



P4 REFLECTION - Complex Projects - AMS Mid City

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CHAIR vs. PERSONAL METHODOLOGY

Throughout the faculty the chair of Complex Projects is known for its strong focus on research based design. In order to answer the needs of tomorrow's world it aims to fully understand the complex urban environment of today's. By analyzing this environment on different scales, such as regions, cities, buildings, and details, the chair hopes to expand our understanding. At the same time it expects their students to look critically at their surroundings by shifting the lenses through which, we as designers, are able to see the world.

The methodology, that the chair of Complex Projects is based on, was clearly applied to the graduation studio, AMS Mid City, that I was enrolled in. The aim of the studio was to develop a future vision for Amsterdam for the year of 2050. To do so, initially, eight interesting area's within the city were divided over eight groups of students. Each of these groups had to develop a vision of their own for that specific area, while keeping in touch with the work done by other groups. As our group started one semester later we were appointed to develop a ninth vision for the area surrounding Schiphol Airport, during which we could build further upon the work done in the previous semester.

During the initial semester we had to critically analyze a vast site surrounding the airport by looking at several topics, such as landscape, infrastructure, housing, etc. At the same time to fully understand the inner workings of the area we often had to zoom in to the level of buildings (such as the terminals) or zoom out to the scale of the region or sometimes even the world. Through extensive mapping and collecting of these data we eventually gained a solid understanding of the site which enabled us to fully substantiate our group vision as well as come up with interesting problem statements.

During the second phase of this semester we started to explore our personal fascinations connected to this group vision. Quite early on we had to state and present a fascination in order to start researching so-called soft topics of our choice. As future visions are not an exact science the aim was to rather create a narrative that would substantiate the personal fascination. Looking back at this phase of the studio I would say this was the time that I mostly struggled. As this method was quite new to me, at the time it felt like I didn't fully understand the assignment and I was doing research for no clear reason. Towards P2 it became clear that the research I had done helped me develop a clear narrative in which my personal project would eventually fit. During this last phase of the first semester I heavily relied on typological and comparative research in order to develop a clear idea of what to address in the project I still had to design.

Looking back I think the clear methodology and rational approach towards design that the Chair of Complex Projects practices fits in well with my personal approach. I have always been one for practical problem solving and think this graduation studio has been a good choice for me. Even though it hasn't always been easy, I think I've learned and developed a lot. The only thing I did miss is more time to focus on in depth research as we were research such a wide variety of topics and architectural scales for most of the time.

GRADUATION TOPIC vs. STUDIO TOPIC

From the moment the first terminal at Schiphol was built it has continued to grow. As flying has become more affordable over time, more people have started to use it as a means of transportation. At the moment Schiphol almost can't deal with the large amounts of people, and for this reason they have already invested in a new terminal building. Schiphol has always been seen as a mainport for the Dutch economy and has therefor often received special treatment by the government and other authorities. The growth of aviation, however, has led to a lot of negative side effects such as air pollution and noise disturbance. The enormous amount of backlash from local communities, the

media, and politicians due to these side effects has led to society questioning the actual relevance of such a mainport in our current times. Although flying brings so many negative side effects with it, it seems naïve to simply state that we should travel less. Our globalized society relies on a high level of connectivity. It might rather be time to look at other means of transportation that can offer a solution. Over the last decades the European Union has been investing in a network of high-speed railway lines throughout Europe. These high-speed railway lines offer a substitute to aviation on short distances, but are still not fast enough to do so at bigger distances as they are simply not fast enough. A new mode of transportation that might be an alternative to flying is the Hyperloop. This technology, proposed by technology pioneer Elon Musk in 2013, would reach speeds up to 1200 km/h, therefor being faster than the average airplane. The aim of the graduation project is to research the possible implementation of hyperloop at Schiphol. The research question therefor was: how will technological developments in high-speed land transportation (Hyperloop) influence Schiphol? This topic fits well into the general focus of the graduation studio. As previously described, the aim of the AMS Mid City studio is to create a 2050 vision for the city of Amsterdam, where the focus is on the growth of inhabitants and the need for new housing and infrastructure. During our semester the focus of the integrated seminar City of Innovations was on the future of mobility as well. The location our group researched was a bit different than the others as it focused on the airport rather than the city. So rather than focusing on the growth of Amsterdam we focused on the growth of Schiphol and the implications that would bring. For this site the topics of mobility and connectivity to both the hinterland and the world in general turned out to be important within the group strategy

