TUDelft Delft University of Technology
Faculty of Architecture
and the Built Environment
BKBouwkunde

Architecture
& Dwelling

GRADUATION PLAN
Master of Architecture, Urbanism & Building Sciences

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B - Studio

a) Name / theme of the studio:

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

b) Tutors:

Prof. Ir. Dick van Gameren (D.E.vanGameren@tudelft.nl)
Dr. Ir. Nelson Mota (N.J.A.Mota@tudelft.nl)
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c) Argumentation of choice of the studio:

I have joined the Global Housing Studio in Msc2 and it made me realize that housing is a very interesting but at the same time difficult topic because it involves careful considerations on many different levels. Having grown up in Kuala Lumpur, studied in Hong Kong, and worked in Shanghai, issues about mass housing and urbanization have always been apparent and crucial in my immediate surroundings. Therefore, I look forward to dive into the issues of the Global South and I think that this would be the direction I would pursue in my future practice.

C - Graduation Project
Bridging Realities -
A Response to Spatial Inequality in Nalasopara

C.1 _ Goal
In this section, you should identify the project location (in our case Nalasopra, Mumbai, India) and answer, as clearly as possible, three questions:

a) What is the problem that you want to tackle? (**Problem Statement**);
b) What is the **Research Question**? (The question(s) should be specific - not vague - and formulated in a such a way that you feel that you can contribute to provide an answer to it (them).)
c) What is the **Design Assignment** that you have in mind to explore a possible solution to the problem formulated in a) and to contribute a possible answer to the question(s) formulated in b)

Note: The Section C.1 (Goal) should be a revised version of your problem statement, (word length around 1000 - 1500 words).

a) Problem Statement

India is projected to be the world's 2nd largest economy in 2050, being the growth engine of the global economy. [1] However, in the chase of GDP growth, the income gap in India is widening at a shocking rate. In 2017, the country's richest 1% held 58% of the country's total wealth, while in 2018 the top 1% holds 73% of the wealth. [2] 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." [3] 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. [4] There are two kinds of general attitude towards the urban poor, firstly, separation with physical barriers; and secondly, relocation to make space. Up to the mid-1980s, slums dwellers were displaced to hardly maintained buildings in the peripheries of the city by the Slum Rehabilitation Authority (SRA), where water supply, security, education, job opportunities, and connection to the city were barely accessible. [5] [6] [7] These acts of exclusions form pockets of ghettoization, which are breeding grounds of social tension, insecurity, violence, and psychological disorders. [8] [9]

[1] PricewaterhouseCoopers. *The Long View - How will the global economic order change by 2050?*. (PwC, 2017), 5. https://www.pwc.com/gx/en/world-2050/assets/pwc-world-in-2050-summary-report-feb-2017.pdf
[2] "Income inequality gets worse; India's top 1% bag 73% of the country's wealth, says Oxfam," *Business Today*. January 23, 2018, https://www.businesstoday.in/current/economy-politics/oxfam-india-wealth-report-income-inequality-richests-poor/story/268541.html.
[3] Suketu Mehta. *Maximum City* (New York: Vintage Books, 2004), Part I, Kindle.
[4] PK Das et al. *Chasing the Affordable Dream - A Plan to House Mumbai's Millions* (Mumbai: Bombaykala Books, 2018), 40-41.
[5] Ibid, 41.
[6] Rajiv Mehotra. *Vertical City*. Directed by Avijit Mukul Kishore (Mumbai: Public Service Broadcasting Trust, 2010).
[7] Resident in SRA Building, interview by Guillaume Veillat, Rafaela Ahsan and Queenie Wong. October 30, 2018.
[8] PK Das. *A Run for Social Housing: Land Equity, Inclusive Planning and Urbanization of Cities* (Kuala Lumpur, 2018), 5.
[9] PK Das. Lecture (Delft, 2018)

