

Tourist City

Reflection

Dutch Housing Graduation Studio

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1. The relationship between research and design.

Summary of the process

The graduation year can be split up into four parts, which are the presentation moments. The phases between these presentations characterize different types of research. In this reflection I will reflect upon the relationship between research and design. In order to do this I will summarize the past year first and mention the different researches briefly, which will be addressed more profound later on.

The first part of the studio is filled with literature research, studying the topic in books, internet and newspapers. At that moment there is no design concept, this stage is perhaps the most objective part of the research done in the graduation year.

In the second phase, the period between the P1 and the P2 there's a case study analysis, a location analysis a more profound research in the topic, and a first design for the building was made, which meant a research in the form of a mass study has been done, in this stage I already studied some reference projects to see if the chosen building typology could fit in floor plans for families.

After the P2, most of the time is spent on the design of the building. And the literature research has been finished. During this study I did multiple researches at the same time since adjustments in the facade for example lead to changes in the floor plan.

While studying alternatives for the facade, the ground floor and dwelling floor plans I continued to research reference projects. Not as thorough as the plan analysis before the P2, but a more quick research, studying several facades or floor plans and highlighting the important part and try to implement them into my own design.

Site visit

The studio started off with a visit to the design site, since the 'objective' analysis was already done by groups which preceded us this analysis became unnecessary. Instead we did a subjective research. The studio splitted up into three groups; photo, sketch and sound. The aim was to document and interpret the site using these elements, and to create an audiovisual essay.

This is the phenomenological approach. Instead of analyzing the site into data, the site was analyzed on basis of experience. After the site visit the photos, sketches and sound was put together in an audio-visual essay. Since the interpretation of a location differs per person and depends strongly on the weather and the time of the day, it becomes subjective. However this may not be called scientific research it is still usefull to do such a research. Using the senses helps understanding locations. These experiences can be used to form a story about the location. Which can be usefull for selling one's design. I think in the future I will still use this method, however I will visit a site multiple times on different times of the day to get a better grasp on the location.

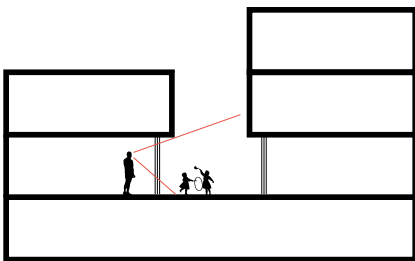
Documenting the site with sketches and photos is something which I did during previous projects. However these documentated most of the time only the built environment and not how people would use it, of what the specific sounds were for a location.

Topic research

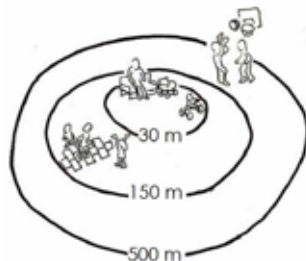
The research into the topic was most of all a literature research. I had some trouble with the research since it is a recent topic, and there are no buildings to research which address the pressure which tourism puts on cities. So I had to deviate a little with the research question by splitting it up into two parts. The first addresses the history of tourism: *How did tourism get to this point? And what are the consequences for the population, the city and for the tourists as well?* And the second question became more focussed on the built environment: *How does one build a liveable housing complex for the local residents?*

In articles about the topic I did find that social cohesion was decreasing, that families were leaving the city, and that inhabitants didn't know their neighbours anymore. These facts helped with forming guidelines for the building design, target group, and form a story around the theme.

The second question was necessary to find information which could be used for the design of the dwelling and the neighborhood around surrounding the apartment. Here I found information about how to create apartments in the city for families. Such as the radius for children and their playspaces, or programmatic information on how families would like to use their home. I used this research to base design decisions on.



guideline: social cohesion with playspaces



radius for children

Plan analysis

In the beginning of the plan analysis I found it hard to find case studies, which I would analyse. Like I already mentioned I had some trouble with the studio to find case studies which have anything to do with tourism. In the end I chose projects where the apartments are elevated from the ground floor and with some collective functions inside the building.

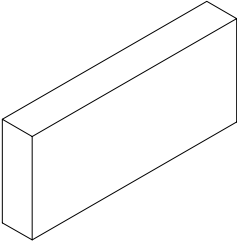
The plan analysis is the research where in advance a lot of time was spent, formulating a research question, describing why it is necessary to do such a research and in what way the research will be done, which drawings will be made.

