

TPOLOGY THROUGH CONTEXT-LED RESEARCH; Make the invisible River 'Senne' in Brussels visible again.

P. Thijssen
Chair of Urban Architecture, Studio "Spolia".
Thesis "Re-tracing the Brussels River the Senne"

I INTRODUCTION

I.I My Changing Perspective on Architectural Research.

I did my bachelor's degree at the Willem de Kooning Art Academy in Rotterdam, which belongs to 'HBO' (higher professional education). This means that the education is more focused on practice than a scientific education. For me, research has always been a practical thing to support my design process. A tool that I often used was field research. At the art academy students are encouraged to follow their own interests, emotions and interpretations. Field research is the perfect combination of working systematically and following your own intuition. That's what always appealed to me. Eireen's lecture on 'Material Culture' therefore attracted me. For example, she indicated that experiencing the space with your own senses is important. In this way you can see how the space has been created and that ensures that you 'look at the space as an architect'.¹ So she indicated the relevance of fieldwork for architecture. During my bachelor's thesis the research was focused on the result and less on the way of doing research. During my internship at an architectural firm, I experienced the same thing that I experienced during my research studies. Research was seen here as something that should quickly add value to the design, otherwise it costs too much time and therefore it costs too much money. Research within the practice of the firm had to be practical and focused on the relevant context. When I started doing a pre-master's at TU Delft, research became a more important part of the process. The research became the basis of every design project. The lectures gave me a different perspective on research. I learned from this course that research can have an added value for the positioning of an architect. As the Syllabus indicates: 'After some decades of 'starchitects', it almost seems a requirement to brand one's own approach; to be able to spell out what makes it unique.'² Positioning by means of an unique signature is necessary in a world of competition and in a world where job opportunities in the field of architecture are uncertain.³ I have learned from this course that choice of method and use of tools during the research is important, because it also has a great effect on the result. In the past my research was always based on the context. Also during this research this method had my preference. My question is: what is the added value of context-led research and what effect does this have on my position as a future architect?

I.II Introduction Research Thesis.

I'm graduating at Urban Architecture. The main theme of my graduation is Spolia: the re-use of architectural pieces. My thesis topic is the river the Senne. This is a river that used to flow through Brussels but was covered in 1865/1931-1955 because the river was polluted. For the design assignment, my final design will be a building for a site in Brussels under which the Senne has once flowed. For the future design, I wondered what to do with the fact that a river once flowed here? Do I use this information or not? The main question of this research is: how did the river shape the city and how is this still visible? The way in which this research is done will be reflected in this essay.

II RESEARCH-METHODOLOGICAL DISCUSSION

II.I Research Approach.

From the start my research was based on a study of a specific location, namely the river Senne in the urban context of Brussels. The research focused on a specific river with specific conditions and characteristics. The context-led research with a historical theme, the covered river, was therefore seen as the right method to do this research. Context-led research is described by 'Lucas' as: "Allowing the context to take the lead in your research process is one way of establishing the primary importance of the physical, social or historical setting... Context is used to describe what the subject of research is, how it is located (where the idea of 'location' has an open meaning) and what its boundaries are".⁴

The research started with desk research. I searched for available information about the Senne River on the internet and in archives. The archives contained historical maps of how the river had once flowed. From a bird's-eye view, the internet was used to analyze if there are any places in the structure of the city where traces of the old river can be seen. Google Maps was used to analyze this. This unveiled many places in the city with visible 'voids' in the urban fabric at the place where the river once flowed. Finally, 30 case studies were determined where the river was still visible in the urban fabric.

The essence of the main question was how the river is still visible in the landscape. The next step was to use fieldwork as a tool, because there was not enough information in the archives and on the internet to continue the research. For three days, an expedition along the covered river took place. This took a total of 50 kilometers from North to South Brussels. During this expedition I looked at how the traces are still visible. I didn't look at how the users used the trace, but how the architecture followed the covered river. So the architecture as an object in particular was analyzed. Field research was the eye-opener within this context-led research. Entering the 'field' provided many new insights. From an urban scale (the line of the river how it had once flowed) I zoomed in more and more to an architectural scale (the interventions of the river at building level).

II.II Framework.

The observations were made during the fieldwork by means of photography. Other observations were converted into drawings, such as sections and plans. This led to the discovery of typological patterns. Typology is described as: 'the study of types, or a system of dividing things into types.'⁵ Typology exists of type and logic, and comes from the Greek logos ("reason, idea, word"). It is a systematic approach to framing the types.⁶ Typology is mainly about the relationship between forms, rather than with form per se. It is a reductive way of thinking.⁷ According to 'Lucas', typology is also related to context-led research. He describes it as: exploring a context as a case study of a type, makes it possible to establish a typology: a repeating pattern.⁸ By looking at the architecture it became visible that a river once streamed here. So for me it was a logical step to look at the type and to answer the main question.

