

THE FUTURE STREET TYPOLOGY
The value of typology research

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I INTRODUCTION OF THE RESEARCH-METHODS

'The street can still be the place where the most important connections are made. In it, we begin to see how our home is connected to that home, this house to that house, this street to that street, this city to all those cities, my experience to yours.'

- Peter Jukes (1990, p. 117)

The quote above is explaining how we can experience a street. The street is a place that everyone uses. Our daily life is connected by the street. We can walk on them, drive on them, play on them, or even meet new people on them. It is a connection between your house and the house of a friend. Almost one-third of the city is occupied by the street, which creates the main infrastructure in a city (Mehta, 2014, pp. 1). The design of streets made a big shift the last few decades, one example what influence the street is the invention of the car. To get a better understanding in where the street typology of today is coming from it is important to do research about different street typologies. Through research it is possible to get a better understanding of what we see today, and why it is designed in this way. This will be helpful during the design process.

The course, Lecture Series Research Methods, learned me to have a different view on architectural research. By reflecting on the way the research is done, creates a better understanding which method is use-full. This will help to realize which research method is effective for a certain outcome, which can be helpful by other new research. To have an understanding of the way other researches approach a certain method, creates a better view on which methods fits the most with a certain design brief.

The chair Complex Projects, is known for the extra focus on the research part during the first semester of the graduation project. Through this research I will get a better underlaying knowledge of the subject which will help me to formulate my design brief, and later my design decisions. The main focus during this graduation study is the migration of ideas. So through the research migration has to be visible, which gives a new dimension to the research. This has an influence on the case-studies I choose for the understanding of the street, those studies need to have a connection to migration. Thus, my research for the graduation studio will focus on the migration of the streets through looking at the connection between the built environment and the street typology. Through this research I will challenge the future city of Rotterdam. Which will help me with the design brief of my graduation project. In this paper, I will focus on the influence of the typology research with the following research question: *'Is typology method a good way to research the future street typology of Rotterdam?'* I hope through criticizing the typology method it becomes visible if this is the best research method to research the future street typology. Through my research I used also some side research methods, but the mean method it the typology method.

II TYPOLOGY-METHOD AS RESEARCH-METHOD

To understand how the future relationship between the street and the built environment will be, it is important to understand the different street typologies to create a future view.

The research to understand the future relationship between the street typology and the built environment is context led. By letting the context take the lead it is possible to create a physical, social and historical setting in the research (Lucas, 2016, pp. 11-13). The main context of the graduation research is the street. First the context will be research which will be empowered by methodology and theory. To create an understanding of the different streets, typological and environmental psychology studies will be done through case studies. Besides, we created with our group a site model of the location Rotterdam, to get a better understanding of our design context. This give the opportunity to get a better understanding of the street systems that are existing on the site.

The twentieth-century way of researching typologies are covering the historical problematic and the conceptually aspect. The typology can be understood as a graphical classification (Jacoby, 2015, p.

946). By using this approach of typological research the historical problems of the street will become visible. This gives an understanding for the different concepts and ideas behind the street designs. For example, the design of the Boulevards in Paris designed by Haussmann are a reaction on the industrialization of the city and the government empowerment of Napoleon III. The typology of the boulevard migrated to other European countries and later also to America and Asia.

A way get a better understanding of how people engage with the built environment is by doing environmental psychology study. Through psychology it is possible to get knowledge about the preference of people, for example the way people response to space (Lucas, 2016, pp. 115–120). To get a better understanding of how to measure the social interaction in a street, different theories of Jan Gehl will be used. To measure the social interaction on the street Gehl focused on the different activities that can occur on the street. Those theories will be combined with the theories of Jane Jacobs, who focus on the mingling of different uses of the street.

Both studies, typological and environmental psychology, will be done through case studies. Those case studies will be taken from different time period and countries, to create a wide spectrum and an overall understanding of the different street typologies. All case-studies are taken from an etic point of view. Which means that the street is observed without direct connection with the culture (Lucas, 2016, pp. 10–11). However, to better understand the position of the street in that time period. The research will also have an emic view on the street. This is done through readings of critics from that certain time period. Overall, the case-studies are more focused on the etic view.