In the plan analysis I tried to figure out where the collective functions, public functions and dwellings are placed. How the dwellings are oriented towards the collective functions and the public functions. And how the inhabitant enters the building in comparison with the route that is meant for the public.

The research I did is first find the documentation of the different projects. I used the additive technique to draw the collective- and public functions with different colors in plan and section, and with a line I tracked the route the inhabitant would use and which borders the inhabitant would pass in order to get from the public through the private. This research could be done by everyone and would probably result in more or less the same result. By making a 3D model it became possible to draw an exploded isometric view where the relation and the placement of the different areas became visible.

With the plan analysis I also read books about the projects to see which functions were placed in the building. I found out that the public amenities in Corbusier's building are slowly disappearing. This specific information made me put the public amenities on the ground floor. I also found that the collective spaces worked better if there's a visual connection between the dwelling and the collective.

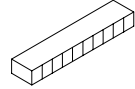
Unité d'habitation



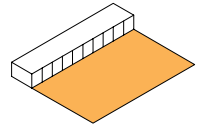
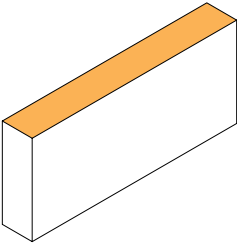
Marina City



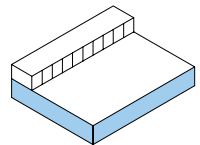
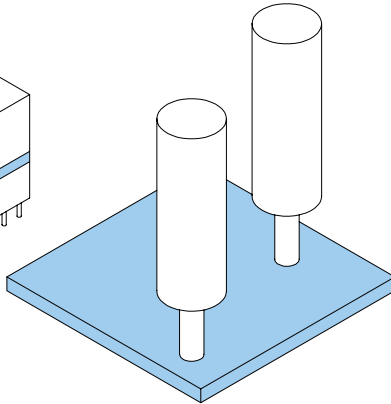
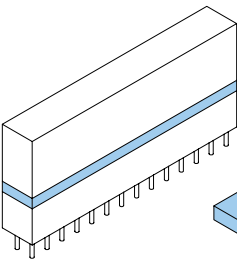
Citadel



Shape of volume



Collective functions



Public functions

Site analysis

The site analysis consisted of multiple research types. Objective- and Subjective research has been done. The objective part of the research is searching on the internet and looking at photos to gather rough data about different functions, trees, greenery, public transportation, routes etc.

Another research was historical, trying to see how the site transformed over a period of time. And understand what the function of the specific place was to the inhabitants and to the city, this type of research was useful to take a position about the location. It gave me insight in where I wanted to build and what the importance of open space in a city, especially parks and lawns. The historical research thus helped forming a story about the location.

The other research was phenomenological. By performing a serial vision, a method which is created by Gordon Cullen one can describe how one arrives at a specific point. By making sketches of eye height perspectives on different points along the route towards the building. This method tells how an individual experiences the location. By describing what is visible on specific points along the route in drawing and in text an experience is formed about the location and about the exact design site.

Both historical and phenomenological research in the site analysis is important, as an architect you can tell a story which sells an idea or design. These researches are helpful resources by forming such stories.

Mass study #1

The first massing study is done to research alternatives. In this stage the building mass has still to be determined. I researched alternatives in a 1:500 model as well as in a 3d model of the location. I found that massing studies is often based on common sense.

I have tried different building masses on different spots along and on the Weteringcircuit, such as courtyard blocks, urban villas and a tower. I tried to base the results on some guidelines, such as whether the mass would fit in the surroundings. Which is an subjective point of view.

That moment I was still struggling on which exact location on the Weteringcircuit I were to build. Returning to the literature research of the topic analysis helped me pick the exact location. The specific design site was chosen because its positioned adjacent to the Red Carpet route of the city. Which would create an interesting contrast between the crowded mass of tourists and the inhabitants of the city who should live there.

The height of the mass is chosen as mentioned because of my interpretation that it should fit in the surroundings. The high-rise on top is designed to reinforce the corner and the axis it is put on, as well as other high-rise buildings in the neighborhood. So reflecting I try to base my massing up on the current situation, what buildings are there currently on the location and the design uses the surroundings to advocate.

Dwelling access typology

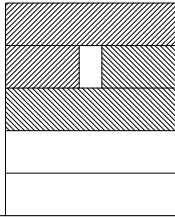
One of the first steps in designing the building was choosing the typology of the building, in terms of dwelling access. The type of research I conducted to choose an appropriate type is precedent research. I looked at different drawings and photographs of different buildings and tried to depict how the building access worked.

