

## Reflection Report

Reflection Report | Graduation project | Stronghold Amsterdam | Iris van Velzen | 27.05.2018

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## Aspect 1 - the relationship between research and design.

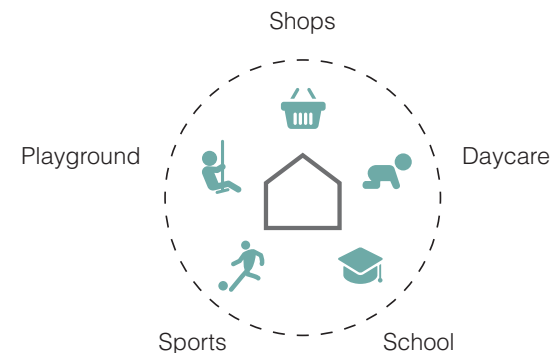
In my research I have investigated the needs and wishes of families on three main scale levels: the neighborhood, the building block and the house. I related these scale levels to the development of a child, in accordance with the 'range of action' of a child growing up. Each of these scale levels have provided input for the design that I made, mainly in a practical way. When choosing the location I focused on the findings from this research, which were useful in this practical sense again. The location analysis then focused on finding starting points for the design, and turned out to be very practical as well.

I can see now how and why, later on, I struggled very much with the aesthetics of my design. None of my research would give direct input on this topic. Even though a design can of course be mainly functional, and choices can be made on practical and functional base, there is always a part that remains open for multiple interpretations. Throughout this graduation year I have tried multiple options and ways of re-searching in order to find answers to the question of what my building should look like. They were not always as effective, and there has been a lot of going back and forth. I often got stuck a little, as I knew somehow I had to be able to validate each option, but was not able to do so yet.

In this reflection paper I will describe the different approaches that I adopted, in order to be able to relate research and design to one another. It has a somewhat chronological order, but as designing is an irregular process, it sometimes simply does not allow for chronology.

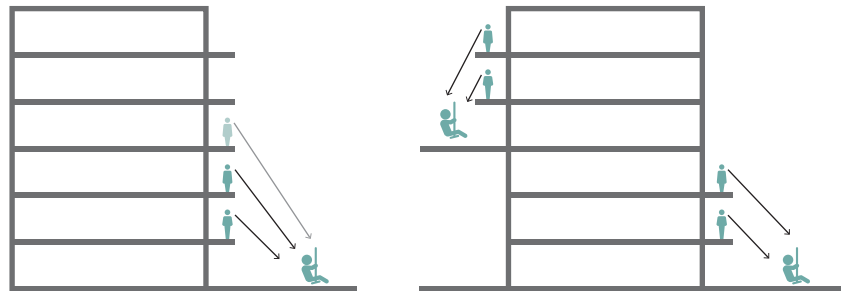
I started my research on the more general topic of families and the city. This was important in order to validate the actual importance of providing housing for families in the city of Amsterdam. This research included the reading of news papers, checking numbers of CBS and also reading books in which these 'city families' were interviewed. After and alongside this, I started to define a way of structuring the information. I used three different scale levels for this, the neighborhood, building block and the house.

I started with the broadest scale, the one of the neighborhood. This scale is one that could not be influenced so much in this specific case, as the dwelling studio does not intend to intervene at such a large scale. The research on this scale thus gave input for the choice of location, as it made visible which facilities are essential or attractive for families to have nearby. I applied this information on the location I had found, to check its suitability. Of course there were also other factors that I bore in mind when picking the best location. For example its accessibility: by bike, car and public transport. It also needed to be (able to become) a sheltered environment, where children could safely play. The possibility of making a car free zone was a big advantage the chosen location had.



