
THE PREVENTIVE MEDICINE



REFLECTION REPORT

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INTRO

This document is a reflection on the work as done for the graduation project of the Dutch Housing studio '*Between standard and Ideals*'. The project is all about the relevant topic of (the lack of) physical movement in society. The link between health and architecture has always interested me, in this project these two topics come together to give an answer on the future dwellings in the Netherlands.

In this document I will reflect on the topic, the studio topic and the master track. Furthermore, my approach of research and design, and also the wide social framework of the project is discussed. Difficulties I had during my design proces and the relation between research and design are the last two subjects adressed in this document.

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(project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (mSc AUBS).

In order to make a graduation project that is relevant for the problems of today, but also meets the requirements of the studio and master track, I searched for a topic that had overlap in as well the studio topic, master track and also the master programme.

In the first stage of my graduation I followed the news and searched the internet to come up with a interesting topic. With some articles in mind I wrote a small text in the form of a manifest. How did my utopian future city look like? This method helped me to summarize all the research i did, and was a fresh start of my graduation proces.

The relation between architecture an health kept my interest during my research, and finally resulted in architecture that contributes to an active lifestyle. The topic of my graduation studio can be described as a preventive medicine for the people who live in cities.

If I reflect on the relation between my graduation topic (a residential buiding that contributes to an active lifestyle), how does the city of Amsterdam look like in 2050?, Architecture and Dwelling is that my topic is an answer on the studio topic including the master track (Architecture) and the master programme (Dwelling)



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.

The methodical line of inquiry of the graduation studio is in line with my personal method. Architectural research in the graduation studio is mainly done by precedent studies. The plananalysis studies is a method where the TU Delft is well known for.

With this method different aspects of a building are analysed in a very clear order. In 'Beveeglogica in Gebouwen' by BETA office for architecture and the city four domains of movement are defined as principles that encourage physical movement in buildings. these four domains are: Routes, Goals, Active program and Building & Context.

To analyse how these principles are intergrated in the case studies an axonometric reduction drawing is made for each domain. After this these drawings are combined to form one concluding drawing where we can see how the design principles that encourage physical movement are intergrated in the design of the case studies.

Prior to the research I discussed different methods of research, seeking for the most effective way to show the endresult on paper. This is in my opinion the definition of scientific research.

Elaboration on the relationship between the graduation project and the wide social, professional and scientific framework, touching upon the transferability of the project results.

This graduation project is mainly focussed on a problem in society that is recognized by various studies of professionals. The lack of physical exercise in cities, especially among children and lower educated people. The consequences of an passive lifestyle are serious. The scientific relevance is therefore present in this project.

The research I did is an addition on the information that already exists. Many professionals have already done research on this topic. My research helps designers by providing them tools to design an active building.

The result of the plananalysis is a tool one can use to test if a building is an active building or not. Every building can be tested according to the method I used with my plananalysis.



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.

I. Doing the research

The choice for a topic was something I struggled with in my research. I knew that I wanted to do something with the relationship between architecture and health, but did not know how. Normally, there is a problem, and a designer jumps in to solve the problem. In my case I started my research with a particular interest in the relation between architecture and health. This is an other way of searching for a topic.

II. Elaborating the design

During the final stages of the design I encountered issues with dimensions of my building. In the beginning I defined the sizes of all the apartments in the building block. Later in the process, the thickness of the facade walls was adjusted. This caused for some dimensions that you rather avoid in a real project. In the following phase, this can be a point to improve.

III. Potential applications of the results.

The research gave me new insights in how we are building and for whom we are building. I questioned the current Dutch building regulations on how healthy they really are. If we want to improve the quality of living and health in Dutch cities, we have to implement the encourage of physical movement in buildings. The four domains I researched can contribute to a building that meets the new Dutch building regulations as I propose.

The relationship between research and design.

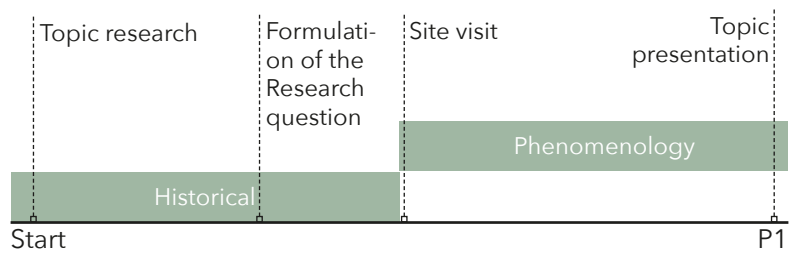
Within the process of architectural research, a lot of choices have to be made. One of the choices is picking a method that is suitable and efficient enough to give answer on the research question.