Following the urban expansion to the North of Mumbai, the issue of exclusion and spatial inequality also extends to Nalasopara in the Vasai-Virar region. In Nalasopara, the Economically Weaker Sections and Lower Income Groups living in chawls concentrate on the East of the railway, while the Lower and Middle Income Groups living in cooperative housings or gated apartments are spread across the West. Many of the original single-storey Baithi chawls in the East of Nalasopara were replaced by four to five storey chawls on the exact same footprint, and the distance between buildings are minimized, in some extreme cases, to less than 10 cm. Apart from increasing the density by four to five times, this also creates dark, long, and poorly ventilated spaces, barely leaving any "open-to-sky space". The builders of the mid-rise chawls are still on a quest of redeveloping the remaining Baithi chawls, and the future of these Baithi chawls are uncertain. There are residents who refuse to leave after seeing the conditions of the redeveloped chawls, while some residents left and returned because the builders did not provide the promised compensation and temporary housing. [10]

On the other hand, there are deteriorating cooperative housing on the West of Nalasopara like Sriprastha, where Lower and Middle Income Groups live. Due to a serious lack of maintenance, the buildings in Sriprastha are falling apart. There were on-going rumours over the past decade that the area is going to be reconstructed, but nothing has happened since. [11] Noel, a father of two girls, was injured by a falling slab when he was sleeping in his home while his wife dodged a similar incident. [12] Therefore, residents like Noel are eager to leave and move to the new redevelopment as soon as possible for the safety and well-being of their families. [13]

In the examples of the residents in the SRA schemes, in the Mid-rise and Baithi Chawls, and in Sriprastha, the living conditions are not ideal, and there is a lot of uncertainty in the future of the neighborhoods. People could only anticipate, waiting for something to happen, but in a profit-driven world where private developers are the sole decision makers, the people have no control over the future of their neighbourhood.

The lack of governance in terms of urban design, especially in the East of Nalasopara, results in a lack of planned public spaces. 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 high density mid-rise 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 ,[14] not only creates harsh boundaries among different groups, but also unfairness in terms of accessibility to open spaces.

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[10] Residents in Baithi Chawls in Rahmat Nagar, interview by Queenie Wong, Dennis Musalim, Sijia Wang, Saniya Patil and Sadhvi Vanjare. November 1, 2018.
[11] Noel Sumitra, interview by Queenie Wong, Rafaela Ahsan, Craig Trompetter and Matthijs Verrijzer. November 3, 2018.
[12] Ibid.
[13] Ibid.
[14] Das, "A Run for Social Housing,"8.

<u>b) Research Question</u>

In light of the spatial inequality in Nalasopara and Mumbai, the research seeks ways of access 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.[15]

Main question:
How can housing and urban design allow equal participation in the development of the urban environment and equal access to open spaces across income groups in East and West Nalasopara?

Spatial level:
What are the challenges and strategies for mixed income housing?
What are the aspirations of different income groups?
What are the appropriate borders among income groups?

Ogranizational level:
How can we bridge the gap between the government and the user?
What are the models of participatory design?

<u>c) Design Assignment</u>

Sriprastha is one of the low-rise housing cooperative that faces the threat of being replaced by gated communities. At present it has two possible future: being redeveloped into a 21-storey high-end gated compound, or to continue to deteriorate and cause danger to the residents. These scenarios would destroy the existing strengths of the area: porous, organized and adequate open spaces, mixed religious communities, the rich use of dwelling spaces as religious, commercial, education and communal amenities, and the possibility of extension.

While a few of the buildings are well maintained by the residents, a huge majority of them are falling apart. There are various reasons behind the difference in level of maintenance. Firstly, residents are reluctant to invest in the maintenance of buildings that are going to be replaced, as suggested by the on-going rumours. Secondly, the residents of Sriprastha consists only of the middle-income group. Many of them could afford to live somewhere else, thus it is not in their interest to maintain the area. Thirdly, Sriprastha consists of an organized system of open spaces that lacks hierarchy, making it difficult to define communities, resulting in a lack of sense of belonging.