*Facilities that families prefer close by in a neighbourhood*

The research I did on the scale of the building block gave rather practical input as well. This was very useful for a quick, functional setup of my building block design. To me it provided for boundaries and inspired me to create solutions for the problematics in current family housing design. For example the issue of supervision in apartment blocks. One book of Bleeker and Mulderij (Kinderen buiten spel) even stated that when living above the third floor, children would be much more isolated from their peers. As I would be designing a building complex of more than three levels, this was an issue I wanted to solve in the best way possible. This is why I decided to adopt the broad galleries, which I had learned about from Robin Hood Gardens, Justus van Effencomplex as well as a case studie I did on the Wisselspoor project of HCVA.



*Solving the problem of supervision above the third floor by creating a play-ground / broad gallery on a higher level*

On the scale of the house, the main criteria for appropriate family housing turned out to be adaptability. For modern families, especially patchwork and co-parent families, this is even more attractive in a dwelling. I found many ways to achieve this adaptability, some of them shown in the illustrations on the right.



*Rooms that can be split*

*Multifunctional annex room*

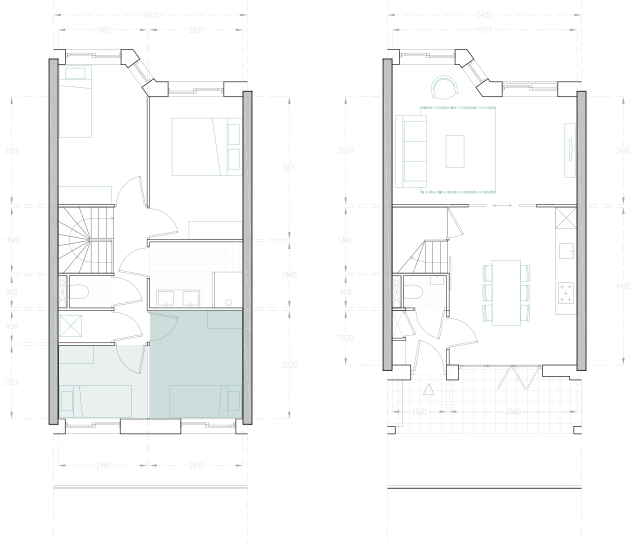
*Separate kitchen & living area*

*Large hallway*

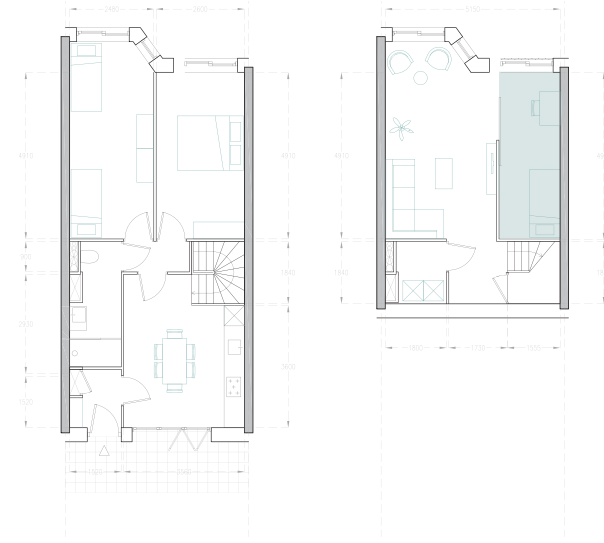
*Examples of ways to create an adaptable house*

The many options I found are not meant to be all combined into one single house. Also, due to the stepped and stacked configuration, my building block actually prescribed the design of multiple different dwellings. This matches my target groups very well. For example because single parent families often need smaller dwellings, and dwelling configuration wishes of patchwork and co-parent families can be very different from each other. By designing each dwelling with different solutions of adaptability, I intended to answer this question of diversity. The four floor plans on the next page show how this has been implemented. The separate dining and living area can be found in each four of them.

