

Reflection cross domain “City of the Future”

By Ilse de Jong

The Cross domain graduation lab is a special thesis laboratory for students that would like to develop their own (design and/or research) fascinations in a multidisciplinary setting. The studio aims to combine the knowledge of students with different backgrounds to share insights, research approaches and methodologies. This reflection paper is part of the thesis report and will reflect on the interaction between research, design and the multidisciplinary setting of the studio.

The challenge the city of the future studio tries to tackle is the challenge of how to densify while at the same time facilitating a energy transition, improve the opportunities for new mobility options, circular economy and social inclusivity. Can we together ensure a system leap that guarantees a sustainable future for the city? Can we look further than just a sectoral task or specific transition? And what do the new systems and interfaces look like? What is needed for this and to which (final) images can this lead? In order to find answers for these questions a multidisciplinary approach is necessarily, by combining different research approaches can we find answers to wicked problems.

In addition to my studio I have been part of the Inclusive City Hub (ICH). The inclusive city hub is part of the Leiden Delft Erasmus centre for sustainability, which is an interdisciplinary research centre in which three universities join forces to accelerate the transition towards a circular economy. The inclusive city hub is focused on the spatial and social implications of the circular economy, we focus on how innovations can be integrated in the streets and neighbourhoods of cities, aiming to create an inclusive society. Each year the topic of the ICH is decided by the participants, this year the focus of the hub is on inclusivity and participation.

The combination of the city of the future studio and the Inclusive city hub creates an interesting field of research. Recently the focus of the Dutch national government, province and municipalities has shifted towards the suburban stations because the area around them has become one of the vital locations for the expected densification of existing cities (Stedenbaan, 2016). This focus may appear strange, as these stations are often regarded as less complex compared to larger stations, it may seem these areas don't need extensive integrated planning to develop them. In reality, however, while some aspects are less complicated, other areas such as socio-economic aspects are a greater issue. Smaller suburban stations are often located in disadvantaged neighbourhoods with lower quality of life and residents with less socio-economic prospects (“Leefbaarometer Kaart,” 2016). The development of peri urban stations in disadvantage neighbourhoods is for me the perfect combination of the city of the future and the inclusive city of the future. The goal of my thesis is to formulate a strategy and create a design that uses the momentum of the station development to improve the quality of life, and with that reduce the inequality, in the deprived neighbourhoods.

The relationship between research and design.

The name of the studio ‘City of the future’ implies a certain research direction into complex systems, changing mobility (infrastructure), circular economy and the integration of these elements. On top of these elements it also asks for a more utopian image of what the city of the future should be. It requires a ‘dot on the horizon’, a desired city. This means there are a lot of topics that can be/will have to be researched. The combination between the city of the future studio and the inclusive city hub created an overlap between two topics that diminished my research scope, but still the topic was very broad. In order to formulate a strategy and design that uses the momentum of the station development one has to understand what the current developments are and how mobility is going to develop in the future. It requires an understanding of social geographical processes and at the same time an understanding of their spatial and architectural implications.

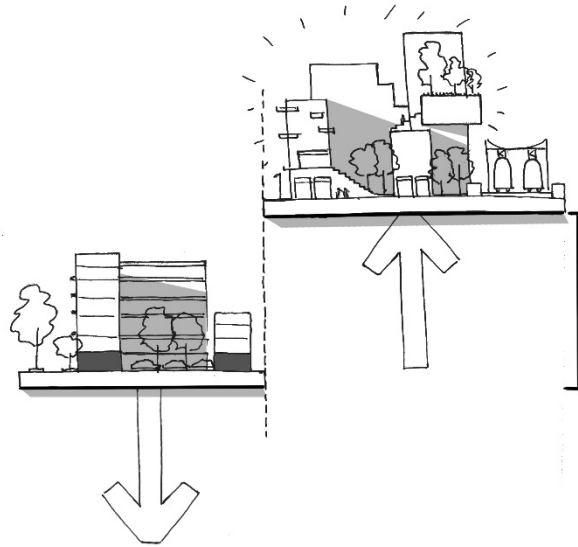


Figure 1 Problem statement: Development of stations areas creates an emphasis on the inequality between the residents of the disadvantaged neighbourhood and the residents of the new station area development.

In the end I have chosen to focus on inequality in relationship to the quality of the build environment. I have chosen this scope because I get a lot of energy from trying to solve bigger "morally unjust" situations. The topic requires a clear understanding of inequality and the quality of life. And the relationship between the urban environment and the quality of life.

A graduation project at the faculty of architecture is a year long project. During this year you focus on different elements. In general, the year can be divided into two parts. The first half year is focused on formulating the problem statement and doing research. The second half of the year time is mostly spent on developing a design.

