INVENTING PROBLEMS
Defining a research topic using research methodologies

Student
Emma van der Staaij (4287460)
Chair of Complex Projects, "Midtown Manhattan"
Thesis "The High Line Effect"
INTRODUCTION

The Lecture Series on Research Methods familiarized me with a wide range of research methodologies. Even though I have been working on design challenges for years now, the graduation project is the first project that really emphasizes the importance of relevant research preceding a design. In previous projects this research was mainly conducted intuitively, unaware of the available research strategies. I have learned that conducting a research, starting from an established methodological position, can influence the design outcome immensely, which is also mentioned by Gorny and Berkers: ‘The modi in which research is conducted largely influence any view of socio-spatial problems, any approaches to design – and thus any notion of what a project can be.’

However, I feel like the emphasis on research methodologies in the architectural profession lies mainly on using a methodology to find solutions to a problem. I have noticed that research within the architectural profession is only partly about problem-solving, especially while conducting a graduation research. More importantly it is about finding and defining or, when studying bergsonian problematization, inventing a problem that can be addressed by architecture. Every architectural project must be situated in a body of work, a context, to add value. Developing a research question is crucial for any research that precedes a design. According to Gorny & Berkers ‘the first interrelated phases of research consist of gathering information, determining a problem and formulating a hypothesis’. The modi we use to process this information will lead to a specific research question, which can then be explored using again a different set of modi. In this paper I reflect on using this first set of modi to define a problem and research question within my graduation studio Complex Projects.

This topic is especially relevant when placed in the context of the Complex Projects general approach. The graduation topic of the Complex Projects studio is very broad and not clearly defined. It’s up to the students to draw their own conclusions and define a topic within the context of Midtown New York. The goal of the first semester is to understand all the elements that are rendering the given context by processing and organizing large amounts of data and finding urban, political, economic and environmental changes within New York Midtown. The ultimate goal of the Complex Projects studio is to test our research question in a design during the design phase of the graduation. The students will thus eventually be conducting ‘practice based research, conducting research by simply doing architectural design, referred to as ‘thinking by doing’. In order to be able to conduct the practice-based research, a research question needs to be formulated. Since the students have to follow a rigid scheme, consisting of collecting kick-off material and finding a fascination in the first 10 weeks, the research question is formulated relatively late in the process, making this the main challenge of the first part of the graduation phase. Besides, I experienced that the studio’s methods of collecting hard data didn’t help me to really define the problem, which is also stated in Lucas: ‘Merely collating information is not enough to constitute research, however – the aim is to say something meaningful as result of the data gathered.’ I needed other methods to develop my research question.

Since most of the work I did so far has been focused on the process of finding an individual research question, this paper reflects on this process and tries to answer the question that has kept me busy the first months of graduation: ‘How to define a relevant problem within large amounts of data, that can be addressed by architecture?’ I will explain how I used research methodologies, provided by the chair of Complex Projects and selected from the Research Methods lectures series, and individual methods to find a relevant research question. Finally I will present my position within the spectrum of research methodological approaches in architecture, based on my experience with this research.

5 Lucas, Research Methods for Architecture, 8.
6 Lucas, Research Methods for Architecture, 8.
II RESEARCH-METHODOLOGICAL DISCUSSION: FROM QUANTITATIVE TO QUALITATIVE & FROM ETIC TO EMIC

Even though the Complex Projects studio doesn’t require a specific approach, it is quite evident that the students are expected to collect hard data on all possible topics about the site. This hard data is subsequently visualized in graphs, charts, maps and descriptions that are all collected in a research booklet. I mainly focused on the collection of data on the demographic context of the research area (figure 1). After 5 weeks of collecting this ‘kick-off material’, I was allowed to start to develop my own fascination within the endless possibilities of research topics. My intuition led me to an interest in the demographic contrasts (i.e. income, ethnicity, age, households, …) existing in close proximity of each other in the research site. After the general gathering of information I realized that this curiosity is the second step towards a solid research question. Lucas also states that without this curiosity ‘your work will be an empty exercise lacking in interest, and simply displaying an ability to present the available data on a given topic.’ I was wondering how recent developments such as the touristic attractions High Line and Vessel and the development of high-end offices and apartments in Hudson Yards would affect both the demographic characteristics and the architectural character of the area. I noticed however that I couldn’t exactly pinpoint an underlying problem that I could address with architecture. The typological methods such as mapping, that were handed to me by the studio, and additionally, reading articles about the area, only led me to general assumptions. I needed a fieldtrip and a new methodology to verify these assumptions.

