Reflection Report

NEGOTIATING THE PERI-URBAN

Exploring Housing Serves as a Mediator between Local Inhabitants and Migrant Quarry Workers in Navi Mumbai

Yiyi Lai
5327504

Global Housing Graduation Studio 2021/22
Mixing Navi Mumbai
Master of Architecture, Urbanism and Building Sciences

Introduction

India's rapid urbanization has drawn rural migrants to the metropolis for livelihoods, further resulting in urban expansion. Horizontal urban expansion to the periphery increases a more complex interaction with its surrounding rural areas, shaping them into a dynamic rural-urban interface termed the 'peri-urban'.[1] These emerging hybrid landscapes with both rural and urban features have become a major landing point for rural migrant workers into the city.

On the one hand, urbanization has profoundly impacted villages within the urban boundaries. In Navi Mumbai, agricultural degradation forces local inhabitants to sell their farmland. As a result, the previous agricultural communities were expelled from their original land and moved away, leading to the displacement of local vulnerable social groups. On the other hand, infrastructure works in the city have provided many job opportunities, attracting poor migrants from surrounding rural areas to move to the city. Most of them work in labour-intensive sectors, such as quarrying.

However, unprecedented urbanization in India increased existing inequalities and exacerbated urban exclusion in the context of disability to access social services and formal houses. Government interventions have been unable to respond to the exclusion appropriately, especially in the housing sector. For instance, under the existing social housing allocation system, most quarry workers are excluded from applying for formal social housing without legal citizenship and stable incomes in the city. They have to live in self-built informal shelters which have difficulty accessing basic amenities and are exposed to high levels of risk, including pollution, dynamite blasting, and heavy industrial road traffic. Also, with a highly centralized structure, public-funded social housing does not fit the needs of quarry workers with a rural background, further pushing migrants away from formal social housing. Therefore, it can be argued that public-funded social housing has been adopted as an institution to exclude and marginalize rural migrants.

In general, the dynamic socio-spatial spaces in the peri-urban area are full of multidimensional conflicts between villagers, migrants, and government officials. Fortunately, housing is a combination of domestic activities, income generation, and social linkage in the Global South. It is significant for urban development and facilitates social integration. It led me to pursue and challenge an inclusive way to mediate the conflict and complex spaces in peri-urban areas.

---

1 Liana Ricci, "Peri-Urban Livelihood and Adaptive Capacity: Urban Development in Dar Es Salaam," Consilience, no. 21 (2019).

Aim of the Thesis

My research aims to explore how housing can serve as a mediator between local inhabitants and migrant quarry workers in order to build an inclusive city.

It requires me to:
1. Understand the different lifestyles and needs of local inhabitants and migrant workers;

2. Redefining inclusive cities and social inclusion in India:
India has socio-economically diverse and complex. The inclusiveness and social integration are not only reflected in the inclusion of different social groups but also in a larger context, including spatial integration, economic integration, and political integration.

3. Reflecting on India's existing mass housing scheme and vernacular architecture construction:
Both systems have their advantages and disadvantages, and I aim to balance the benefits of both in the project.

4. Providing a housing scheme with upscaling and replicability that can be used at the selected site and for a larger context;

5. Exploring an urban strategy for long-term urban development to achieve a socio-ecological urban resilience.

In order to achieve the aim, the following aspect will be investigated in my research:

Theoretical Research:
The complex urban process in the Global South requires a multi-disciplinary approach to deal with the stated problems. The first stage involves the collective contextual studies from social, economic, and environmental aspects. Primary sources of literature about the development of Indian cities (especially Navi Mumbai) will be used to provide insights into the hybrid landscapes in peri-urban areas.

After that, comparative case studies and typological analysis of inclusive and affordable housing programs in both India and internationally will be carried out, offering a closer understanding of housing practices from different scales and various perspectives. This will be executed to inspire how housing mediates complex urban spaces and contributes to inclusive cities and communities in India.

Ethnographic Research:
In order to interpret the different lifestyle patterns of migrant quarry workers and indigenous residents, ethnographic research will contribute to the design of housing that can translate the lifestyle into a new spatial organization. Due to the Covid-19 pandemic, restrictions on tourist visas and flights to India led to an adaptive ethnographic approach. The accessibility of social media and online tools has made remote online ethnographic research possible. The adaptive ethnographic research is divided into two main parts: an interview with Indians living in the Netherlands based on their previous daily lifestyle in India and a collection of video and photo material based on online resources.

Relationship between Research and Design

The selected site is located beside the quarry belt in Navi Mumbai, between Parsik hills and Mumbai highway. The quarry workers' settlements are close to their quarries, living under the threat of landslides, blasting and dust pollution. Most of them are extensions of the remained urban villages, gathering in small clusters, and each one has a high density. There is an urgency to resettle them into a safer place and upgrade the neighbourhood. What's more, in dealing with the issues of both low-income and middle-income groups, the most crucial consideration is to build an inclusive community with income-generated approaches.

Meanwhile, with ongoing resistance from local residents and environmentalists, the authority was under pressure to close the quarries temporarily in Navi Mumbai in 2016. Despite a decision to reopen the stone quarries in 2021, it is foreseeable that the quarries will eventually close in the future. The planning of this area, therefore, requires a long-term perspective.

My design proposal aims to achieve long-term socio-ecological urban resilience by creating an inclusive society, income-generated community, and ecological restoration. The graduation design involves the consideration of different scales from an urban perspective to architectural units.

Next Phase

In general, the current progress of the graduation project is sufficient to present my vision as a whole, but it still lacks more detailed exploration. Therefore, the following step will focus on the technical detailing of the concept. A smaller-scale drawing (1:10/ 1:5) will provide practical building technology considerations. That's what I should further elaborate on. In addition, there is still potential for further development of the resident self-build component to provide some realisable possibilities. This will serve the long-term vision of my project. Last but not least, a physical model will help illustrate a full vision of the design at different scales.

Relevence

This graduation work has a global policy and strategic relevance. It responds to the United Nations' Sustainable Development Goals (SDG) and is directly linked to SDGs 1, 9, 10, and 11, which are about achieving no poverty, providing infrastructure, reducing inequalities, and creating sustainable cities and communities.[2] The aim is to develop an open, inclusive and sustainable living environment for inhabitants from different social backgrounds. In addition, the graduation project is also relevant to India's ambitions and policies. The Eleventh Five-Year Plan Strategy (2007-2012) proposed to cover inclusive and sustainable development in India with the announcement of "Towards Faster and More Inclusive Growth.".[3]

In India, the urban population is expected to grow from 377 million to 590 million by 2030, mainly due to migration from rural areas and less-developed small cities and towns.[4] It can be argued that India's future urbanization will be strongly connected to rural migration. Meanwhile, it should be noted that most rural migration studies in India are related to the issue of exclusionary urbanization, which mainly focuses on the inadequate accessibility of basic amenities and social discrimination, marginalization, and even stigmatization. Although it is an intensive-discussed area for economists and sociologists, little has been elaborated in the architectural practice. India is still far from being an inclusive and equitable country. What's more, an inclusive society is not only a challenge for India or the global south, but it is also an issue that should be dealt with worldwide, considering the complex issues of social classes, race, gender, and territory.

---

2   "Take Action for the Sustainable Development Goals," the United Nations, accessed Nov 7, 2021, https://www.un.org/sustainabledevelopment/sustainable-development-goals/.
3   Eleventh Five Year Plan 2007-12, (New Dehli: Oxford University Press, 2008).
4   C. Chandramouli, Primary Census Data Highlights India 2011 (2011).