City Recovery Garden, Integrating Urban Farm into the AMC Amsterdam

The Academic Medical Centre (AMC) is one of the largest hospitals in the Netherlands. The building was built in 1981 and now facing a number of transformations, which calls for renovation. With the medical services becoming decentralized and even remoted via teletherapy, the traditional exclusive AMC with such a massive building needs a new position and identity. This project investigates the possibility of changing the AMC into a city recovery garden, which turns its identity from treatment of disease into health awareness and prevention. Through integration of urban farm and interventions on parts of the public space, the AMC becomes more public, providing healthy food and advocating the culture of wellness.
The relationship between research and design

In the Architectural Engineering, a research studio, an interaction between research and design is encouraged. Research about the fascination is first conducted, providing guiding theories and inspirations. The design then examines the feasibility of those theories for specific context. During the whole project, research and design happen iteratively. The research provides evidence and technical support for the design, while the design frames the scope of research in the later phase.

My research paper focuses on the change of resources flows when integrating urban farming into hospitals. By studying the existing flows of the AMC and different types of urban farms, the potential of optimization via integration is investigated. The outcomes support the idea of integrating urban farming and hospitals and guide the selection of farm types, demand of facilities and technologies. Researches about the existing building and its context, the materials, building technologies and climate effects are continually parallel to the design, inspiring and shaping the design decisions.

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

The focus of the Architectural Engineering studio, whose main topic is “INTECTURE”, stands on innovative technologies and their integration in architecture for solving social and environmental issues. This project starts with the fascination of urban farming and its influence on the AMC. An integrated research about urban farming is conducted and converted in to building design under the studio guideline. Furthermore, it follows the FLOW track under this studio and attempts to deal with issues about food, water and energy in an architectural way.

Spatial qualities, function composition, contextual culture and material use are also considered, which is basic for the architecture master track. The intervention on the AMC aims to create a public welcoming space that fits in the existing hospital, but also brings the new identity of health awareness and prevention. Different groups of people are concerned deliberately to maximize their comfort and the beneficial social influence. In addition, the design objective includes optimization and visualization of resources flows for the sustainable purpose.
Research method and approach in relation to the graduation studio methodical line of inquiry

Starting from a technical fascination, most of the information about technology comes from literature study. Consultation with experts are also adopted for learning specific devices such as living wall system and greenhouse design. The technology of urban farm is investigated mainly through document reading. While the use of it are studied from cases throughout the world. Several building integrated urban farms are analysed and compared. Specific data is gathered from internet posts, database and reports when researching about resource flows. During the site visit, informal interviews were carried out to understand the problems and user demand.

A graduation plan was asked from the beginning of the studio, which helps set the scope of research and frame the project on track. Moreover, laying the emphasis on techniques, use and context, research under this studio is rather practical. The whole process can be called “research by design, and design by research”.

Relationship between the graduation project and the wider social, professional and scientific framework, the transferability of the project results

There is a trend of transformation in healthcare system, which ask the hospitals also to shift their roles. With the function of medical treatment spreading into the communities or even patients’ own home, rooms in hospitals may become empty or abandoned in the future. To deal with the transformation, the identity of hospitals could be shifted from a functional space into a more public culture centre that speaks for health. Integrating urban farming can produce fresh healthy food, yield profit and propagandize healthy lifestyle at the same time.

Not merely for the hospitals, the concept of urban farming itself is a solution for the increasing population and scarcity of land. The advantages of cutting food miles and optimizing resource flows are meaningful for the environment. Researches in this project provides a theoretical support for the benefit of sustainability that urban farms would bring. Therefore, not merely hospitals, it appears that various old buildings could benefit from integration of urban farming. It is proved that urban farming could also promote local economic activity and strengthen social cohesion.

Furthermore, the practice of renovation of the AMC provides reference for other buildings. Similar principle of intervention may lead to alternative conclusions for different projects.

Changing medical mode: transformation need of hospitals
The ethical issues and dilemmas

The project takes future transformation as a background, which is merely hypothesis at this stage. It is possible that in the future, everyone can get their therapy at home and the hospitals are totally empty. Or it is also possible that only parts of the treatment could be conducted outside hospital; and the building remains partly used. Therefore, it is hard to determine which part of the building can be changed into the new function I proposed; and how public could it be without disturbing the patients.

In addition, normally, a food production process requires safe and clean environment, and hospitals also need sanitation. However, when these two come together, they may interfere with each other. Food produced from a hospital sounds awkward for the first impression. Facing such dilemmas, my decision was to confine the scope of the intervention. The food production spaces were mainly organized on the rooftop to retain the privacy and comfort for the patients and doctors. Certain connections were designed at the public space. While the farm space is generally separated from the hospital functional spaces to minimal the interference. Alternatives were left for future transformation that the hospital might be “farm-ized” step by step in the future.

Intervention: new function, new identity
Exhibitional culture centre

Productive farm hub