Figure 1. Maps on demographics within Midtown Manhattan (age, density, income, education)

 Lucas, Research Methods for Architecture, 28
Since I was interested in the architectural and social contrasts in the area, a more thorough investigation of social and spatial practices seemed a suitable addition to the first typological analysis and general collection of data. I needed to figure out how the spaces that I had identified allowed for different uses and users (figure 2). As Marieke Berkers had mentioned in her lecture: ‘by studying the praxis of architecture, you can design for the actual user instead of the imagined user, which is extremely useful for unfamiliar situations’. A fieldtrip to New York, the unfamiliar situation of which I only knew what I had mapped and read, turned out to be extremely useful. I studied the users in the areas that I had defined with different methods: I walked around the area, made drawings of striking situations, photographed people in the different areas and conducted interviews with people of different backgrounds. I found that some of my assumptions were proven, the characters I had identified highly contrasted each other in architectural typology, users and social activity. I experienced the High Line as the place where everything came together. I identified it as the only place in the area that all the different groups of people frequented, however in different ways than was originally intended by the architects. Tourists are overflooding the High Line, while employees use it as a short cut on their way to work or for having lunch. The residents of the adjacent neighborhoods just walked on it with friends or used it even as a location to paint. It caused some local businesses to leave and others to bloom, such as the High Line Deli, High Line Pizza and High Line Wine Market. It was a beautiful place with unintended uses and controversial qualities. I saw that it had initiated a real estate boom, attracting starchitects that have designed unaffordable apartments. All in all, the High Line turned out to be the place where all my fascinations came together, leading me to the research question revolving around the High Line Effect and how this could be recreated in another location.

It appears that during my search for defining the problem, I have navigated through some research methodological dichotomies. I moved from a data-driven typological analysis to an emphasis on the praxeological observation and questioning of people. Similarly I moved from an etic, the position of the outside observer of activities and culture, to an emic approach, adding more complexity to the investigated context while engaging and interacting with the users of my research area. Finally I

---

9 Lucas, Research Methods for Architecture, 10
INVENTING PROBLEMS

moved from a quantitative research based on the analysis of large amounts of data in maps\textsuperscript{10}, to a qualitative research in which I studied in Denzin and Lincoln’s words ‘\textit{phenomena in terms of the meanings people bring to them}’.\textsuperscript{11}

III RESEARCH-METHODOLOGICAL REFLECTION

Moving within the epistemological spectrum, from typological analysis to a praxeological observation, from quantitative to qualitative research and from the etic to the emic was necessary for a precise problem definition because both methodologies have their own limitations, which can be explained by placing both theories in their historical perspective.

I mentioned that the collection of hard data and typological analysis, required within the Complex Projects studio didn’t quite led me to a specific research question. I believe that this has to do with the ‘\textit{standardization and typification}’\textsuperscript{12} that have evolved within the praxis of typological analysis, leading to a collection of generalized data. The typological analysis I conducted helped me to find the social and architectural contrasts in the area, but didn’t tell me what the people experienced as the main underlying factor. Complementing this research with a praxeological observation made me see that reality had more nuances to it, and helped me to find a relevant topic for my research question.

Praxeology, the study of human action and conduct\textsuperscript{13}, was founded in the Polish School of Kazimierz Twardowski at the end of the 19\textsuperscript{th} century\textsuperscript{14}, but got more attention when the Austrian economist Ludwig von Mises published ‘\textit{Human Action}’\textsuperscript{15}, where he described praxeology as a ‘\textit{universal validity for all human action}’.\textsuperscript{16} In the early 20\textsuperscript{th} century praxeological research within the architectural profession resulted in famous books such as Bruno Taut’s Die Neue Wohnung (1924), Margarete Schütte-Lihotzky’s The Frankfurt Kitchen (1926) and of course Neufert’s The Architect’s Data (1926).\textsuperscript{17} Groat and Wang describe ethnographic research, the research of social practices, as an ‘\textit{in depth engagement with site-specific settings}’ through most importantly the use of observation for data collection.\textsuperscript{18} Reading about the different practices I found some similarities between praxeology and the existential-phenomenology defined by Seamon and mentioned in Groat & Wang, a form of phenomenological research that focusses on the specific experiences of specific groups of individuals or groups in actual situations or places, leading to meaningful themes within the research.\textsuperscript{19} There seems to be a thin line between the different research-methodological epistemes and my methods of observation, photography and conducting interviews could fit in either of those approaches.

