GRADUATION PLAN
Master of Architecture, Urbanism & Building Sciences

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Studio

Global Housing Graduation Studio:
Mixing Mumbai
Affordable Housing for Inclusive Development

Tutors:

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Dr. Ir. Nelson Mota (N.J.A.Mota@tudelft.nl)
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Argumentation of choice of the studio:

The reason for my choice of graduation studio (and furthermore, my decision to come to TU Delft), was based upon my past experiences in Dunedin and Auckland. In New Zealand housing has become the central focus of almost every aspect of society. More often than not, the ownership of a detached house represents one’s financial status, social status, personality and independence. Unaware of political processes, I was bewildered by the set of circumstances being referred to as ‘the housing crisis’. Anyone who did not own a property was essentially underprivileged. People of my generation looking to buy a house are often limited to two choices: commit most of their income to renting sub-standard housing, or devote the majority of their income for next 40 years to paying off a mortgage - again often for sub-standard housing. From the position of a practicing graduate architect, I saw that the architectural design of housing was limited to the 1%, and was completely removed from reality. The worsening housing crisis, a general mis-understanding of its causes, and hideous social situations arising from people being stripped of their identity (their home) lead me to pursue solutions outside of New Zealand. I chose the Global Housing studio (as well as the earlier Msc1: Dutch housing studio), based on a desire to explore current and potential housing solutions to give me the knowledge to better address the housing situation in New Zealand.
Housing for Community
Re-imagining co-housing in the age of Neo-liberalism

C.1 Goal

Problem Statement
Part 1: A global issue

Common thinking regarding what is commonly known as “the housing crisis” is problematic. The term is often vague and is based upon a host of misconceptions. In what is widely known as 'the New Zealand housing crisis', the effects are either felt or seen. Over the last 10 years, New Zealand society has deteriorated due to rising inequality and falling living standards. For most people, house prices rose significantly faster than household incomes. The results are evident to everyone; home ownership is at the lowest point in 66 years and people who rent or are in search of their first home are being forced to move out of the major cities. Furthermore, homelessness is growing, and is evident through populations of people living out of cars in unmetered city parking areas - a new form of squatter settlement. In looking for someone to blame, foreign investors are singled out. Specifically, the Chinese. Poorly organized housing owner registration systems and the government’s decision to publish a list of new home buyers with an emphasis on “Chinese sounding names”, gave frustrated New Zealanders someone to blame. However, in reality large numbers of Chinese investors are a symptom of the problem, not the cause. The true forces fueling the misery of the many are invisible.

In Mumbai the evidence of inequality is substantially greater. While 480 thousand houses are kept empty approximately 9 million people are living in slums. Despite the fact that the socio-economic divisions are so blatantly evident in the physical makeup of Mumbai, there is still very little awareness about the nature of the crisis that plagues them. The Hindu, a major Indian news organization stated in January 2018 that, “The phenomenon of high vacancy rates is not fully understood, but unclear property rights, weak contract enforcement and low rental yields may be important factors.” Ignorance on the nature of the problem has been translated into a multitude of affordable housing projects across Mumbai. MHADA housing schemes, SRA projects and PMAY initiatives (known as ‘Housing for All 2022’), are all attempts to solve the affordable housing problem within the existing system that created it. The true forces fueling the misery of the many are invisible.

The 1999 text ‘Profit over People: Neoliberalism and Global Order’ is a seminal work by Noam Chomsky. In this he examines current global economic trends rising from drastic moves made during Margaret Thatcher’s and Ronald Reagan’s era (1980’s). Chomsky provides clarity to the concept of Neoliberalism, an umbrella term used to group political initiatives of privatization, austerity, deregulation and free trade. He states of Neoliberalism: “Instead of citizens, it produces consumers. Instead of communities, it produces shopping malls. The net result is an atomized society of disengaged individuals who feel demoralized and socially powerless”. Beyond the 2008 financial crisis, increased neoliberal policy has exacerbated existing issues. Peter Marcuse and David Madden’s book ‘In Defense of Housing: The Politics of Crisis’, examines the global impact of Neoliberal policy in 2016. Giving definition to the concept of ‘Hyper-commodification’, they state:

5. Zeeshan Shaikh, “‘Mumbai most populous in county, 41.3% live in slums.’” The Indian Express, September 26, 2017.
“together the interlocking processes of deregulation, financialization, and globalization have meant that housing functions as commodity to a greater extent than ever before”\textsuperscript{10}. Thus, maintaining and increasing demand for housing is in the interest of all those who have invested in real estate.

The free market economy is not a new idea, the concept of which seems pure. Adam Smith gave us the concept of the ‘invisible hand’, the notion that the efforts of the individual to pursue their own self-interest will benefit society more than if their actions were intended to benefit society directly\textsuperscript{11}. Unfortunately, in the 21st century the invisible hand no longer provides. Neo-liberalism has opened a Pandora’s box, unleashing a host of invisible forces compelling society to turn on itself.

