LSRM
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I INTRODUCTION

Architecture is a notoriously broad activity[1]. As architecture students, we are constantly exposed to various forms of architectural research, that imply certain epistemological assumptions. These systems of knowledge are closely resonating to the use of certain research methods to approach the built environment. The use of these different research-methodologies fundamentally frame (and delimit) how we see, analyse, or research the built environment. To develop any own approach, a fundamental capacity of a designer proves to be a critical awareness of this existing but unconscious body of methods. This awareness makes a designer conscious of their own choices, to identify the impact on their work and have the ability to have better control of their research process and findings. Furthermore, it gives the designer the fundamental ability to consciously choose and critically position themselves amongst others.

The research methods lectures played a significant role in increasing my knowledge and attention to different methodologies, and how I could position myself to the use of different methods in certain epistemes. All architectural activity is an exploration within identifiable disciplinary fields of experimentation and triggers very different conceptions of architecture itself. As an architecture student, I am already coloured in my vision through all the education I have received. Because the modi in which research is conducted and the different research instruments used to influence any view of socio-spatial problems, the approach to design and thus any notion what a project is or can be differ. All are giving a certain perspective, this helped me to be critical to the methods and epistemes which I can choose in the broader context for my own methodology in the field of architectural research.

[1] Lucas (2016) p. 7

This methodologically self-reflective paper helps me to create a methodological awareness, a self-image, an identity, self-control and the ability to switch perspectives during my design and research processes. This awareness contributes to a more flexible design and research process in the future and helped me to position myself within the broader context in the field of architectural research.

For the aim of this paper, I will use the research of my on-going graduation project as a starting point for the research methodical reflection and discussion of the used approaches. I am graduating in the graduation studio of the chair of Architectural Engineering where the focus lies on new technologies as inspiration, contribution to the architectural design and to improving social issues. This chair sees architecture as a complete design discipline in which technical possibilities are an inspiration and an important contribution to the architectural design. Where the starting point of the studio is; *'If technology is the answer, what is the question?'*[2] From this modern ideology, we tend to search for technical sustainable solutions.
The studio encourages students to develop their personal fascination, for me this is the 'soft' side of architecture and the social part of sustainability: local and social innovations which contribute to a sustainable living environment in the city. To look into the process of building and the role of the architect in the context of an outdated housing stock in a post-war working-class neighbourhood in Leiden. Where I, as "architect", will deal with the current non-climate adaptive city, the rising identification as a consequence of individualization, the pressure on cities by an increasing number of single households and migration to the city, and a low nature awareness in the city that contribute to the disrupted connection between nature and society. In this paper, I will reflect on my methodology to develop a strategy, based on the research question: *How can the spatial and architectural value of the existing housing stock be socially sustainable improved?*

II RESEARCH METHODOLOGICAL DISCUSSION

By formulating the question: *"How can the spatial and architectural value of the existing housing stock be socially sustainable improved?"* it became clear that I was already developing different approaches towards my research methodology. I was in this stage of the research not interested in the

[2] Asselbergs, M.F. (2018)

implementation of new techniques into the architectural design, as where I was pushed to by my studio. My aim was to design a socially sustainable transition for the neighbourhood based on social and environmentally friendly design principles. So, I was rather interested in the social part of sustainability and how you as an architect could meet the current living needs of people and the climate requirements in a way which is good for people and nature in a city.

This implied an understanding of sustainability as a whole, the people and their socio-physical built environment, which seems to come close with an ethnographical understanding of architecture and requires a corresponding research methodology. Ethnographic research emphasizes in-depth engagement with site-specific settings, most especially through active and thorough observation.[3]
But on the other hand, it implied a qualitative understanding of the perceptual experiences of the spatial and architectural values in the built environment. Understanding architecture as a set of practices, like in social studies, affords designers opportunities to adapt approaches to meet the needs of the clients and users.[4] Social sciences look to the actual use of space and the importance of everyday life.

