order to maintain affordability, social equity and socio-economic stability for young households.

Scientific relevance
Tummers (2015) detects a lack of knowledge on how mixed income households can be accomodated for in collaborative housing. Although this paper only comprises a brief literature study and 3 case studies, it can contribute to a larger evaluation of affordability in CSO projects in the future.

Design relevance
Previous attempts at designing affordable housing for starters in cities have largely been made within the scope of the architects' influence. This research however links different aspects within the larger theme of CSO housing to affordability, including many which cannot be influenced by the architect. Only after linkages have been made between these aspects and affordability, recommendations and design principles are made to inform the architect. Therefore, it has the capability of striving beyond the existing proposals and strategies for solving this problem.
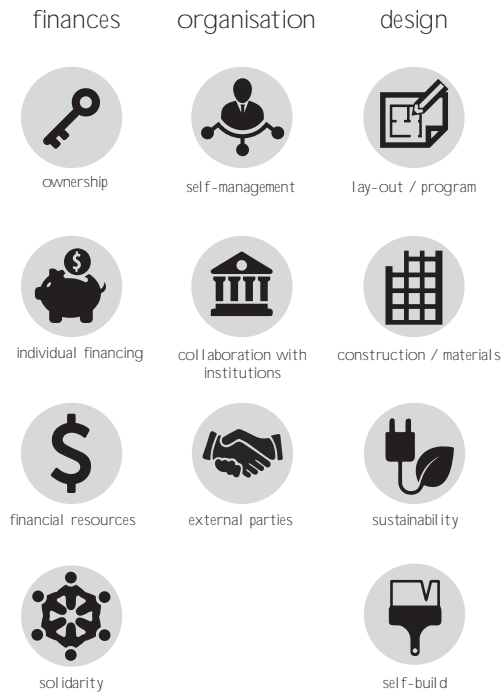
finances   organisation   design

ownership   self-management   lay-out / program

individual financing   collaboration with   construction / materials
                        institutions

financial resources   external parties   sustainability

solidarity   self-build

Figure 2: Aspects from literature related to affordability (own
illustration)

problem statement   literature study   multiple case study

                                              selection criteria

H1   H2   aspects   H3   Vrijburcht   Brutopia   Kalkbreite   synthesis   conclusions   recommendations
                                                                                                                 for amsterdam case
     problem
      starters
  distressed urban   H4   H5
  housing markets
     solution
 affordable housing
  self-organisation
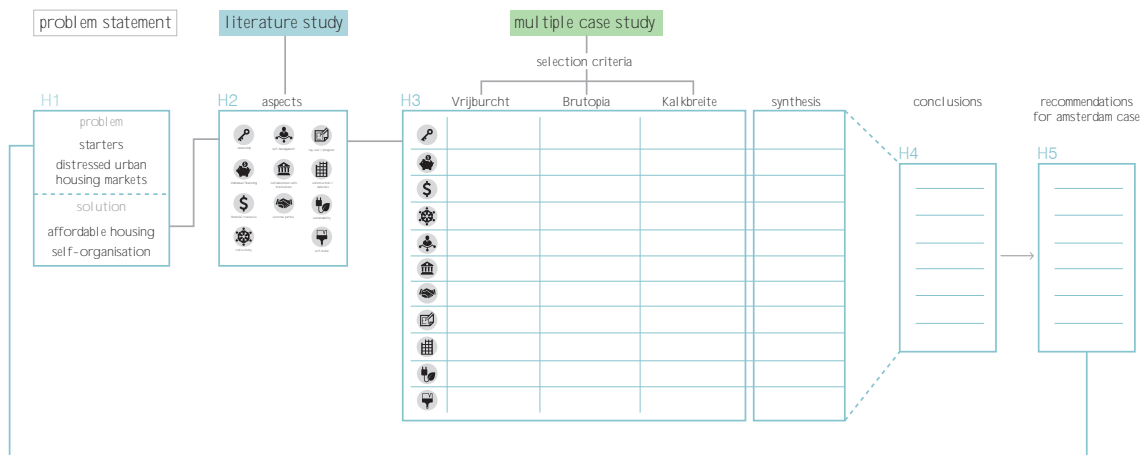
Figure 3: Research methodology and structure of the report (own illustration)