During the research period a literature review, interviews and a plan analysis have been conducted as main research methods. During this process the research question were quite clear and the research resulted in useful design directives. But during the transition from the first half of the year to the second half I feel as if I missed opportunities to increase the influence of my research on my design project.

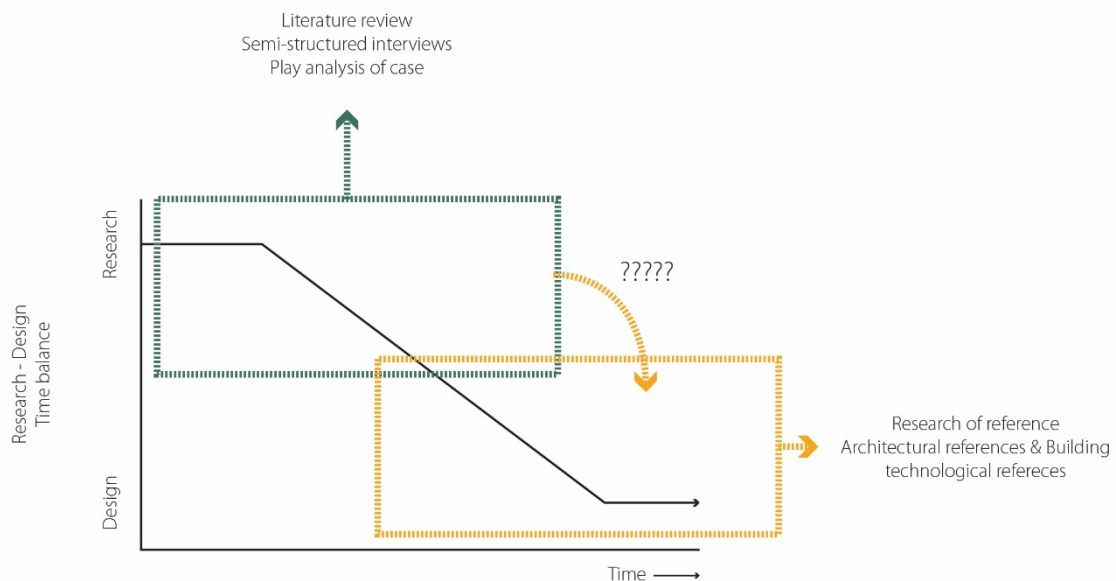


Figure 2 Research process

Figure 2 illustrates my design process. I feel like have missed an opportunity the moment I went from research to design. During this process from research to design I could have used references to help me translate my research on inequality and the quality of the environment into a design. During my research I have formulated my own design directives, what spatially has to be done in order to decrease the inequality. But I haven't used many examples of projects that have successfully translated design focused on diminishing inequality to realized projects. I think I could have developed the relationship between research and design better if I had used more references.

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 graduation studio does not have a fixed methodical line of inquiry or approach. All students are free to develop their own design and/or research fascinations, and therefore the research methods that are used are very different. But the aim of the studio was to have a collaborative working atmosphere in which student exchange knowledge and research methods. In paper, students with different topics would increase the exchange between disciplines. In reality it turned out that the lack of a shared topics, location and responsibility worked against the exchange of knowledge.

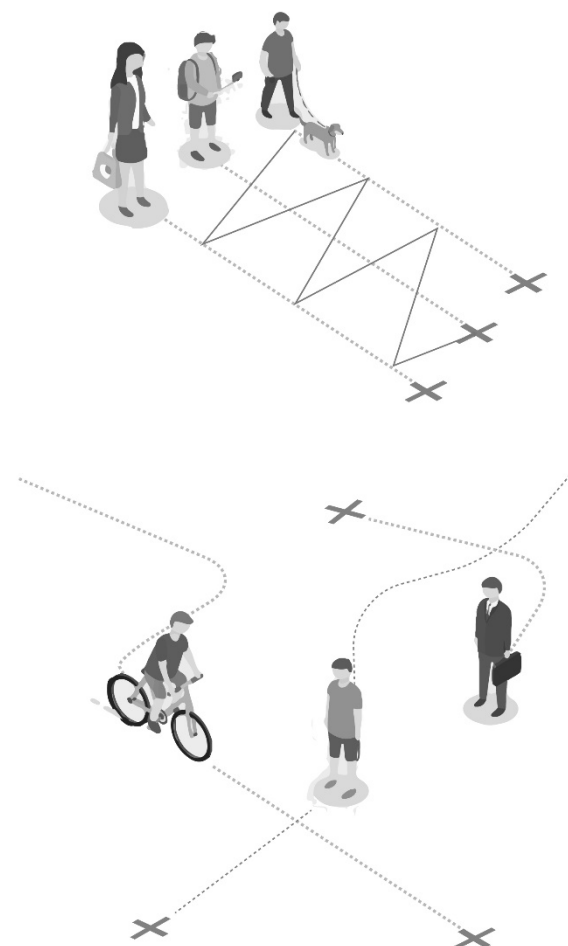


Figure 3 illustrates the desired collaboration process and the actual collaboration process, as experienced by me. The aim of studio was to have a very active collaboration between students of different disciplines. Due to all kinds of reasons this did not happen.

