bridging realities

a response to spatial inequality in Nalasopara

— **reflection paper** —

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First Impressions

The most vivid impression I had of the city of Mumbai is the stark contrast between the tightly cramped communities with poor living conditions, and the expensive luxurious towers in the background, a physical manifestation of income disparity in the city. On the other hand, although I have never been to Mumbai, I felt a sense of familiarity. I later realized that it is the diversity in this place, the people from different places, speaking different languages, wearing different costumes, having different writings, cultures, and religion, that reminded me of Kuala Lumpur, the multi-cultural city I grew up in. I then made a mental note to myself, that

whatever I design in the end should not be a one-size-fits-all solution.

Figure
First Impression of Mumbai

The Project

In 2017, India's richest 1% held 58% of the country's total wealth, while in 2018 the top 1% holds 73% of the wealth. The income disparity is especially apparent in Mumbai, and it is not merely a matter of wealth distribution, but also a matter of spatial inequality, a matter of access to land, and open spaces.

According to Mehta, "two-thirds of the city's (Bombay) residents are crowded into just 5 percent of the total area, while the richer or more rent-protected one-third monopolize the remaining 95 percent."

The Development Plans for Mumbai, criticized as "a form of 'planned' exclusion of the poor and the middle class", have failed to address issues of slums and affordable housing. These acts of exclusions form pockets of ghettoization, which are breeding grounds of social tension, insecurity, violence, and psychological disorders, where people are denied access to water supply, security, education, job opportunities, and connection to the city.

In Nalasopara, many of the original single-storey Baithi chawls were replaced by four to five storey "handshake chawls" on the exact same footprint, and the distance between buildings are minimized, in some extreme cases, to less than 10 cm. This creates dark, long, and poorly ventilated spaces, barely leaving any "open-to-sky space". The only open spaces that could be found in the area are the communal gardens in the gated communities. In other words, a child who grew up in the gated apartments could

enjoy the communal gardens or playgrounds after school; while a child who grew up in the "handshake chawls" would possibly spend most of his or her childhood in the long and dark corridors. This "conspicuous separation" between "gated communities of the privileged and ghettoized territories of the marginalized people", as stated by PK Das , not only creates harsh boundaries among different groups, but also unfairness in terms of accessibility to open spaces.

In short, the widening of income gap leads to spatial inequality in Mumbai and Nalasopara contributes to the unfairness in accessibility to open space, harsh separation across income groups, ghettoization of marginalized groups, and the lack of decision-making power among people, which all together denies people to

The Right to the City, i.e. (1) the right to appropriate urban space; (2) the right to participate centrally in the production of urban space; and (3) the right to diversity,

as proposed by Henri Lefebvre and summarized by Purcell and Duke.

The project therefore aims to create accessible and meaningful urban spaces, soften boundaries among income groups while having appropriate borders, provide opportunities for people participation in the development process, accommodate and encourage diversity, and

combat segregation that has kept inhabitants from appropriation and participation, which all together bring The Right to the City to the people.

Using Sriprastha, an existing deteriorating cooperative housing in the West of Nalasopara as a starting point, I would propose three new housing typologies that cater aspirations of different income groups, while being relatable to the existing buildings. These typologies would

be offered to the existing residents as choices to redevelop their existing societies on a case by case basis. To show how these new typologies would be applicable in other areas, they would also be built from scratch on a neighboring empty plot, with a different configuration from the existing urban fabric. Ultimately, the project hopes to propose an alternative scenario from the current situation of complete exclusion of the urban poor, creating borders that act as "zones of exchanges", rather than harsh boundaries, as framed by Sennett.