The case-studies are mostly done by drawings, diagrams, and maps. Drawings can be seen as one of the native practices of architects, and is a well-used research method (Lucas, 2016, pp. 175–178). So, every case-study exist of a map of the location, diagrams with the physical aspects of the street, and diagrams to analyze the connection between the street and built environment.

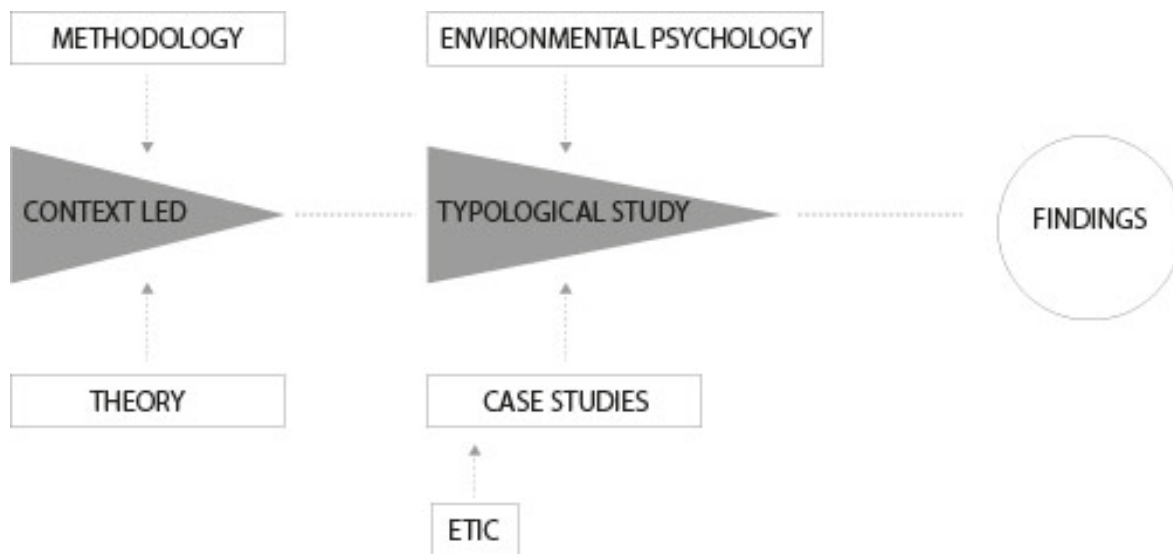


Diagram showing the research methods, Carlijn Linssen

III REFLECTION OF THE TYPOLOGICAL STUDY

The different study methods are not new at all. Like, the typological study as it known today has been developed by the French academics Antoine-Chrysostome Quatremere de Quincy and Durand, together with the often-overlooked Gottfried Semper and Julien-David Le Roy who developed the ideas of typological abstraction by researching the historical and cultural process through diagrams (Jacoby, 2015, p. 957). Those typology methods are seen as research tools for architects which can create a

basis for the design process. The research connects the past with the present, this provides an overview of the history (Kate, 1995, p. 240). Many typology studies have been done by architects and theorists, for example Henry Wotton. In the introduction of his book, Henry Wotton's *Elements of Architecture of 1624*, Henry differentiates the 'historical' from the 'logical' method. By separating those methods it is possible to create a (design) method through the isolation of the historical context (Oechslin, 2017, p. 37-41).

Several architects and researchers are known for researching environmental psychology, like the International Association for People-environment Studies (IAPS). IAPS researches what effects the environment has on people (Lucas, 2016, pp. 115–118). Through this research it is possible to create a better understanding of the built environment and the relation between people and the environment. A well know researcher in this area is James Gibson, who examines the nature of the environment by dividing it into three aspects; the medium, the surface, and substances. Through this way the space becomes an abstract element, divided into X,Y, and Z direction. Which creates a new idea of the way we can research our environment (Lucas, 2016, pp. 115–118).