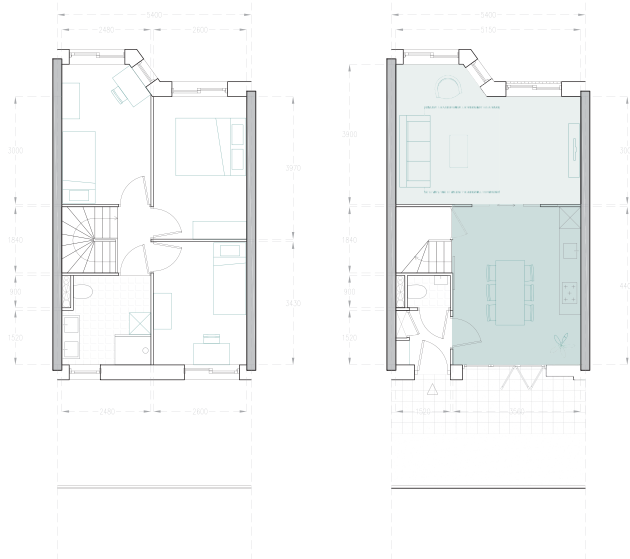
I also decided on an element that had to be in each dwelling design. This is to have the kitchen and dining area always at the sunny street side, in order to stimulate use of the street. For example, I picture how, on a sunny day, each family will open up the large folding doors, move their dining table outside and sit their till late at night, while children can play together safely and in sight.



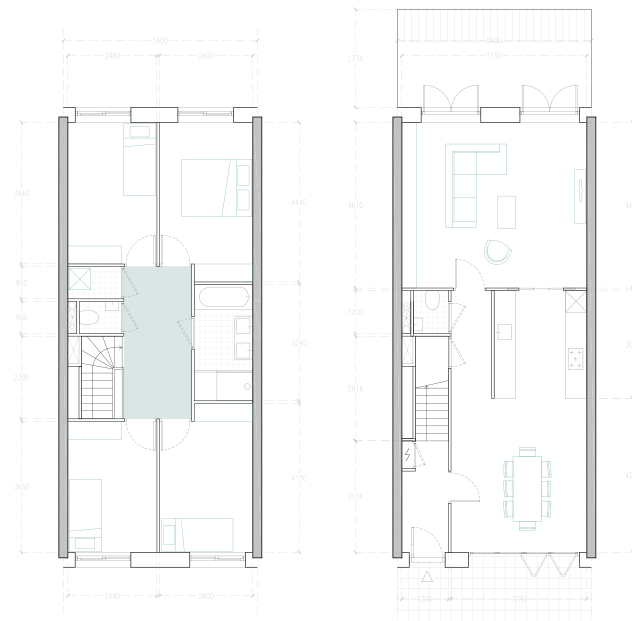
*Rooms that can be split*



*The multifunctional annex room*



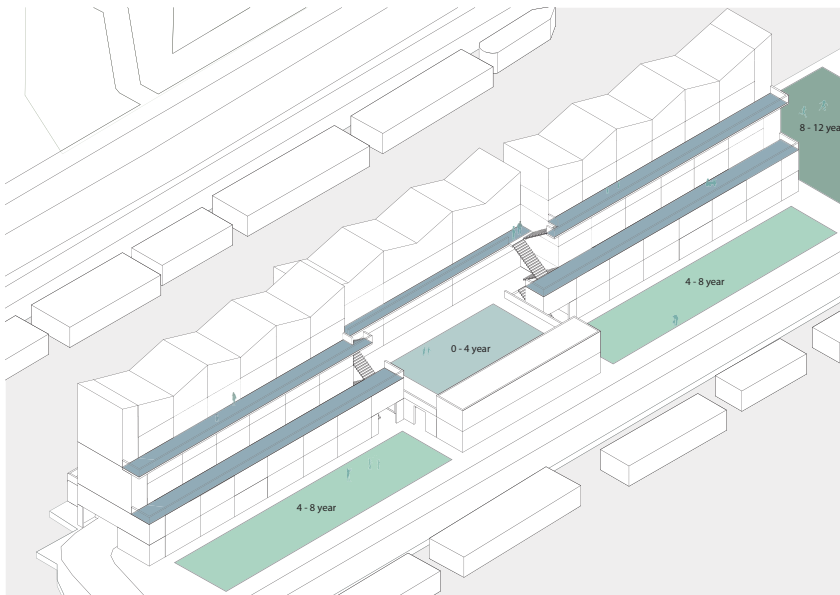
*The possibility of a separate dining and living area*



