

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

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

Personal information	
Name	Roel Vogels
Student number	4004035
Telephone number	+31 (0) 6 13 58 23 09
Private e-mail address	r.a.l.vogels@student.tudelft.nl

Studio	
Name / Theme	ExploreLab
Teachers / tutors	Elise van Dooren (Research), Robert Nottrot (Design), Hubert van der Meel (Building Technology), Daan Vitner (External Tutor)
Argumentation of choice of the studio	ExploreLab gave me the freedom to explore my fascination of the relation between architecture and its natural surroundings in both research and design projects.

Graduation project	
Title of the graduation project	Rediscovering the relations and balances between architecture and its natural surroundings
Goal	
Design Location	Wallertuin, Delft, Netherlands
The posed problem	<p>Research:</p> <p>Architecture creates harsh boundaries between inside and outside. The expansive natural surroundings stop abruptly at the façade of every building, while these natural surroundings are framed by only a few openings with glass from within.</p> <p>Design:</p> <p>'De Wallertuin' will be an overgrown plot of nature, closed off from the public, right next to the old city center of Delft. While the owner Chris Oomen hasn't yet received all permits to turn the plot into a beautiful city park, the municipality of Delft doesn't have the opportunity to build on the plot. Because the park remains closed, residents of Delft cannot use it for recreational purposes and conservation organizations have a difficult time to regulate and observe all rare and protected species.</p>

Research question	The research answers the question on how the relation and balances between architecture and its natural surroundings can be rediscovered.
Design assignment in which these result.	The design for a great public park like owner Chris Oomen had in mind, right next to the old city center of Delft. In the park there will be room for multiple houses that blend into the natural surroundings and thus have minimal impact. The park and the houses will provide sufficient space for all animal- and plant life that is labeled rare or protected by conservation organizations. With this design project, this desires of the owner, the municipality of Delft, the residents of Delft and the conservation organizations will all largely be met.
<p>Relation Research & Design:</p> <p>The main research result is that new relationships and balances between architecture and its natural surroundings can be rediscovered when following at least 1 of 11 unique methods, or categories. The houses in the park will be designed with these 11 categories so that they blend in seemingly with the park and have minimal impact on their natural surroundings. This way the houses don't disturb the park atmosphere and natural ecosystems.</p>	
Process	
Method description	
<p>Research:</p> <p>The research covers plan-analyses of 22 precedents. The precedents that have been selected incite new relationships and balances between architecture and their natural surroundings. The plan-analyses are divided into 4 categories: site, form, function and material. Within these categories the new relationships and balances between architecture and their natural surroundings are identified using images, diagrams and text.</p> <p>Design: See Timeline</p>	
Literature and general practical preference	
<p>The 22 precedents which have been analyzed are:</p> <ol style="list-style-type: none"> 1. Air Lifts Camp 3 – Giovanni Pesamosca 2. The Hunting Lodge / House Elidaey – Elidaey Hunting Association 3. Invisible Barn – STPMJ 4. Mirrored Treehouse Hotel – Tham & Videgard Arkitekter 5. Villa Vals – seARCH & CMA 6. Cappadocia Tree Houses – Unknown 7. Grace Farms – SANAA 	

8. Teshima Art Museum – Ryue Nishizawa, Rei Naito
9. Sandworm – Marco Casagrande
10. Norwegian Wild Reindeer Center Pavilion – Snohetta
11. Breathe / Austria Pavilion Expo 2015 – team.breathe.austria
12. House N – Sou Fujimoto
13. La Trufa / Truffle – Ensamble Studio
14. Auerworld Palace – Marcel Kalberer, Sanfte Strukturen
15. Villa Capra / Villa Rotonda – Andrea Palladio, Vincenzo Scamozzi
16. Casa Flotana – Benjamin Garcia Saxe
17. ICD ITKE Research Pavilion – ICD / ITKE University of Stuttgart
18. Metropol Parasol – J. Mayer H.
19. Kanagawa Institute of Technology (KAIT) Workshop – Junya Ishigami
20. Japan Pavilion Venice Expo 2008 – Junya Ishigami
21. Itabu Toilet – Sou Fujimoto
22. Floating Sauna – Marco Casagrande

As the research method is comprised of case studies only, no literature was consulted.

Reflection

Relevance

Research:

Although a lot has already been written on the relationship between architecture and its natural surroundings, a clear overview that identifies these relations has not been made yet. The goal of this overview is to create a collection of references from which architecture can be created which stands in a closer relationship with its natural surroundings.

