Reflection Paper

1. **What is the relation between your graduation project topic, your master's track (Ar, Ur, BT, LA, MBE), and your master's program (MSc SUBS)?**

   My master's track focuses on the design of the built environment with an emphasis on sustainability and innovation. My project integrates climate-resilient design with topics of urban agriculture and waste reuse. It elaborates on an example of how the built environment can incorporate solving global problems beyond providing shelter for people and minimizing the damage to the environment by being more efficient.

2. **How did your research influence your design/recommendations and how did the design/recommendations influence your research?**

   The research was on sustainable agriculture practices and how to integrate them into the urban pattern and built environment on different scales. Which of the practices can be used for sustainable practices in architecture? My research was an in-depth strategy used to explore solution concepts for the sub-problem of the project that concerned the integration of urban agriculture. Through a synthesis of the solution concept and components I compared them and was able to integrate them into the bigger picture of the project.

3. **How do you assess the value of your way of working (your approach, your used methods, used methodology)?**

   I used a continuously repeating process of problem-framing, solution-making, and solution-testing. I used a lot of sketches to visualize and test the ideas in my mind. At every stage, the best-concluded solutions were further developed and tested with 3D software and calculations.
   Starting with defining the problem statement I will focus on I tackled the common problem in architecture and design of having vague and not defined problems. Then I focused on the limited selection of constraints that came from defining the problem of my focus. Based on this I made assumptions and solutions that I continuously tested against the problem as I had understood it up to that point. Then the original solution was readjusted continuously as I deepened my understanding of the problem with the development of the design and research. The project integrated many types of knowledge thus I repeated this process again and again throughout the projects for different sub-problems and any additional constraints until I developed a satisfactory solution.

4. **How do you assess the academic and societal value, scope, and implication of your graduation project, including ethical aspects?**

   <u>Academic Value</u>
   The project and research have been dedicated to the search for truth and challenging existing ideas and exploring new methodologies through research while being transparent and objective. The result serves as an example of the holistic integration of natural urban agriculture into the building's design and function. It challenges the extent to which it can be integrated and the current lifestyle of residents. It researched the requirements, the challenges, the possibilities, and the consequences.

   <u>Societal value</u>
   The project creates healthy places for social interaction that promote social interaction and build a sense of community. What is more, the project enhances the quality of life of its residents by promoting well-being and health. It connects the residents to fresh, local, and organic food. It exposes them to clean air, natural materials, and views of nature. An environment that nourishes the human mind and physical health and connects residents to locally and naturally produced food.

   <u>Ethical aspect</u>
   The project is responsible to the residents by providing them with a healthy environment

that doesn't expose them to harmful or toxic materials. It values the biological need of humans to connect to nature for their well-being. The project is responsible for the context as it reduces the waste materials from the context and proposes a strategy for a technical material bank instead of throwing away the materials in the continuously growing landfill. Furthermore, the project is responsible for the local bio-life as it provides nature-covered surfaces and shelter to the local species to live and thrive. The project is responsible for its surrounding broader context as it doesn't create negative effects on its surroundings like letting stormwater runoff, heating up the urban air contributing to the urban heat effect, and allowing for sufficient sunlight and air to go through the site.

5. **How do you assess the value of the transferability of your project results?**

The design concept of the project is completely scalable to
   1) a future framework for designing climate-sensitive buildings integrating urban agriculture and using waste building components in the construction
   2) of a framework for redeveloping existing buildings that need to be more energy efficient with additional value of urban agriculture and landfill waste reduction

The project's design intentionally is developed in a modular "attached" or "adds on" free-standing structure that wraps around the buildings. This results in an easy application for any new or existing building.