Many case-studies have been done by architects, one book that got my interest in the way of typology case-studies is the book of Haussmann in Paris. This book is made by the architectural office LAN, where all the designs from Haussmann are categorized and organized through case-studies. This creates an overview of the urban axes, the public spaces, and the organization of the city blocks and buildings throughout Paris (Jallon, Napolitano, Boutte, & Boutté, 2017, pp. 72). The story behind the design of Haussmann comes visible through this research, and creates an understanding of the design decisions Haussmann made which can be use-full for making your own design decisions.

Sketching is a well know tool for architects to describe their ideas, but this tool can also be used for research. The architect and writer Simon Unwin is known for researching through his own sketchbook. Unwin describes his notebook as; *'a storeroom for ideas and as laboratory for investigating and appreciating, through drawing, the qualitative aspects of experiencing places and their ambience: light and shade; reflections; texture; mood..'* (Lucas, 2016, pp. 117). His notebook can be seen as a research tool, which investigates the basic architectural elements like form, compositions, etc. Through drawing those different elements he creates a better understanding of the elements and their meaning (Lucas, 2016, pp. 117).

The different research methods are relevant to my research, because I want to create a better understanding of the street typology in relationship with the built environment. The focus of the design brief will be the relationship between those elements together with the future vision of the city of Rotterdam. The location that fits the best with the research is the Wilhelminapier, this is a new developed area with a lot of new high-rise buildings combined with an old street typology. The street typology is still connected to the history of the pier, which was an industrial area. The vision of the government for this location is to connect this pier to the center of Rotterdam. The Erasmusbrug played an important role in this, together with the new residential and office high-rise buildings. However, the area is not finished at all, it still is been seen as a separate part of the city. One of the reasons is because of the use of the street and the relationship between the buildings and the street. Through researching different street typologies and the built environment, a better understanding will be created in the future needs of the street. This gives a basement for the design brief and further design process.

IV INFLUENCE OF THE RESEARCH

The lecture of Marieke Berkers was inspiring to see the different approaches of the spatial and social practices. Some of the books she recommended were really use-full for my research. For example, the book of Jane Jacobs, *The death and life of great American cities*, where she explained how to create mingling of different use and why this is important for a city. Another interesting book she mentions was the book of Jan Gehl, where he explains the different social activities that can be created on the street and what the impact of those social activities is. This gave me a better understanding of the social aspect of my research. However, at the end I decided to focus my research more on the typology of the street than on the social aspect of the street.

By researching the different typologies of the street I got a better understanding of the way the street is designed and the thoughts of the architects behind the ideas. Through this research I also got a better knowledge of the migration of the street through history, and how the different street typologies around the world influenced each other. This migration of street typology is something that is still happening today. By understanding where the migration is coming from and why the idea got migrated, explains a lot about the typology itself. Through this typology research it is possible to make small predictions of how the future street will look like. However, it is never possible to totally anticipate on the future, because there are so many unmeasurable parts related to it. Besides, there are some abstract elements in the research that should be mentioned.

First, it is hard to really measure the use of the different street typology in history. This is possible through writers and critics, but this will never give a full images. Together with the new technologies that will be created in the future, it is hard to predict the future typology of the street. Because those technologies can have a big influence on how we will use the street, maybe we don't even need the street anymore and all fly through drones from one place to another.

Second, the migration part of the research made it harder to compare the different street typologies. Because every country has his own culture of using and designing the street. It was hard to take this in consideration. Which resulted in a less accurate result of the different typologies.

Third, it is hard to analyze enough case-studies to create a realistic typology with enough background information. Because one case-study of a typology is not showing the whole picture of this typology. So, to create a solid research enough case-studies and background information has to be taken into account. This also result in that I will extend my research in the next coming weeks. To give me the opportunity to create a better answer to my research question.

The chair Complex Project is known for the amount of research you have to do before starting with a design. This gave me the possibility to really dive into the street typologies and creating a catalogue with all the different typologies and how those typologies migrated around the world. This gives me solid base points to start my design project with. The research gave me more insight in the understanding of the street in relationship with the built environment. It can be seen as the foundation for my further design process.

Through researching the methods I used for the research I get a better understanding of my research and it give me the focus again what is possible to get out of a certain research. Most of the time, research is seen as something on the side. But through his paper it shows me how it can play a main role in the design process, and which benefits it give. This knowledge will also be use-full in future design processes.

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