

Reflection Paper

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Introduction

What compelled me to graduate in the architectural engineering studio was the solution driven approach of the studio. The pragmatic character of the assignment, combined with the relevance of the problems addressed appealed very much to me. My graduation project is on the conversion of office buildings situated in office parks.

The graduation project obtained a focus on the context and stakeholders during the research phase. The implementation of the conclusions is projected on a former office building in Leeuwarden. The implementation of the strategy is meant to be applicable on similar situations: vacant office buildings in office parks situated in the periphery of Dutch cities. The goal was to make a convincing design for both a developer and other key stakeholders in order to make conversion the right solution for a vacant office building. The opposite would be a scenario where demolition and new development would be more feasible.

Relationship between the graduation topic, the studio topic and the master track

The studio Architectural Engineering strives to connect architecture with pragmatic technical solutions. This is visible within the studio topic: *“The building stock of the Central Government Real Estate Agency (...) is facing a major renovation challenge. (...) Climate targets set for 2050 require new insights, considerations and possibilities for improvement.”* (A. Snijders, AE Journal Nr 10) Climate targets, design solutions and other aspects such as the history are all part of the brief.

The studio itself presents ‘conversion’ as the solution to the question: what to do with the (obsolete) office building real estate. I wanted to know if, when and where conversion was the right answer to that question. In order to find that answer I did research with the guidance of Hilde Remoy from the MBE Track.

My brief introduction into the topic office real estate, during MSc3, consisted of: learning about motives and considerations made by developers and other stakeholders. The research helped strengthen my belief and form my positioning when deciding that conversion is the right solution for a obsolete office building (and when it is not). When reading up on successful conversion cases it was refreshing and also reassuring to see that there were cases where stakeholders were achieving a financially feasible and high quality project within the office-park-context. The Architectural Engineering studio facilitated the interdisciplinary aspect very well in my opinion, proven by the fact that research tutors outside of the Architecture track were consulted and included in my process and helped shape the project.

Relationship between research and design

The main research question was the following: *“What are the opportunities and bottlenecks for conversion from (partially) vacant office buildings to housing, in office parks in the Netherlands?”*

My incentive to look into this subject was to generate some answers I could use to achieve my objective. The objective is to create a design, suitable to convince a developer to transform an (partially) vacant office building into housing (and other functions) in a monofunctional office area.

A gut feeling was that even the 'best' architectural design could possibly be bypassed in a by a more financially profitable project resulting in demolition of the existing. The research proved that there are scenarios where this is not the case.

This did lead me to change the design project from a context (Rotterdam alexander) towards location with more need for transformation: Tesselschade 4, Leeuwarden. The research also influenced my target group and several other design decisions. However, initially I was hoping for a more concrete brief resulting from the research: specific design brief, one or several clearly defined user groups. In hindsight, this might have been wishful thinking.

Elaboration on research method and approach in relation to the graduation studio methodical line of inquiry

The research method and approach consisted mainly of literature study and case studies. Since I was quite unfamiliar with the general topic of bottlenecks and opportunities when it comes to conversion I first had to generate a broad understanding of the topic. This I did by reading up on as much as possible on conversion and office parks. My research tutor guided me in the right direction on literature to read and cases to study. She also helped explain motives for stakeholders in several cases. I believe the research is relevant since it gives insight in the situation. Answers on the research questions have all been answered with the literature and case studies, while talks and interviews with others have 'only' been used to generate a better understanding and have shaped the general introduction in the paper.

When it comes to 'liveliness' and 'quality' of the built environment, those topics are not clearly defined and therefore the scientific relevance is hard to answer. The research on that part, opportunities and obstacles on the context, were somewhat trivial. However, the scale of the problem (44% building stock not up to future standard, and 6,5 million square meters of structural vacancy) shows how relevant and necessary a solution is.

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 conversion design of the Tesselschade 4 building in Leeuwarden can be used as an example on the implementation of a conversion design in an office park, combined with an *genossenschaft* development structure. Roughly 13% of the current office stock is structurally vacant and the number of conversion cases is diminishing. This shows the need for a design approach for similar scenarios.

Though the design plays into existing elements specific to the Tesselschade building (such as the piloti and the maintenance balconies), the overall design approach can be applied to other buildings with similarities.

Case studies showed the potential of students as users, however this seemed less applicable in the context of Leeuwarden. I do believe that in order to scale the approach towards similar situations, this user group would become feasible again. Though it is not present in my graduation project.

The endorsement of (unconventional) developer structure such as an *genossenschaft* adds a new opportunity to the already existing possibilities. Important to note is that this graduation project is just one of many approaches to the aforementioned problems. I hope to present an opportunity and provide a solution which addresses the previously mentioned problems of lack of quality in the office park and vacancy of the office stock.

Ethical issues and dilemmas

One dilemma I was facing was whether to preserve monumental value or alter the appearance in order to improve the quality of living: the monumental status of the building is one of the reasons why

conversion is a must (as opposed to demolition). However, elements which add to the monumental value (e.g. maintenance balconies), inhibited some much needed intervention regarding insulation and such. The balance between these aspects was a repeated discussion point with my tutors and it took me quite some time to find a positioning: In order to preserve the building, I had to get rid of several elements which added monumental value and therefor preventing demolition: a paradox. To tackle this problem, I propose that both sides of the slab present two different faces: a innovative and new façade, versus a more preserved façade on the north side. If I were to do this again, I would work more in scenarios and write down what my requirements are for the problem I'm tackling. Forcing myself to work explore an extreme scenarios would be beneficial for the process.

Furthermore some monumental values are reinstated in the redesign. For example, a clear horizontal accent in the southern balconies and the accentuation of the stairwells on the North façade, while still altering the façade.

A potential application of the results in practice are on buildings which have elements architectural elements in common (such as maintenance balconies or a slab-typology). Some elements (such as the trusses with hanging facades on the southside) can be applied to the tower on the same ensemble in Leeuwarden. Overall ingredients to improve the immediate context via one building and adding liveliness can be applied in many more office parks in the Netherlands.

Lastly, it would help greatly for the design to be implemented in practice, to have a municipality with willingness and an open attitude towards such an approach and project.