

Reflection paper

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Track: Heritage and heritage studio

Project: Adapting 20C heritage

Project title: Green intervention

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Background

The Beursgebouw, as the first office building in Almere has been vacant for ten years. Also, Almere as the youngest city in Netherlands pay more attention on the green city development. My graduation project is to renovate the Beursgebouw in to urban farm. The new program contains two parts, one is urban farm research center and the other one is urban farm interpretation center. The part of professional urban farms will be exhibited for the public which has educational meaning for public.

Aspect 1

The relationship between research and design.

In heritage architecture design, the research on the existing building is important because the upfront research is always the starting point of the redesign of heritage building.

In P1 research, the research is mainly based on the exiting building, the Beursgebouw. Different layers of the building which are site, skin, structure, space and service were researched. In addition, the city development of Almere was researched as well. The research of the urban background provides clues for the future development trend and the design could be the reflection of the urban development. for example, Almere as the youngest city in Netherlands pay more attention on the green city development. The new design tries to contribute to green city in the future. The research on site reflect the problems the building had in current situation. The research are not only to find the functional problems but also to define the current and future position of the building. The Beursgebouw as the first office building in Almere was marginalized during the development of the city. These researches help me to define the framework of the design in urban level. Then, the research on different elements of building such as skin, structure, space, service helps me to define the tangible and intangible values of the building. The design strategies will correspond with the value assessment. The skins with the high value will be kept. The other important values of the building will be regained or given the new interpretation in the design.

The research on program was conducted in P2 period. Based on the basic city research. Green city topic research is defined. Urban farm as the emerging research theme and city development trend was further researched. The advantages, disadvantage, different technology and relevant required conditions were researched. According to the existing building space analysis, the different kinds of urban farm could be applied into different parts of building.

In P3 and P4 research, the researched are mainly about spatial quality research. The main issue is about how to create the contrast between old and new so that the old important part could be emphasized. In addition, how the building integrate with green and plants were also researched. Moreover, the building technology was researched about structure, material and climate.

Aspect 2

The relationship between your graduation (project) topics, the studio topic (if applicable), your master track and your master programme

Nowadays, urban development is gradually saturated. Because of change in social needs, many old buildings need transformation. In addition, reusing building could avoid wasting of resources and is sustainable. Heritage architecture design will be a trend in the future.

My graduation topic is adaption to 20C heritage. It is about young heritage transformation. The project is about renovation of the first office building in Almere. The building has been vacant for ten years. Although the building does not have the long history and has not been in the heritage list yet, it still has the potential and value of transformation. It represent the architectural culture at that time and represent the image of the city. The transformation of the building is a continuity of the past. It could be reflection of the city development. Therefore, in heritage architecture design studio. The city development research, the relationship between old and new is important to pay attention to.

Aspect 3

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.

In the P1 research, the general approach in architecture and heritage studio is value assessment by analyzing tangible and intangible layers of the building. The research method is based on the framework proposed by Steward Brand. The building research was divided into 7 layers: site, structure, skin, service, space plan, stuff and human souls. Then, according to personal assessment, the different parts of the building were given different levels of value which affect the design in the later stage. In this part, the literature and archive drawing about the building and city were studied. In addition, the diagram and sketch help to understand the importance of the different building part.

In the P2 research about the program design, the research method are mainly typology research about the urban farm. Different literatures about urban farm were studied. In addition, case study is also important research method. Similar projects were studied by analogy to provide basic data of professional design.

In the P3 and P4 research, the research method are mainly case study. Different projects were analyzed in spatial organization, material composition, construction detail. In addition, the structure was researched by modelling.

Aspect 4

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 project is about heritage architecture design. The project itself is an urban renewal which can reuse resources and keep the city memory. The new program of the building is urban farm. It follows the city development trend. It is an emerging research theme of Almere. In addition, urban farm is a green technology which can solve the food crisis nowadays. It has high production and can reduce agricultural land use. In addition, it can save up to 95% water. In addition, it will bring health and maximum freshness to city. The food production will not be affected by weather. People can eat food at any seasons. Then, urban farm integrated with building use could realize the energy exchange which benefits the building flow. It can save water, limit CO₂, generate oxygen. In social level, urban farm is a way to encourage social interaction between citizens. The knowledge delivery and farm vesting could help citizens to establish the healthy lifestyle and sustainable awareness.

Aspect 5

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

During the research, one dilemma is that there are limited practical urban farm cases especially indoor urban farm. Many projects are roof urban farm integrated with the other building use. In addition, about the energy exchange between urban farm and building are hypothetical and theoretical. In addition, according to research, urban farm compared to traditional farming is expensive on maintenance and energy consumption such as lighting. Also, on the first stage, there is no food income. However, the program has larger social impact which follows the city development of Almere.

In addition, interaction between urban farm and people is an important issue in design. However, the indoor farm needs to be maintained in a professional environment which is not suitable for visiting. The balance between public and profession is difficult to deal with. In the project, the urban farms are almost separated from public by glass which is a pity. Although, there are furniture and space design to make people closed to the green and experience green atmosphere.

Almere as the youngest city in Netherlands, its goal is to become a sustainable city. Urban farm is the emerging research theme in green city research field. Although the project is not economical on the early stage, but it could be the pioneer in green city research field. And it could provide a research base. With the growth of population and lack of land, urban farm will be one of the final solutions for the future. The project could be a chance and experiment for the future.