Patterns that were discovered (mainly by observation through photography) were the repetition of certain elements along the covered river. Factory chimneys, for example, were often found along the covered river. This indicates the industrial character of the river. A pattern was also discovered in which façades were suddenly a lot lower than the neighbouring façades. The river used to flow here. The way in which façades were shaped also turned out to be influenced by the bed of the river that once flowed there. Research showed that the river is still visible in the streets. A matrix has been made of all these different types.



Image: By repeating the photos that shows different typologies, the trace of the covered river becomes visible as an endless trace.

III RESEARCH-METHODOLOGICAL REFLECTION

Context-led research is therefore a research method in which the context is taken as the starting point. Context is described as: 'the situation within which something exists or happens'.⁹ The way of context-led research is applied in a lot of sciences included social, economic, environmental, technological and industrial applications of science.¹⁰

Context-led research can be implemented in several ways. In architecture, it's practiced by e.g. case studies, fieldwork, etc. to investigate the context. The history of the use of context research goes back a long time. The origin of the current application of both fieldwork and case studies comes mainly from the social application of anthropology and sociology. In the beginning of the twentieth century, it was mainly the ethnological way of research that was applied. Between the 1920s and 1950s, case studies were applied by anthropologists at the Chicago School of Sociology (known as The Chicago School) using field observations on groups to understand their social and cultural life.¹¹ The Chicago School became famous for its use of fieldwork methods.¹²

In ethnography, the researcher examines an ethnic group of people, such as a tribe, to see how they live.¹³ The aim was to gain insight into the way in which individuals interpreted their experiences. It was carried out in the natural setting, i.e. the original context. The outcome was presented as narrative or descriptive. It was a way to reconstruct their world.¹⁴ It is a qualitative way of doing research. This is an interpretive way of doing research in which data is collected, analyzed and reported in a systematic and verifiable manner.¹⁵ Qualitative methods allow researchers to 'get close to the data' and offer them the opportunity to derive their concepts from the collected data.¹⁶

At the end of the 1950s, a qualitative field research method of the Chicago School of Sociology combined with a quantitative methods of data analysis were mainly applied. This led to a revival of case study research in the 1960s, with its application in the social sciences, education and the humanities.¹⁷

The combination of case studies and fieldwork has been applied in many more disciplines in the last years. It is originally a social way of doing research to analyse your context. It is a way of making a reconstruction of reality. Within architecture, making a reconstruction of reality is important. Observing and reconstructing the reality is a way to get a grip on the context. A good example of the combination of context-led research by means of fieldwork is the book 'Concise Townscape' by Gordon Cullen. This book represents a coherence in a tangle of buildings, streets and space that form the urban environment. By means of drawings and photographs gained during fieldwork, Cullen groups different buildings by means of certain characteristics (types). This book has provided a lot of inspiration for city planners, architects and other designers who develop the look of cities.¹⁸

IV POSITIONING

In the introduction I described the importance of research for the positioning of an architect. 'The New Architect' is described in the article 'The New Architect - the DNA of the Architect' by Thijs Asselbergs and Alijd van Doorn as 'a social warrior'. The article indicates that there is no room for the starchitect anymore, who with his compositions doesn't provide an answer to social issues.¹⁹ As a future architect, I also want to position myself as an architect who provides answers to social themes. In this research I questioned myself whether preserving the traces of the historical river Senne is the right way to provide an answer to a social issue. In order to provide answers to the social issues, research into the context is needed. Context-led research is therefore important to answer questions that society is waiting for. The context-led way of research through typology is also a way of research that is related to me as how I want to position myself as an architect.

I learned conceptual thinking during my bachelor's degree. A concept is a principle or idea.²⁰ For me, a concept acts as a guide that allows you to analyze in a structured way. The typology is also a form of this conceptual thinking. It is an abstract way of approaching the building. Robert Alexander Gorny describes it as a: 'It's a very characteristic – peculiar – way of looking at buildings and built form, architectural arrangements, or spatial configurations, and the social organizations pertaining to them, investigated through plans or axonometric drawings often highlighting certain architectural objects or elements and their multiple structures and layers.' If we define 'type' as a category of things based on the definition of characteristic formal or structural characteristics, then 'typology' is the knowledge system that belongs to this logic.²¹ It is seen as a reductive way of investigating. What I see as the strength of typology is that you can decide for yourself which part of a building you think is the most important, and with that you can distinguish yourself as an architect. Because by doing so, you indicate the area of your interests. In my research, different types have been discovered, such as buildings that have been shaped by the former river. As a designer you can approach these types hierarchically: which one do you think is the most important? I took the typology 'shaped by the river' as the starting point for my design.

