

Technical University Delft
Graduation Project - Borders & Territories

Laboratory for Environmental Transformations - Reflection
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The project emerged from a personal fascination for landscapes that are in constant transformation. Contrasting the (architect's) presumption that the ground is the solid underlay where human's existence takes place, my interest resides in an attempt to understand the diverse interdependencies of the ecologies we are surrounded by.

The interest in landscapes in flux has been strongly nurtured by a site visit to the area around Marmara Sea where I investigated different landscape configurations that emerged from natural processes such as seismic activity. In the following, the research was preoccupied with analyzing different forces that act upon and subsequently shape landscapes to renegotiate the notion of landscape catastrophes. The conceptualization of catastrophes allowed me to understand the anthropocentric perspective that determines our common approach towards landscapes. This initial research informed my standpoint to rethink human's relationship with nature and established my ambition to transcend human's extractivist approach.

Instead of trying to merge my research into an architectural project, I understood it as a phase to fill my carrier bag with many fascinations, information, and knowledge on the topic of landscape transformations. Hence, my project took a slight shift in the transition towards the design phase. Based on my analysis of the transforming conditions of the site under investigation and informed by recent references such as the landscape degradation of the Po Delta in North-Italy, I encountered a new scale of territorial transformations. This puts forth the questions of how to react to these ecological disasters that are engendered by anthropogenic climate change. One method that is currently researched and intends to alter landscapes at a territorial and planetary scale is summarized under the term of Geoengineering. It is the large-scale manipulation of parameters that influence the earth's climate with the main purposes of increasing solar reflectance and active carbon dioxide removal. Here, my project proposes to juxtapose or replace the highly engineered processes with different ecological processes to challenge the human-centric solutions to environmental problems. The geoengineering activity of cloud seeding, for instance, is replaced by the creation of water vapor that is released into the atmosphere and eventually increases precipitation. Mimicking these natural systems, staging, and spatializing their operation gives expression to the project's premise to establish a new human-nature relationship that emphasizes the complexities of systems we are intervening in. Instead of seeking salvage in engineering activities to combat environmental degradation, the project investigates potential hybrid structures where machines and nature coalesce symbiotically. The primal concern of the application of these operations is not to restore degraded landscapes, but to experiment with these processes in the context of changing climatic conditions. As the development of the changing climate as well as the consequences of large-scale climate engineering are widely unknown, my project operates as a laboratory for environmental transformations.

In the process of bridging the gap between research and design (although neither one of them started or stopped at a specific moment during the project), my approach was characterized by an attempt to familiarize myself with different schools of thought.

Concurrently, I had to become a geologist, an engineer, a biologist, and a landscape architect. I approached these different fields with the critical and conceptual thinking of an architect and used the method of drawing as a way to understand diverse relationships and as a consistent articulation of the matters under investigation. In order to expand the architectural field as broadly, it became necessary to discuss the agency and the fundamental characteristics of architecture. Bluntly summarizing the outcome of this thought process, I see the architect's expertise in the way how we give form to ideas. Architects are never experts and that's where their strength lies to engage with topics creatively. Based on my approach, I encountered challenges in mediating between scientific correctness and the necessary naivety to spatialize these processes/ideas. Moving beyond architectural conventions in designing not primarily for human occupation taught me to center and purify the spatial intent that derived from the analysis and the personal ambition of creating space. Here, I also distinguish my project in relation to the modernist machine aesthetic and the utopian projects from the 1960s. My interpretation is that architecture does not follow the machine in its aesthetic anymore, but rather machines are instrumentalized to convey or support the architect's spatial concerns.

The academic value of this graduation project is strongly related to the approach mentioned above. It deals with the expansion of the architect's scope to move beyond the human-centric approach of our practice by using the architect's tools. The project addresses the imagination and thus fosters rethinking the current relationship of humans and nature. Architecturally, the intervention addresses the recent upheaval of a new scale of architectural projects. Large-scale projects alter entire landscapes, engender (unknown) repercussions, and thus demand a more inclusive approach towards the territory. Its societal value lies in the daring nature of this project. It acknowledges the highly controversial activity of geoengineering and projects a future that can be conceived as utopian or dystopian. It addresses the question of how we as humans continue transforming landscapes. Intrinsic to this consideration is the relation between humans, nature, and machines. Designing an automated landscape, that is not primarily made for humans puts forth social and ethical concerns such as who controls the large-scale manipulation of landscapes and in whose interests the machines operate.

My graduation project advocates for an invention of the program out of the site. It is neither colored by its context, nor imposed onto a site. It becomes inextricably contextual in its formulation yet allows for transferability in its conception. The transferability here is twofold. First, it concerns the multidisciplinary approach that is practiced in this project. It witnesses and adds to the increasing complexity of architectural projects and suggests further diversifying the expertise that contributes to their creation. Secondly, the specific programmatic functions can be a point of departure for further research into the symbiotic combination of ecological processes and machines. For example, my project suggests using the heat that is created by the breakdown of organic material in the process of composting to create water vapor that then could increase rainfall. These systems that are based on natural logics could be further examined and tested for future application.

The architecture master track at TU Delft is well-known for its integrated and symbiotic approach towards research and design. This master thesis strongly builds upon critical research to develop a project that eventually culminates in a physical site intervention. Hence, it combines the fundamental benefits of both practices. The graduation project can be conceived as the culmination of previously acquired knowledge. As such, this project heavily relies on the most important ability that is taught in the TU Delft Architecture track namely, to critically reflect upon specific social, political, and environmental conditions of the built and unbuilt environment.