Subsequently I sketched the different types schematically in section, this type of drawing is called reduction drawing. This part of the precedent research is objective. Everyone conducting this research would come to the same result.

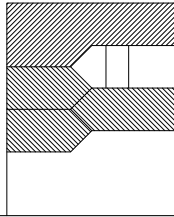
The second part consisted of testing the different types in my building. I applied the different types and wrote down what consequences each type would entail. Such as:

1) size and depth of the dwelling, 2) orientation towards the sun, 3) the impact on the facade, 4) and the atmosphere inside the building. Based on these results I chose my building access type.

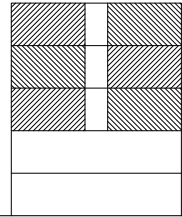
This research method consists of an objective and a subjective part: like already mentioned, the schematic drawing of different access typologies is objective. The selection of access types however depends on the available frame of reference: I only researched the types I knew of, came upon 'accidentally' or had encountered by following up on a suggestion of the tutors. Therefore, even this 'objective' part of the research is already influenced by me. The decision on what types to apply is subjective. A set of criteria is selected to base this choice upon.



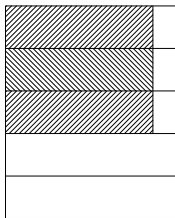
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unité d'habitation



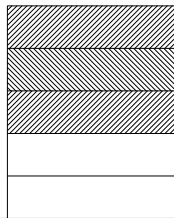
corridor
broek en bakema
split level



corridor rug aan rug



galerij ontsluiting



portiek

Floor plan design

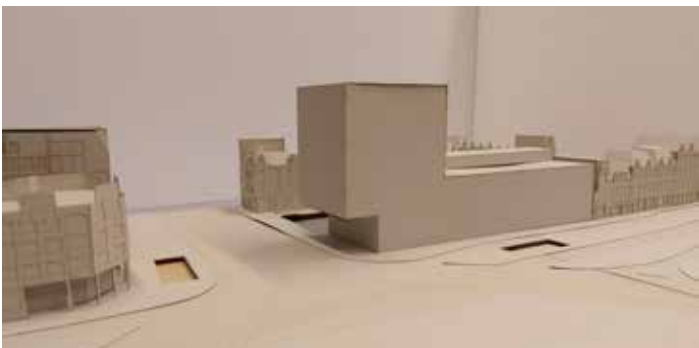
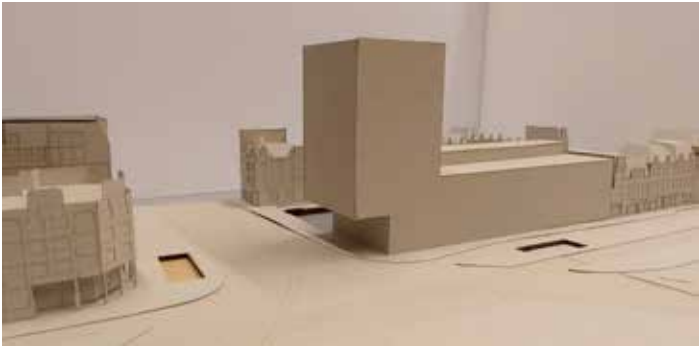
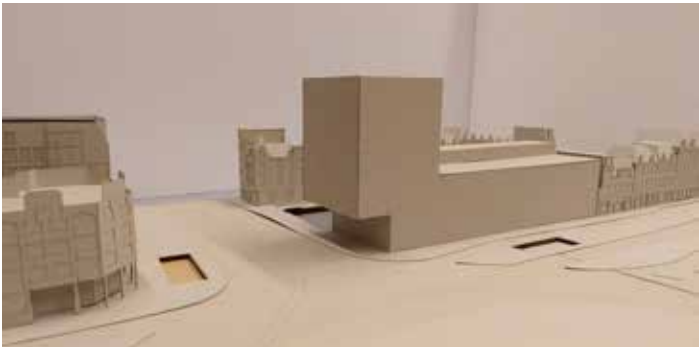
After choosing the specific dwelling access type I had to research whether it would be possible to fit a dwelling in the building mass. Since the reference project has different dimensions than my design. I had to come up with a floor plan which would fit within the outlines of my building. The type of research that I did is precedent research. Searching for different floor plans which have the same building access. And look the rooms were positioned inside the dwelling. I looked at different dwelling designs and came up on a design which came close to the dimensions of my building.

