Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Beatrijs Kostelijk
Student number	4358627

Studio		
Name / Theme	Global Housing	
Main mentor	Harald Mooij	Dwelling
Second mentor	Stephan Verkuijlen	Architectural Engineering
Third mentor	Nelson Mota	Global Housing
Argumentation of choice of the studio	During my architecture studies, I have worked and studied on many different projects at different scales, most of them set in the context of the Netherlands. For me, the housing projects were the ones that stood out. In my opinion, being the architecture of the everyday, housing is at the core of the profession of architecture. It is a synthesis of different scientific fields such as sociology, economics, politics, building technology, ethics and aesthetics. It goes from the scale of the single unit to the scale of the neighborhood, including both architectural and urban design. Also, for my graduation project I wanted to explore doing a project set in a different cultural, economic and social context. The global housing project of designing social housing for the urban poor in the favelas of São Paulo seemed like the perfect challenge to me.	

Graduation project	
Title of the graduation project	A relational approach of living together: re-thinking social housing through assemblages.

Goal	
Location:	São Paulo, Brazil
The posed problem,	The rapid growth of cities and their adjustment to urban living has left many of Brazil's poorest behind. Although Brazil is not a poor country social inequality is obvious, as its society has one of the most inequitable distributions of wealth in the world, resulting in a

highly segregated society. In the city of São Paulo, approximately 10% of its population currently lives in some sort of urban precarity, usually associated with various informal living forms, such as cortiços, favelas, or other irregular settlements. Not only do the inadequate living conditions trigger the emergence of social, economic, and environmental challenges to those who live there, but also to the whole fabric of the city and its metropolitan extensions.

A segregated society is amongst other things regulated through space. The city of São Paulo is characterized by many material and immaterial boundaries that exacerbate segregation, creating strong artificial polarities, such as poor/rich, open/closed, safe/unsafe, modernity/tradition, natural/cultural, interior/exterior, public/private and center/margin. The conception of these binary oppositions in the city brings forth a highly exclusive, unequal and polluted city.

Urban space is produced through many simultaneous processes involving a multitude of human and non-human actors that all play key roles in the promotion -or opposition of inclusive cities. Instead of thinking in hierarchical terms of binary oppositions, assemblage thinking looks at reality through rhizomatic networks, acknowledging that the built environment is in a constant flux of change. This is what Deleuze calls *becoming-in-the-world*. In this constant flux of change lies the opportunity for social, economic and environmental change.

In response to the precarious living situations of the urban poor, the municipality of São Paulo has defined Special Zones of Social Interest (ZEIS) for the support of sustainable urban

	development of the city of São Paulo. In the Grajaú district, which is located in the southern periphery of São Paulo, several territories have been demarcated as ZEIS 4 (vacant land or properties in headwater or environmental protection areas).
	Projects developed on these ZEIS 4 areas so far have tried to address the social, economic and environmental challenges that come with the rapid urbanization process of the city, each in their own way. Some are developed top-down based on density and efficiency. Others bottom-up, based on individual needs and desires. In doing so they solve parts of the problem but fail to address the complexity of the social, economic and environmental problems and to acknowledge the entanglements of actors through space and time.
	Assemblage thinking is based on the central thesis that people do not act exclusively by themselves but instead rely on complex socio-material interdependencies, exchangeability, fluidity, and connectivity. It goes beyond binaries and instead looks at the interconnections between different actors, modes of settlement's production, and intersecting desires. I want to look at the possibility of designing a housing scheme through assemblages, to come up with a more inclusive and holistic solution.
research questions and	Main question: How may **assemblage thinking** in architecture and urban design contribute to creating an **inclusive housing scheme** in Grajaú, São Paulo? Sub-questions: - What is assemblage thinking in architectural and urban design? - How can assemblage thinking in architectural and urban design

	contribute to mitigating the **harsh transitions** and **binary oppositions** that characterize the urban conditions of Grajaú, São Paulo? - How can assemblage thinking enrich the **repair** and **consolidation** of urban spaces to improve the segregated, unequal and polluting ways of life of Grajaú, São Paulo?
design assignment in which these result.	The design itself must be an acknowledgment of the constantly changing nature of all entities and the relational ways in which these human and non-human entities interact and co-exist. It should consider the complexity of these interactions both internal and external to it and across scales. I want to approach the task of designing a social housing scheme as an (always productive) open system of environmental transformation (*becoming-in-the-world*) in which residents can incrementally adapt their territory according to cultural and social changes, in order to create inclusive spaces that enable simultaneous activities and allow for diversity. So, I want to design a more inclusive neighborhood through diversity, openness and adaptability of the built environment and its public spaces. In an age of fluidity, there is a need for design that offers a space for different entities that have been living together/apart, creating connections, transgressing borders and binaries, and reconfiguring urban atmospheres that promote co-existence.