Scale

relies less on individual credit,   solidarity
more on institutions
and external financers

pooling resources and services   sharing additional functions
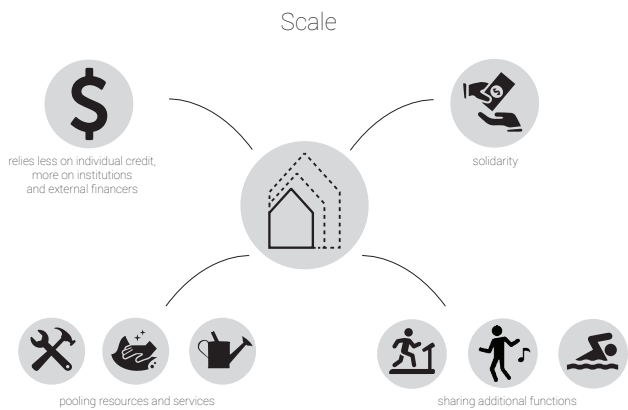
Figure 4: One of the main conclusions

Design project

Location
From the conclusions drawn from the research, the design project started with finding a design location. Quickly it was found that creating affordable housing in Amsterdam is nearly impossible, as land prices (which are almost only in the form of leases) are extremely high. One of the cases studied in the research inspired me to think more in the direction of double use of land (see figure 5). That specific project, Kalkbreite in Zurich, was built on top of a tram depot. Commercial investors considered the plot (which was already occupied by the tram depot) uninteresting for a feasible project, which meant that the group did not have to compete with them.
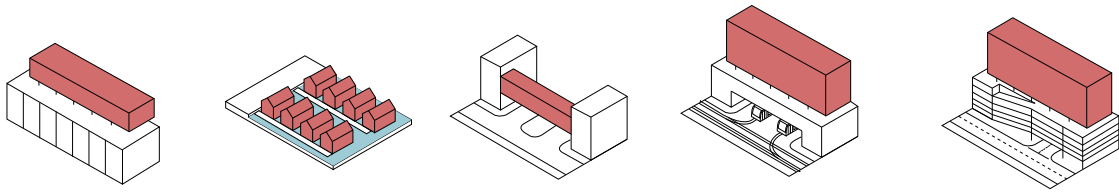
Figure 5: double use of plot
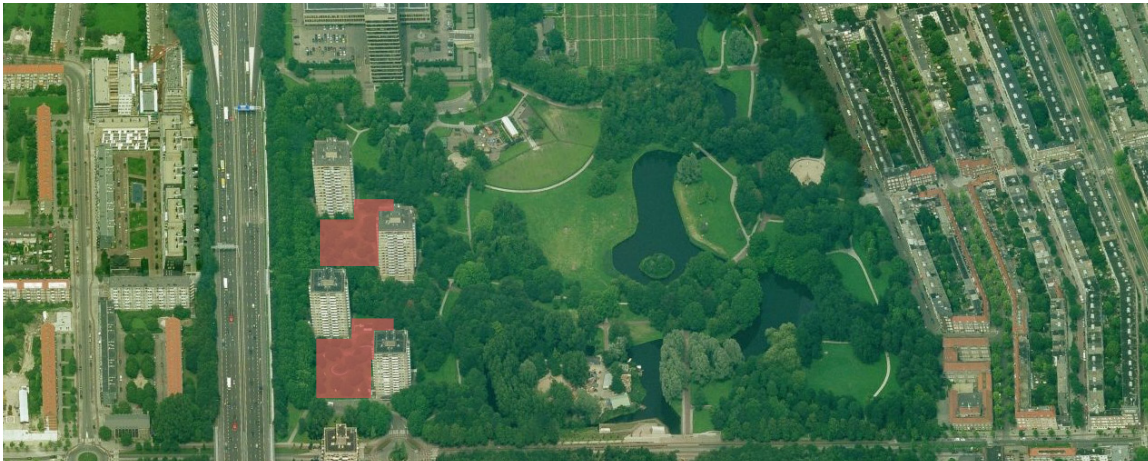
Figure 6: parking garage between towers