Existing Sriprastha

Mid-rise

Low-rise

High-rise
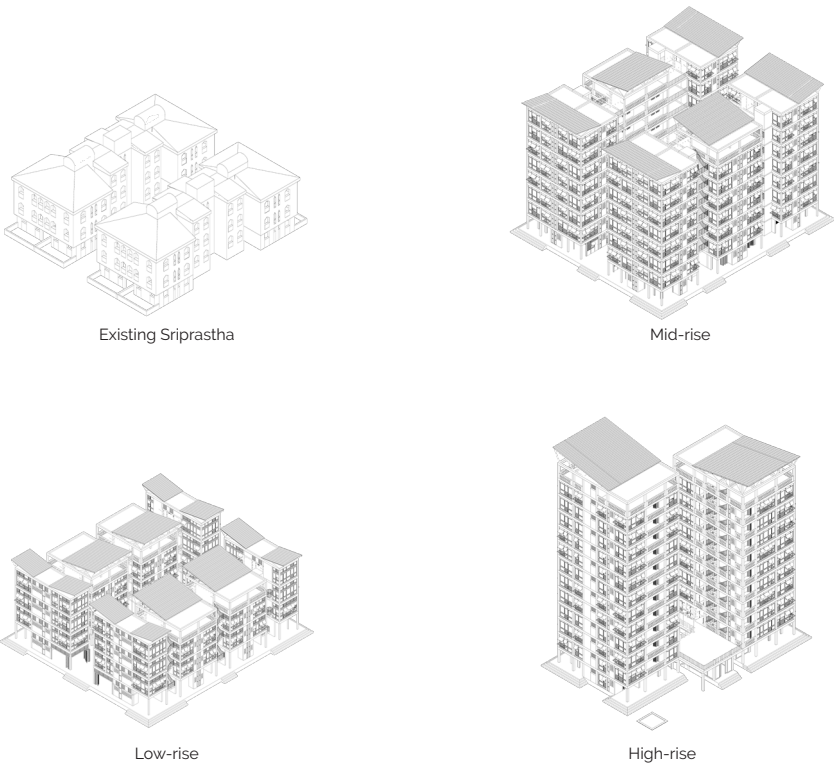
Typological Differences

Research Methods and Approaches

The research approach proposed by the Chair of Architecture and Dwelling was a combination of pre-visit background study, followed by an on-site micro ethnography survey.

Stage 1: Background Study

Before visiting the site, we have conducted typological and morphological analysis while studying relevant data and literature to grasp the reality of the larger context of Mumbai and India. In terms of literature, a wide range of topics including urbanization in India, housing policies in India, and dwelling in Mumbai was studied. Information including demography, politics, economy, climate, history etc, as well as spatial information such as mapping and typological studies were also collected and compiled into a research booklet, which act as a collective knowledge base for the entire group of students. We also studied a wide spectrum of housing projects that represented the "zeitgeist" of the specific period. The book "Building and Dwelling" by Richard Sennett was also included as an important knowledge base, giving us new insights in understanding cities and the built environment. I was especially inspired the way Sennett frames borders as porous zones of exchanges among different communities, rather than harsh boundaries with no intensity of activity.

Stage 2: Site Survey

The main strategy for site survey was a combination of visual ethnography and literary writing. Using ourselves as objects of research, we experienced, identified, and then recorded the findings of patterns of inhabitations into a catalog of perspective drawings known as "book of patterns". We also wrote an essay comparing the pattern of inhabitations in Mumbai and the Netherlands. Writing allowed me to record experiences by other senses apart from visual ones, and reflect upon them, while drawing extracts key factors that forms the specific pattern.

These two stages complement each other. The first stage provides an objective view of the overall big picture, including the major events, changes, and housing aspirations of different periods in relation to its urban transformation, while **the process of being a "participant observer" in the second stage helps me to identify patterns of inhabitation and would thus inform the design process.** It allows me to imagine the spatial experiences of the spaces that I have designed from a personal point of view and make a judgement of whether they are appropriate. In other words, while the experience of the individual would be given more attention in the design process, the information obtained from the first stage would fill in the gaps in aspects that were covered by the micro-ethnography.

These complimentary research methods that were implemented in the beginning sets the holistic tone of the studio, that issues should be addressed from all dimensions.

Research and Design

After visiting Mumbai, we had to formulate our Problem Statement and Research Question. My research question is:

How can housing and urban design allow equal participation in the development of the built environment and equal access to open spaces across income groups?

This question is then divided into various sub-questions.

On a spatial level:
i. What are the challenges and strategies for mixed income housing?
ii. What are the aspirations of different income groups?
iii. What is the suitable housing configuration to encourage social interaction while keeping appropriate borders?

While on the organizational level:
i. What are the models of participatory design?
ii. What is the appropriate level of intervention for the government, sponsor, and user?

