

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan P2

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.

Based on graduation manual, Master of Science Architecture, Urbanism & Building sciences, 2015-2016

Personal information

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Graduation Studio

Name / Theme	AR3AD131 Dwelling Graduation Studio: Dutch Housing Studio (2015-2016)
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Teachers	Pierijn van der Putt en Theo Kupers
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Argumentation of the choice of the studio

Housing is a basic need and a large worldwide assignment. One of the main reasons I chose to pursue my graduation thesis project in Dwelling is because here I can work on the curfew of where architecture and inhabitants come closest together in our field. The challenge of combining mass housing with a human scale on which every centimetre counts and effects our lives intrigues me.

Graduation Project

Title	The Buffering Boundary of two Narrative Neighbourhoods
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Goal

Location	Kattenburg, Amsterdam, Netherlands. 52°22N 4°55O
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The posed problem	<p>Amsterdam is facing population growth and pressure on the housing market. The centrally located neighbourhood of Kattenburg is the assigned place to densify 200%, responding to Amsterdam's trend of shrinking household sizes of on average 1,6 people per dwelling.</p> <p>Kattenburg today consists of a post-war originating monoculture of 85% social housing, yet inhabiting families who have been living there for over centuries. It is now, since the beginning of 2016, being threatened by the opening up and development of the marine terrain, a young people's innovation-oriented bordering neighbourhood. A large wall and freeway separates the rather characteristic, socially tied neighbourhood of Kattenburg with the marine terrain harshly. This division has kept Kattenburg</p>
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and the Marine terrain co-existing as two isolated entities for over 350 years. What will happen if this barrier is taken down? What influences will the marine terrain newcomers have on the surroundings? And will Kattenburg be able to maintain her character and identity, formed by centuries old stories of being home to 'De Bijltjes' and 'De Eilanders'? Additionally, the freeway, leading to nowhere, is incongruent with Amsterdam's biker friendly ambitions and her plans for a biking bridge to Noord. The need thus arises for a buffer zone between the marine terrain and Kattenburg, simultaneously providing a threefold *connection, reflection and protection* of both neighbourhoods. This buffer zone must engage with both neighbourhoods, serve as a place of exchange and interaction, slow down traffic, and house a large group of young people and facilities.

Research Questions	<p>How can the neighbourhood boundary serve as a buffer between bordering neighbourhoods, thereby reflecting, connecting and protecting both existing and new?</p> <p>How can neighbourhood stories be embedded into architecture, thereby contributing to this buffer function, serving as a reference to the past and an introduction to the future?</p>
Design Assignment	<p>The overall assignment consists of densifying 200% on Kattenburg, thereby keeping the existing intact as much as possible. Secondly, my personal research will consist of testing the opportunities of the neighbourhood boundary as a location to buffer the connections and interactions with the bordering marine terrain. The area consists of a 300m long strip of land with a width of 20m deep. This strip will be the location where the two neighbourhood identities collide, connect and interact. The area will house 200 dwellings, for students, young urban professionals, and couples based on top of a plinth of facilities, as workshops, cafés and a museum.</p>

Process

Method description

Methods to be used are: research by design. Additionally I will research stories to research the neighbourhood identities, build scenarios, mood boards, models, draw 3d impressions on street level (phenomenological studies), compare reference projects and typologies.

Literature and general practical preference

Buffer: In its array of meanings, a buffer can be a place of temporary storage, it can cushion impacts, it can be a solution to prevent changes (in PH), or be an application to manage social network accounts.

The notion of the neighbourhood boundary as the essential element to maintain neighbourhood characters, is based on the theory of Christopher Alexander. To him homogeneity in culture is a lack of variety of life styles, arresting the growth of individual characters. Yet perfect heterogeneity is

monotonous in the same way. On the other hand complete segregation of subcultures creates a city of ghetto's. Therefore Alexander pleads for a mosaic of subcultures, consisting of separate neighbourhoods, with subculture boundaries on which the interaction and exchange between these subcultures takes place. He uses the metaphor for neighbourhoods as cells of the body separated by cell walls. The cell wall preserves the functional integrity of the cell and also provides the multitude of interactions between the cell interior and the rest of the body, as for neighbouring cells.