[This should be formulated in such a way that the graduation project can answer these questions.
The definition of the problem has to be significant to a clearly defined area of research and design.]

Process

Method description

The research began with a comparative analysis of different housing case studies, comparing social housing projects in São Paulo with Dutch case studies. This was followed by a process of fieldwork, including site visits to the ZEIS 4 areas designated as project sites as well as the different social housing case studies and projects in the city of São Paulo. Through ethnographic research, we looked at the lived interactions in these sites and projects. I have translated my findings into a travelogue and used photography as the main means to register my visits. I also chose the methods of interviews with residents and architectural drawings as part of my methodology. Furthermore, I have done a contextual analysis of the site of my choice, which is Anchieta, as well as typological mapping of the different built forms on the Anchieta site.

I continued my research by establishing a theoretical framework concerning the main definitions that guide the project, such as assemblage thinking, *becoming-in-the-world* and (de/re)territorialization. This was done mainly by reading and writing. It was through this exercise that I arrived at the conclusion that mapping out the entanglements across space and time throughout Anchieta in an assemblage map would be the beginning of a practice of architecture through assemblages.

Segregation is not just present in the socio-material realm. Theory has also largely been dominated by segregation, as each discipline stands as an island on its own. To overcome this segregation in theory, I want to base my research on the relational approach of assemblage thinking. For the coming months, I intend to continue establishing a theoretical framework concerning the main definitions that guide the project. As I will have a relational approach to this project, I want to draw literature from different disciplines like philosophical inquiry, law, sociology, urban planning theory, economics, and political science as well as informal writings. I intend to continue to read and write to organize the theory in such a way that I can translate the ideas that ground the project into an architectural intervention that promotes the co-existence of heterogeneous elements. Thus, besides the assemblage map, I will also finalize a text that will serve as a theoretical backdrop for the ways in which the connections I have mapped are spatially organized.

An assemblage approach also presupposes the understanding of *becoming-in-the-world* as indissociable. This means that the architectural design itself will not only take the assemblages traced into consideration but will de- and reterritorialize some of them. It is in this reterritorialization that lies the opportunity for change. This will be the guiding principle of the design, meaning it should allow for a constant flux of change, promote diversity and having a certain openness that allows for incremental adaptability while at the same time being aware of its interactions with and impact on its environment. The way it connects to existing networks and flows and the way in which it responds to social, cultural and environmental context will be central to the exercise.

Literature and general practical preference

Ballantyne, A. (2007). *Deleuze & Guattari for Architects*. Routledge.

Bhan, G. (2019). Notes on a Southern urban practice. *Environment and Urbanization*, 31(2), pp. 639–654.

Caldeira, T. P. R. (1998). Fortified Enclaves. *Cities and Citizenship*, pp. 114–138.

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de Certeau, M. (1984). *The Practice of Everyday Life*. University of California Press, Berkeley.

Deleuze, G., Guattari, F., & Massumi, B. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia* (First edition). University of Minnesota Press.

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Dovey, K. (2013) 'Assembling Architecture'. In *Deleuze and Architecture.* University of Edinburgh Press. pp.131-148.

Dovey, K., & Ristic, M. (2015). Mapping urban assemblages: the production of spatial knowledge. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 10(1), pp. 15–28.

Easthope, H., Power, E., Rogers, D., & Dufty-Jones, R. (2020). Thinking relationally about housing and home. *Housing Studies*, 35(9), pp. 1493–1500.

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Haraway, D. (2016) *Staying with the Trouble: Making Kin in the Chthulucene.* Durham and London: Duke University Press, 2016.

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Latour, C., LaTour, C. D. S. D. L. B., & de Sociologie de l'Innovation Bruno LaTour, C. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory.* Oxford University Press.

Lefebvre, Henri, & Nicholson-Smith, D. (1992). *The Production of Space* (1st ed.). Wiley-Blackwell.

Radman, A. (2021). *Ecologies of Architecture: Essays on Territorialization*. Edinburgh University Press.

Richmond, M. A. (2018). Rio de Janeiro's favela assemblage: Accounting for the durability of an unstable object. *Environment and Planning D: Society and Space*, 36(6), pp. 1045–1062.