'At the beginning of a project we all have different frames of value and thoughts which effects our decisions. Some of these framethoughts are known and articulated loudly in texts. Whereas other times they remain completely silent and hidden. We know these frame of thoughts as epistemes'.

These epistemes act as vast comprehensive frameworks for our analysis., understanding and conception of the built environment¹. Within architectural research, some epistemes are simultaneously and complementary.

There is no strict order of using these epistemes within the architectural culture. Nevertheless, some epistemes are mainly used in the beginning, and others in the final stages of the research. In the next pages I will show which epistemes I used during my design.





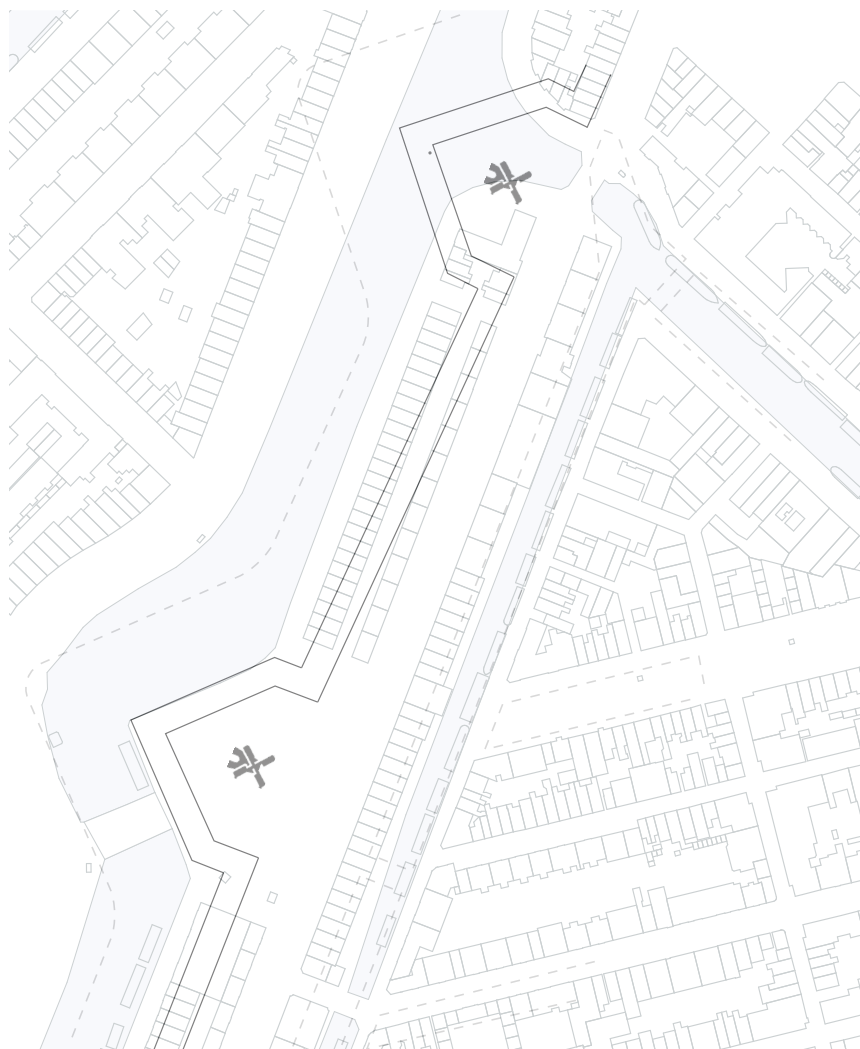
The design proces started with the historical research method. This method helped me to formulate my research questions for the next part of my research. During my site visit I used the fenomenology research method to analyse the location of whole the singelgracht of Amsterdam. Sketches, photo's and sound tapes helped me to understand the location.

