

YAFIM SIMANOVSKY

4498488

Reflection Paper

Tutors

Research: Diego Sepulveda

Design: Robert Nottrot

Building Technology: Jan van de Voort

EXPLORE LAB 23

2016-2017

Delft University of Technology

Department of Architecture

Intro

Planet earth is warming and sea levels are rising, and extreme weather events are getting more frequent. This poses a great challenge for humanity, especially when in parallel the urbanization processes that are increasing into the 21st century bring urban population predictions, especially in coastal areas and on riverbanks, to an all-time high. The nature of habitation in large metropolis is becoming more and more unstable as more people settle into informal housing and slum conditions at an unmanageable rate.

How can we approach these problems? How can sustainable actions be taken to make the city more resilient? What are the implications of such actions in terms of costs and benefits? These are some of the questions I was faced with when starting to think about a more specific outline of the graduation project.

Therefore the research question guiding the analysis was:

“How can sustainable interventions in dense coastal communities help improve urban and environmental resilience?”

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

The theme of Explore Lab is one where you can “do anything that doesn’t fit into any other studio”, but at the same time this means the freedom to be completely unlimited by site or context, and any other studio restrictions. The subject that I chose is interesting because in hind-sight it might have fit within Architectural Engineering in principal and way of execution, but due to the site restraints of that studio, as well as the focus on ‘fabrication’ as a theme, I doubt that the project would have developed as it has if I was anywhere else than Explore Lab. No other studio would have allowed me to experiment in a site like Manila, Philippines. In this sense the studio is crucial for anyone who feels a specific topic can be explored only by constructing his/her own framework and guidelines.

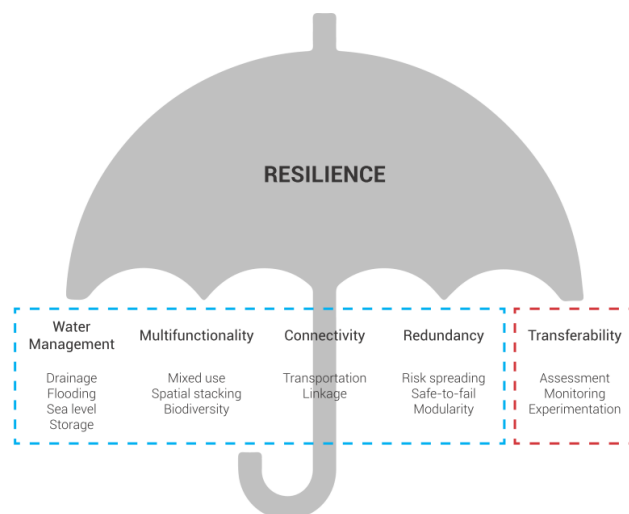
The relationship between the methodical line of approach of the graduation lab and the method chosen by the student

The research methodology of the Explore Lab is one where the fitting method is chosen by students according to their area of interest, rather than a prescribed method for all projects. In my case, the method of case studies and literature study fit well into the framework of theoretical analysis of concepts such as resilience and adaptivity, as well as extensive research on an array of contexts that relate to the issues of urbanization and climate risk. I was able, via the research method, to go from a wide perspective into a focused site chosen according to comparative tools of analysis and a process of cross-referencing aims and goals with literature knowledge and reports.

The relationship between research and design

The design lies on a strong foundation of research into resilience and vulnerability in the modern urban context. The research traveled on a path that leads to strong conclusions about the locations and parameters that need most attention. In particular, the research showed that the most at-risk locations are in Southeast Asia. This immediately reflects on the design in terms of climatic patterns, culture, and architectural language that has particular characteristics in this part of the world. The research also defined a very specific framework for resilience and assessment of such, and helped direct and concretize the design parameters in terms of physical and spatial requirements.

Resilience is defined as “the ease and rapidity of a system’s recovery from stress”.



The research also led to the conclusion that interventions must be attempted within the current urban landscape rather than an isolated solution. Therefore the design was aimed to provide connectivity, employment in relation to current conditions, and especially issues of density and infrastructure. In other words, the research moved the design to an intervention that excludes utopic and impractical interventions.

In the other direction, the design as it progressed, influenced the specific areas of research needed, focusing the research on very specific contexts which relate to design parameters. One example is the focus of the research case studies on cities with particular geographies of water elements, which came not only from the research itself but from considerations of practical habitation and architectural constructions that are needed. Another influence of the design on research was the need for simple and practical solutions, which led to a further investigation of current actions in the case studies and general solutions for specific problems on a global context.

This facilitated a mutual zooming in and out on many scales which facilitated both research and design stages of the graduation project.

The relationship between the project and the wider social context

An understanding of the complex relationship between urbanization trends and environmental challenges in the metropolis of the 21st century reveals a connection between poverty, migration, infrastructural and economic risks and a vicious cycle of eviction and disasters that affects the weakest demographics in modern society.

The living conditions of the urban poor are one of the most crucial urban issues of our time, and currently these problems are being passed around from one party to the next or from one location to another without really solving the issues behind these symptomatic effects. One aspect which the project attempts to exemplify is the comprehensive outlook when seeking answers. This is something which is overlooked due to bureaucracy and the graduation project suggests the interdisciplinary ways of addressing such problems.

Any graduation project that aims to clarify these relationships and their possible solutions has great value for society as a whole.

In particular, the innovative design for a modular and floating habitation for communities shows the strength of such method and design both within and outside academy.