The context led research, together with the field research as a tool, has been an important method for this research. The field researcher is described in the book 'In the field' as: 'the field researcher is a methodological pragmatist. He sees each research method as a system of strategies and operations - at any time to get answers to certain questions about events that interest him.'²² I'm a systematic designer, where field research has allowed me to do a structured research into the covered river. Within architecture, field research is seen as a standard element for an investigation. When Googling on the internet, 'field research' comes up as a standard task that an architect does.²³ It is a tool that is underexposed. During the Lecture of Eireen 'Material Culture', attention was paid to field research. She highlighted great importance to field research as a tool for an architect to do his research. It is important to experience the space yourself, most of the time it's different from what you expect on paper. It is also a way of seeing how the space is used. By observing and being close to the user, investigation can be done at the user's request or it can be adapted to the demand. For me, that is the added value of field research. Usually more than one instrument is used to collect data. As a result, the data is of a higher quality.²⁴ It is seen as a standard element, but it can be used more intensively. For example, for the design of the train station in Breda the architect took a good look at how the place worked. And how people lived and used the space, in and around the station. The way in which the context could be connected which the surroundings was examined. Not only how the logistics could be connected to the context, but also how the choice of materials fit within the environment.²⁵ This is one of the projects that inspired me. And I want to apply this way of field research further into my research. Writing this essay has ensured that I keep sharpening, comparing and thinking and also adding things to my research process. It has taught me the added value of the way of doing research for my design process and that the use of research can support my positioning as a future architect.

REFERENCES

- ¹ Eireen Schreurs, 'Material Culture', Tu Delft, October 10, 2019, Lecture.
- ² Berkers Marieke and Robert Alexander Gorny, *Syllabus LSRM Fall 2019* (Delft; Tu Delft, 2019), 3.
- ³ Thijs Asselbergs and Alijd van Doorn, 'De Nieuwe Architect, Het DNA van de architect,' *De Architect*, October, 2014, https://www.ataindex.nl/wp-content/uploads/2014/10/2014_10_DNA.pdf, 1-2.
- ⁴ Ray Lucas, 'Introduction' in *Research Methods for Architecture* (London; Laurence King Publisher Ltd, 2015), 11-12.
- ⁵ Cambridge Dictionary, 'Typology', 2019, <https://dictionary.cambridge.org/dictionary/english/typology>.
- ⁶ Robert Alexander Gorny, 'Typologies', Tu Delft, October 3, 2019, Lecture.
- ⁷ Robert Alexander Gorny, *LSRM - Typology lecture notes* (Delft; Tu Delft, 2019), 1-2.
- ⁸ Ray Lucas, 'Introduction', 11-12.
- ⁹ Cambridge Dictionary, 'Context', 2019, <https://dictionary.cambridge.org/dictionary/english/context>.
- ¹⁰ Frances Wilson, Steve Evans and Sarah Old, 'Context led Science courses: A review', *Research Matters*, Issue 19 (Winter 2015), <https://www.cambridgeassessment.org.uk/Images/465776-context-led-science-courses-a-review.pdf>
- ¹¹ Helena Harrison, Melanie Birks, Richard Franklin and Jane Mills, 'Case Study Research: Foundations and Methodological Orientations', *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, Volume 18, No. 1, Art. 19 (2017), 2-5, <http://nbn-resolving.de/urn:nbn:de:0114-fqs1701195>.
- ¹² Dave Randall, Richard Harper and Mark Rouncefield, *Fieldwork for Design Theory and Practice* (London: Springer-Verlag, 2017), 31.
- ¹³ Marieke Berkers, 'Praxeology', Tu Delft, September 12, 2019, Lecture.
- ¹⁴ Harrison, Birks, Franklin and Mills, 'Case Study Research', 2-5.
- ¹⁵ T. Plochg, R.E. Juttman, N.S. Klazinga and Johan P. Mackenbach, 'Kwalitatief onderzoek' in *Handboek gezondheidszorgonderzoek* (Houten; Bohn Stafleu van Loghum, 2017), 77-78.
- ¹⁶ Robert G. Burgess, *In the field: An Introduction to field research* (UK; Taylor and Francis, 2006), 2-5.
- ¹⁷ Harrison, Birks, Franklin and Mills, 'Case Study Research', 2-5.
- ¹⁸ Gordon Cullen, *Concise Townscape* (UK&USA: Architectural Press, 1961).
- ¹⁹ Asselbergs, 'De Nieuwe Architect', 1-2.
- ²⁰ Cambridge Dictionary, 'concept', 2019, <https://dictionary.cambridge.org/dictionary/english/concept>.
- ²¹ Gorny, *Typology lecture notes*, 1-2.
- ²² Burgess, *In the field*, 2-5.
- ²³ 123test, 'Beroep architect', Accessed 2019, <https://www.123test.nl/beroepen/beroep-architect/>.
- ²⁴ Adi Bhat, 'What is field research: definition, methods, examples and advantages', Accessed 2019, <https://www.questionpro.com/blog/field-research/>.
- ²⁵ Prorail, 'Video: Station Breda door de ogen van de architect', published September 5, 2016, video, <https://www.prorail.nl/nieuws/video-station-breda-door-de-ogen-van-de-architect>.