After researching which floor plans were created, I started to research by design, I drew a reference floor plan with the dimensions of my dwelling and transform the plan until it would fit.

Mass study #2

The second mass study was after the P2 presentation. At that moment I found that it was time to re-examine my design. I made different models where the height and the width of the high-rise changed. I placed the different masses inside the 1:200 and 1:500 models. I used different designs to see which design would suit the location the best. This research is very subjective. The decision was based on which would look most logical inside the surroundings, and also looked good as building mass.

Looking back I should have tried to make some guidelines which I normally make to base the decision on. However I believe that within the profession it occurs that alternative studies are made, and the one is chosen which is most pleasing to the eye.



mass study of the high-rise

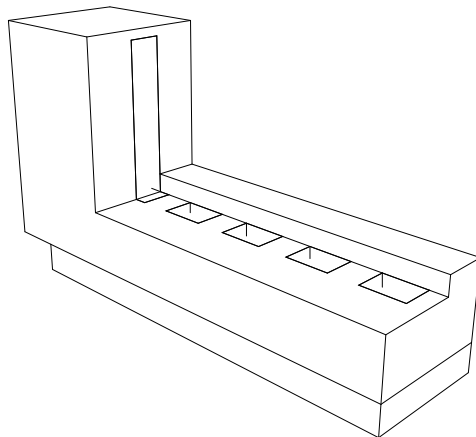
High-rise building access

For a long time I imagined the high-rise to be similar to the interior street of the low-rise part of the building. I designed the building access with section drawings, however when the tutor draw a 3D view of my building it gave me new insight into my design (image).

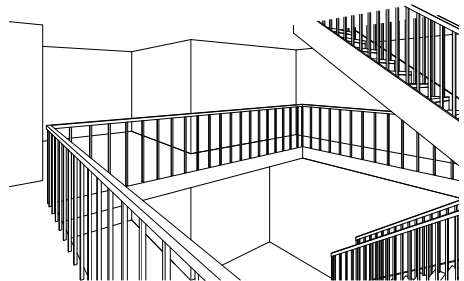
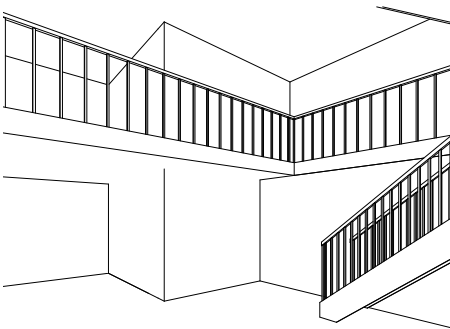
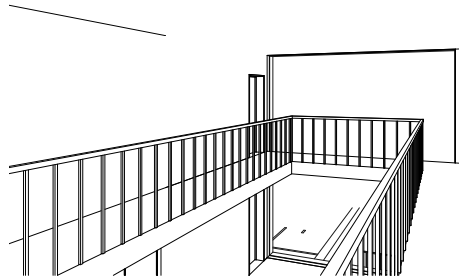
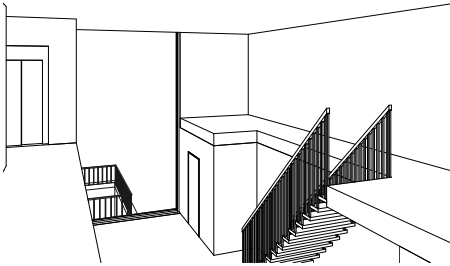
I created multiple neighborhoods within the building. The core of the high-rise is designed by sketching different impressions and sections. And subsequently drawing the ideas in the computer to see if they would fit within the parameters of the tower.

Most of the alternatives failed because the escaperoutes could not fit in decently. In hindsight I should have analyzed more tower case-studies which had three apartments on one floor. The point however is that they are hard to find since high-rise buildings have extremely efficient floor plans. And most likely a larger hallway with a vide, which I tried to design hasn't been done before.

In the end the decision was made on what was the most efficient alternative, and which one let most daylight enter the hallway.



3D perspective, connection light shafts with high-rise



alternative studies for the hallway off the high-rise

Ground floor design

The design of the ground floor has been challenging. In the first drafts the design didn't match the theme of the project. The entrance of the building did not differ much from a standard option.

Before designing the next option I went back to the subject of my building. The ground floor needed to be almost completely public. It is the space where the tourists meet the inhabitant of the building. Therefore I needed to rethink where to place the entrance for the inhabitants as well as which functions would fit most and where they should be positioned.

