

# 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](mailto: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:

Personal information	
Name	Eleftheria Danai Makri
Student number	5862906

Studio		
Name / Theme	AR3AD105 Dwelling Graduation Studio/ Global Housing/ Architecture of Transition in the Bangladesh Delta	
Main mentor	Dick van Gameren	Architecture
Second mentor	Antonio Paoletti	Research Mentor
Third mentor	Ludovica Cassina	TBD Mentor
Argumentation of choice of the studio	<p>This studio provided an opportunity to shift the focus away from the West and look at the challenges and opportunities faced by the Global South, particularly Bangladesh. Bangladesh, a country in the midst of significant transitions due to its deltaic geography, provides valuable insights into how architects can address pressing global issues such as housing, climate resilience, and equity. I chose the Global Housing Studio because I am passionate about housing as a basic human need and deeply concerned about the growing effects of climate change, particularly in the Global South. This studio provides an opportunity to investigate novel solutions to these interconnected issues, with a particular emphasis on creating equitable, climate-resilient housing for the most vulnerable communities.</p>	

## Graduation project

Title of the graduation project	Temporary to Permanent Housing for internally displaced communities in Bangladesh
Goal	
Location:	Shonatola, Sylhet Division, Bangladesh
The posed problem,	Bangladesh, shaped by the Ganges-Brahmaputra-Meghna River System flowing into the Bay of Bengal, faces significant climate change risks due to its low-lying topography (Van Lohuizen, 2021). As a result, many inhabitants are forced to leave coastal areas and the

	<p>haors and migrate to urban centers or other regions in search of safety, shelter, and livelihoods, leading to widespread internal displacement .</p> <p>Internal displacement in Bangladesh is a complex issue requiring tailored interventions for three categories of displaced people: temporary, transitional, and permanent. These categories necessitate durable solutions such as return, local integration, and resettlement. Transitional groups, in particular, are highly vulnerable as they cannot return to their original homes and lack the resources to settle permanently. This instability exposes them to recurrent displacement, underscoring the urgent need for comprehensive and contextually relevant interventions to enhance resilience and security (Ministry of Disaster Management and Relief et al., 2021).</p> <p>The Disaster Management Act (DMA) focuses on emergency shelter and resettlement after disasters but lacks comprehensive strategies to address all stages of displacement. However, government relief efforts, while targeted at affected areas, often fall short, as floods impact people across socioeconomic backgrounds, requiring a broader approach (Zahid, n.d.).</p> <p>Additionally, the recurrence of natural disasters compounds the challenge, as recovery often takes years, causing new waves of displaced individuals to overlap with those still in temporary shelters. This highlights the need for resilient, semi-permanent housing solutions capable of accommodating extended stays.</p>
<p>research questions and</p>	<p>How can a temporary housing design for climate displaced people be adapted and evolved into permanent homes, while keeping the sense of community strong? -How to address spatially the privacy</p>

	<p>and safety challenges faced by people living in temporary shelters?</p> <ul style="list-style-type: none"> <li>-How can these solutions be protected from floods?</li> <li>-How to strengthen the sense of community and belonging?</li> <li>-How to incorporate the life and spaces the displaced people used to have in the new ecosystem they relocated in?</li> <li>-What will the process from temporary to permanent be?</li> </ul>
<p>design assignment in which these result.</p>	<p>This proposal will seek to create a transitional housing model that addresses the immediate needs of climate-displaced communities, especially the inbetween group, in Bangladesh while providing the adaptability required for long-term stability. The design will focus on creating structures that serve as both shelters and permanent homes if necessary in the future, fostering cultural preservation, community cohesion, and resilience to climate impacts. By prioritizing the unique needs of displaced families, the model aims to provide not just shelter but a foundation for rebuilding lives with security.</p> <p>Drawing inspiration from traditional Bangladeshi architecture, the design emphasizes the integration of indoor and outdoor spaces, privacy thresholds, and communal areas. Respecting local cultural norms is central to the approach, ensuring that the housing feels familiar and supportive to those who inhabit it. By mirroring these traditional elements, the design provides displaced individuals with a sense of continuity and belonging, even in disruptive circumstances.</p> <p>Adaptability is a key feature of the proposal. The housing units are modular, allowing for expansion or</p>

