

## Introduction and Motivation

The motivation for my graduation project arises from the urgent need to address the challenges posed by rapid urbanization in the Global South. As cities expand, modern construction practices have gained popularity due to their speed and cost-efficiency. However, this shift toward mass-produced housing threatens to erase the cultural and spatial adaptability that defines traditional housing in Bangladesh. In Sylhet, this trend is particularly visible, as high-density developments increasingly overlook the social dynamics and informal urban life that characterize the city. My choice of the Global Housing Studio was based on its focus on socio-cultural relevance and context-responsive design principles that closely align with my architectural ambitions and have guided the direction of my graduation project titled "Living Markets"

## Research and Design

My research process began with an exploration of the contrast and coherence between modern construction approaches and the vernacular ways of building and living in Bangladesh. Through literature review, case study analysis, and conversations with local people on site, I gained insights into the core values of both contemporary building methods and traditional architectural practices. These findings shaped the conceptual framework of my design process. The interplay between research and design became especially evident after my site visit, which prompted me to reconsider my initial ideas about adaptable housing in a dense urban context.

My preliminary design proposed an open structural framework in which residents could shape their own dwellings by shifting walls within a rigid frame. However, this notion of adaptability proved problematic when applied to a highly urbanized, high-density site in central Sylhet. This realization led me to shift toward a concept of social adaptability, not focused on physical flexibility at the unit level, but rather on the spatial and programmatic capacity of the building to accommodate different social groups and uses over time.

While the individual units are no longer designed to change on demand, the masterplan retains long-term adaptability. With its permanent concrete column structure and the market spaces integrated into the first two floors, the building is designed to support a range of functions across decades, adapting to evolving social and economic needs.

## Methodology and Process reflection

In the Global Housing Studio at TU Delft, the process is divided into two phases: a research phase followed by a design phase in which the research is applied. In my case, these phases sometimes overlapped. While conducting research, design ideas naturally emerged, and vice versa. However, after completing the research plan in the first semester, my research efforts slowed down. Looking back, I realize that a more integrated development of research, fieldwork, and design would have benefited my overall process.

Unfortunately, our field trip was rescheduled due to the student strikes and disruptions during the summer of 2024. As a result, this year's studio followed a different structure compared to previous years. Before traveling to Bangladesh, we conducted case and material studies, which I found particularly helpful for the design phase after the field trip. The knowledge gained during this period gave us a solid understanding of how people from different income groups live, as well as the materials they use to meet various needs in this context.

At the beginning of the studio, my understanding of the socio-cultural and environmental realities of the Global South was still developing. Without that perspective, it was difficult to frame my research and begin thinking about a design. As a result, my initial research plan sometimes felt disconnected from the real-world context. While literature can provide a lot of information, it doesn't offer the same depth as fieldwork. The early research lacked the grounded insights I later gained through the case/material studies and the field trip. This disconnect created challenges in aligning the research with the design in later stages. A more integrated, or even reversed, approach might have helped me develop a more precise and contextually grounded research base.

My approach combined both qualitative and quantitative methods, including literature analysis, case and material studies, field observations, and photographic documentation. This mixed-method strategy proved highly effective for me, especially in generating the insights and knowledge needed to develop a strong theoretical and conceptual framework for my design.

## **Feedback and Personal learning**

During my graduation process, the feedback from my mentors, Rohan Varma, Rocio Conesa Sanchez, and Frederique van Andel, was pivotal. Their critiques throughout the different stages of the design process helped me identify the knowledge needed to create a design that is not only aesthetically appealing, but also responsive to both climate and social context. I appreciated working with all mentors on the same overarching topic, rather than shifting focus between different aspects like construction and dwelling layouts. This consistency helped steer my process along a clear and focused path.

This graduation project taught me the importance of social acceptability and vernacular ways of living in dwelling design. When combined with climate-responsive strategies and aesthetic quality, these elements address the core values of good architecture. Engaging with local narratives not only enriched my design but also expanded my understanding of the ethical and sustainable responsibilities we carry as architects.

## **Academic and Social relevance**

Academically, this thesis contributes to ongoing discussions on the challenges and opportunities of rapid urbanization in the Global South. It explores the integration of vernacular living practices with modern construction techniques, highlighting the potential for contextually grounded and resilient urban development.

Societally, the project advocates for socially acceptable and adaptable housing strategies within an urban context. By emphasizing flexibility, cultural relevance, and community engagement, it offers insights into more inclusive and sustainable approaches to urban dwelling design.

## **Replicability of results**

While rooted in the specific context of Sylhet, the principles behind this design can be applied to other urban environments. The research provides not only a foundation for design decisions but also offers broader insights into vernacular lifestyles and how they can be thoughtfully integrated with modern construction approaches. The design strategy developed in this project could serve as a model for similar urban contexts in rapidly developing countries, where balancing tradition and innovation is essential for sustainable growth.

## **Self-Developed reflection questions**

*How can shared public programs, such as integrated market spaces, function as spatial and social anchors in rapidly urbanizing contexts?*

This question stems from the inclusion of market spaces in the lower floors of my project, which serve as more than just commercial zones, they act as social condensers in a high-density urban setting. The separation of functions in urban housing can be quite distinct and instead I propose a model where programmatic hybridity can foster long-term adaptability and community resilience. I'm interested in how these semi-public layers might not only provide economic utility but also reinforce social bonds, cultural continuity, and a sense of ownership in transitional urban landscapes.

*What architectural strategies can reconcile the permanence of modern construction systems with the evolving spatial needs of communities rooted in informal living traditions?*

This question arises from the difficulties I encountered between the rigidity of concrete structural systems and the fluid, often improvised nature of vernacular spatial practices. While a permanent frame offers durability and structural integrity, it risks freezing the built environment in a context where adaptability is a social and functional necessity. I aim to explore how long-term structural logic can coexist with more ephemeral, user-driven modifications, perhaps through modular infill systems, semi-open thresholds, or community-managed shared spaces.

*How can locally available materials be recontextualized within modern construction frameworks to support both environmental performance and cultural continuity?*

This question reflects the design tension between standardization and local specificity. In Sylhet, vernacular construction often uses materials like corrugated metal, bamboo, or brick in ways that are both climate-responsive and symbolically rich. However, modern systems tend to prioritize concrete, steel, and prefabrication for efficiency. I am interested in how architectural language can evolve to embed local materials within contemporary construction methods, not as superficial references, but as performative and narrative elements that reinforce identity, resilience, and sustainability.

## Looking back

Looking back on this graduation process and final thesis project, I feel deeply grateful for the experiences and insights I've gained over the past academic year.

The field trip not only elevated my design to a more grounded and contextually aware level but also left me with lasting personal memories. It brought weight and clarity to my design challenges and helped root my work in the realities of Bangladesh.

The research and design process was demanding, primarily because I could no longer rely on familiar references or my existing theoretical framework. Designing within a completely different cultural and climatic environment forced me to shift my perspective and pushed me to grow as both a thinker and designer.

This new way of working was challenging, but ultimately, I believe, highly rewarding. It expanded my thinking not just about architecture, but about life. It deepened my understanding of the responsibility we hold as architects and reshaped how I see my role within a diverse, global context.

The lessons I've learned and the experiences I've had throughout this year will continue to shape both my professional practice and personal worldview long after this project.

