

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	Sem van der Straaten
Student number	4652657

Studio		
Name / Theme	AR3MET105 Methods and Analysis Graduation Studio	
Main mentor	Jorge Mejia Hernandez	Aleksandar Staničić
Second mentor	Pierre Jennen	Aleksandar Staničić
Argumentation of choice of the studio	<p>The reasons for choosing the Methods and Analysis studio starts during my Bachelor Bouwkunde here at the TU Delft. Firstly, throughout the GR (Grondslagen) courses, I discovered the joy of analysing architectural projects and learning in different ways about the buildings around us. Secondly, with using various methods in the research and design process I believe that it helps situate a project stronger into its location and surroundings. Those are the reasons for choosing Methods and Analysis. With this studio I strive to enhance the ability to combine research and design closely in a project.</p>	

Graduation project	
Title of the graduation project	Re-envisioning New Belgrade's superblock neighbourhoods
Goal	
Location:	Block 26, New Belgrade
The posed problem,	<p>The posed problem consists of three elements:</p> <ol style="list-style-type: none"> 1. Non-human scale of superblocks <p>The first problem is the non-human scale of the superblocks. New Belgrade used the microdistrict concept, based on the Functional city, for the neighbourhoods of the superblocks. The problem is that these neighbourhoods are "too large to be a neighbourhood of the street, and too small to become a</p>

	<p>district.”¹, concludes Jacobs (1961). Besides the unclear scale of the neighbourhoods, the huge overall scale of the streets and public spaces makes it hard to relate and utilize for the occupants.</p> <p>2. Big dormitory // Separation of functions</p> <p>The second problem is the strict zoning in the masterplan of New Belgrade. In the nine central blocks of New Belgrade the central three blocks were planned for functions. Due to limited funding the cultural-, service- and office-spaces were never realised. The deviation of the original plan created “a settlement without basic urban services”², called the Big Dormitory.</p> <p>3. Change in community</p> <p>After the fall of socialist Yugoslavia and the privatisation of the real estate, the communities changed from a socialist setting to a market oriented post-socialist context. Blagojevic (2014) states that “the open common spaces were subdivided, privatized, and programmed for functions that had been lacking during the socialist period (business, retail, banking, gambling, and religion)”³. This underlines the importance of re-envisioning the socialist community in the post-socialist context.</p>
<p>research questions and</p>	<p>Main research question:</p> <p>How can the implementation of polyfunctional and human scale neighbourhood design affect the changing community of the post-socialist superblocks of New Belgrade?</p>

¹ Jovanovic, Predrag, and Ana Graovac, “Relation between planning and realization of open spaces in New Belgrade super-blocks: case studies of block 45 and 70.”, p. 245.

² Jovanovic, Predrag, and Stupar, “The Emerging Community Planning in the Super-Blocks of New Belgrade.”, p. 2.

³ Anica Dragutinovic, Uta Pottgiesser, and Wido Quist, “Self-Management of Housing and Urban Commons: New Belgrade and Reflections on Commons Today,” *Urban Planning* 7, no. 1 (March 31, 2022): pp. 267-279, <https://doi.org/10.17645/up.v7i1.4746>, 274.

	<p>Sub questions:</p> <ul style="list-style-type: none"> - What is the range of ratios and measurements before humans feel disconnected with the urban scale? - What are the common ways to achieve a polyfunctional design? - What aspects can affect the sense of community in the design of a neighbourhood?
<p>design assignment in which these result.</p>	<p>The design assignment entails urbanising the last unbuild superblock of the nine central blocks of New Belgrade. The project focusses on designing a new neighbourhood with the intention of solving the existing problems occurring in the surrounding superblocks. This work requires analysing the current New Belgrade's superblocks and similar precedents, analysing existing notions and examples of neighbourhood design, and implementing the outcomes of the used methods and analyses into a urban and architectural design.</p>
<p>Process</p>	
<p>Method description</p>	
<p>The design project focusses on the research question: How can the implementation of polyfunctional and human scale neighbourhood design affect the changing community of the post-socialist superblocks of New Belgrade? The graduation design aims to answer all the aspects comprised into a architectural design. The key aspects in the design project are the superblocks, polyfunctional design, human scale, neighbourhood design and the change from a socialist community to a post-socialist community. These aspects need research for a better implementation into the design.</p> <p>The functionalist superblocks of New Belgrade are one of many examples of the superblock. A comparative analysis of superblock precedents will give insight into techniques used for designing them and getting a grasp on the insane scale. The scale ties into the second research part, the human scale. A study of Perovic in 1985, shows the difference in urban scale of Old and New Belgrade. My morphological analysis of the streets in Belgrade during P1 again shows the inhuman scale of New Belgrade. An example is the study of Birgitte Svarre and Jan Gehl in the 'How to Study Public Life', concluding that humans in high rise lose connection with humans on the ground floor above 5 stories due to not being able to read their facial expressions. So the research into human scale design leads to design principles. Theoretical research into the range of ratios and measurements of human scale design will give handles for designing a human scale neighbourhood in superblock 26.</p>	

The project location of block 26 and the goal is to urbanise this last unbuild superblock out of the nine central blocks of New Belgrade. The surrounding blocks are based on the microdistrict concept. Research into notions and examples of neighbourhood types and design helps guiding the design for a new neighbourhood in the post-socialist superblock. Since the fall of socialist Yugoslavia and privatisation of the housing triggered change in the communities, that were based on socialist design. Analytical research into how these socialist communities were set up and the requirements for a functioning neighbourhood will positively affect the design of the new neighbourhood.

So, the research into the superblocks, polyfunctional design, human scale, neighbourhood design and the change from the socialist community will make the connection between research and design.