Historical

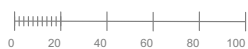
History of a place can give an architect a lot of support for the final design. The history of the site can give information about the target group for the design. Also gives the history more insights in the possible changes the site has already been through. An architect can take a stand against how things have always been done. In my research, the history part of the research was very important. During this part of my research I discovered what the Dutch building regulations were all about and that these were a little old-fashioned in my opinion. In my research I suggest a Dutch building regulation 2.0, where physical movement is implemented in the design of buildings. The type of research I have done is mainly literature research. Literature such as: *'The making of architectural promenade: Villa Savoye and Schminke House'*, helped me to understand the relation between physical movement and architecture.

Historical research is in my process mostly used in the beginning of the project. It is important to understand the history of a place but also of the topic. Regularly, lots of research has already been done on the research topic. Investigation in this research helps to place your own research in context and formulate strong research questions.

The historical values of the building made me decide I wanted to introduce parts of the facade of the existing building into my own design. Therefore, the historical method of research also came back in a later stage of my research.



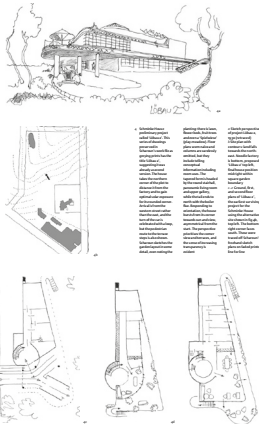
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Part of the historic research - Historic



we | are | with | us | are | design


$$\text{design} \left[\begin{array}{c} \text{arg} \\ \text{val} \end{array} \right] \text{new} \left[\begin{array}{c} \text{arg} \\ \text{val} \end{array} \right] \text{arg}$$


(1) α, α' (Vibr. Gauge),
ground, first and
second floor plate

(2) Beam near front door

(3) The ramp distributes
the great stresses at



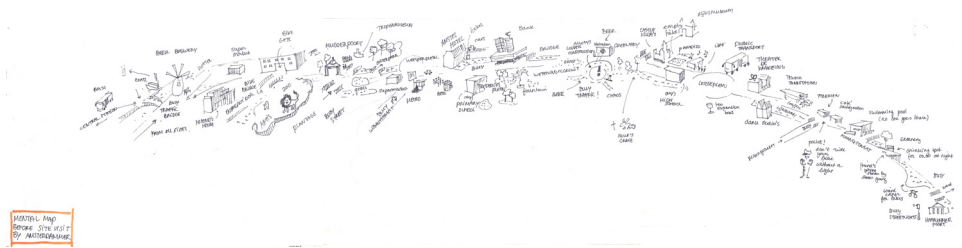
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Phenomenology

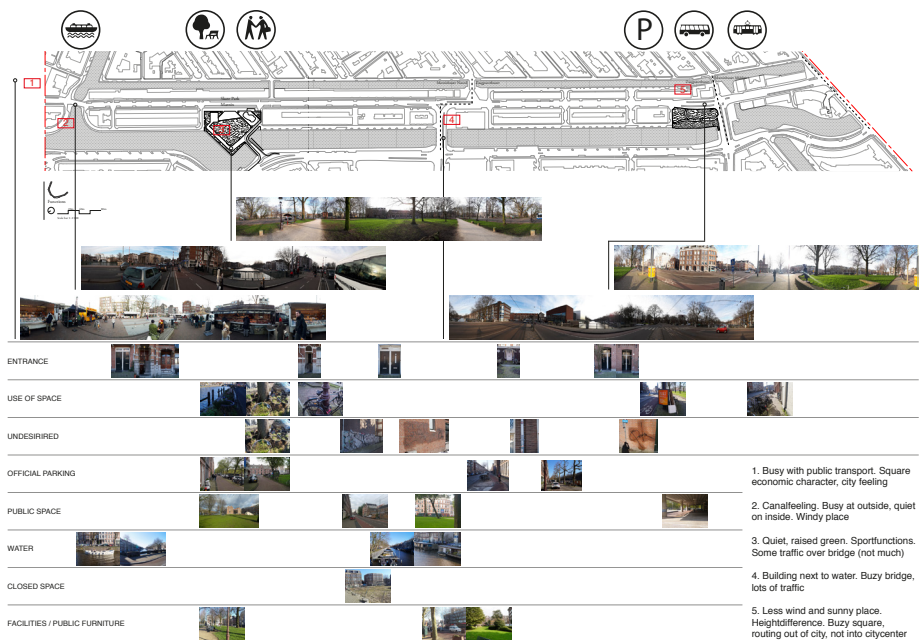
In my research I used this method to study the perceptual experience of the cite. I made pictures of the cite to capture the atmosphere of the location and to get grip on the scale of the project. This method is very effective to get a good impression of the location.