*The large hallway to play in*

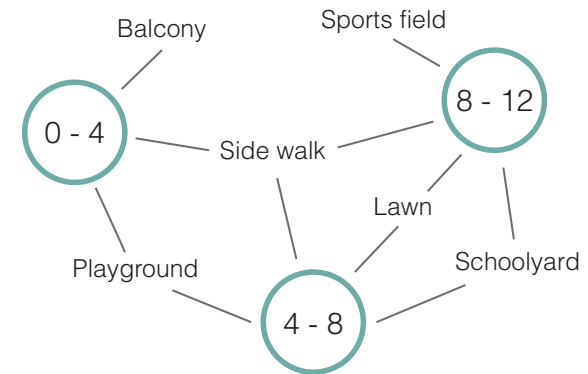
The location analysis I made also made clear there were some disadvantages to be found. For example the train that drives past, but also the surrounding water. On the one hand, this water provides for the sheltered environment that is needed. On the other hand, water can be dangerous for young children. This led to the design principle of a protected playing area for the youngest of children. In the design, this became a raised square, protected from both any type of traffic and the water.

This raised square for young children then led to the question where and how the older children should be able to play. In my research I found that each group should have its own spot, to prevent the youngest from being chased away by older children. I adopted a division of three age ranges: 0-4, 4-8 and 8-12. For each of these groups I planned a specific location in the design for playing. The older they become, the less supervision they need and want. This is all integrated in the design.



*A playground for each age group (P2 design proposal)*

As I read many different sources about children and playing, the information I found was not always exactly the same. I tried to combine the overlapping information in a scheme on age groups and preferred place to play. I turned out like the illustration underneath. It shows that each age group likes to play on the side walk. In my design this side walk, or as I often simply call it 'street', is very important. The streets in my project are broad and next to every front door, and meant for each age group.



*Location and age*

To have each front door located on the street was not immediately feasible in my design. Even so, at the beginning I did not put it down as an essential feature. I had some portico dwellings integrated as well. But later on, as I tried to imagine the use of my building, I found out how these dwellings lacked a certain quality. With a portico, you would have to carry your child up and down the stairs each time, maybe even a pram. Also, children could not play outside as easily, as supervision is more difficult one level up. Other than that, to be able to use the street as a place to sit and dine, became a quality I wanted to offer to each dwelling.

The examples above of how research turned into a design, are mainly of a practical or functional nature. However, this practical research did not give much guidance to the aesthetic design of the building. In former projects, I would use the appearance of the surrounding buildings as a source of inspiration. Yet, as I chose a somewhat secluded 'island' as my location, this solution did not seem to fit. I struggled with this topic for a very long time, as I could not define an argument (based on my research) for the preferred appearance for my building. My mentors tried to support me by giving feedback and ideas on what the (conceptual) configuration of my building could be. To give clear examples of some options: 'is your building one volume, but carved out like a stone statue?; is it multiple volumes combined?; is it a plinth with separate volumes on it?' I tried to research the options by looking at examples such as Dudok's Raadhuis in Hilversum, the Monadnock building in Chicago and buildings in the style of 'Amsterdamse school'.



*The Monadnock building in Chicago, Raadhuis in Hilversum and De Dageraad in Amsterdam*

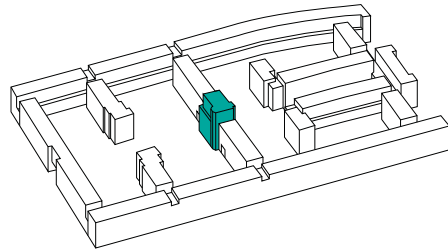
It however did not help me in deciding what suited my project best, probably because I was mainly looking at the appearance of them. As I tend to have a much more functional approach, I should have known only aesthetics could never convince me.