Praxeological research has evolved over the years, because of now widely adopted trends such as photography and videography that weren’t available to all in the early 20\textsuperscript{th} century. The earliest studies were conducted by sketching human ergonomics and movement through space, while Peter and Allison Smithson were able to use photography to explain public spaces and their importance for people. They presented their study on the daily life of the working class neighborhood Bethnal Green in London at CIAM in 1953.\textsuperscript{20} An example of the use of interviews to conduct an architectural research, in this case the perception of the workspace, are the Cuff and Wheatly studies in which Wheatley explores ‘\textit{each participant’s interpretation of the workspace in his/her own terms}’.\textsuperscript{21} A more

\textsuperscript{10} Lucas, Research Methods for Architecture, 36
\textsuperscript{11} Groat, L.N. & Wang, D. Architectural Research Methods, (Hoboken, New Jersey: John Wiley & Sons, Inc., 2013), 218
\textsuperscript{12} Oechslin, W. “Premises for the Resumption of the Discussion of Typology,” The MIT Press, no. 1 (October 1986): 37
\textsuperscript{13} Berkers, M. “Praxeology”, Lecture Series Research Methods, September 2, 2019
\textsuperscript{17} Berkers, M. “Praxeology”, Lecture Series Research Methods, September 12, 2019.
\textsuperscript{18} Groat, L.N. & Wang, D. Architectural Research Methods, 224.
\textsuperscript{19} Groat, L.N. & Wang, D. Architectural Research Methods, 232.
\textsuperscript{21} Groat, L.N. & Wang, D. Architectural Research Methods, 219.
Inventing Problems

A 'holistic approach', combining the examples of the Smithsons and Cuff & Wheatly, was applied by Karen Keddy while she studied the experience of a hospital surgical unit from the perspective of the nursing staff. Keddy used a wide variety of tactics among which in-depth interviews, location mapping and photo-documentation. Because of precedents like these, my methods of observation, photography and conducting interviews are now widely accepted methods of determining problems. I have however two points of critique on this research-methodological approach.

1) Firstly, in her lecture on praxeology Marieke Berkers mentioned that the researcher is never a neutral observer. The observer projects his or her prejudices and formerly acquired knowledge on the study object, obscuring its objectivity. My interviews and observations are biased by previous assumptions and should be placed in perspective by using other methodologies.

2) Secondly, how people use and experience spaces, investigated by praxeological research, is influenced over time by social and political perspectives. I could never rely on a research, its methods or research outcome that was conducted years ago, because the context keeps changing and people constantly experience different problems. I believe that in my case, a praxeological investigation helped me to identify a topic for my research that connected all my previous ideas. The topic of the High Line was the most evident, but if I would have been able to spend more time in New York and talk to more people, my investigations would have possibly led me to other conclusions about the problem definition.

IV Positioning

In 1984 Michel de Certeau called New York ‘a texturology in which extremes coincide – extremes of ambition and degradation, brutal oppositions of races and styles, contrasts between yesterday’s buildings, already transformed into trash cans, and today’s urban irruptions that block out its space.’ It shows that New York has consisted of architectural and social contrasts that I have been investigating for probably its entire existence. His words also remind me of the broad research methodological spectrum that was introduced to me during the Lecture Series on Research Methods. The modi in which research can be conducted, or in this case, with which a research question can be determined will lead to different productions of architecture. Moreover, I have experienced that I have been able to acquire the best, most nuanced results by applying both typological analysis and praxeological observation.

The research-methodological reflection showed that both methodologies that I selected had their own limitations. The typological analysis required by the Complex Projects studio, consisting of the collection of hard data that was subsequently visualized in graphs, charts, maps and descriptions, helped me to understand New York in general. My personal focus on demographics led me to my fascination for the architectural and social contrasts that exist within close proximity of each other in the area. However, it failed to help me identify a specific problem and research question. I needed yet another methodology to answer the question that I posed in the introduction: ‘How to define a relevant problem within large amounts of data, that can be addressed by architecture?’ The praxeological observation consisting of photography, drawing and conducting interviews eventually helped me to understand that my fascination for architectural and social contrasts could be traced back to the High Line, which could be seen as an analogy of the normative ideal of city life: the being together of strangers. This finding led me to a research question concerning the High Line Effect, which I can now investigate in, using a new set of modi.

In general this reflection paper has led me to the following conclusions about problem definition within architecture and will help me position myself during following researches preceding

design. First of all research methods can be used, not only to find solutions but also to determine the right problem. Secondly, my process of finding the right problem and defining a research question consists of heuristic elements such as the intuitive selection of a fascination, collecting hard data and a praxeological approach of observation and talking to people. And finally, a combination of methodologies is necessary to find a relevant research question. ‘Architecture is, by its nature, a complex, multifaceted field of study, meaning that no single approach can tell you everything you need to know.’ 26 All methodologies have their limitations, but an awareness of these limitations and using another complementary methodology will result in the definition of a true problem. 27 I believe that it depends on the situation and one’s personal fascination, what epistemological framework will prove to be most useful. Any methodology will eventually lead to a research question, all different from each other. Since I’m personally interested in the social aspects of architecture and the people using the built environment, praxeology has proven to be a necessary approach to complement the collection of hard data required by the Complex Projects studio.

27 Lucas, Research Methods for Architecture, 45.
V BIBLIOGRAPHY