Literature on Neighbourhood boundaries:

Alexander, C. 1977. *A pattern Language*. New York, Oxford university Press. I will use the Patterns: 8, 13, 14 and 15. Respectively Mosaic of subcultures, Subculture Boundary, Identifiable neighbourhood, Neighbourhood Boundary.

Lynch, K. 1960. *The image of the city*. Cambridge MA: MIT press.
Literature on Paths, Edges, Districts, Nodes and Landmarks,

Coates, N. 2012. *Narrative Architecture*. London: Wiley

Built References:

Historical: Pulteny Bridge, Bath, 1774; London Bridge, 1209;
Ponte Vecchio, Florence, 1774; Notre Dame, Paris, 1507.

Contemporary: Kubuswoningen Rotterdam, Blom, 1984;
IM viaduct, Zurich; Viaduct Berlin;

Unbuilt/theoretical: Steven Holl's Bridgehouses; Plan for Hamburg Hafen City

Reflection

Relevance

Densification and transformation of post-war neighbourhoods is a hot topic in our big cities at the moment, due to migration to the city and population growth. Both densification and transformation imply change and addition of dwellings, types and thereby people and target groups to an existing community. I believe that research on structuring the boundaries between clashing neighbourhood identities and how to house different target groups tactically is essential to create a harmonious city. Densification on boundary peripheries could provide a solution, using certain typologies, target groups and architecture as a buffer between subcultures and maintaining neighbourhood identities. Using the neighbourhood boundary as buffer function of where stories come together and neighbourhood identities meet enables a diverse mosaic of subcultures in the city and avoids homogenization and segregation.

Time Planning

A scheme of the division of the workload of the graduation project in the 42-week timeframe is given on the next page. Examinations at the middle and end of the semester are given in yellow, with products required. Work load is expressed in blue saturations, from light blue (light work load) to dark blue (high load).

M3 week	3.1-3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10
Research seminar Tutorial Analysis Design	inlezen		probleemstelling/ hoofdvraag/ methode					
	inlezen/archief		onderzoeken casestudy 4 projecten					
			demografie analyse					
			layouten					
								P1

M3 week	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9
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Research sem. Tutorial Analysis Design	Presenten	hoofdstuk 3 en 4							
	feedback	hoofdstuk 1 en 2		draft					
	idee diagram	references	ontsluiting	maquette	diagrammen	Schouw	layout	P2 16-6 13-45	
					ontsluiting circulatie openbare ruimte	data urban plan section typologies	impressies typologies diagrams target groups story	maquette urban plan diagrams sections fragments story	

Summer	M4 week	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
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Design revit model research stories	feedback								
	design exploration	plans		plans		presentation			
	typologies development	section	circulation	section	plans	site	model	plans	p3
	circulation	facade		diagrams	section	site	section	facades	
	research stories	axo	facade	reflection	3ds	axo	building part	sections	
							1:50 section	detail concept	

M4 week	1.9	1.1	2.1	2.2	2.3	2.4	2.5	2.6	2.7-2.9	2.10
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Design feedback	design development: overall scheme	design detailing, plans, sections		model		feedback				p5
	detailed plans, models, section, details	axos, 3ds, facade, 1:5, 1:20, storyline		finalize presentation		finalizing material				theoretic support
						site 1:1000	plan 1:500	plans, elevation	theoretic reflection	final reflection
						1:50 section	1:20 fragment	details 1:5	site 1:1000	plan 1:500
						axo	3d		plans, elevation	plans, elevation
									1:50 section	1:50 section
									1:20 fragment	1:20 fragment
									details 1:5	details 1:5