This method is mostly used in the beginning of the project. In addition to a good first impression of the location, this method gives also lots of inspiration for the new project. All kind of impressions are picked up during a site visit. While I was at the location I watched how all the different traffic flows went. What kind of people were present in the park. And finally, how people used the public space around the location. This sort of information is very useful for the design. The different traffic flows tell me how the people can come to the building and what facilities I have to provide inside the building. The different people in the park gives me an impression of the target group using the public space around the building. Facilities inside the building can be aligned with this target group. How people use the public space gives me more information about how the context of the building is, and how i can fit the design in the current context.

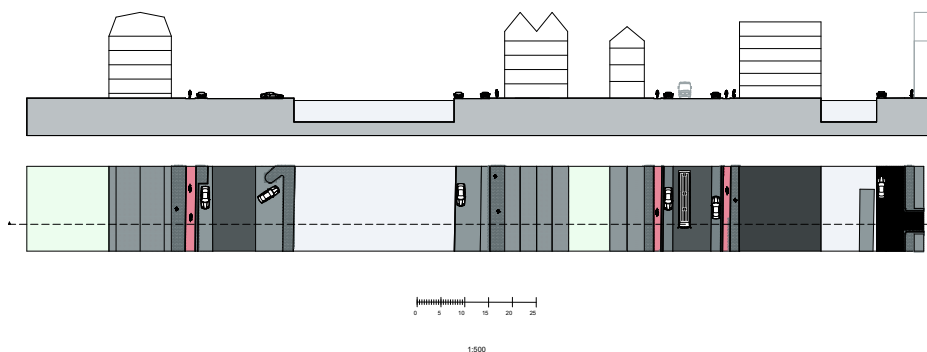
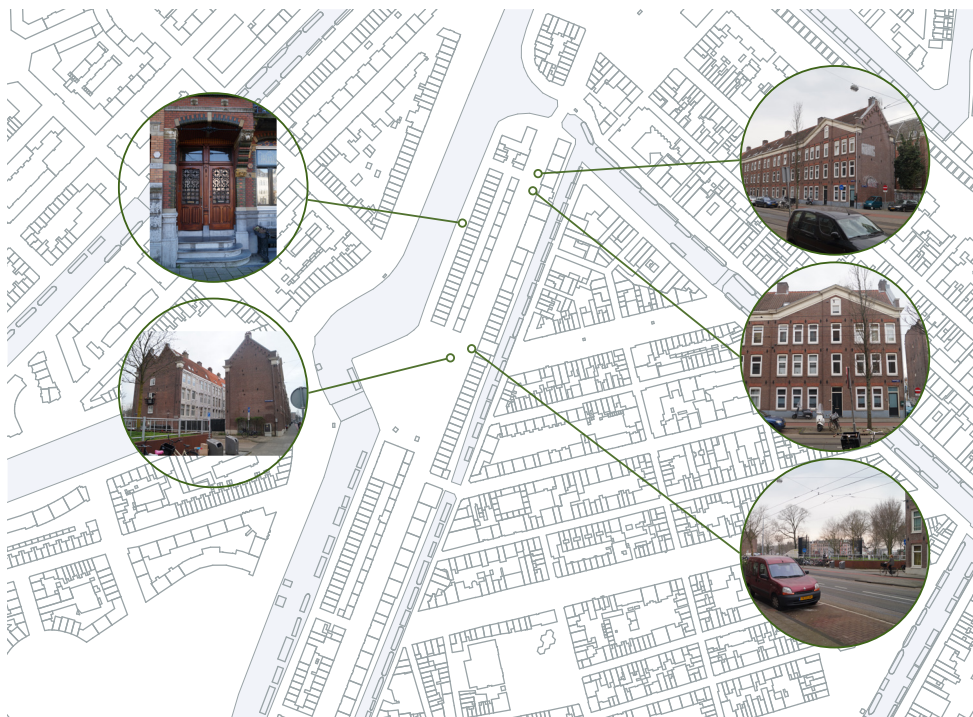
In the end of my proces I used this method to imagine how the final design could be. Reders and pictures of reference projects helped me to understand the atmosphere of the building.