Another research I started to help me with this topic was on 'the building as a city'. I compared six projects on the topics of 'connections', 'functions' and 'appearance'. These projects all were small or even rather big neighbourhoods in itself. Most of them used a specific language to indicate or emphasize special functions within the building complex.



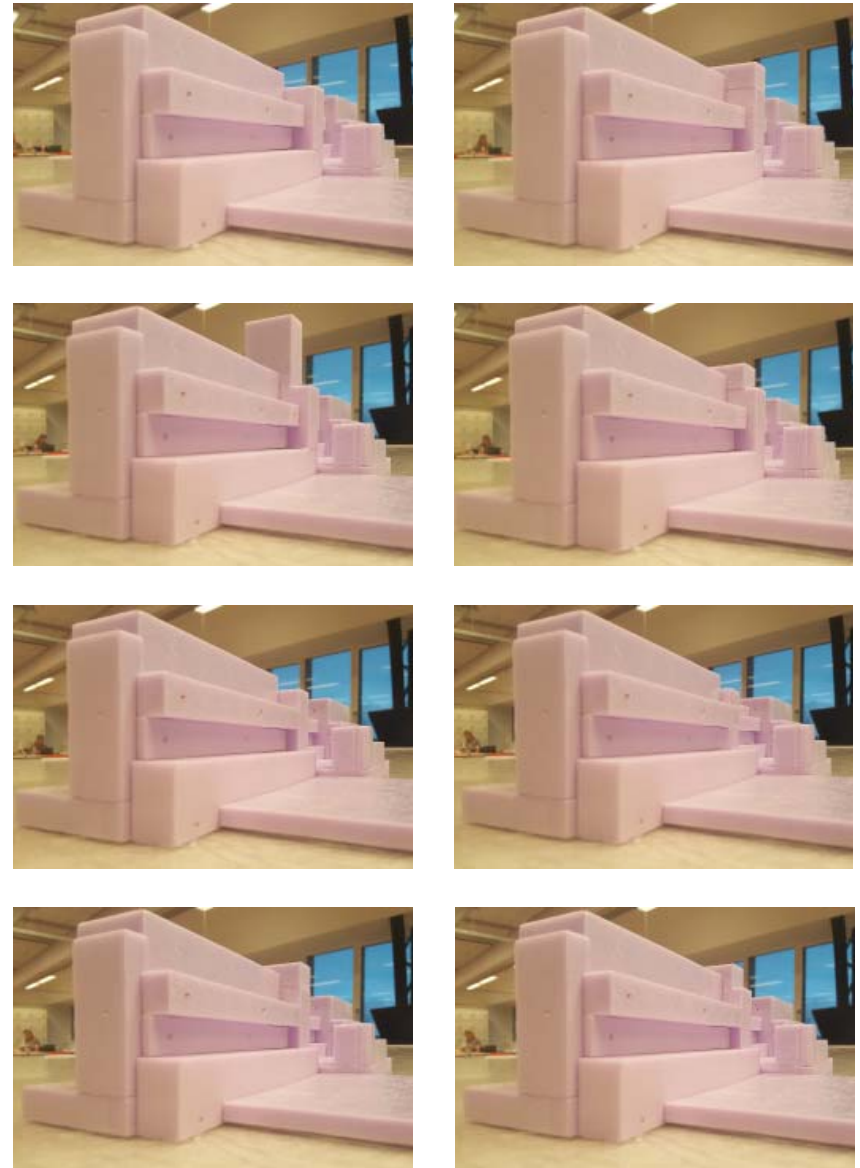
*Left: The bright yellow indicates the circulation areas (Gallaratese, Milan)  
Right: The white tiled elements indicate the public function of the building (Barbican, London)*

The pictures above show two examples which are rather strong in their way of showing different functions. I felt more attracted to the more subtle options, as seen in the Justus van Effen complex in Rotterdam. The (former) bathing house stands out by its central position, its slightly different color and the fact that it is about one level higher. In my design the kindergarten positions itself in a similar way.