During the search for similar situations in Amsterdam, one-story semi-underground parking garages were found next to the Rembrandtpark in Amsterdam. (see figure 6) A calculation was done, and it resulted in the possibility to add up to 6 storeys of light-weight structure on top of the existing parking garage and existing foundations.

Volume
The site, bordered by two 17-storey towers, is about 90 x 90 meters. A guiding theme for the design is to transform the now rather blank space into defined courtyards which line up with the towers. This creates views from the towers into the green courtyards, and secures privacy for residents of the old towers and the new building. To provide more daylight and a permeable block on ground level, I experimented with lifting up part of the building volume. The process of shaping the volume of the building is shown in figure 8.
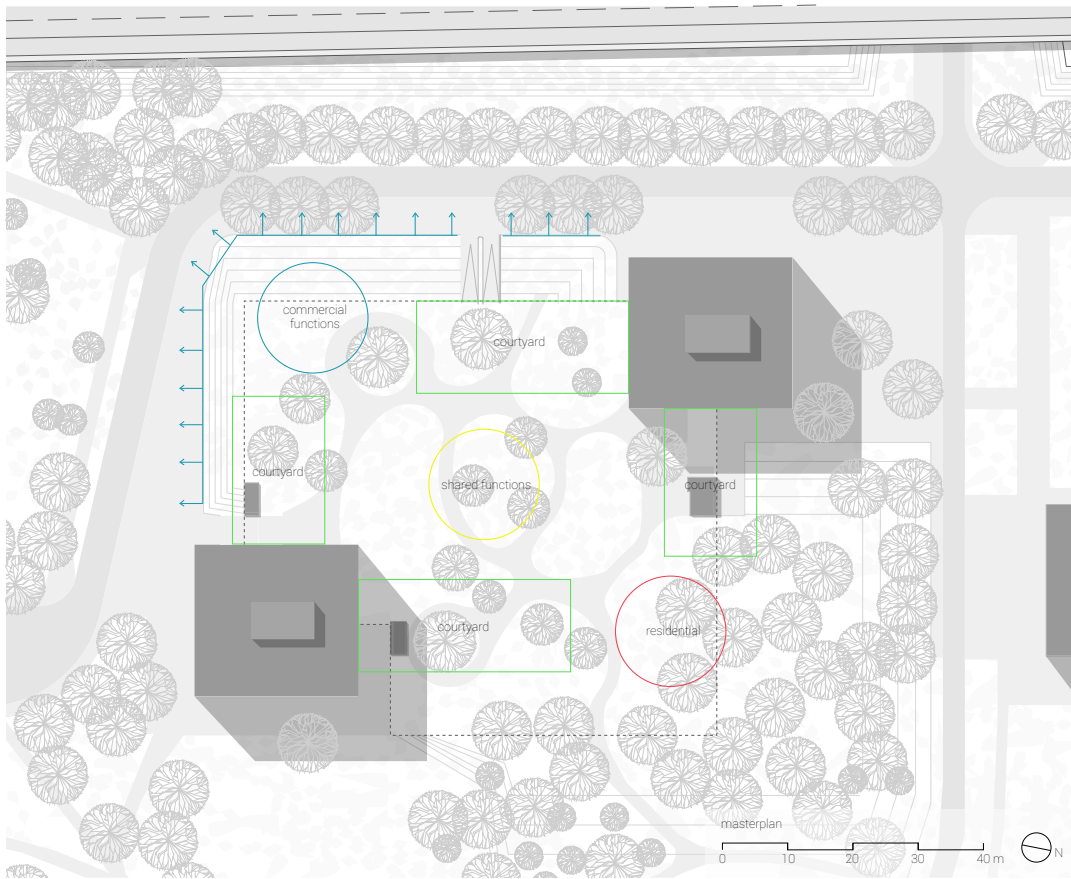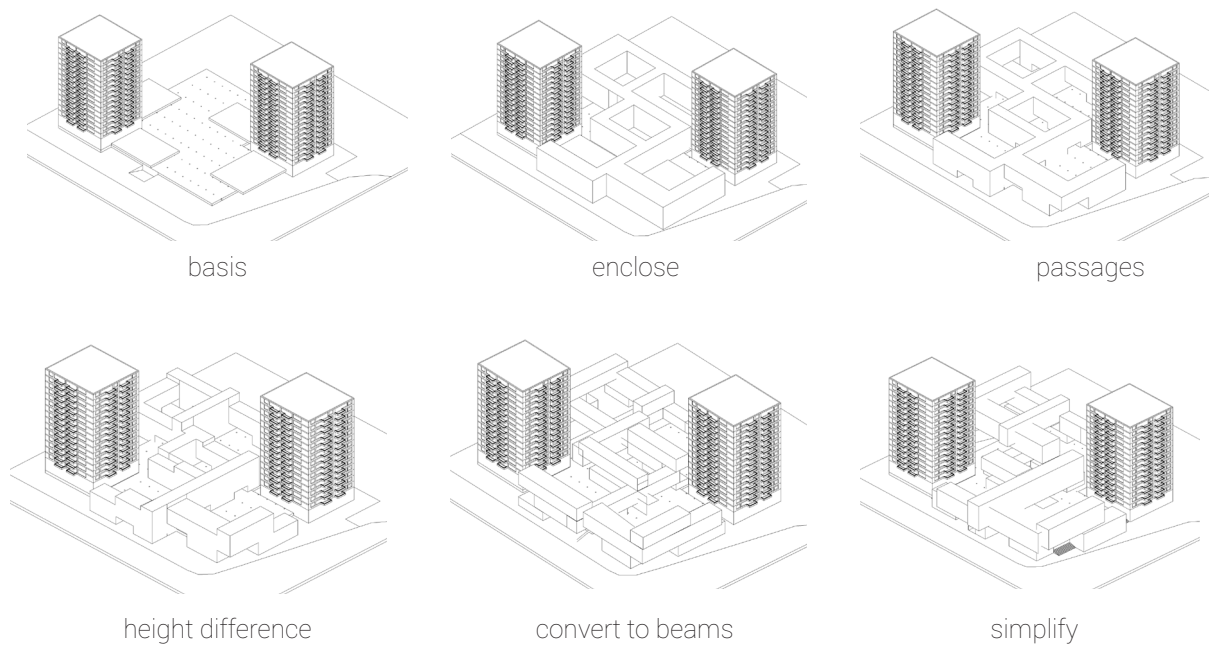
Figure 7: masterplan for the lay-out of the block