Part 2: The atomization of society

The atomization of society, as mentioned by Noam Chomsky, is the process in which a society is divided into its constituent parts\textsuperscript{12}. This process is made worse by the commodification of housing and evident in the standardization of dwelling units. In Auckland, the predominant form of housing is detached houses; commodification and atomization is facilitated through the ‘certificate of title system’ and standardization led by franchise housing schemes. In Mumbai, the predominant housing type is apartment buildings; commodification and atomization is facilitated through uniformity of all apartment units within all target markets (LIG, MIG, HIG, etc.). These standardized fixed-state dwelling units are not exclusive to the neoliberal era; rather, their proliferation is a natural continuation of real estate investment logic\textsuperscript{13}. The result has been a succession in patterns of habitation which are disempowering people and destroying communities. When combined with rent systems, rising house prices and social isolation, the division of communities into individual households turns the home into a personal prison. As Chomsky puts it: “The goal is a society in which the basic social unit is you and your television set. If the kid next door is hungry, it’s not your problem. If the retired couple next door invested their assets badly and are now starving, that’s not your problem either.”\textsuperscript{14}

Part 3: Nalasopara, Mumbai

The Vasai-Virar sub district in Mumbai is at the forefront of the global housing problem. At the north periphery of the city, housing development has been accelerating over the last 20 years. This region in particular has become an exceptionally raw example of the negative effects of Neoliberalism and housing commodification. Typical of much of the development in this region, the area south of Rahmat Nagar Road is a combination of semi-legal and illegal apartment projects which have been constructed around, or in place of pre-existing Baithi chawls. This has resulted in the development of three distinct housing conditions: the ‘Baithi chawl enclave’, the ‘mid-rise chawl labyrinth’ and the ‘walled apartment building’. The remaining Baithi chawls provide insufficient living conditions; however, they also provide sufficient daylight, personalized expandable homes, and most importantly: an existing community based on common facilities and hardships. In contrast, the ‘mid-rise chawls’ are characterized by unit apartments, buildings tightly packed together, poorly maintained services and no community facilities. Lastly, the ‘walled apartment buildings’ are characterized by unit apartments, high standards of construction and maintenance, and a fortified perimeter. The unfortunate reality is that current development patterns in Nalasopara are replacing healthy communities in the Baithi Chawls with an anti-social building fabric of polarized apartment buildings. This building pattern is disintegrating communities and atomizing society. Looking ahead, continued migration and city development is likely to fuel accelerating densification in the Vasai-Virar sub district. Left without intervention, this pattern of urban densification is likely to get worse.

\begin{itemize}
  \item \textsuperscript{10} David Madden, and Peter Marcuse. \textit{In Defense of Housing: The Politics of Crisis}. (London: Verso, 2016). p.35
  \item \textsuperscript{11} Adam Smith, \textit{The Wealth of Nations} 1723-1790 (New York: Modern Library, 2000).
  \item \textsuperscript{12} Noam Chomsky. \textit{Profit Over People: Neoliberalism and Global Order}. (New York: Seven Stories Press, 1999). p.11
  \item \textsuperscript{13} Clar, Antonio J. Jimenez. “The Real Estate Information: A way to standardization.” In 8th European Real Estate Society Conference. ERES: Conference. Alicante, Spain, 2001.
\end{itemize}
Research Question
The first, and central research question is:

“Within the context of the Hyper-commodification of housing in Mumbai: how can a new model of affordable co-housing act as a framework to preserve, strengthen, and develop community, while meeting density requirements and universal living standards?”

It is expected that a holistic research approach to the housing situation in Nalasopara will generate the most meaningful results. Co-housing, or community-based housing, has been cited as it has been proven as a means to separate housing from the market economy. The most prominent program being the FUCVAM model developed in Uruguay and its proliferation in Latin America facilitated by the South-South Cooperation.15 Throughout the project a global perspective will be essential in strengthening the research outputs and embedding the thesis within the broader context of the studio. Therefore, a second research question is proposed to act as a broader counterpart to the first:

“How can dwelling design better match how people live rather than how people invest?”

In providing solutions to these questions, it is expected that the research project will add meaningful knowledge to the discussion on affordable housing solutions in the climate of Neoliberalism.

Design Assignment
The design assignment will be a co-housing or community-based housing scheme. This will be informed by existing models around the world, but modified to accommodate for the intense conditions present in the inner city of the east of Nalasopara. The design assignment will involve re-housing Baithi chawl residents on the same land, while increasing density to allow for new residents. There will be a heavy emphasis on the viability of the housing scheme; it is expected that elements of the SRA housing scheme will be incorporated to improve feasibility. The intension is to create a housing model adjacent to, but completely free from market-based ownership.

C.2 _ Process

Method Description
This thesis will be based on a strong theoretical framework that will be gained by completing extensive research, mapping and site analysis. This thesis will take on a duel approach to affordable housing through two distinct but interrelated methods. First, the top-down analysis of prevailing political conditions which are fueling the housing crisis; and secondly, a bottom-up analysis of existing residents, dwelling conditions, and of development processes. In terms of research progression after P2 presentations, the Thesis will first seek to establish a clear understanding of the effects of liberalization on housing in India post 1991. Secondly, research into low-budget co-operative housing schemes across India and the world which are successful in de-commodifying housing. Also, cataloging and systematic analysis of existing approaches to high-density affordable housing in India will be used to reinforce the viability of the resulting design strategy.