The type of research I did is researching precedents. The question I needed to answer is where the entrance for the residents is positioned, how materials are used for the different functions, how is the routing for the different users.

The project I researched is the Timmerhuis by OMA. I looked at the drawings of the ground floor and used the additive technique in different drawings, one is drawing the different functions, the other one is drawing arrows to show the different routes within the building.



distinction between public and private visible in facade

Another method is looking at photographs and compare them with the floor plans to show how the public space is materialised in the facade and in the pavement.

The second part is researching which functions would fit best in the ground floor. I did some literature research with reading the book *Building and Dwelling* by Richard Sennett. Where he describes an open city, with borders, boundaries and membranes. Subsequently he mentioned the map made by Nolli. I made a 'Nolli' map of my own ground floor, and this made me rethink which buildings and functions are completely public nowadays. Which modern functions and buildings are comparable to the churches and market places of ancient times. Concluding that public transportation, libraries, hospitals are the only functions left which are completely public.

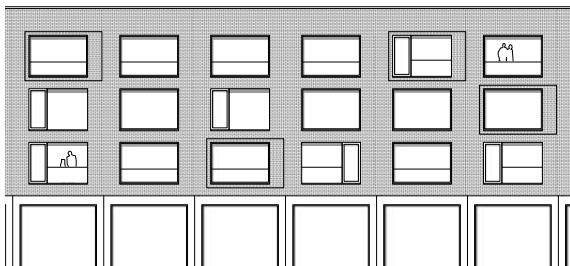
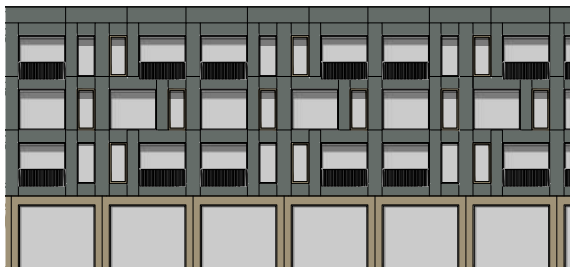
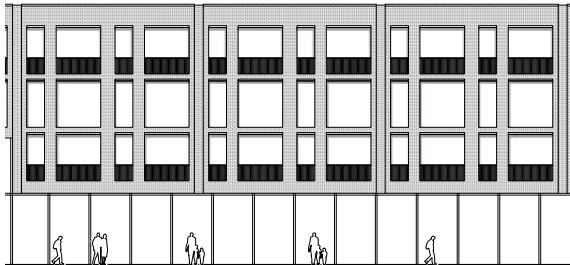
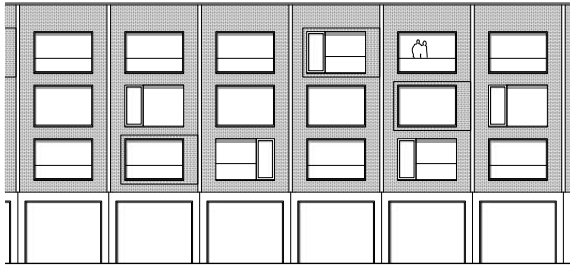
Facade studies

The design of the facade is something I struggled with for quite some time. I tried to design a facade which wouldn't be too repetitive or horizontal since this is something that I consider as one of the weak points of the building that is currently situated on the plot.

The method I used when designing the facade is firstly look at the surrounding buildings to figure out which elements are important to these facades, such as symmetry, plinth, materials, window size. The next step I took is to try and implement some of those in the facade. I also looked at other projects to see how such long facades as my own could be split up whilst still remaining readable as one. I think the only way to perform such a research is by doing research by design, and researching precedents. In the precedent research, I draw upon photos of facades the elements which I wanted to depict.

For a long period of time, it seemed important to me that the facade should be playful and not too repetitive. After some feedback, I found that by doing this the facade became unreadable from the outside and inequality was created within the dwelling floorplan. Dwellings which were the same type would sometimes have a large loggia while the other one would have two columns dividing the loggia into smaller openings.

Since I personally think I spent too much time on the design of the facade, it is useful to reflect on how this time could be spent more effectively. Most of the time I spent designing the facade I forgot to include the experience on eye level from the inside of the apartment. This should have been a leading factor during this design phase.



study of creating a less monotone and more playful facade

Interior street width

The interior street of the building is a feature which during the process wasn't changed for quite a long time. I thought that it would be good to reconsider some of the features which I had presented in the P2, and see whether they would still work.