basis

enclose

passages

height difference

convert to beams

simplify

Figure 8: shaping of the building volume

Program

The program consists of three main ingredients: working, living and sharing. The work program is located towards the street, to stimulate street life, which is absent in the current situation. The residential program is located more towards the park and on top of the work program, to provide a sheltered and quite environment, and to give the luxurious idea of living in nature. The shared functions are mostly located in the centre of the plot, and forms a meeting point for residents and visitors.
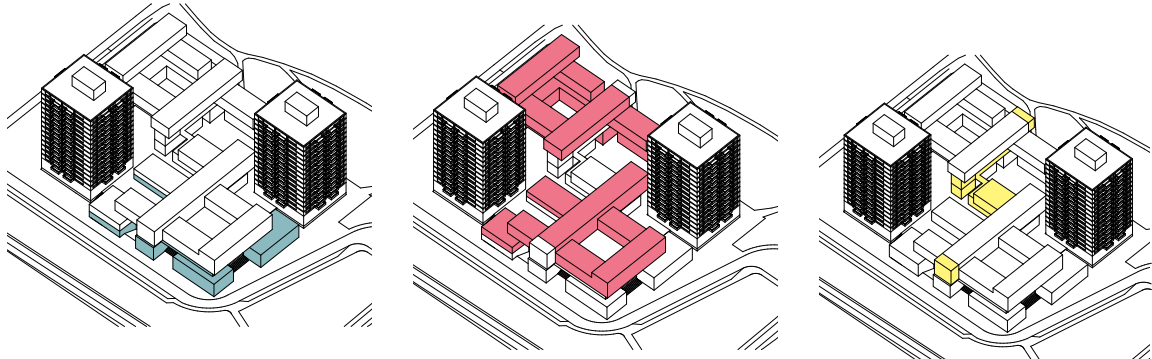

Figure 9: working (blue), living (pink) and sharing (yellow)

Privacy

For the residential program a study was conducted to determine the limits of privacy, from which a concept for co-housing could be formed. This concept was then translated into three different typologies, which appear throughout the block and appeal to different groups. Within two of the three typologies, the courtyard and the gallery typology, it is also possible to implement different housing types during the planning period of the fictive project, depending on the 'participants'.
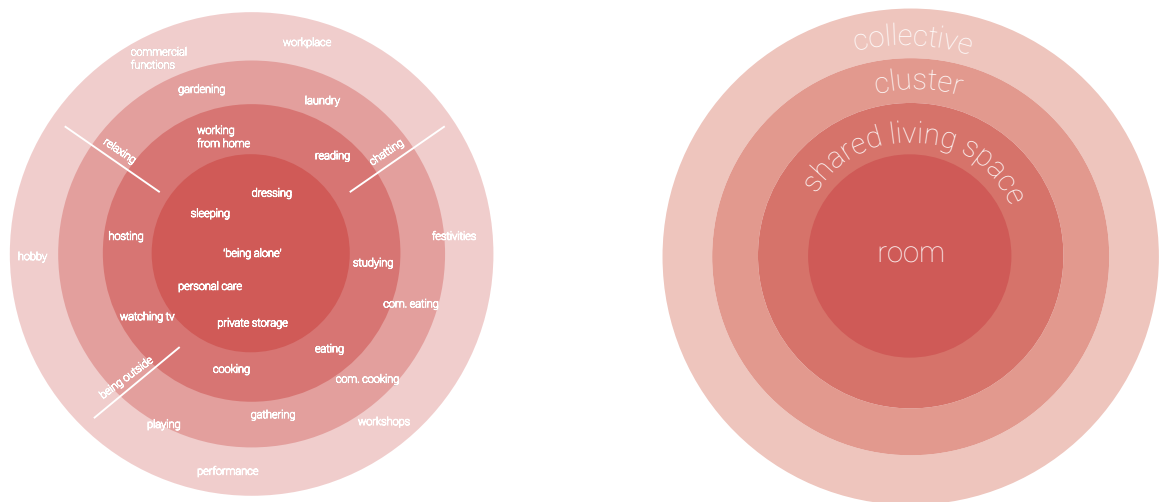

Figure 10: activities and privacy (left) and the concept for the housing typologies (right)

