

P4 Graduation Reflection

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Introduction

Within the graduation studio of Architectural Engineering the main requirement of every graduation project is the presence of a technical focus within the project definition. This technical focus can either be the core of the project itself or a major part from which the core of the project benefits. In the first of the two semesters of the graduation year, the emphasis lies on the research on this technical focus and subsequently on the writing of a research paper concerning the subject. The second semester has its emphasis on the progression and implementation of the research in an architectural design.

In my graduation project (*Fix-up the Walk-up*), concerning the renovation of 1960's walk-up flats (in Dutch: *portiekflats*) into social, green and energy-efficient fix-up dwellings (in Dutch: *kluswoningen*), the technical research was on the topic of the improvement of the energetic building performance using measures and different strategies in multiple scenarios. The second semester focussed on the implementation of the findings of the research of the previous semester in both a generic renovation approach for 1960's walk-up flats and a specific building design as a product of the renovation approach.

The relationship between research and design

The project definition of my graduation project started with a personal fascination for the reuse of existing building stock and the energetic performance of buildings. These two elements found a joint platform in 1960's walk-up flats, a very generic building typology struggling with energetic, technical, spatial and social problems. Following this, the subject of my research paper was formulated as the improvement of the energetic building performance. During the first semester, beside this subject, I also researched into the improvement of social cohesion, into fix-up dwelling projects, into the typology of the walk-up flat and into the implementation of green in the public space as part of the overall design. All these topics were formed by the development of my design during the first semester. During this semester, the relationship between design and research is of the interplay between one another. Design decisions triggered questions, which resulted in new research subjects and then this research resulted in new design decisions and so forth. This principle went on during the semester and had the emphasis on the research. This resulted in a large toolbox of measures and possibilities at the end of the semester. These tools functioned as elements that could be implemented in the design during the second semester. With a lot of knowledge researched, valued and ordered the design-focussed-phase of the project could be developed very smooth and swiftly. Of course there were some instances where the toolbox appeared not sufficient enough on some specific topics and so further research was necessary, but

overall the toolbox as a result of the research phase greatly benefitted the swiftness of the overall design.

The relationship between the theme of the graduation studio and the subject

The theme of the Architectural Engineering studio is, as mentioned before, a technical focus within overall graduation project. In my project the main technical focus was on energetic building renovations. This focus functioned as a major part of the design from which the core of the project benefits. This because the core of the project also incorporated the aspect of the improvement of the social cohesion. These social and technical focusses were apparent in both the object, the 1960's walk-up flat, as well as the location, the IBA Parkstad region. Besides this technical focus on energetic building renovation, the choice of the implementation of fix-up dwellings also triggered a focus on the façade design, rather than on the interior design, because the inhabitants would be responsible for the interior themselves. This resulted in a secondary technical focus of the façade design and by doing so, also a stronger relationship with the theme of the graduation studio.

The relationship between the project and the wider social context

The project itself has a wider social value because of multiple elements. The energetic renovation of existing building stock, for example, is widely requested in society. Since the beginning of the economic crisis of 2008, in the field of architecture the focus on new-build project has shifted to the reuse of existing buildings. This movement has also been pushed forward due to the global awareness of the importance of sustainability. This project, as both a generic approach and a specific example of the energetic renovation of a very generic building type, fits in with this movement perfectly.

Besides the sustainability as an important social value, the choice of the location of IBA Parkstad also has value in a social context. The Parkstad region, located in the south of the Netherlands, is coping with problems such as population decline, building vacancy, an outdated building stock, a bad social cohesion and a lost identity. This project tries to solve these more technical problems through the energetic renovation of the 1960's walk-up flats, but also tries to solve the social problems. This through elements of the project such as the fix-up dwellings (which have been proven to drastically improve the social cohesion of a neighbourhood) and more public and semi-public meeting spaces. Also, due to the generic building type, this project can function as multiple positive impulses all over the IBA Parkstad area, which is something that IBA (der Internationale Bauausstellung) strives for. The shifts from the original plan of designing a zero-energy building to eventually designing a low-energy building instead also fits in with the typology of fix-up dwellings, making it more of a practical and realistic design rather than an unrealistically expansive statement.