

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	Tessa van der Eng
Student number	4888057

Studio		
Name / Theme	Methods of Analysis and imagination	
Main mentor	Jorge Hernandez	Design/Architecture
Second mentor	Willie Vogel	Research/Architecture
Argumentation of choice of the studio	For years I've been interested in the topic of human scale. The problem to me with contemporary architecture is that with the emerging of large scale buildings this topic seems to be given no or less thought. I believe this studio provides the space to research the two topics and how it might be possible to have both large scale and human scale in one building.	

Graduation project	
Title of the graduation project	Reintroducing Human scale in large scale areas
Goal	
Location:	Tallin, Estonia
The posed problem,	Large scale buildings are structures that often stand apart, intended to be seen rather than experienced up close. Such buildings can stand as impressive markers within a cityscape but may do so at the cost of human scale.
research questions and	How can we (re)build in an area where human scale is lost to isolated large scale buildings? The main research questions can be answered by addressing a number of sub questions; <ul style="list-style-type: none"> - What are the parameters that influence human scale? - How do the large scale buildings in Tallinn lack human scale? - How can new architecture respond to an existing structure?

	<ul style="list-style-type: none"> - Which human scale parameters are the most important to consider when designing a large scale building and how can they be implemented?
<p>design assignment in which these result.</p>	<p>The design of a sport and leisure center, situated in a transitional zone of a small/medium scale neighborhood to a large scale industrial zone. Involving an existing large scale structure that is abandoned.</p>
<p>[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.]</p>	
<p>Process</p>	
<p>Method description</p>	
<p>The design process involves a literature review in the first phase. To answer “What are the parameters that influence human scale?”. By reviewing literature on human scale, we can pinpoint the factors that contribute to it—parameters that allow us to recognize the presence or absence of human scale in architecture.</p> <p>“How do the large scale buildings in Tallinn lack human scale?” is the next research question which will be answered with visual investigations such as mental maps, analytical drawings and diagrams.</p> <p>“How can new architecture respond to an existing structure?” is answered by analyzing case studies and formulating principles that can be applied to the design in a later stage.</p> <p>As result of the questions that are raised in the sketch phase of the design, certain parameters will be investigated by case studies and literature reviews that inform diagrams of design principles. The researched parameters are navigation, system in proportion and unique to repetitive. Findings will be compared and qualified in order to specify conclusions. The conclusions will be translated back to simple design principles that can be applied to the design of the sport and leisure center. This will answer “Which human scale parameters are the most important to consider when designing a large scale building and how to implement them in a large scale building?”.</p>	

Literature and general practical references

Mackesy-Buckley, A. H. (2012). Understanding Human Scale and the Importance of its Relationship with Enclosure. <https://doi.org/10.26686/wgtn.16999867>

Examines the concept of human scale and its role in architectural design, particularly how it interacts with enclosure in urban environments.

Ching, F. (1979). Architecture, form, space & order.

<http://ci.nii.ac.jp/ncid/BB18970529>

A foundational book on architectural design principles. It explores how form, space, and order are interconnected and how they shape architectural composition. Ching breaks down complex architectural concepts using clear diagrams

Leupen, B., Grafe, C., Kornig, N., Lampe, M., & De Zeeuw, P. (2010). Ontwerp en analyse. <https://repository.tudelft.nl/view/MMP/uuid:44f84c0e-ef73-4cfb-a47e-7713e9272565/>

a comprehensive exploration of architectural design processes and analytical methods. The book provides an in-depth look at how design can be broken down into parts for better understanding, focusing on the balance between form, function, and context in architecture.

Gehl, J. (2011). Cities for people. In Planning News (Vol. 37, Nummer 4, p. 6).

<https://archive.org/details/cities-for-people-jan-gehl/page/19/mode/2up?view=theater>

Book in urban design that discusses how cities and buildings can be designed with human scale in mind.

Corbusier, L. (1954). The Modulor: A Harmonious Measure to the Human Scale Universally Applicable to Architecture and Mechanics.

<https://ci.nii.ac.jp/ncid/BA53715125>

A scale and proportion system based on human measurements. The idea behind the Modulor is to align architecture and design more closely with human proportions, making spaces more comfortable and functional for users.

Proportion: Science, Philosophy, Architecture - Taylor & Francis, 1999

Guide to proportion systems in architecture, setting out the mathematical principles that underlie the main systems and illustrating these with examples of their use in historical and modern buildings.

Between Looking and Making: Unravelling Dom Hans van der Laan's Plastic Number - Caroline Voet

Delves into the architectural theories of Dom Hans van der Laan, particularly his concept of the "plastic number." This system of proportions aims to create a spatial order based on human perception and the intuitive understanding of sizes and relationships within three-dimensional spaces.

Precedents in architecture: analytic diagrams, formative ideas, and parts – R. H. Clark & M. Pause

Examines architectural precedents through the use of analytic diagrams. The book explores how historical and contemporary buildings are designed, focusing on their underlying formative ideas, design concepts, and structural organization.

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 projects considers two types of scale and how they can exist together in one architectural building, this resonates with the topic of the studio which is a matter of scale.

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

Human scale is a familiar term within architecture and related design disciplines, often used to describe buildings and spaces that prioritize the human experience. Architects and designers frequently emphasize human scale as a desirable quality. It's a concept that seems to resonate broadly, suggesting something essential about how we relate to the built environment around us. Yet, if designing with human scale is so beneficial, one might ask: shouldn't all buildings be designed with human scale in mind? Recognizing the importance of human scale in our built

environment is essential, especially as human scale seems to be more forgotten as result of developing technologies and growing cities. Large-scale buildings can feel disconnected from the everyday life of those who inhabit the city. This research seeks to develop a human-scale typology that addresses these challenges.