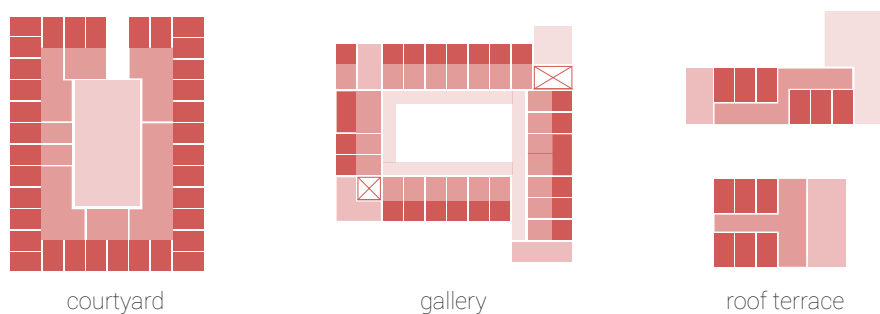courtyard   gallery   roof terrace

Figure 11: three typologies created from the concept

Detail
This diversity of different housing typologies is also supported by the facade system. All of the housing facades can be fitted with 500 mm and 1000 mm elements, depending on the desired openness. The elements are either 1. insulated and closed, 2. window and permanent shutter, or 3. double sliding door with openable shutters.
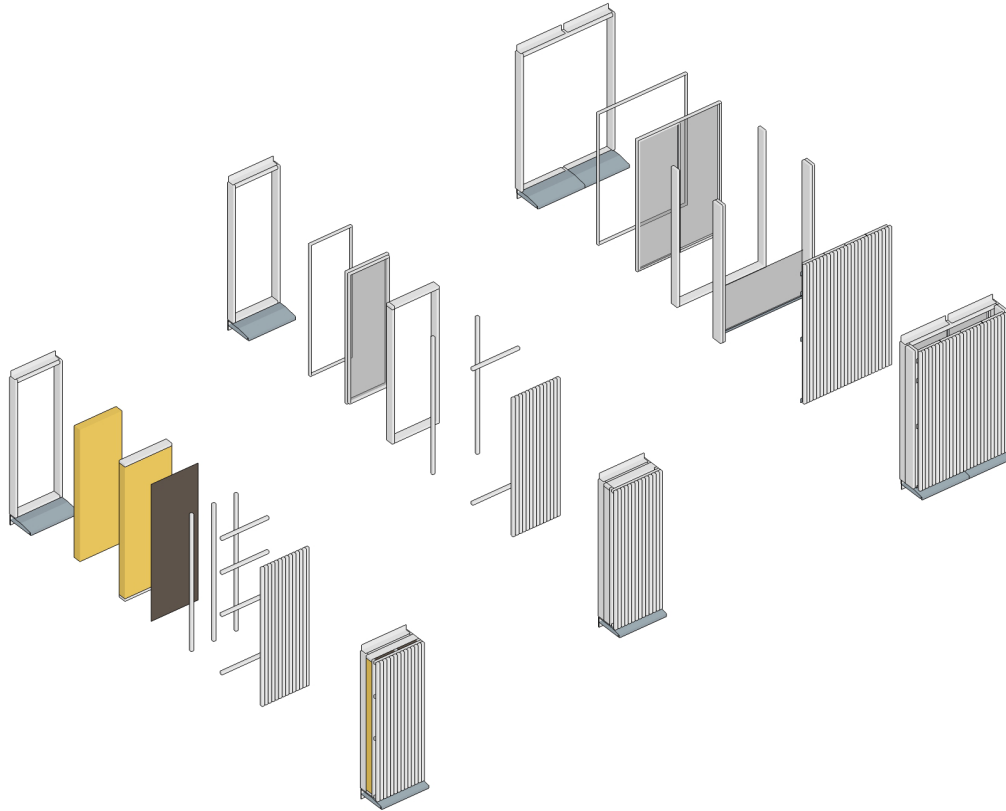