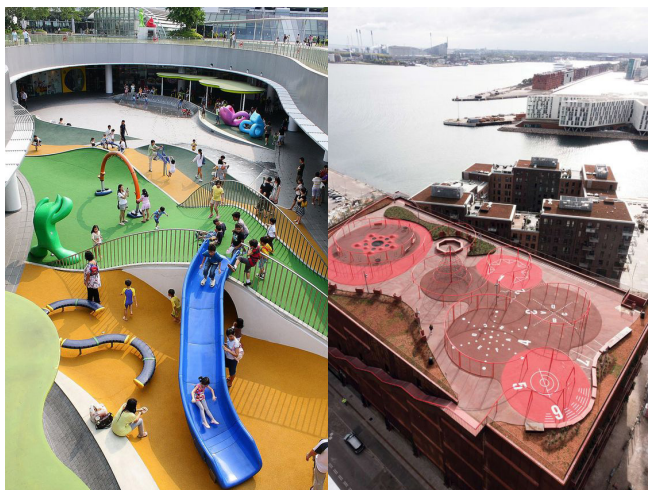
Sketch drawing of Amsterdam - Phenomenology



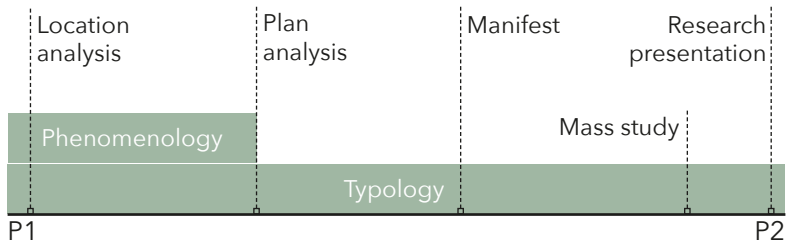
Mental map with pictures - Phenomenology



Drawings that came out of the site visit - Typology/Phenomenology



References - Phenomenology



After I knew the topic for my project I started with the location analysis. For this analysis a combination of the Fenomenology and typology method are used. The fenomenology method helped me to understand the characteristics of the location, the typology method was used to make the results visible in products.

Typology

The typology method is the most used method during my research. This method is described as a study of types.

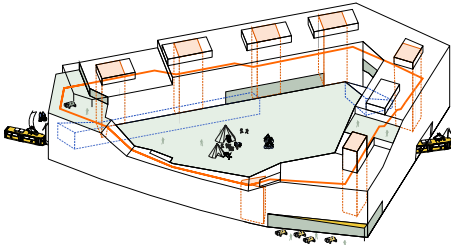
*'a number of things or persons sharing a particular characteristic, or set of characteristics, that causes them to be regarded as a group, more or less precisely defined or designated; class; category.'*¹

An good example of the typology method during my design is the plananalysis I did. During the literature study I found a set of domains that could encourage physical movement in buildings. Within these domains, design principles that encourage physical movement are integrated in different ways. I found a manner to test these domains on their presence in any building one would like to test.

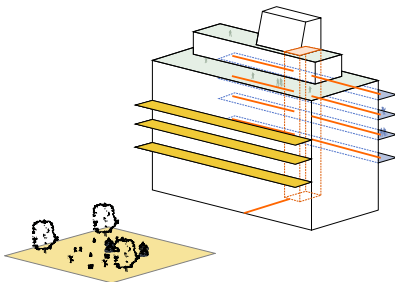
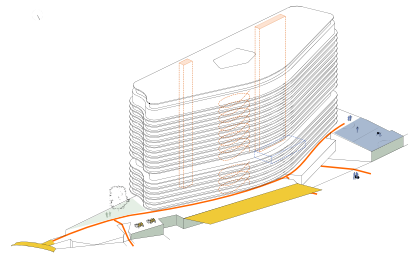
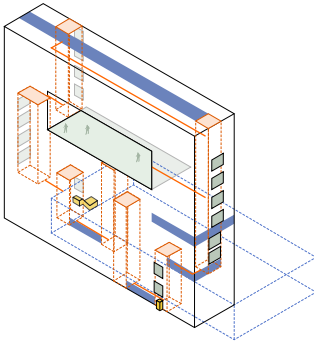
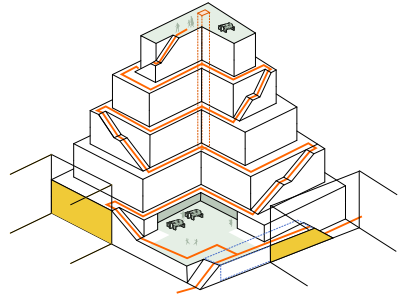
With this method it is important to ask yourself the right questions and how the visual product will be in the end. Discussions about the drawing method, helped the analysis improve during the proces. Symbols are used to characterise the different design principles present in the case studies.

