

## REFLECTION

Master Track: Architecture (A)  
Graduation Studio: Architectural Engineering  
Project Title: Fort of the Future  
Design mentor: Mo Smit  
Research mentor: Luca Iuorio  
BT mentor: Engbert van der Zaag

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### Introduction

This reflection outlines the development of my graduation project, *The Fort of the Future*, which began with a strong technical and systems-oriented interest in self-sufficiency and evolved into an architectural and socially embedded design. It addresses the relation between research and design, evaluates the chosen methodology, reflects on the feedback process, and explains the outlook for the final phase of the graduation.

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### 1. Relation Between Graduation Topic, Master Track, and MSc AUBS

My fascination with self-sufficiency and resilience in architecture emerged from concerns about climate change, political instability, and energy infrastructure stress. This aligns closely with the goals of the MSc AUBS and the Architecture track, which emphasize spatial strategies that respond to real-world complexities. The transformation of the historical concept of a fortress into a contemporary, resilient, and partly self-sufficient building block reflects this alignment. It engages with heritage, urban resilience, and community-oriented design—core themes within both the program and the discipline.

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### 2. Interplay Between Research and Design

My initial research explored technical systems that enable buildings to become self-sufficient in energy, water, and, to some extent, food. This led to the formulation of key design principles, including climate resilience, environmental integration, communal living, and health and well-being. These principles formed the conceptual backbone of the project.

As the design progressed—especially after engaging with the typology of Dutch waterline forts—the architectural expression shifted toward a “modern fortress.” This move was greatly influenced by discussions with my mentors, and helped consolidate the metaphor of resilience. While the research remained a guiding tool, the architectural and spatial development of the project began to take precedence, revealing limitations in the initial technical focus, prompting a broader, more human-centered view. This iterative exchange between research and design helped the project mature beyond its original technical ambitions. This allowed the project to evolve beyond its initial technical focus into a more comprehensive architectural vision.

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### 3. Assessment of Methodology and Approach

The initial approach was highly system-oriented, focusing on self-sufficiency through systems for energy, water, food. The methodology included an analysis of case studies (the Dutch Waterline forts

and Contemporary projects) which were graded based on a level of self-sufficiency grading scheme, ultimately leading to design principles and strategies for the *Fort of the Future*.

Through feedback and reflection, the approach gradually shifted toward a more architectural and social lens.

While this shift meant that the technical depth in self-sufficiency became less dominant, it allowed the project to respond better to its urban context and to people's needs. The concept of grid independence was retained where possible, especially in terms of water buffering and passive energy strategies but tempered with realistic constraints of urban density.

Looking back, the transition from technical system-thinking to spatial and social design enriched the project. It allowed for a more balanced and contextually relevant result, even though the original theme of self-sufficiency became less pronounced than intended.

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#### **4. Academic, Societal, and Ethical Value**

Academically, the project offers a reinterpretation of historical military infrastructure into a resilient urban typology, grounded in research and adapted to contemporary needs. It contributes to discourses around sustainability, and typological innovation.

Societally, the design proposes a building block that encourages community interaction, self-reliance, and mental and physical well-being. The integration of public and shared facilities in addition with recreational green spaces makes it a vital asset to the neighbourhood. Ethical aspects were considered in terms of inclusivity, ecological responsibility, and long-term adaptability.

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#### **5. Transferability of Project Results**

While the design is specific to its urban context, the core concept and many of the core ideas—such as the program and shared facilities, accessible green roofs, recreational space and the materiality—are transferable and applicable to other locations. The design principles developed during the research phase can serve as a guideline for other urban blocks or developments aiming to combine resilience, self-reliance, and social well-being.

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#### **Feedback and Integration**

Feedback from mentors was crucial in shifting the project from a smaller unit to a full building block, strengthening the fortress metaphor and communal resilience. Though the larger scale challenged my preference for detail, it enabled a richer architectural expression.

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#### **Final Phase Outlook**

In the remaining graduation period, I will focus on refining the core concept and improving its spatial and visual communication. This includes producing a physical model at a large and more zoomed-in scale, creating high-quality visual impressions, and revisiting parts of the research to ensure full alignment with the final design. My goal is to clarify and strengthen the narrative of the *Fort of the Future*, making its essence legible and impactful.