	<p>reconfiguration to meet changing family needs or extended stays. Given the country's susceptibility to flooding and erosion, the structures will be built with durable, climate-resilient materials and incorporate features such as elevated designs to ensure safety and longevity.</p> <p>In addition to addressing immediate housing needs, the proposal includes spaces that promote community cohesion and support livelihoods. Communal areas will strengthen social ties among residents, while provisions for small-scale agriculture or livestock keeping will help restore livelihoods and promote self-sufficiency.</p>
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**Process**

**Method description**

In order for this thesis to be developed it is necessary to approach the topics in question through a set of research methods.

**Research-by-Design**  
 In Research-by-Design, the traditional boundaries between research and design are blurred, allowing for a collaborative and iterative exploration of ideas. Observations, interviews and theory and delineation assignments help us construct the theoretical framework of our research, explore different concepts, and test them through simple design attempts.

**Literature review**  
 A comprehensive literature review can be used as a tool to identify existing knowledge and theories about new approaches to learning spaces as well as a historic overview of the typology, so that past spatial elements and relations can be reevaluated and adapted to contemporary practice.

**Site Analysis**  
 The research may encompass both qualitative and quantitative data, including an extended site analysis that documents the existing situation of the site, and how the surroundings are facilitating the everyday life.

**Case studies**  
 Analyzing different case studies will help get an understanding of how to deal with certain spatial issues. A critical analysis of these projects will help further this research.

**Field trip**  
 The most important part of this research will be the fieldwork, offering a unique opportunity to immerse myself in the local context, understand the people, their culture, and the specific challenges they face in their environments. Ethnographic observations made during this fieldwork will be critical to ensuring the design is both

culturally sensitive and contextually appropriate. During the trip I will conduct interviews with local residents to gain firsthand insights into their needs, experiences, and perspectives. These conversations will be complemented by discussions with volunteers from SUST University, who can provide valuable local knowledge and help facilitate access to communities. Additionally, visual documentation through photos, videos, and sketches will be an essential tool for capturing the physical environment, housing conditions, and daily routines, enriching the research with both qualitative and visual data.

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## Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The studio focuses on the theme of 'architecture in transition', embedding itself in the context of Sylhet, a rapidly growing second-tier city in north-eastern Bangladesh. Sylhet and the surrounding region are exposed to several challenges induced by growing industrialization, internal migration and climate change. The studio will therefore study the broad context of the Sylhet division, focusing particularly on: its material culture, urbanization trends, dwelling patterns and contemporary demands.

In line with the studio description this graduation project will investigate a specific group of people that are in-between temporary and permanent displacement, in a context of a village that also floods and changes rapidly due to urbanization.

Beyond the Architecture master track, this project intersects with other tracks within the master's program, including Building Technology, Landscape, Urbanism, and Management.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

The research findings from this project aim to provide a valuable resource for future designers, developers, and architects interested in creating climate-resilient dwellings in Bangladesh. By addressing the underrepresentation of Bangladeshi architecture in Western discourse, this project seeks to foster meaningful dialogue and draw attention to the innovative strategies Bangladesh has developed in response to climate challenges. The goal is to make these insights accessible to a global audience, allowing for knowledge exchange and collaboration.

Through this studio, my hope is to contribute to the long-term vision of a "safe, climate-resilient, and prosperous Delta" by 2100, promoting Bangladesh's resilience strategies as models for other regions facing similar challenges. Additionally, the issues of displacement and urbanization are not unique to Bangladesh, but are global phenomena. With this project, I aim to offer insights and potential solutions that, while rooted in the context of Bangladesh, can be adapted, reinvented, and applied to different cultures and regions around the world.