Learning from Sriprashta, the main aim of the assignment is to enable different income groups to have equal access to meaningful open spaces and equal participation in the development process. The above strengths and weaknesses are seen as opportunities to develop an alternative model for Sriprastha. Using the existing porous but ambiguous and under-utilized system of open spaces in Sriprastha as a starting point, the assignment attempts to create accessible and meaningful hierarchical open spaces, as emphasized by Correa. [16] The project would include housing for various income groups to improve the sustainability and

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

[16] Charles Correa, *The New Landscape: Urbanisation in the Third World* (London: Mimar Books, 1988), 25-26.

inclusivity of the neighborhood as opposed to the current composition of a single income tier. Thus the project would seek for the appropriate 'borders', or 'zones of exchanges', as framed by Sennett, [17] among income groups. A modified Sriprastha will be designed on a neighboring empty plot, forming a consolidated urban fabric with the original project, which would then infect the existing fabric. The new model can then be replicated in other parts of Nalasopara. Since it includes the Economically Weaker Sector and the Low-Income Group, existing residents from the chawl areas in East Nalasopara can also move to the new project, thus freeing up land in which the new model can be applied on.

On the organizational level, models of participatory design will be explored to determine whose decisions and whose actions are involved, as phrased by Turner. [18] To form an organizational framework, the existing cooperative housing model will be considered as a starting point and would later be combined with other modes of participation and financing.

Ultimately, the assignment seeks alternatives to ghettoization by softening the divide among income groups as a response to the spatial inequality in Nalasopara, and the larger context of the Mumbai Metropolitan Region. Hopefully the empowerment of the people would bring them closer to the 'Rights of the City', and perhaps, one step closer to Gandhi's notion of democracy:

> "My notion of democracy is that under it the weakest should have the same opportunity as the strongest…No country in the world today shows any but patronizing regard for the week…Western democracy, as it functions today, is diluted fascism…True democracy cannot be worked by twenty men sitting at the centre. It has to be worked from below by the people of every village." [19]

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[17] Richard Sennett, *Building and Dwelling: Ethics for the City* (London: Penguin Random House, 2018), 220.
[18] John F.C. Turner, Housing by People (London: Marion Boyars Publishers, 2009), 139.
[19] Wall text, *Democracy*, Gandhi Ashram at Sabarmati, Ahmedabad, Gujarat.

C.2 _ Process
In this section, you should identify the methods and processes that you'll use in your graduation project, as follows:

a) Method description;
[A description of the methods and techniques of research and design, which are going to be utilized.]

Research Methods:

Background Study:
Before visiting the site, we have conducted typological and morphological analysis and studied relevant data and literature to grasp the reality of the larger context of Mumbai and India. We were divided into groups to study specific periods of Mumbai. The information was then compiled into a research booklet, which act as a collective knowledge base containing background information such as demography, politics, economy, climate, history etc, as well as spatial information such as mapping and typological studies. This allowed us to understand the major events, changes, and aspirations of the period in relation to its urban transformation. We also studied a wide spectrum of housing projects that represented the "zeitgeist" of the specific period.

In terms of literature, a wide range of topics including urbanization in India, housing policies in India, and dwelling in Mumbai was also studied. In addition, general literature that were relevant to the issues of the global south but not specific to Mumbai was also studied.

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 into a catalog of perspective drawings known as "book of patterns". We also wrote about the experience for instances that were difficult to visualize.

These methods complement each other in the research process. Writing allowed me to record experience by other senses apart from visual ones, while drawing extracts key factors that forms the specific pattern.

This process of being a "participant observer" helped me to identify patterns of inhabitation and would thus inform the design process, allowing 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.

Design Methods:
In order to allow user participation in the process of integration, the project would consist of two components: the organizational level and the spatial level. In this case, the Sriprastha project will be analyzed in terms of strengths, weaknesses, opportunities, and threat, and used as a starting point for both components.

On the spatial level, the existing urban fabric and typological characteristics of Sriprastha will be studied, and a modified new Sriprastha will be designed on a neighboring empty plot. Literature about the challenges and strategies of mixed-income housing and some case study housing projects would be studied as a

reference. Information extracted from the literature will be reviewed to determine whether they are relevant to the context of Mumbai.

