Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences
Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

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<th>Personal information</th>
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<td>Name</td>
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<td>Student number</td>
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<td>Telephone number</td>
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<td>Name / Theme</td>
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<td>Teachers / tutors</td>
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<td>Argumentation of choice of the studio</td>
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<th>Graduation project</th>
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<th>Goal</th>
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- How do people make a living?
- How do people build their homes?

*How does the Volta Delta as a system currently affect living quality of the communities in the Volta Delta Region?*
- How does the water system work in the region?
- Which elements of the system can be used to benefit the social flowscape?

**design assignment in which these result.**

To come up with an integrated and sustainable design solution for regions like the Volta Delta Region by designing erosion which will shape a living environment that interacts and thrives through allowing erosion while at the same time respecting the inhabitants wishes to improve well-being of livelihoods around delta’s suffering from erosion

## Process

### Method description

The methodology of this project is a multi-disciplinary one. It combines civil engineering, anthropology, and sociology to finally, create a landscape architectural design proposal. This research will be done with advice from the civil engineering, industrial design and landscape architecture faculties and its students.

The civil engineering research will focus on coastal engineering comparing multiple papers written about the coastal dynamics of the areas. Unclarity will be resolved by asking aid from more specialized contacts obtained during the workshop week in October, in Ghana. To truly grasp the dynamics of the area a dynamic model will be made simulating the possible effect of my design and thereby adding a deeper understanding of the systems of the delta landscape. The more anthropological or social research will be more of an intuitive one based on findings made during the workshop and a cross-sectional questionnaire distributed to Ghanaian students by email. The two researches together will be overlapped, finding the common grounds. This, will be translated into a landscape architecture design proposal. The proposal will be tested by communicating with the Ghanaian contacts for feedback. With this feedback the proposal will be optimized and finalized.

Within this research 3 categories of source depletion are recognized: missing knowledge, inkling and surprise. The missing knowledge simply means I needed more knowledge on the subject. This is a very rational domain. The second one is the inkling or hunch. This one is more intuitive. An intuitive thought points into a certain direction of further research. The third one is the surprise. This one is when a thought or an idea comes from an unexpected place, like a dream.
These three domains are interconnected and circular. During the process they interact and interchange.

**Literature and general practical preference**

**Literatuur:**


**Advies:** Janneke van Bergen, Annemieke van Boeijen

**Reflection**

**Relevance**

After finishing three years of the architecture bachelor and one year of the landscape architecture masters it was time for graduation. While reflecting upon those previous school years it became clear that I was missing something. That is where my first fascination comes from. I was missing a more direct urgency. I wanted to be part of a project that could improve the well-being of people most need it. This quickly steered into an interest in developing countries. With this another aspect was triggered, my interest in discovering and thereby designing for another culture. Not only does it ask for another approach within landscape architecture but also within my own design process. In order to do this I would have combine multiple disciplines and their techniques and theories. This will in turn test the limits of landscape architecture. What can landscape architecture achieve?

Besides these more general fascinations, I was also interested in some other more specific topics. From the Holwerd course I learned that the topic of erosion and the future is one I find interesting. I was always astonished that erosion is a never ending story that in itself and in most solutions holds a paradox. This is the paradox of the ever dynamic characteristic of nature versus the stability human race demands.

In areas where this is most vulnerable are areas where inhabitants rely on natural resources for their livelihood. As they depend so on natural resources the dynamic characteristic of them puts a lot of pressure on livelihoods. With this it is also imaginable that climate change adds even more pressure on a system like this.

Many deltaic/coastal areas are currently facing severe erosion issues. Erosion is an example of how the dynamic character of nature contrasts the stability necessary for human life. Especially with the future prospect of climate change, balanced solution is needed. The Volta Delta in Ghana is one of these coastal/deltaic areas. The morphodynamics of the delta cause the coast to erode with an average of 4m every year. When in 1965 the hydraulic Akosombo dam was built in the Volta River, this doubled to
Ninety percent of the sediment that is usually transported from the Volta basin to the coast now is sequestered by this dam. So you can imagine the effect this has. Inhabitants of the area say that they “see the houses fall of the shores” and that many initiated developments are simply “washed away”. The poor (less than 2$ a day) Volta population depends on their land for their livelihood. Fishing and agriculture economies depend on the characteristics of the coast to be effective. With 40% of the Ghanaian population living at the coast their coastal activities makes 56% of Ghana’s GDP. The receding coast puts a lot of pressure on these economies. Local communities turn to alternative economies like mangrove cutting to still be able to support their families. However this short term thinking does not go without consequences causing livelihoods and the wellbeing of the people to worsen. We need to find a sustainable and integrated solution so in the future we don’t have to fight natural dynamics, but we can benefit from them.

### Time planning

**Q2** [Continue research and start first design proposals]
- Week 2.1 Tutoring merging the analysis and the research
- Week 2.2 Tutoring and discussing the anthropological research
- Week 2.3 Tutoring and discussing the first design ideas
- Week 2.4 Tutoring and discussing dynamic modeling workshop
- Week 2.5 Tutoring merging anthropological findings with design
- Week 2.6 Tutoring and discussing the design proposal
- Week 2.7 Tutoring and discussing the design proposal
- Week 2.8 Tutoring and completing the design drawings
- Week 2.9 P3 Presentation: Complete overview on the design

**Q4** [Definition of the Design at the detail scale: materiality, experiences, technical details and testing it]
- Week 3.1 Tutoring and working on fixing the design issues unrevealed by P3
- Week 3.2 Tutoring and design at a lower scale, detailing
- Week 3.3 Tutoring and optimizing at bigger scale (strategy/policy)
- Week 3.4 Tutoring and finalizing design
- Week 3.5 Tutoring and experimenting with communication techniques
- Week 3.6 Tutoring and design of communication technique
- Week 3.7 Tutoring and finalizing communication technique
- Week 3.8 Tutoring and finalizing communication technique
- Week 3.9 P4 Presentation: Elaborated Design

Six Weeks after: P5 Presentation – GRADUATION