The interior street had a width of three meters and I wondered if this was enough or that it should become bigger. I found it hard to test the width with drawings or computer models. Therefore I created two models, one with a width of three meters and another one with a width of five meters. I made a section model on 1:50 scale and placed some people on the same scale to see what the experience would be. I also changed the floor plans of the dwellings since they would be altered when the street would become two meters wider.

I tried to create some guidelines where I could base the decision upon. But I found that this mini research was the most intuitive of all. The width of the street was just based on what looked better. I try to avoid such decisions since they are subjective and more difficult to defend. So I checked what happened to the floor plans and the outside spaces of the dwellings if the interior street would increase by two meters. I found that the floor plan of the dwelling below would have less quality. And the outside space for the dwellings on the roof would become larger than the dwellings below, which have more square meters.



model of interior street with a width of 5m



model of interior street with a width of 3m

conclusion

During designing by drawing or creating models I am more open to finding things that I wasn't looking for. For example, when I sketched an impression of the interior street and colored it, this made me think how the niches in other parts of the building were materialized. This made me think of neighborhoods with different identity, such as different colors per neighborhood or same colors but different material. Another thing I discovered was the visual connection in the dwelling itself. The people in the upper part of the dwelling could see the other person standing in the kitchen. Finding something unexpected only works with an open mind.

This is something I lacked with literature research, you already narrow down by searching in specific books, or searching for something specific on the internet. In the literature I also sometimes find myself trying to search for something specific. It takes a lot of time before I find information that I could use. But after reflecting on the complete process I think that the information I gathered with the literature research was of big importance to base a lot of design decisions upon. Or to formulate starting points or guidelines. There are also parts in the design process where decisions are made based on esthetics. But I try during a process to reduce these to the minimum.



sketch of the interior street

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 studio Dutch housing topic is: Between standards and ideal, focussing on a future scenario for Amsterdam in 2040. My project is based upon a future scenario where tourism has taken over the ground floor of the city, and families live on the remaining floors above them alongside a lively street created inside the building itself. The project focusses on creating dwellings suitable for families living in the city. Furthermore it strives to provide liveable architecture within the busy city centre, and is a combination of both building technology and architecture, since it is developed from building scale into detail.

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.

In the graduation studio I did different types of research, typological, case studies, phenomenological, literature, research by design and morphological. I found that during the design process I could use the information I gathered through the literature research in the first part of the year to base design decisions on.

During the graduation studio it was mandatory to do case study research. This one of the research methods I have done throughout the past year, and I found that this type of research comes closest to scientific research. By doing research into case studies it is necessary to have plan of approach, knowing which method you are going to use, and describing in what drawings will be made. The result will most likely be the same if it were to be done by any other person.

I think that researching precedents are important for the field of architecture as a whole, but specifically for the dwelling studio. We have built dwellings for hundreds of years, so it would be presumptuous to design a dwelling without researching precedents. A lot can be learned from previous designs, and these can serve as a basis and be improved to a specific topic.

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.

The element which others can transfer or built further upon is how to create lively streets with buildings that have a core and/ or corridor typology. I transformed these types that the inhabitant would experience the corridor as a street rather than a hallway with some front doors. I added daylight to create a better atmosphere and provided several visual connections from the collective domain to the private domain.

I do think that these results can be used since urbanisation will continue for the coming years and there is a limit to available space. Thus high-rise and middle rise will probably be built more within cities for the coming years. And if municipalites want to attract families to the city there should be room for children to play or to have some sort of collective functions and social cohesion inside a building.

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.

For some time I had an issue with how to position the inhabitants of Amsterdam in relation to the visiting tourists, leaning towards a negative view on the latter.

An ethical dilemma of my design theme is that I position the inhabitants of the city literally above the tourists., as if they are better people. This seems somewhat strange, since when the inhabitants are on a holiday they are tourists themselves. However, I still chose this position since I believe that there should be enough dwellings in the city centre. When the dwellings and authentic shops will disappear the city would be transformed into an amusement park rather than a place to live.

Another dilemma was creating loggias with a pier in the facade. It would be from a functional point of view be better to have a complete glass facade where the loggia is placed, to maximize the amount of daylight into the dwelling as well as in the loggia. However I thought that such a facade wouldn't fit well in the surroundings. I did transform it eventually to only one pier in the loggia instead of two.