On the organizational level, I would explore possibilities of modifying the existing co-operative housing model in Sriprastha. I would also study other references from India and Europe to explore other ways of participation and financing.

b) Literature and general practical preference;
[The literature (theories or research data) and general
practical experience/precedent you intend to consult.; For example, you can include some of the case studies we've analyzed in the research seminar and highlight briefly why they're important for you]

Literature about Research Methods:
To expand my knowledge on the history, implementation, and challenges of visual ethnography in studying public life, I have referred to the following literature:

Desai, Dipti. *The Ethnographic Move in Contemporary Art: What Does it Mean for Art Education?* National Art Education Association, 2002.

Edwards, Elizabeth. *Anthropology & Photography*. London: Yale University Press (in association with the Royal Anthropological Institute, London), 1997.

Gehl, Jan and Birgitte Svarre. *How to Study Public Life*. Washington: Island Press, 2013.

Peacock, James L. *The Antrhropological Lens – Harsh Light, Soft Focus.* Cambridge: Cambridge University Press, 2001.

Pink, Sarah. *Doing Visual Ethnography*. London: SAGE Publications, 2001.

Pink, Sarah. *The Future of Visual Anthropology: Engaging the Senses.* London and New York: Routledge Taylors and Francis Group, 2006.

Sanchez.C and Victór Coreno. *Free Architecture: An Ethnographic Approach to Architecture Practice.* Mexico City: Hong Kong Design Management Academy Conference, 2017.

Skinner, Joseph E. Skinner. *The Invention of Greek Ethnography: From Homer to Herodotus*. New York: Oxford University Press, 2012.

Tsukamoto. Y and Momoyo Kaijima. *Atelier Bow-Wow: Commonalities of Architecture*. Delft: Faculty of Architecture and the Built Environment, TU Delft, 2016.

Vermeulen, Hendrik Frederik. *Early History of Ethnography and Ethnology in the German Enlightenment: Anthropological Discourse in Europe and Asia, 1710-1808*. Leiden: 2008.
Vidich. A.J. and Stanford M. Lyman. *2. Qualitative Methods: Their History in Sociology and Anthropology*. California: SAGE Publications, 1994.

Wang.D and Linda N. Groat. *Architectural Research Methods*. New York: J.Wiley, 2002.

Whyte, William H. *The Social Life of Small Urban Spaces*. Project for Public Spaces, 2001.

Intellectual Framework:
The following literature has provided an intellectual framework in understanding Mumbai, India, and issues of the global south and supported the formation of the problem statement:

Correa, Charles. *The New Landscape: Urbanisation in the Third World*. London: Mimar Books, 1988.

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

Das, PK. Lecture. Delft, 2018.

Das.PK, Singh.G, Dewan.R, and Kabir Agarwal. *Chasing The Affordable Dream - A Plan to House Mumbai's Millions.* Mumbai: Bombaykala Books, 2018.

Duke, Joanna. "Mixed Income Housing Policy and Public Housing Residents' 'Right to the City*." Critical Social Policy* 29*,* no.1 (2009): 100-120.

"Income inequality gets worse; India's top 1% bag 73% of the country's wealth, says Oxfam." *Business Today*, January 23, 2018. https://www.businesstoday.in/current/economy-politics/oxfam-india-wealth-report-income-inequality-richests-poor/story/268541.html.

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

Mehta, Suketu. *Maximum City.* New York: Vintage Books, 2004. Kindle.

PricewaterhouseCoopers*. The Long View - How will the global economic order change by 2050?.* PwC, 2017. https://www.pwc.com/gx/en/world-2050/assets/pwc-world-in-2050-summary-report-feb-2017.pdf

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

Turner, John F.C. *Housing by People*. London: Marion Boyars Publishers, 2009.

Wall text, *Democracy,* Gandhi Ashram at Sabarmati, Ahmedabad, Gujarat.

Interviews:
The following Interviews with local residents were crucial to provide an understanding of the concerns of the people:

Residents in Baithi Chawls in Rahmat Nagar. Interview by Queenie Wong, Dennis Musalim, Sijia Wang, Saniya Patil and Sadhvi Vanjare. November 1, 2018.

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

Sumitra, Noel. Interview by Queenie Wong, Rafaela Ahsan, Craig Trompetter and Matthijs Verrijzer. November 3, 2018.