The collective effort of preliminary research forms a solid knowledge base for my research questions, and we had to further our investigation on the specific research questions individually. The result from my sub-questions then form the basis of the program of requirements for my design. For example, the research on the aspirations of different income groups through literature, interviews, and housing examples, helps me to formulate the main characteristics for the three different typologies. However, the research and design did not progress in a linear manner. The design process has, in many cases, informed me of the lack of information, and I had to return to the research phase to investigate further, or even sharpen some of the sub-questions, in order to proceed. The research and design processes were therefore of constant back and forth.
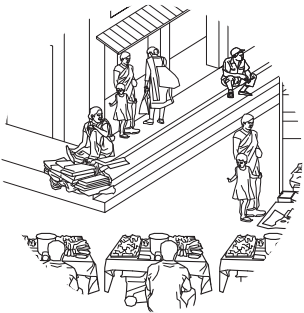
Informal Street Corner   Curtains for Privacy and Ventilation   Claiming Space with Decorated Entrances

Pattern of Inhabitations

Global Housing Graduation Studio &
Master of Architecture, Urbanism, and Building Sciences

Reflecting upon my experience in the Global Housing Graduation Studio, I would say that it has been an extremely challenging but also rewarding journey. The main challenges of this studio lie within its complexity. While attempting to address specific problems in Mumbai, equal attention must be given to the issues about density, affordability and buildability, taking social, managerial, technological, and environmental aspects into account. The studio therefore requires a holistic approach, to address its many dimensions; an open mind, to understand foreign environments and culture; and a practical attitude, to ensure the feasibility of the project.

In the studio, rather than zooming into the details progressively, tutors are constantly urging us to zoom in and out on the various scales. It was also a back and forth process, because the different scales would inform each other, and constant iteration was necessary. This way of working was new to me before I joined this studio, especially when we were told to design in 1:20 at an early stage of the project. The challenging part was to think about all dimensions at the same time, but it was necessary to prevents us from dwelling on certain details while neglecting the larger picture.

Personally, my biggest takeout from this experience is the ability to tackle a complex, multi-faceted project, by breaking it down into manageable components, and working on them simultaneously.

Another key aspect in the studio was the investigation of patterns of inhabitation and the translation of these findings into our own project.

The human perspective is of utmost importance and had to be thoroughly thought of in the research and design process. This is the attitude that I would carry on in my future practice as an architect.

Though there are many ways of working in architecture, we are ultimately designing for humans. This studio requires one to let go of the ego as a main master planner and delve into the ever-changing realities of the inhabitants. Since it is set in a foreign context, this studio also requires a constant discussion and reflection upon how much we, as an architect, should imitate the existing conditions, and how much we should be interfering. To me, the research and design process are attempts to search for a balance between top down and bottom up approaches.

Within this framework, my project thus suggests different levels of intervention and participation on different scales, using the open building model as an example. On the urban level, the architect has a larger control, and the user's power increases as the scale reduces. On the unit level, the user has complete control over the unit layout and the façade choices, since I have also proposed a flexible façade system that allows users to choose their own façade components.

I have also proposed two possible urban scenarios where my design could be implemented: i. starting from scratch on an empty plot, and ii. as a model to redevelop existing cooperative housing. While being deeply rooted in the social context of Nalasopara, this shows the potential of my project to be replicated in different areas of Nalasopara, Mumbai, or even beyond, which is one of the main goals of the studio.

While considering the architectural aspects in detail, the participatory nature of the project also demands clarification on the managerial processes. For example, I have designed all three typologies within the plot boundaries of an existing society in Sriprastha. This reduces the complexity of the redevelopment process by allowing each society to redevelop their own society on a case by case basis, at its own pace, without an overall masterplan of the area. On the other hand, to address the issues of affordability and replicability, I have also investigated local affordable materials and technology for the construction of the buildings. Therefore, while working on the architectural design, the role of the architect was also expanded to other disciplines. This multi-disciplinary way of working to create integrated solutions aligns with the tradition within the Master of Architecture, Urbanism, and Building Science of TU Delft, where the role of an architect is constantly being redefined.

Elevation of Mid-rise Typology with Flexible Facade

Ethical Issues and Dilemmas

Though the micro-ethnography research was beneficial to the project, the way it was conducted brought with it some ethical dilemmas. We had limited time to spend on site, and there were also language barriers among us and residents who do not speak English. Moreover, during the process of interviewing the locals, it was obvious that we were outsiders, and so since the residents are fully aware that they are being observed, they might behave differently. Therefore, what we have recorded might not be enough to understand the society as a whole. It occurred to me that **we might be conducting research through a keyhole, overlooking the larger reality behind the door.** Though we try to be as true to the findings as possible, there was no opportunity to return to Mumbai and clarify certain details, so we had to make certain assumptions to fill in the gaps.