In my proces I also used a typology transfer on the location to get really quick grip on the scale of the project.. The dimentions of the existing projects gave me an insight of how manny dwellings I could provide and the baywith these appartments on this location.

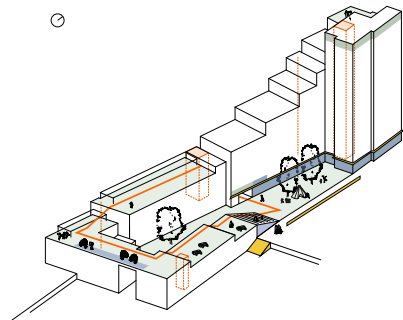
¹ Architecture and its epistemes: Lecture
Notes for Students



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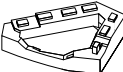





















































































































































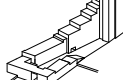































②



Drawings of the plananalysis - Typology

Conclusion

	Rouing	Goals	Active program	Building & Context
	    	       	       	       
	    	       	       	       
	    	       	       	       
	    	       	       	       
	    	       	       	       
	    	       	       	       

There are different types of routing available for an active residential building. Not one type of routing is dominant in this research. The route is important because it connects the goals and the active program.

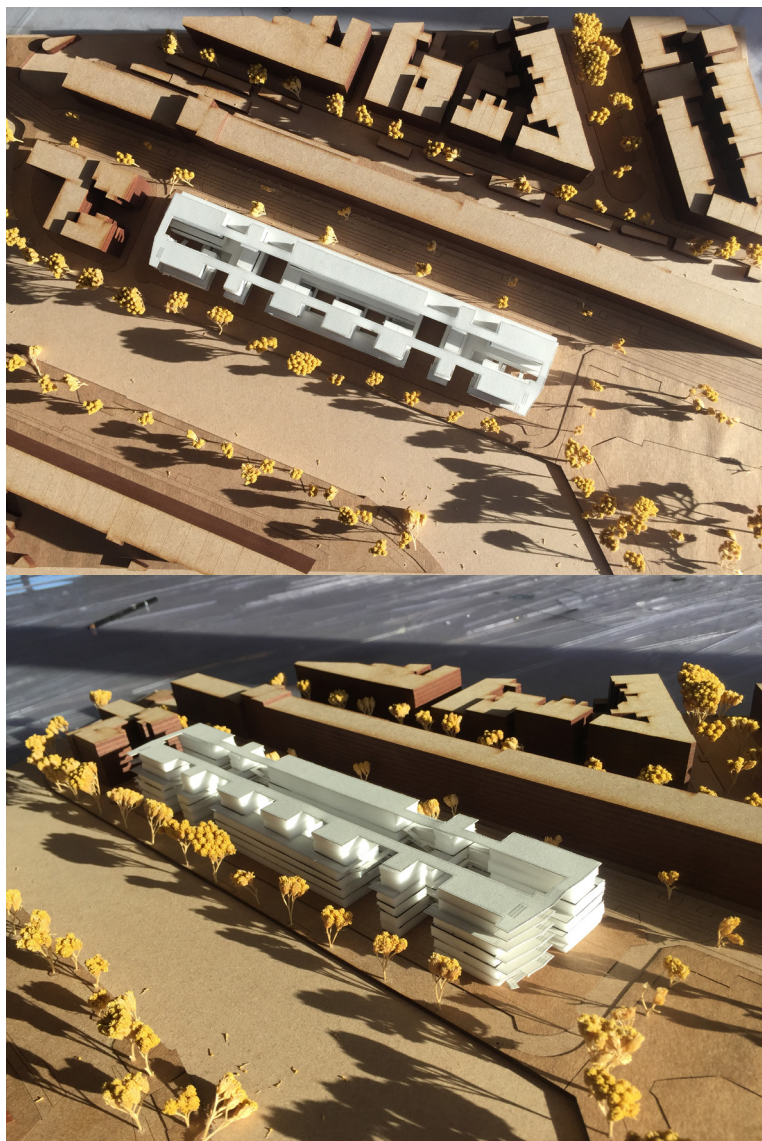
There are many goals, but some of them are applied remarkably often. Among them are the communal spaces and the view-points.