"#Envision2030 Goal 3: Good Health and Well-being," United Nations. https://www.un.org/development/desa/disabilities/envision2030-goal3.html

"#Envision2030 Goal 10: Reduce Inequalities." United Nations. https://www.un.org/development/desa/disabilities/envision2030-goal10.html.

"#Envision2030 Goal 11: Sustainable Cities and Communities." United Nations. https://www.un.org/development/desa/disabilities/envision2030-goal11.html

Models of Participation:
The following models of user participation and financing will be studied to define whose decisions and whose actions are involved in the process:

- Housing Cooperatives in India
- Public-Private Partnership models for affordable housing in India
- Co-housing in Vienna – Wohnprojekt Wien - Einszueins Architektur
- Open Building Concept in the Netherlands – Frans van der Werf

Project Case Study:
A few mixed-income housing projects will be studied to explore the different ways of integrating and separating different income groups. Additional projects that target a certain income group will also be studied to understand the aspirations of the different groups.

- Sriprastha, Nalasopara, Mumbai Metropolitan Region, India
  -> a reference of the original urban fabric and typology

- Baithi Chawl, Nalasopara, Mumbai Metropolitan Region, India
  -> a reference of the existing living environment of the Economically Weaker Sector and Low-Income Group

- Mid-rise Chawls, Nalasopara, Mumbai Metropolitan Region, India
  -> a reference of the existing living environment of the Economically Weaker Sector and Low-Income Group

- Gated Communities in Nalasopara, Mumbai Metropolitan Region, India
  -> a reference of the existing living environment of the Middle-Income Group

- Global City, Vasai-Virar, Mumbai Metropolitan Region, India
  -> a reference of the aspiration of High-Income Group

- Belapur, Navi Mumbai, India – Charles Correa
  -> mixed-income housing, equal opportunities for different income groups to expand

- Aranya Township, Indore, India - Balkrishna Doshi
  -> mixed-income housing, hierarchy of open spaces

- Molenvliet, Papendrecht, the Netherlands - Frans van der Werf
  -> mixed-income housing, private open spaces and accessibility to public spaces

Mixed-Income Housing and Aspiration Literature:
A few literatures are studied to understand the challenges and strategies of mixed-income housing and the trend of aspiration of income groups:

Duke, Joanna. "Mixed Income Housing Policy and Public Housing Residents' 'Right to the City." *Critical Social Policy* 29, no.1 (2009): 100-120.

Fraser, J and Michael H. Nelson. "Can Mixed-Income Housing Ameliorate Concentrated Poverty? The Significance of a Geographically Informed Sense of Community." *Geography Compass* 2/6 (2008): 2127–2144.

Joeph, Mark L. "Is mixed-income development an antidote to urban poverty?." *Housing Policy Debate*, 17:2 (2006), 209-234, DOI: 10.1080/10511482.2006.9521567

Kilburn, Daniel. "Conflicting Rationalities in the Politics of Design for 'Mixed Communities." *Academia.edu* www.academia.edu/7754727/Conflicting_Rationalities_in_the_Politics_of_Design_for _Mixed_Communities_.

Levy.D.K., McDade.Z, and Kassie Bertumen. "Mixed-Income Living: Anticipated and Realized Benefits for Low-Income Households." *Cityscape: A Journal of Policy Development and Research*, 15:2 (2013), 15-28.

Sengupta, Urmi. "New Frontiers and Challenges for Affordable Housing Provision in India." *Academia.edu - Share Research*, www.academia.edu/23770672/New_frontiers_and_challenges_for_affordable_housin g_provision_in_India.

Book of Patterns:
The key challenge is to create appropriate borders, or zones of exchange, among different income groups. The "Border" Book of Patterns from the research phase mentioned above will serve as an important knowledge base for the design.

C.3 _ Relevance
In this section, you should highlight the value of the graduation project in the larger social and scientific framework.
Note: This section should be no longer than 500 words: It can be a summary of parts of the problem statement.