Which is sad because I really believe that cross disciplinary research and design is the only way in which we can find solutions for some of the major problems we face today. I think in order for there to be more collaboration it would have helped if we had a shared location. We could have done the research together; everyone could still focus on his topic but we would have more shared elements.

The difficulty in collaborating is, I think, representative for the difficulty researchers and practitioners experience in their daily work. Academics experience the same difficulties we experienced in our design process; everybody is focused on his own little bubble. In order to produce a paper with "scientific new knowledge" you need to be very specific. While collaboration requires a more open mind in which, maybe, you can be more generic in your topic. The current challenges in society create a paradox in the scientific world. In order to produce high ranking papers you need to be very specialized. While if you want to find solutions for climate change and other wicked problems you have to be able to combine different disciplines.

Figure 3 Desired and actual research collaboration

The relationship between your graduation topic, the studio topic, your master track

The topic of the studio is city of the future. The question that arises is "what is a/the city of the future?" The city future is nothing new. In my opinion, in a perfect world every architect is designing for the city of the future, always with the aim to improve the quality of the build environment. In 1946 A. Verhoeff published his book about cities of the future, the title of the book was "Stad der toekomst – toekomst der stad" (City of the future – Future of the city). The title of this book is huge inspiration for me, it summarizes the challenge of the studio topic and our master track in general. The title contains the paradox of designing for the city of the future, challenging problems we haven't yet clearly defined and designing for a future we cannot predict, and at the same time the title realizes that the city we live in is the city of future, how is our current living environment going to change, it is not about design something completely new, it is about adjusting what we already have. The city of the future is as much a sci-fi new world exploration as it is a never ending heritage and urban renewal project. It is always predicting and planning for the unknown and uncertain scenarios while implementing it in the current situation.

What the city of the future looks like



New Paradigm



Studio: City of the Future

- I. The hybridization of program.
- II. Inside & outside public space.
- III. Constantly changing urban conditions.
- IV. Influence of upcoming technologies.
- V. Inclusive, democratic and open society.

Floris Alkemade "The city of the future is already built"

Figure 4 Paradigm shift

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

The redevelopment of a station in a post-war residential area has something poetic. The post-war residential areas were created by a combination of circumstances that are very similar to the current circumstances that we are experiencing. After the war there was a large shortage of affordable housing. Thanks to technical innovations in the construction industry, enormous quantities of new homes could be produced at great speed. Innovations in forms of transport allowed this city to be much larger in area than its ancestor. In combination with the development of telecommunication it made the separation of workplace and residence possible, created homogeneous and large areas of residence (e.g. working-class neighbourhoods), made possible the siting of much round-of-life activity within the place of residence or neighbourhood, and eventually, with the... automobile, made it possible for an individual to connect pieces of widely dispersed space without the necessity of actually being, in any socially meaningful sense, in the intervening spaces. ... it became possible for large amount of people ... to spend significant portions of their lives entirely in the private. These developments resulted in post-war neighbourhoods; neighbourhoods with very specific identities and problems.

Today we face comparable circumstances; innovations in prefabricated timber structures, concrete of the 21st century, the BIM modelling programs and smart building materials enable us to produce buildings in a third of normal construction time. Still we face trouble, the housing shortage in large cities is enormous. Cities have trouble being inclusive, the cities are starting to become something for the rich. New mobility modes, such as self-driving cars and mobilities as a service, will change the way we travel from A to B. And in the mid-90s, ARPANet was transformed from a military safety net to the civilian Internet that has become such an integral part of our lives, bringing with it change not only technological, but societal and epic in scope. Thanks to social media and communication apps you no longer have to be close in order to communicate. While staying inside you can have many different kinds of social interactions.

The poetics of my project, redeveloping a peri-urban station in a post war neighbourhood might be representative for the situation architects are always in. 80% of the time you spend trying to solve the mistakes of the past, while at the same time trying to tackle present challenges. The challenges of today are similar but seem even more complex than the challenges of the past. I experience it as if we are working in a never-ending circle. In the circle you work on trying to go a step forward, but as I mentioned in the previous paragraph, this is not in a futuristic way. As I reflect on what has changed in the last fifty years, I think what has changed the most is the return to the human experience and scale. This seems like a very small aspect in big global problems. But I think that the focus on human scale is what will safeguard the quality of our complex solutions as experienced by the residents of the cities. To conclude on what I think is vital for all the major challenges: in all the solutions that we will imagine we should never lose experience of one simple human being.