Reflection

Literature and general practical preference

Literature:

Arandelovic, Biljana, Milena Vukmirovic, and Nikola Samardzic. "Belgrade: Imaging the Future and Creating a European Metropolis." *Cities* 63 (2017): 1–19. <https://doi.org/10.1016/j.cities.2016.12.010>.

Blagojević, Ljiljana. "Back to the Future of New Belgrade: Functional Past of the Modern City." *Academia*, 2021, 1–8. https://doi.org/https://www.academia.edu/8576519/Back_to_the_Future_of_New_Belgrade_Functional_Past_of_the_Modern_City.

Bunjak, Ksenija, Mladen Pešić, and Aleksandar Kušić. "Post-Socialist Urban Development of New Belgrade: Old vs. New Building Typologies against the Backdrop of Current Climate and Ideological Changes." *New Urban Configurations*, 2014, 320–28. <https://doi.org/10.3233/978-1-61499-365-0-328>.

Cubex. "Conceptual Design for Blocks 25 and 26 in New Belgrade / Open Competition." *Cubex*, 2007. <https://cubex.rs/portfolio-item/conceptual-design-for-blocks-25-and-26-in-new-belgrade-open-competition/>.

Dragutinovic, Anica, Uta Pottgiesser, and Wido Quist. "Self-Management of Housing and Urban Commons: New Belgrade and Reflections on Commons Today." *Urban Planning* 7, no. 1 (March 31, 2022): 267–79. <https://doi.org/10.17645/up.v7i1.4746>.

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

Groat, Linda N., and David Wang. *Architectural Research Methods*. 2nd ed. Wiley, 2013.

Heeling, J., Han Meyer, John Westrik, and Sauren Eugène. *Het Ontwerp Van De Stadsplattegrond*. Amsterdam, Noord-Holland: SUN, 2009.

Jovanović, Predrag R., and Aleksandra B. Stupar. "The Emerging Community Planning in the Super-Blocks of New Belgrade." *URBAN DESIGN International*, 2021, 1–13. <https://doi.org/10.1057/s41289-021-00169-3>.

Jovanović, Predrag R., and Aleksandra B. Stupar. "The Emerging Community Planning in the Super-Blocks of New Belgrade." *URBAN DESIGN International*, 2021. <https://doi.org/10.1057/s41289-021-00169-3>.

Jovanovic, Predrag, and Ana Graovac, "Relation between planning and realization of open spaces in New Belgrade super-blocks: case studies of block 45 and 70."

Maric, Igor, Ana Nikovic, and Bozidar Manic. "Transformation of the New Belgrade Urban Tissue: Filling the Space Instead of Interpolation." *Spatium*, no. 22 (2010): 47–56. <https://doi.org/10.2298/spat1022047m>.

Meyer, Han, Frank de Josselin de Jong, and MaartenJan Hoekstra. *Het Ontwerp Van De Openbare Ruimte*. Amsterdam, Noord-Holland: SUN, 2006.

Schrenk, Manfred & Popovich, Vasily & Zeile, Peter & Milaković, Mira & Vukmirovic, Milena. (2011). *New Life of Modern Cities: Transformation and Renewal of Public Spaces in New Belgrade*.

Superblock Barcelona. "Superblocks to the Rescue: Barcelona's Plan to Give Streets Back to Residents," *The Guardian* (Guardian News and Media, May 17, 2016), <https://www.theguardian.com/cities/2016/may/17/superblocks-rescue-barcelona-spain-plan-give-streets-back-residents>.

UNdata. "Undata | Record View | City Population by Sex, City and City Type." United Nations. United Nations, February 11, 2022. http://data.un.org/Data.aspx?q=belgrade&d=POP&f=tableCode%3A240%3Barea-Code%3A0%3BsexCode%3A0%3BvarCode3%3A037350%3BvarCode4%3A000001#f_1.

Urban Planning Institute of Belgrade. "70 Years of Urban Planning Institute of Belgrade." 70 years of Urban Planning Institute of belgrade. Urban Planning Institute of Belgrade. Accessed July 5, 2022. <http://timeline.urbel.com/en/>.

Precedents:

Superquadra Sul 107, Brasilia, Brazil

Superblock (Superilla) Barcelona, Spain

Superblock Poblenou, Barcelona, Spain

Bijlmer, Amsterdam, The Netherlands

Barbican, London, United Kingdom

Diocletian's Palace, Split, Croatia

Dementia village, Weesp, The Netherlands

Kiefhoek, Rotterdam, The Netherlands

The lifted village, Shanghai, China (Competition)

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)?

Life, science, culture, history, philosophy, architecture and basically all things around us are constantly changing. The topic of designing a post-socialist neighbourhood in a pre-socialist surrounding, combined with the problems of non-human scale and strict zoning, affects the living environment. What is my position in this matter? Taking an architectural stand is the aim of the studio, and I am eager to fully develop and strengthen my stance.

Designing a well working neighbourhood, and in my case with the intention to establish a strong sense of community, links the project to the master track architecture closely. Reflecting back on my bachelor Bouwkunde here, I was mainly busy with the massing and the morphological design of building. During my master I noticed the qualities and the necessity of combining more layers to the design, from abstract philosophical concepts to the social structures that people show and need. Thus, with the studio Methods and Analysis and the topic of designing a post-socialist neighbourhood with a close community I hope to learn to find, see, analyse, utilize and personalize more layers of the build environment.

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

The research on designing a post-socialist neighbourhood will be based on the current knowledge about housing and notions on neighbourhood design. The aim is that this project is able to add about the knowledge of post-socialist neighbourhood design. The human scale and the transition from a socialist to a post-socialist community in the ever changing social, political, economical world asks rethinking and underlines the social relevance. Besides the profession of architecture, this project also is relevant for my personal goal of becoming a architect who builds upon and improves the living environment.