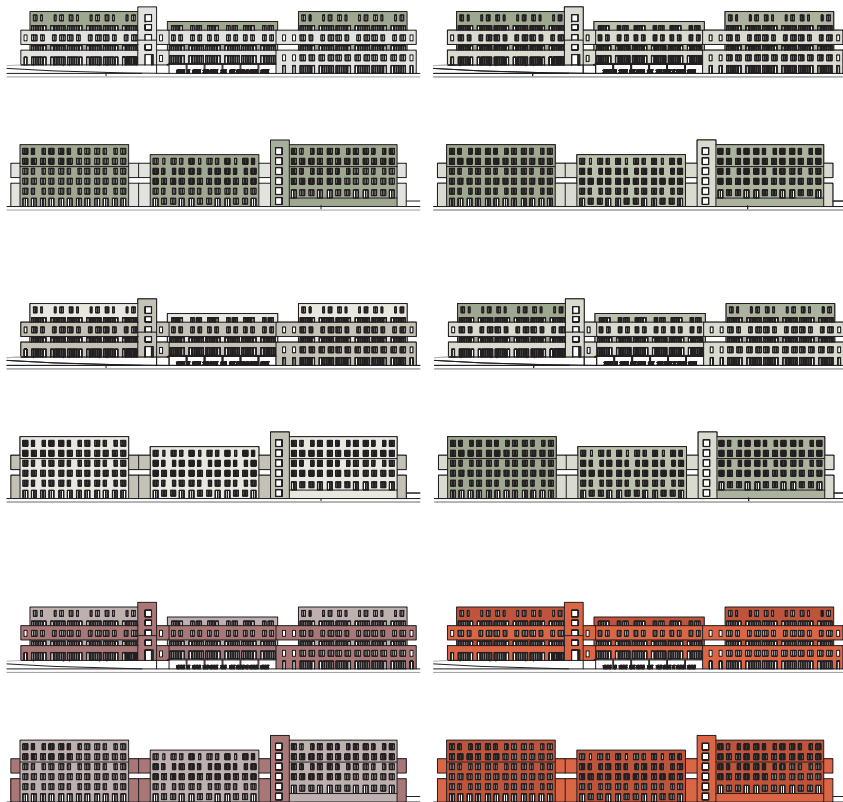
*The central bathing house of the Justus van Effen complex*

An element of my design quite similar to this was the entrance tower. This was a both functional and aesthetic issue that I encountered. It was a functional problem, as this was the only entrance with a lift, and I wanted the entrance to express the importance of a main entrance. The aesthetic issue for me was how it could be both distinctive, but fit into the already quite expressive whole. This time I researched the options in a different manner, by model making. On the left some of the different options can be seen in the photographs. The problem with this was that the choice for the best solution was quite a subjective one. My opinion on the most suitable option - a rather subtle one - did differ from the tutors view, he preferred a tower. This is why I had to dig a little deeper to be able to explain why one option would be better than another. For me the most important reason was that the broad, connecting streets were fundamental for my design, and a tower cannot properly integrate within this concept.



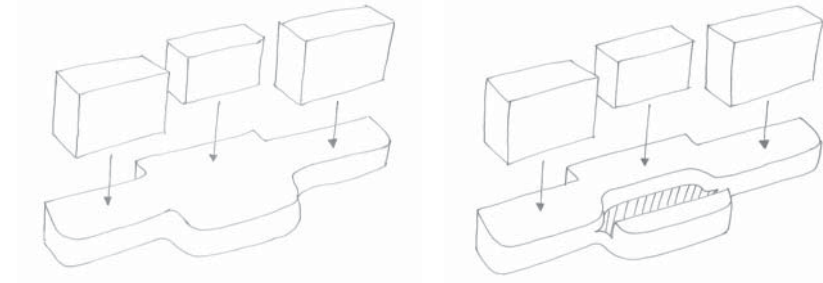
*Model studies on the entrance tower design*