To develop a strategy, I need to understand the complex picture that involves reporting multiple perspectives, identifying the many factors involved in a situation, and generally sketch the larger picture that emerges. I decided to use a combination of methods to get a more holistic understanding of the context to explore the research question. More specifically I decided to use:

- A theoretical framework.
- Case studies.
- Interviews with different actors.
- Recording observations of the neighbourhood.

The literature study within the theoretical framework will focus on the terminology of concepts, context and history of sustainability and existing theories for a social approach to architecture. I will use different socio-physical phenomena as case studies to answer the question ‘How can architectural qualities nourish certain needs of actors in a neighbourhood?’ by analyzing these qualities and spatial applications within architecture. This knowledge will form the starting point for the

[3] Groat, Wrang (2013) p. 224
[4] Lucas (2016) p. 15

active fieldwork in the form of conversations and recordings in the neighbourhood.

Recording my observations in the neighbourhood and the open interviews with the municipality, Studio Mojo (a social society from the neighbourhood), the housing corporation and the local residents let me acquaint with the needs and visions of different actors. With this research, I was hoping to gain a good understanding of how people in “real world” situations make sense of their environment and themselves.

The information gained hopefully productively feed my design proposal and help me formulate a design strategy to implement the social part of sustainability into my design process. The ethnographical understanding of architecture and corresponding research methodology have been used in architectural research for a while. Whereas qualitative research depends on non-numerical evidence, whether verbal (oral or written), experiential (film or notes about people in action) or artifactual (objects, buildings, or urban)[5] there is criticism on the qualitative approach. A debate around the relevance and the challenges varies and cannot be conducted without an insight into history. Why do we as humans feel elevated above nature? And how can it be that a technical innovation which first served as a tool drove us further away from our own nature? In today's mindset, we tend to have a technical approach as a solution to our (social) problems.[6]

III REFLECTION

From the Enlightenment, modernism gave a great urge to individuality (a behavioural change) which was supported by technology. This came from an economically capitalistic mindset to make everything more efficient and set the expectation of constant growth. In this post-war period in the Western world, we saw architects leading the way, enacting their theories for a better society on an unprecedented scale, shaping the world for the better.[7] You can see this in the approaches of CIAM; the functional city, in which star architects, such as Le Corbusier, with its ruling "a house is a machine for living",[8] where they approach the architecture from above and define how people should live. But individualism has its bad sides,

[5] Goat and Wrang. (2013) p.223
[6] Teerds (2017) p. 536
[7] Hyde (2012) p. 17.
[8] Goat and Wrang. (2013) p.43

according to Habermas[9], Felling[10] and a publication of Brigham Youn University[11] loneliness and stress due to excessive performance leads to health problems in an increasing group within the population.

The culture around the architect has changed from master builder to award winner by making iconic buildings. Architecture became a key tool in real-estate speculation; a business product with an expectation to generate a return on investment[12] where buildings are part of an economic money-making machine. An obligation which inevitably led to the further erosion of architects' civic responsibilities and the contradiction of the profession described by Dana Cuff as: The tendency to celebrate the creative talent of the individual architect, even while most architects work in collaborative settings to bring to life complex building projects.[13]

Already in the sixties, Habraken came up with a counter-philosophy, a fundamental reconsideration of the rules within the housing industry. Habraken directed on a demand-oriented housing market. A building, an interior or an urban fabric is never finished according to Habraken.[14] In his design method, the open building, a building distinguishes between the "support", the collective part, and the "infills", the individual part the factor time and life span plays a role. Habraken is one of the initiators of the international "Participation movement" in architecture for ways to redress the balance of power between the architect and the user, by giving inhabitants a meaningful participative role in the design process.[15] The way Habraken handles the time and is interesting to include in the development of a new strategy.