RESEARCH + DESIGN

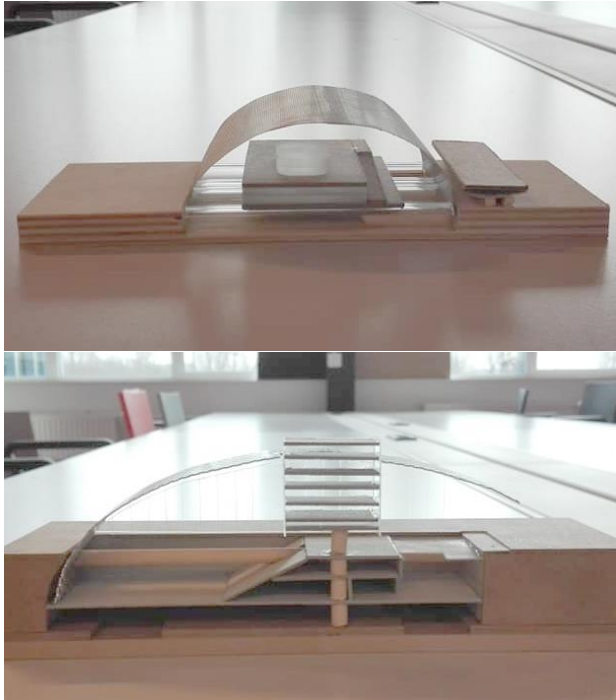
In order to get a better understanding of the complex situation of Schiphol and to be able to anticipate on future developments I focused on doing context-led research, adapting multiple epistemes and methods. In his book 'Research methods for architecture', Lucas describes context-led research as one of the ways of finding out the essence of a location's physical, social, or historical setting. Lucas continues by describing two different ways of conducting this type of research; by focusing on the type or on the unique of the place. The type-based research assumes the context can be described as part of a repeating pattern, whereas with unique-based research the researcher aims to find out what sets the context apart as different and specific.¹

As I mentioned in a previous paragraph it is the chairs understanding that extensive all-round site understanding leads to interesting and thorough problem statements. So in the first five weeks of the studio we had to work together as a group to analyze the site in a very broad manner. The research done during these weeks was focused on the type *and* the unique of the Schiphol context. During this period we heavily relied on the methods of mapping and diagramming to create an overview of the current situation. Collecting all of this information didn't necessarily create new knowledge, it rather enabled us to make statements regarding the future vision for Schiphol.

After this first phase each of us had to come up with a personal research problem. As I mentioned before I chose to research the influence of technological developments in high-speed land transportation on Schiphol. My graduation project focusses on the implementation of a Hyperloop terminal at Schiphol land-side. As there are no precedents of this type of building (because the technology is not there yet) I investigated different categories of terminals through the adaptation of several epistemes, although mainly typology, in order to establish a clear vision about what this future terminal should be like.

Students and architects, often struggle to see the importance of research within the discipline of architecture. The way design is being taught at universities from the undergraduate program onwards is not explicitly focused on research. The word 'research' almost seems an expletive as "architecture and especially design should be intuitive". This is a shame as the mere

foundation of research lays within posing a question.ⁱⁱ Research can be defined as the systematized effort to gain new knowledge, where the latter is the theoretical or practical understanding of a subject.ⁱⁱⁱ Perhaps the most obvious example of research within our discipline is practice-based research. Students and architects, are trained to create new knowledge through systematized effort which results in our designs. This type of research, which is conducted by doing architectural design, should be seen as an alternative to the production and consumption of literature based research.^{iv} During the process of graduation this practice-based research has been the most important factor. Through the exploration of sketches, models, and lots of 3D computational models, the project has made steady progress from week 1.



GRADUATION PROJECT + WIDER FRAMEWORK

Different modes of transportation have always greatly impacted the way we as a society view the world. Until the invention of the steam engine, people were still closely bound to their cities and villages as traveling from one city to another could take up a full day. This made it hard to stay in contact with people in different places, but for example also hard for countries to be governed from a centralized position. When the train was introduced the world started to rapidly develop; different cities suddenly were within an hour's reach and it became possible for organizations to work at national and later transnational scales. Nowadays, after years of technological developments, mobility plays a key role within our globalized world. Infrastructure connects people and places around the world and allows for transnational economies to exist. Globalization, and with it industrialization, has brought us a lot, but there are also a lot of negative side effects, such as air pollution. It is therefore of great importance to keep innovating within all professional fields in order to grow towards a balanced and sustainable world. In the field of transportation, Hyperloop seems to be a promising new development, that might eventually partially substitute flying and other modes of transport. It is up to us as architects, designers, and urban planners, to think how these new modes of transport will influence our cities and landscapes so they don't lead to new forms of congestion and border conditions. Furthermore, in this

phase of the development we can still think of a more innovative use of the technology. These are some of the things my graduation project discusses.

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- i Lucas, R., *Research Methods for Architecture* (London: Laurence King Publishing, 2016), pp. 11-12
 - ii Lucas, R., *Research Methods for Architecture* (London: Laurence King Publishing, 2016), pp. 7
 - iii Redman, L. V & Mory, A. V. H., *The Romance of Research* (Baltimore: The Williams & Wilkins Co, 1933), X
 - iv Lucas, R., *Research Methods for Architecture* (London: Laurence King Publishing, 2016), pp. 8