Due to time constraints, we had to capture as many photographs and films as possible as materials for the production of the ethnography "Book of Patterns", and as materials for future references during the design process. Thereforeat many times when we were entering the communities, it felt like we were intruding the privacy of the residents.

On the other hand, my research questions were formulated after I have returned from Mumbai. Though I could answer the questions based on my observation in Mumbai, and additional literature that I could study here, I did not have the chance to dig deep into the reality of Mumbai to cross check my findings. For example, most of the people we have spoken to in Mumbai were

of the Lower Income Group, I had to make more assumptions regarding the aspirations of the Upper Middle-Income Group.

Therefore the literature and background studies were important to compensate the dilemmas that emerge due to time constraints on the site.

Figure
Students and Tutors visiting housing by
SPARC in Dharavi during the field trip

Social, Professional, & Scientific Framework

During a lecture that PK Das has given in TU Delft, he has mentioned that:

"for policies that are supposedly equal for all, can produce equal conditions, that are equally miserable, that have to be fought, so it is not just the fight of the poor therefore, against such urban development policies and plans, but it is for all of us. Even the middle-class and upper-class citizens will get down to these struggles and challenges."

The issues of income disparity, spatial inequality, exclusion, and ghettoization are problems that persists not only in Mumbai, but also the rest of India, and the world. Gated communities are prevalent globally, and I believe that this exclusion cannot be solved from one side or the other, but must be addressed holistically. Therefore, through the project, I explored ways the different income groups could co-exists. Since the Ministry of Housing and Urban Affairs of India has introduced incentives for 8 Public-Private Partnership models in 2017, my proposal takes advantage of the "Mixed-development Cross-subsidized Housing" model, whereby the more high-end typologies could cross-subsidize the affordable housing. The proposed model softens boundaries among income groups by encouraging dialogues between the different clusters without having a complete integration. This is a model that is not confined to Sriprastha, but replicable in other areas in Mumbai or beyond, providing an alternative input to addressing the issue of social segregation, rather than making it a battle between the rich and the poor.

Apart from being a response towards spatial inequality, the project is also a result of frustration towards a worldwide phenomenon of cookie cutter housing buildings that I have personally observed, especially in cities that I have lived in: Kuala Lumpur, Hong Kong, and Shanghai. These housing are usually profit driven, disregarding intangible human needs like income generation, borders, local culture, and social spaces, often neglecting the different needs of the individual and the articulation of the in between spaces. In high-density areas, the "cookie-cutter housing" phenomenon is even heightened when a mass amount of people are cramped into identical towers with identical units. In India, this trend is also observed in both the affordable housing provided by the government, and the higher end housing targeted towards the middle and upper class. Rapid urbanization has result in a loss of human touch, and the underlying question behind my project, and perhaps the entire Global Housing Graduation Studio, is **how can we cater for individual human needs while fulfilling the demands of the realities behind the provision of mass housing?**