Literature

Politics of Neoliberalism and Housing (Global issues)

Books


Articles


Thesis and Academic Writing


Housing in India and Mumbai (Local issues)

Books


Articles

Correa, Charles (1985), The new landscape (Bombay: Book Society of India)


Shaikh, Zeeshan. “Mumbai most populous in county, 41.3% live in slums.” The Indian Express, September 26, 2017. indianexpress.com/article/cities/mumbai/mumbai-most-populous-in-county-41-3-live-in-slums-4861241/

Vinit Mukhija, (2000), Squatters as Developers?: Mumbai’s Slum Dwellers as Equity Partners in Redevelopment. Post Graduate Thesis: Massachusetts Institute of Technology

Projects/Precedents

1. FUCVAM model of mutual aid housing cooperatives, Central and South America.
2. Karl Marx Hof apartments, Vienna, 1927-1930
4. SRA Housing Scheme, Mumbai.
5. Housing Cooperatives (PNUH), Angola.
6. COPEVI housing, Mexico.
C.3 _ Relevance

Reflection
This graduation project addresses and adds value to the larger social and scientific framework of affordable housing. In a broader sense, this project seeks to add dialogue to the question of the Architect’s role in helping to provide affordable housing. As a student, (in contrast to a practicing architect) one of this project’s founding idea’s is that the Architect works primarily for the resident. Free from direct pressure from developers or politicians, this thesis aims to build on existing knowledge - both built and theoretical - of the architect’s role in facilitating housing. Of particular interest to this project, and indeed any affordable housing project, is the relationship between politics and dwelling. This project seeks to find some space within the prevailing political climate, to empower people who are being excluded from the system. In developing a feasible model of urban co-housing in Nalasopara, it is expected that this thesis can add knowledge to the broader body of work addressing the social and political aspect of architectural practice.
### C.4  Time planning

#### Autumn Semester

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<thead>
<tr>
<th>Course week</th>
<th>Primary Tasks</th>
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<tbody>
<tr>
<td>1.1 - 1.8:</td>
<td>Phase 1: Design Research and Projective Mapping</td>
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<td>1.9 - 2.1:</td>
<td>Phase 2: Field Trip to Mumbai</td>
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| 2.2 - 2.4:  | Phase 3: Design Hypothesis.  
**P1 Presentation:** Presenting initial research, conclusions and introduction to the site. Framing the Project Goal and Research Goals. |
| 2.5 - 2.6:  | Phase 4: Preliminary Design. Refining research question, expanding on research and development of design hypothesis. Complete preliminary design documentation: Funding flowchart, Urban plan, Axonometric, plans, sections and elevations. |
| 2.7 - 2.8:  | **P2 Presentation:** Formal Assessment: Presentation of design problem movie, design research slideshow, and preliminary design solution. (Design Hypothesis) |
| 2.9 - 2.10: | Revise Hypothesis based on P2 Feedback.  
If required complete P2 retake. |

#### Spring Semester

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<tr>
<th>Course week</th>
<th>Primary Tasks</th>
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<tr>
<td>3.1:</td>
<td>Research: Case Studies, in-depth research and cataloging of housing strategies free from market speculation: Red Vienna socialist housing, FUCVAM housing model, Atkinson co-operative retrofit, historical Indian co-operatives, etc.</td>
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<tr>
<td>3.2:</td>
<td>Research: In-depth research of the SRA housing rehabilitation scheme in Mumbai. Focusing on feasibility solutions.</td>
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<td>3.3 - 3.4:</td>
<td>Design Development: exploration, and clarification of housing typologies, and their relationship.</td>
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<tr>
<td>3.5 - 3.6:</td>
<td>Design Development: development of design strategies, and focus on technical issues and details.</td>
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<tr>
<td>3.8:</td>
<td><strong>P3 Presentation</strong> (as required): Mid-Semester Review: Presentation of sketches, plans and sections and overall design strategies.</td>
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<tr>
<td>3.9 - 4.0:</td>
<td>Design Development: Detailing Overall scheme, along with detailed plans, and physical models.</td>
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<tr>
<td>4.1 - 4.3:</td>
<td>Project Documentation: Plans, sections, elevations, axonometric, and physical models.</td>
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<td>Time Frame</td>
<td>Description</td>
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<tr>
<td>4.4 - 4.6:</td>
<td><strong>P4 Presentation</strong>: Presentation of final scheme. Feasibility study, Detailed Plans, sections, elevations, architectural details and technical construction details.</td>
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<tr>
<td>4.7 - 4.9:</td>
<td>Final Adjustments: Finalizing material for final P5 presentation. Development of critical reflection for presentation at P5 (comment on the international significance of this project).</td>
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<td>4.10 - 5.1:</td>
<td><strong>P5 Presentation</strong>: Preparation for final presentation.</td>
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