      Income disparity, though extremely apparent in Mumbai, is also prevalent across India, and other areas in the global south, especially in places that are chasing economic growth while failing in keeping up the development of infrastructure and policies with population growth. This is not merely a matter of wealth distribution, but also a matter of spatial inequality, a matter of access to land, and open spaces. The failure in policy and urban planning to cater for the urban poor, the forced removal of existing settlements in the name of economic development, and the lack of user control in the redevelopment process are reoccuring patterns in Mumbai and many other developing cities. The conspicuous separation" between "gated communities of the privileged and ghettoized territories of the marginalized

people", as stated by PK Das, [20] can also be oberved at a global level. These acts of exclusions form pockets of ghettoization, which are breeding grounds of social tension, insecurity, violence, and psychological disorders. [21] [22]

By encouraging participation and equal access to open spaces, the project seeks an alternative to fragmentation by attempting to soften the harsh separation among income groups. The empowerment of the people aims to bring them closer to the 'Rights of 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.[23]

This response to the prevalence of spatial inequality aligns with Goal 10: Reduce Inequalities of the 17 sustainable development goals (SDGs) of the United Nations. [24] One of the targets of the goal is to "empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status" by 2030. [25] The project hopes to achieve social inclusion in terms of economic status, at the same time preserve the existing mix of religious groups in Sriprashta.

The emphasis on participation and inclusivity also resonantes with the Goal 11: Sustainable Cities and Communities. [26] Under this goal, UN targets to "ensure access for all to adequate, safe and affordable housing", "provide universal access to safe, inclusive and accessible, green and public spaces" and "enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries" by 2030, [27] which aligns with the goals of the project.

Hopefully, these efforts of the project would relieve the negative impacts of ghettoization to a certain extent, and thus lead to some form of contribution to Goal 3: Good Health and Well-being. [28]

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[20] Das, "A Run for Social Housing,"8.

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

[22] PK Das. Lecture (Delft, 2018)

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

[24] "#Envision2030 Goal 10: Reduce Inequalities," United Nations, accessed January 09, 2019, https://www.un.org/development/desa/disabilities/envision2030-goal10.html.

[25] Ibid.

[26] "#Envision2030 Goal 11: Sustainable Cities and Communities," United Nations, accessed January 09, 2019, https://www.un.org/development/desa/disabilities/envision2030-goal11.html

[27] Ibid.

[28] "#Envision2030 Goal 3: Good Health and Well-being," United Nations, accessed January 09, 2019, https://www.un.org/development/desa/disabilities/envision2030-goal3.html

C.4 _ Time planning

In this section, you should present a scheme of the division of the workload of the graduation project in the 42-week timeframe.
Compulsory in this scheme are the examinations at the middle and end of the semester, if required, the minors you intend taking and possible exams that have to be retaken.
Note: The submitted graduation contract might be rejected if the planning is unrealistic.

Month	Week			
SEPT	1.1	Visual Ethnography Method Development	Literature Review, Design Research and Projective Mapping	
	1.2			
	1.3			
	1.4			
OCT	1.5			
	1.6			
	1.7			
	1.8			
NOV	1.9	Ethnography Fieldwork in Mumbai		*Fieldtrip Start*
	1.10			
	2.1			*Fieldtrip End*
	2.2	Book of Patterns Mumbai	Problem Statement and Research Question	Design Hypothesis
	2.3			*P1 Presentation*
DEC	2.4			Preliminary Project: - Spatial Strategy - Organizational Model
	2.5			
	2.6			
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JAN	--			
	2.7			*P2 Presentation*
	2.8	Building Technology Research	Site Model	Architectural Development
	2.9			
FEB	2.10			
	--			
	3.1			
	3.2		Development Models	
MAR	3.3	Building Technology		
	3.4			
	3.5			
	3.6			
	3.7			*P3 Presentation*
APRIL	3.8			
	3.9	Detailing		
	3.10			
	4.1			
MAY	4.2			
	4.3			*P4 Presentation*
	4.4		Preparation of Presentation	
	4.5			
JUNE	4.6		Presentation Model	
	4.7			Presentation Drawings
	4.8			
	4.9			*P5 Presentation*
	4.10			Final Presentation and Reflection
JULY	4.11			
	5.1			

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