My project thus attempts to encourage diversity within a standardized framework, from typological differences within the same grid, to variations of façade components within the same frame. The main challenge of this assignment is to determine the differences among the typologies, and the governing rules that tie them together, in other words, finding a balance between diversification and standardization. I think that my proposal contributes to the larger discussion of individuality in mass housing, which is very relevant in a time when houses are treated as commodity rather than a place to live.
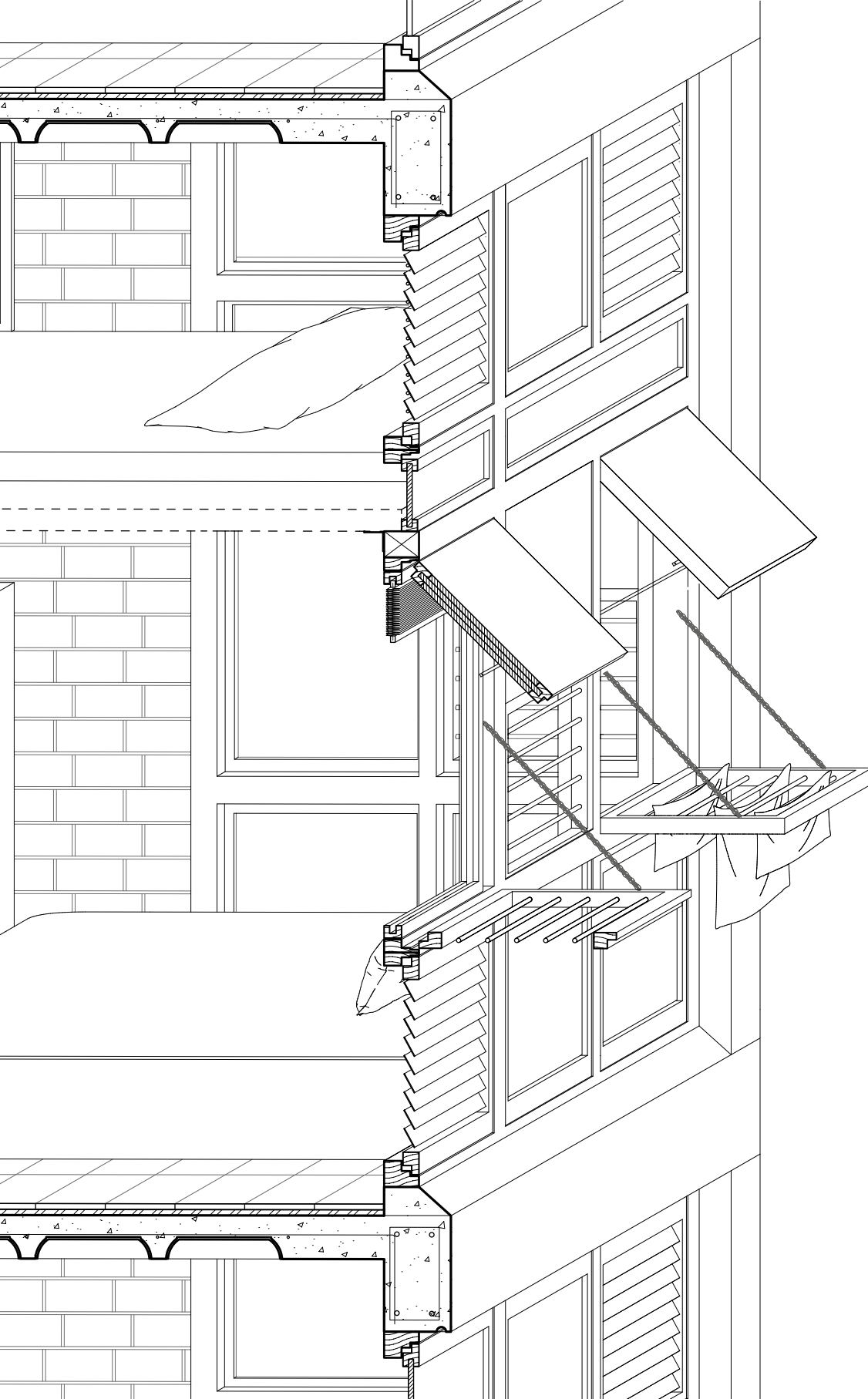

Kuala Lumpur

Shanghai

Hong Kong

Mumbai

High Density Cookie-cutter Housing Towers Globally

References

Das, PK. *A Run for Social Housing: Land Equity, Inclusive Planning and Urbanization of Cities* (Kuala Lumpur, 2018), 5.

Das, PK et al. *Chasing the Affordable Dream - A Plan to House Mumbai's Millions* (Mumbai: Bombaykala Books, 2018), 40-41.

Das.PK. Lecture (Delft, 2018)

Duke, Joanna. "*Mixed Income Housing Policy and Public Housing Residents' 'Right to the City*," Critical Social Policy 29, no.1 (2009): 101.

Mehta, Suketu. Maximum City (New York: Vintage Books, 2004), Part I, Kindle.

Mehotra, Rajiv. *Vertical City.* Directed by Avijit Mukul Kishore (Mumbai: Public Service Broadcasting Trust, 2010).

Resident in SRA Building. Interview by Guillaume Veillat, Rafaela Ahsan and Queenie Wong. October 30, 2018.

Sennett, Richard. *Building and Dwelling: Ethics for the City* (London: Penguin Random House, 2018), 220.

van der Werf, Frans. *Open Building: Levels of Intervention and Control*.
Retrieved from http://www.vdwerf.nl/molenvliet.html.