Another way of researching I adopted was, similar to the model making, by comparing options in drawings. Again, the issue of making decisions based on aesthetics arose. By that time, I thought I sort of knew what the configuration of my building was. Three different volumes, pasted together by the streets and the entrance tower. The difference between base volume and added volume was articulated by a slight color difference. This tone difference I intended to be made by a darker or lighter joint color. However, my tutors kept on telling me about other different options, which made me doubt my decision.



Facade study with different colors and tones

It took me quite some weeks before I suddenly did have a true clear vision on the configuration of my building: it had to be a plinth with three volumes on it, with the streets and stairs as curving and connecting elements between them, and the internal square like a cut out volume.



The building configuration: a plinth with three volumes on it, and a square cut out in the middle

Unfortunately, I do not know for sure what the triggering factor must have been that made it come together for me. Perhaps I had been stuck in my plan for quite a long time. Then at P3, I got comments on my entrance tower. This tower design was one I had struggled with before, as discussed earlier. In an attempt to get loose from my current design I tried to be more radical. I removed the entrance tower completely (which actually meant a return to my original design idea). Also I started to curve some walls and routings, inspired by the Amsterdam School design. The curving made it possible to unify the kindergarten building volume with all the dwelling volumes. I think this was important to be able to perceive the building complex as a whole.

The reason why I finally dared to choose the 'Amsterdamse School' as a guideline, is because I found how it fits my project in multiple ways. The problem of a lack of inspiration from its direct surroundings is solved, as the building can be something that fits in Amsterdam in general, thus Amsterdam school. More



importantly even, many of the buildings in this style were social housing projects, which of course relates strongly to the goal of my project as well. Even though I do not necessarily intend it to be social housing, my building does try to be a beautiful project for a group of vulnerable citizens.

My main finding in this reflection part on the relation between research and design is how I deal with practical versus aesthetic issues, and mainly the effect on my ability of decision making. The practical issues are solved easily, while decisions on aesthetics take much longer, as I feel I have to find proper reasoning. I tend to get stuck in a single aspect of my design, which slows down my process. Even though I have tried to clearly state my design principles, and use them for decision making, this could not always be done. Sometimes things just make sense only afterwards, or other, seemingly irrelevant, issues have to be tackled first. Maybe research and designing also just depends a bit on serendipity, especially when you are not yet as experienced as you would like to be.

**Aspect 2 - the relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).**

The Dwelling studio topic encompasses the questions of 'how do we want to live in the future?' and 'what do our cities need?'. My project answers these questions by focusing on one of the vulnerable groups of city inhabitants: families. Cities need families for both economical and social reasons, but they are pushed out because of a lack of proper housing. However, it is impossible to simply copy and paste typical family housing, such as two level housing with a private back garden, in the city. There is not enough space, and the available space is too expensive as well. In my design I have tried to develop a housing scheme that provides a possible solution for future family city housing. It seems to me that this approach suits the master track and TU Delft in general as well, as it stimulates an innovative approach to each project and is focused on the future as well.

**Aspect 3 Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.**

There are a few methods of researching I used during my graduation year. The main input came from literature studies, which themselves took their information mainly from observing and interviews of families. One of the books in particular, 'Kinderen buiten spel', took a very observing and descriptive approach to understand the thoughts and reasons of a child. I suppose it could be seen as a phenomenological way of researching. I have tried to use this approach several times myself, by virtually going through my design and trying to look at it as if I were a child. This provided some help for me when deciding on

design solutions, for example with my railing design, the design for some objects and patterns on the square, but also when thinking of a suitable doorknob and its position. I found it hard however, to systematically use this way of researching, because it rarely offers 'true' evidence for making a choice. It felt to me that the design of a dwelling complex needed more practical proof. This is why I have obtained mainly practical 'facts' from the books and documents that I read.