Also, Jane Jacobs[16] does not believe in the anti-urban concepts of modernism and the garden city. She claims that the mono functionality of these neighbourhoods ultimately leads to insecurity. By her ' human ecology ' descriptions of the socio-physical dynamics of life; the complex interactions between pedestrians, shopkeepers, sidewalks, the behaviour of children in the public space gives the reader an image of ' street-level microeconomics '. Jacobs advocates lively neighbourhoods, neighbourhoods with a lot of origins and diversity in functions, people

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[9] Habermas, J. (2008)
[10] Felling, (2004).
[11] Holt-Lunstad, (2015).
[12] Hyde (2012) p. 19.
[13] Dana Cuff, (2012)
[14] Habraken (1961)
[15] Awan, Nishat (2013) p. 185.
[16] Jacobs, Jane (1961)

and economic activities. The fieldwork which Jane Jacobs describes is a strong way of mapping the neighbourhood's interaction.

Not only Jacobs but also Gehl associates the functional Modern approach to the city, developments in technology and the increasing wealth of the Western world with the reduced outdoor activities in the city[17]. Jan Gehl's study in 1971 focuses on living between homes and the opportunities to stimulate activities within the public area[18]. He observes and describes the spatial elements that allow or disrupt contact in a social structure and rhythm of life of the city. The elements that provide qualities can be tested and applied in the analysis of precedents during the design.

IV POSITIONING

Despite these opposing views, design methods and epistemes, today we live in an individualistic society with an infinite desire. Architects face an increasingly complex and contradictory array of expectations: every building must be green, cheap, marketable, conforming to regulations, on time, on budget, make money, and more often than not, be iconic.[19] But is not the individual that creates architecture, it's the culture that's increasingly motivated by investment, promoted by public relations, and regulated by the threat of litigation.[20]

In fact, the real problem is the temporary, individual technical solutions to climate change and the depletion of raw materials and traditional energy sources, because it is not an individual but a collective problem. As a society, we need to relinquish from this modern outdated idea (as described in the previous part III) and remain individual. It requires a new ideology, where technique isn't seen as 'the solution' but seen as a supportive tool to change behaviour in the built environment.

This means the abandonment of the idea of the capitalist system, where the focus lies on endless economic growth, and switch to a cost-effective solution: What's already there, use or repair it and especially look to the needs of the human and the local ecosystem. From mass production to customization, which aligns better with human needs and specific situations. By improving the ecosystems we live in, we have the potential to improve not only our own health but to produce collective benefits,

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[17] Teerds at home p. 106
[18] Jan Gehl (1971)
[19] Hyde (2012) p. 20
[20] Hyde (2012) p. 21

improving the health of an entire neighbourhood or even a city.[21] To close the gap between man and nature in the city, to return from individualism to a new ideology with a more collective idea that we are part of the ecosystem. Only a technical innovation is not the solution, but a medium, the collective structure, to facilitate the behavioural change needed to rebalance ecosystems in the city.

To come back to the starting point of the studio, where they offer technical innovation as a solution, I prefer to see technique as a supportive structure. A structure that supports the ecosystem and facilitates to live in harmony with nature in the city of the future. As Palasmaa said in his architectural essay, *The existential task of Architecture*; 'We cannot meaningfully speak of sustainable architecture without thinking of sustainable culture, ways of living, and values.'[22] In that, the research needed to transition the city is as multifaceted as the discipline itself. As in the intention of the paper, there is no "right" or "wrong" approach to research and architecture. My statement is that it is necessary to research strategies from multiple perspectives in order to be able to grasp a stronger holistic plan and to reinforce the weaknesses of certain research methods. Architecture is a social act, constructed to serve the needs of the people,[23] but beyond that, it contributes to the ecosystem we live in. Architects that are operating beyond their capacity as building design professionals, as 'custodians of the built environment'. Their concerns are broadly understood to be for the quality of the city's ecosystem as a whole, rather than the acquisition of new projects to fuel an office or leave an authored mark, forging a new era of civic responsibility and ethical entrepreneurialism.

[21] Hyde (2012) p. 21
[22] Palasmaa (2012) p. 103
[23] Lucas (2016) p. 15

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