The overview can stimulate architects to start creating new architectural relationships between architecture and its natural surroundings and can act as a frame of reference to create architecture that re-envision the relation between inside and outside.

Design:

'De Wallertuin' is an enclosed and unique plot of land that offers huge opportunities for the city of Delft. But because the owner of the land and the municipality of Delft keep thwarting each other and cannot agree on the future of the park, the park remains closed to the public. Due to their indecisiveness, the enormous potential of the park remains unexploited.

Time planning

See next page.

Course Week	Calendar Week	First Day of Week	Deadlines & Presentations	Research Deliverables	Design Deliverables
2.8	2	11 Jan	P2, GO/NO GO	1. Full research paper text without diagrams, illustrations and figures 2. Research results on A1 posters 3. Preliminary Design for research booklet.	1. Design proposal 2. Location Introduction and History 3. Problem Statement 4. Relevance 5. Relation Research & Design. 6. First design sketches.
2.9	3	18 Jan		1. Research results on A1 posters 2. Research overview in diagrams 3. Full research paper with diagrams, illustrations and figures in research booklet.	1. Location Analysis, + model (1/500) 2. Concept Diagrams 3. Preliminary Design: Floorplans, sections, facades (1/200), Urban Concept (1/500), Architectural Concept (1/200)
2.10	4	25 Jan		See week 2.9	See week 2.1
	5	1 Feb			
3.1	6	8 Feb	Final Registration P3 Presentation	See week 2.9	See week 2.1
3.2	7	15 Feb		See week 2.9	See week 2.1
3.3	8	22 Feb		See week 2.9	Elaborate Deliverables P2. Start: Concept Architectural Drawings (1/100), Concept Partial Section and Floorplan (1/50) Concept Horizontal and Vertical section of elevation (1/20), Concept Details (1/5)
3.4	9	29 Feb		See week 2.9	See week 3.3
3.5	10	7 Mar		See week 2.9	See week 3.3
3.6	11	14 Mar		See week 2.9	See week 3.3
3.7	12	21 Mar	P3 Presentation, Final Registration P4	Final Research. 1. Research results on A1 posters 2. Research overview in diagrams 3. Full research paper with diagrams, illustrations and figures in research booklet.	Concept Poster Configuration, Preliminary Design: Concept Diagrams, Urban Situation Drawing (1/1000), Floorplan in Urban Situation (1/500), Concept Architectural Drawings; Floorplans, Sections, Elevations (1/100), Concept Partial Section and Floorplan (1/50), Concept Horizontal and Vertical section of elevation (1/20), Concept Details (1/5), Final Research Report: Manifesto
3.8	13	28 Mar	P3		Final Poster Configuration
3.9	14	4 Apr			Elaborate Deliverables P3. Start: Concept Models (1/1000, 1/100, 1/50), Concept Renderings
3.10	15	11 Apr			See week 3.9
4.1	16	18 Apr			See week 3.9
4.2	17	25 Apr			See week 3.9
4.3	18	2 May			See week 3.9
4.4	19	9 May	P4, GO/NO GO, Final Registration P5; deadline 22 May	Final Research. See week 3.7	Final Poster Configuration, Final Design: Concept Diagrams, Urban Situation Drawing (1/1000), Floorplan in Urban Situation (1/500), Architectural Drawings; Floorplans, Sections, Elevations (1/100), Partial Section and Floorplan (1/50), Horizontal and Vertical section of elevation (1/20), Details (1/5), Concept Models (1/1000, 1/100, 1/50), Concept Renderings, Final Research Report: Manifesto
4.5	20	16 May			Finetune P4 Deliverables, Finish Models & Renderings, Build Presentation
4.6	21	23 May			See week 4.5
4.7	22	30 May			See week 4.5
4.8	23	6 Jun			See week 4.5
4.9	24	13 Jun			See week 4.5

4.10	25	20 Jun	P5	Final Research. See week 3.7	Final Presentation of Final Design: Concept Diagrams, Urban Situation Drawing (1/1000), Floorplan in Urban Situation (1/500), Architectural Drawings; Floorplans, Sections, Elevations (1/100), Partial Section and Floorplan (1/50), Horizontal and Vertical section of elevation (1/20), Details (1/5), Models (1/1000, 1/100, 1/50), Renderings Final Research Report: Manifesto
4.11	26	27 Jun	P5		