Figure 12: insulated closed element (left), window with fixed shutters (middle) and double sliding door with openable shutters (right)
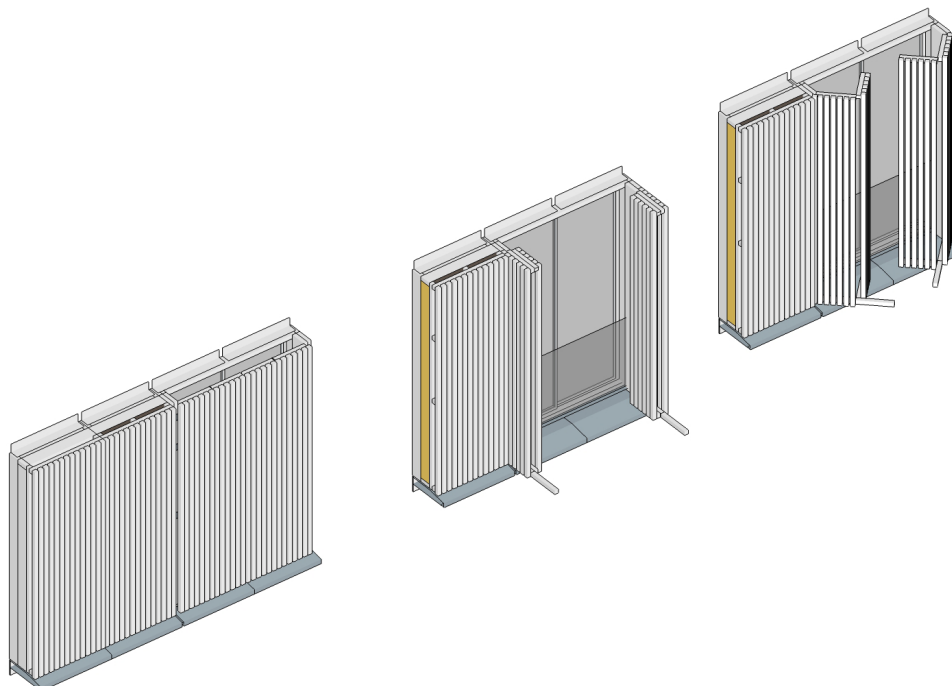

Figure 13: openable shutters in various positions

Reflection on research and design method and result

At the final stage of the graduation project the method and result of the research and design can be evaluated. Both can be evaluated individually, and in relation to each other.

Research method and result

The chosen research method has proven to be succesful in determining which aspects affect the affordability of collective self-organised projects. During the research process, it became more clear to which extend non-architectural parameters affect affordability, which seemed discouraging in the beginning. However, ultimately, it provided a twist in the design ambition and strategy, which otherwise would not have been explored.

At the start of the research I was mainly focussed on 'self-build' as a means to make self-organised housing more affordable. After researching the cases in Amsterdam and Brussels I found out that self-build is indeed effective in doing so, but after the first round of residents have moved out, housing prices have often risen to become even more than in regular consumer-based housing (which it has become too in essence).
The discovery of the cooperative ownership model in the case of Kalkbreite in Zurich has been found to be a method to do exactly the opposite; without much actual self-build, but much self-management, it has been providing affordable housing for almost 100 years in cities in Switzerland.

This sparked an interest in me: why has this model not been applied in the Netherlands? Could the means of financing of the coop model also be possible in the Netherlands? How this affected the design will be discussed in the next paragraph.

In general I think the research has been very informative for both myself and the academic field, in terms of giving a case study comparison and general conclusions about the state of collective self-organised housing and affordability in European cities.

Design method and result

As mentioned before, the research conclusion about cooperative ownership changed the brief of the design. While first focus was on allowing for partial self-build and easy expansion and structural flexibility of the dwelling, this was transformed into allowing for rotation of residents within the block and demanded a more built-in/rented apartment finishing.

Reflecting on the design process, I have to conclude that throughout the year I spent designing, my mentors have pushed me to be more radical and progressive with the design. Often I found myself compromising between the many demands and restrictions of the design, while disregarding the aim of the design, which is to experiment with new typologies and ways of living together.

I think that, with the feedback of my team of mentors, I have been able to create an interesting design project in which many of the guidelines provided by research (reduced square meters, many shared spaces and functions, sustainability etc.) have been integrated. However, the architectural ambition of making a desirable living environment in which many activities and encounters are stimulated, have been explored simultaniously and even so succesfully.