There are a lot of facilities as active program. Almost all the case studies have facilities that encourage bicycle use, for example proper bicycle storage.

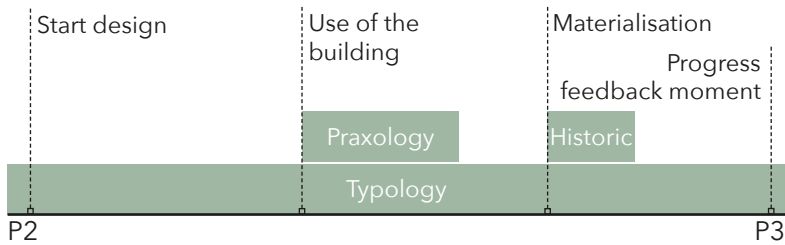
Almost all of the case studies are orientated toward the sun. This because lots of the active program and goals are outside or on the roof of the buildings.



Typology transfer - Typology



Mass study - Phenomenology



With the start of the design I approached the design on different topics. For example acces system, dwelling types, facade or active program. Later the use of the building became more important, this is the moment where the praxology method came into my design. With the materialisation of the facade the historic method also came back in the design.

Praxology

The praxology research method is a method where we look at the building through the way it is practiced. This method is mainly used during the middle stages of my design. Also, this research method is applied on different scales in the design.

The first time I used this method in my design was for the access system and the parkingspaces of the building. For the useability of the parking lot in the basement of my building I had to search for the building regulations for parking spaces and apply them in my design .

Whereas the solution of the parking spaces was given by the Dutch building regulations, the useability of the floorplans is not. Therefore an architect has to come up with a good route system inside the dwelling. Introduction of enough storage spaces in the apartment is one thing I used to meet the useability.

On the detail scale of the design praxology is more about the right building order and cleverness in detail. In practice, this is the stage where an architect consults a specialist of surtain products, to get the best solution for as well costumer, architect and the design. In my project these consult sessions were done in the building technology classes.

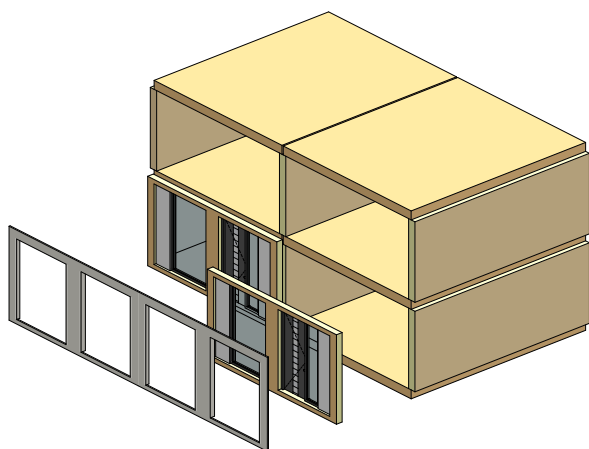
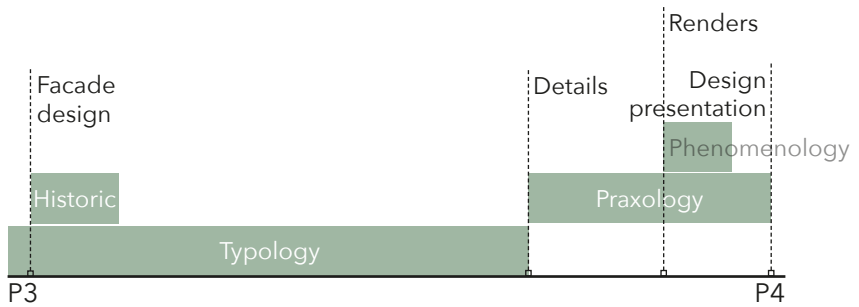


Diagram of building order - Praxology



Mass study - Phenomenology



The materialisation of the facade is based on the historic elements of the existing facade. In the final stages the praxology method is used on different scales in the design to improve the useability.



Maquette - Phenomenology



Renders - Phenomenology