

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:

Personal information	
Name	Sijie Song
Student number	5817196

Studio		
Name / Theme	Global Housing: Architecture of Transition in Bangladesh Delta	
Main mentor	Prof. Dick van Gameren	Design
Second mentor	Rocio Conesa Sanchez	Building Technology
Argumentation of choice of the studio	<p>Firstly, this studio is focusing on housing, which is the most important space for people, regardless of their nationality, race and occupation, so it is worthwhile to explore how to design houses that are adapted to the local environment and the needs of the residents.</p> <p>secondly, this studio has a global perspective. With the emphasis on the Global South, it encourages students to address the practical issues, such as climate-induced displacement, through housing interventions.</p>	

Graduation project	
Title of the graduation project	Living In a Game – A Child-Centric Community in Sylhet, Bangladesh
Goal	
Location:	Keane Bridge, Sylhet, Bangladesh
The posed problem,	Urban poor children in Bangladesh are facing the shortage of basic living conditions and lack of participation in family and social life.
research questions and	How can housing design help to build a child-centric community for urban poor children in Bangladesh?
design assignment in which these result.	A child-centric community
Problem statement	
<u>1 General situation of urban poor children in Bangladesh: lack of basic rights</u>	

According to RAPID, GED & UNICEF (2020), Bangladesh is a relatively young society with 36% of children and youth. However, due to the nationwide poverty, a large number of children do not grow up in a child-friendly environment. Furthermore, more poor children are suffering from health and education issues in urban areas compared to their rural peers because of the rapid urbanization.

Children in urban poor families in Bangladesh are exposed to multiple threats at different stages of their childhood. Their health is not well protected from infancy and as they grow up, they remain vulnerable due to the lack of proper food and sanitation. Additionally, around 40 percent of children in urban areas in Bangladesh do not have access to formal education, instead, they start working or doing domestic chores from a young age (avg. 9 years old nationally, avg. 7 years old in Sylhet), and change their work frequently. These jobs are basically manual labor offering little salary but requiring a long working hour, and some are even in hazardous environment, which increases their vulnerability (RAPID, GED & UNICEF, 2020). Moreover, when asked how they feel about the present lifestyle, the majority expressed a dissatisfaction with the status quo and helplessness to change it.

2 Lack of family life

According to the survey by BBS and UNICEF (2022), a safe family life is desired the most by children, especially staying with their nuclear family. Research has indicated that children's well-being is positively correlated with their participation in daily activities and their engagement with family, and a stable housing environment is found to be the basis for a healthy family life (Mayberry et al., 2014). However, the housing situation of the urban poor in Bangladesh is not stable. Especially under the conditions of land scarcity in recent years, their living area is compressed before the other social groups, resulting in either super dense informal housing, or those simple shelter made of the cheapest and most accessible materials. In both cases, people's living spaces are drastically reduced, limiting family activities only to eating and sleeping, so that children's development is hampered due to the loss of a healthy family routine.

3 Inequities in social life

Apart from family life, urban poor children also face inequities in social life. Trussel and Mair (2020) named the social space as 'judgement free space', where everyone is equal, and people are free from any form of discrimination. However, urban poor children in Bangladesh do not experience 'judgement free' in social space.

As urban poor, they are seen as informal population, who usually do not have their common space in their colony as all spaces that they have tend to be fully used for family life. Consequently, they take for themselves the 'community commons' such as the street or open spaces between houses, rather than specially defined areas. At the

same time, they are prohibited from accessing some social spaces, and even when they are able to do so, they still face the risk of eviction.

Compared to children of middle or upper-income families, they are not only excluded from regular schools, but due to the lack of protection, they may be exposed to dangers while wandering in social space.

The research site is the sweeper colony and its surrounding areas in the center of Sylhet city, on the southwest side of the Keane Bridge, acting as an example for settlements of urban poor.

Research Questions

Main question:

How can housing design help to build a child-centric community for urban poor children in Bangladesh?