Sennett, R. (2018). *Building and Dwelling: Ethics for the City* (First American Edition). Farrar, Straus and Giroux.

Serapião, F. (2016). Linking the Formal and Informal: Favela Urbanization and Social Housing in São Paulo. *Architectural Design* 86 (3) pp. 70–79.

Shafique, T. (2021). Re-thinking housing through assemblages: Lessons from a Deleuzean visit to an informal settlement in Dhaka. *Housing Studies*, 37(6), pp. 1015–1034.

Vigliecca, H., Lizete R., and Luiz R. (2014). *The Third Territory: Collective Housing and City*, São Paulo: Vigliecca & Associados.

Weber, E. (2012). *Living Together: Jacques Derrida's Communities of Violence and Peace* (1st ed.). Fordham University Press.

For the development of the assemblage map, a vast range of sources was consulted and compiled, including but not limited to:

- Graduation report by Beatriz Mendes de Oliveira. (February, 2021). *Anchieta occupation: conflicts and experiences in the struggle for housing.* Urbanism and architecture faculty of the University of São Paulo.

- Report by students from Taubman College of Architecture and Urban Planning, University of Michigan. (August, 2017). *inFORMA Ocupação Anchieta: Housing and Environmental Conflicts in Informal Settlements.* The Regents of the University of Michigan.

- Official reports made by government agencies and NGOs

- Scientific articles about the history of the region

- Historical maps, drawings and paintings

- (historical) maps made available by Google Earth

- Georeferenced data made available by the national and state governments such as GeoSampa

Research I want to include into the assemblage map in the coming months are:

- Discoveries on the impact of informal settlements on the habitat of non-human actors such as plants, animals or other organisms and the contamination of the water from the *São Paulo Biodiversity Report,* (2008).

- Research locally available resources and materials, including soil composition.

Besides that, the references that have been guiding the architecture project so far are:

Conjunto Casarão Celso Garcia / Claudio Manetti e equipe.

Jardim São Francisco / Demetre Anastassakis.

Comuna Dom Helder Câmara / Grupo Usina.

Gleba A Heliópolis / Hector Vigliecca & associados.

Conjunto Habitacional Riachuelo / Paulo Bruna.

Parque Novo Sto Amarob/ Hector Vigliecca & associados.

Chácara do conde / JAA Arquitetos

Doedijnstraat, Schilderswijk (The Hague) / Alvaro Siza with G&S.

Zaaneiland, Amsterdam / Maccreanor Lavington.

Haarlemmerplein, Amsterdam / Dick van Gameren.

Waterdijk, Ypenburg (The Hague) / MVRDV.

Fenix II Rotterdam / Mei Architecten.

Het Open IJnde, Ijburg (Amsterdam) / MOPET & NAT Architecten.

Linear Park projects such as Cantinho do Céu / Boldarini Arquitetos Associados.

House in Pomar do Cafezal / Coletivo LEVANTE.

SESCs, Brazil / architects such as Lina Bo Bardi and Paulo Mendes da Rocha.

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

My graduation topic relates to the master track Architecture in the sense that it is a critical experience in approaching the built environment, understanding architecture as a particular way of *becoming-in-the-world* and acknowledging that built form isn't

just set in space, but also in time. It relates to the graduation studio Global Housing in addressing the many interrelated and entangled social, economic, and environmental challenges of the architectural and urban design of social housing in the Global South, which in this case is the city of São Paulo, Brazil.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

This graduation project is oriented towards social housing for the urban poor in the Global South through assemblages. Through assemblage thinking it is recognized that housing and home are always a coproduction of diverse elements, breaking with static, fixed, closed, instrumental and essentialist notions of place. Thinking relationally about housing allows for the awareness of the complexity of existing relationships and enables one to overcome simplistic dichotomies. It sees buildings and cities as embodying twofold concepts by looking at how things become entangled across space and time. In understanding these entanglements lies the opportunity for social, cultural and environmental change. The purpose of researching the assemblages in social housing in the global south is to gain new insights, perspectives, and narratives and in doing so, innovate the way we look at architectural and urban design and the way we interact with our environments.

It results in a design that is aware of the complexity of existing relationships and in that sense, it is a revision of the conventions of the discipline, proving that the skills acquired in architecture education are useful in investigations of the built environment beyond a design-oriented site analysis. Finally, it incorporates innovative and diverse theory that traditionally is not considered architectural, establishing thus new connections between ideas across different disciplines and attempting to expand the ways in which architecture can be studied and practiced.