Another way of research I adopted was by doing case studies, together with Terrie van den Brink and Chantal Hofsteenge. To decide which topics to look at in the case studies, we used the literature we had already looked at by then. It however still proved to be rather hard to do this right, as none of us were sure yet what to look at exactly. Thus, we tried to cover almost anything that seemed relevant. It took a lot of time to finish the case studies properly. Looking back I found that I mainly took input and inspiration from the two case studies that I was responsible for. Those two were helpful for my first concept design, as well as for practical measurements (for example, width of a wide galery, size of a playground). In general however, the literature study was more useful to me than the case studies were.



Case study Wissespoor by HCVA, on sizes of collective spaces

To me the graduation studio offered room for both a practical or functional and a more phenomenological approach. It was a personal choice to focus on the more practical side. My first approach was mainly about summarizing, comparing and combining input of others. To me, as someone without any dwelling experience, this was very useful and probably essential as well. I think the relevance of the research lies in the focus on contemporary families compared to traditional ones. Even though I found out that the differences between traditional and contemporary families are not as big as I imagined them to be beforehand. Yet there were still some architectural elements especially valuable for these groups that I could identify, and which I have implemented in my design.

#### **Aspect 4 Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.**

There is a trend in the Netherlands of young families moving out of the city. Amsterdam is unfortunately the leader in this process. Families are highly valuable for cities as they provide for close social networks and they make use of many amenities, which is important for job creating and city economy in general. To provide for proper housing in the city for families is thus essential. The best way to do this however is an issue which cities are currently researching.

In Rotterdam, a tender for designing family city apartments was recently launched by the municipality. This focused mainly on the design aspect. Together with Terrie van den Brink and Chantal Hofsteenge I have interviewed the architect of the winning project 'Babel' to learn from his design strategy.

'Het Rotterdams Woongenootschap' is also very engaged with the problematics of affordable housing for families in the city. They found a solution in offering a sort of 'lease' model for housing. This solution has to do with ownership structures, and could be applied on a project like mine as well.

Both of these examples are trying to react to the problem, the 'Babel' example in a way similar to what I intend to do with this graduation project. In some ways Babel and my project offer the same solutions, such as a continuous street on higher levels, but the design result is still very different. Because of the specific lay-out of my location (long and narrow), my design is often not suitable for direct transferring as a whole. Some parts or principles, for example: the 'street in the sky'; the enclosed square; the setbacks, can be transferred, and are of course often inspired by other examples as well.

**Aspect 5 Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.**

In my research on choosing a suitable location I encountered my main ethical dilemma. The location I opted for had existing buildings on it, though of questionable quality. There was a limited amount of time to research the location properly before choosing it for P1 presentation. This meant that I started with a rapid and somewhat superficial research, to see if the first results made a plausible argument for demolishing of the buildings already. As this was indeed the case, I chose the location, and did further research later on. This research confirmed my first assumptions, but perhaps not as strongly as I hoped for. There were no specific plans of demolition already, even though the whole other part of the Zeeburgerpad was under construction already. It made me doubt my decision: Am

I allowed to state that these buildings are of poor quality? Do I have enough knowledge of this subject to state such a thing at all? What helped me was the fact that another student had studied the plot as well and shared my opinion, and of course the support of my teachers in my choice of location.

Another issue I encountered was in the application of some research results in the design. Though not as strongly ethical as a proposed demolition, still interesting. I had proposed shared laundry facilities for the building block, as this could be both a sustainable idea (less machines) and a way of saving on square meters in a dwelling. Yet later on, as I discussed this idea with some family members, I decided to skip this element. In this case, it is more important to give families the quality of being able to wash dirty baby clothes instantly than trying to be more efficient with space, or wanting to be progressive by applying the sharing system. Sometimes traditional solutions do fit the contemporary family perfectly as well.