Sub-question 1:

How can housing design ensure the most basic rights for urban poor children?

Sub-question 2:

What are the features of housing that promote the participation of urban poor children in family life?

Sub-question 3:

How can housing and public space design encourage urban poor children to have equitable access to social space and to participate in social life?

Process

Method description

The research adopts ethnography as the main methodology, and takes different methods in addressing each detailed question. In data collection stage, fieldwork and literature review are the primary methods. The fieldwork was conducted at the research site and its surrounding areas. During the fieldwork, observation was mainly look into the physical and mental state of children, their living spaces and ancillary amenities, to seek the relation between children's behavior and their needs for space, and then improve their living quality according to their living patterns. Literature review is effective in addition to first-hand sources of the fieldwork. The literature used here is to find the function and quality of the social space that is the most suitable for the site.

Precedent Study is another important method in the research. On the basis of understanding the current life and existing space of children, it is worth to explore the ways to improve the latter on the basis of the former. By browsing through projects from all over the world dealing with similar issues from the past to present and taking

children's wishes into account, basic characteristics of a space in different scales can be summarized.

After all these studies, with a collection of spatial elements, a new model can be created by reorganizing them. Finally, the housing project should be child-centered for urban poor children in Bangladesh.

Literature and general practical references

Literature: relation between children, life and space

Children and Life

Dyson, C. et al. (2009) Bangladeshi families living in hardship: findings from research using a life-history approach.

Ginsburg, K. R. (2007) The importance of play in promoting healthy child development and maintaining strong parent-child bonds.

Mayberry, L. S. et al. (2014) Families Experiencing Housing Instability: The Effects of Housing Programs on Family Routines and Rituals.

Woolley, H. (2008) Watch This Space! Designing for Children's Play in Public Open Spaces.

Children and Space

Elsley, S. (2004) Children's Experience of Public Space.

Woolley, H. (2015) Children and Young People's Spatial Agency.

Life and Space

Atelier Bow-Wow (2010) Architectural behaviorology.

Lefebvre, H. (1974) Production of Space.

Trussell, D. E. and Mair, H. (2010) Seeking Judgment Free Spaces: Poverty, Leisure, and Social Inclusion.

Case study

- Sheikh Sarai Housing Complex, 1970-1982
- Zakir Hussain Co-operative Housing, 1979-1984
- Shree Town, 2020
- SOS Children's Village in Jordan, 1991
- SOS Children's Village in Djibouti, 2014

- Tara Housing, 1975-1978
- CIDCO Housing, 1988-1993
- Housing Apartment at Bedade Nagar, 2022
- Kanchanjunga Apartments, 1983

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)?

In relation to the studio topic, the children issue discussed in the graduation project has been a global topic for decades, and it is especially prominent in Global South, where their living conditions are urgently needed to be improved. Additionally, since one of the main components of the final solution is housing, architectural aspects, such as the spatial configuration, the housing layout and material and structure need to be carefully considered. Other than that, the project encompasses the scales of city, neighborhood and building, and includes the design of park and public buildings. Therefore, it to a certain extent refers to relevant knowledge of other tracks in MSc AUBS, such as urbanism and landscape architecture, to create a livable built environment.

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

The issue of urban poor children is urgent and significant in the context of Bangladesh, as it concerns the future development of the country. However, it has existed for years but few proper solutions or positive results have been seen, and therefore, requires more considerations in academia. Admittedly, children issue is a topic in the field of sociology, but existing research and theories suggest a connection between behavior and space. Thus, this graduation work is trying to dive into this connection more, aiming to establish a relatively comprehensive spatial logic from the perspective of children. Additionally, the study explores children's lives from individual to communal, reflected as a transformation from private to public in space. Compared to most of the existing research for Bangladesh with the focus in Dhaka, this research is based in Sylhet, intends to bring non-capital cities into discussion when considering child issues in the future. Basically, this research aims to find the possibilities for housing design in changing the passive position of children, especially urban poor children, in space, and in creating a child-centered community.