msc 3 & 4 - Heritage & Architecture

graduation plan

Freek Lindeman | 4178211 | 20.10.2014 | dr. ir. H. Zijlstra

personal information

name	Freek Lindeman
student number	4178211
address	Balthasar van der Polweg 186
postal code	2628AX
place of residence	Delft
telephone number	+31 6 344 86 399
e-mail address	f.lindeman@student.tudelft.nl

studio

graduation studio	AR3AR111 - Heritage & Architecture (autumn 2014-2015)
theme	Technology & Heritage
project	Van Gendthallen, Amsterdam
teachers	ir. Job Roos - mentor Architecture dr. ir. Wido Quist - mentor Building Technology dr. ir. Hiekje Zijlstra - mentor Research ir. Annette Marx - guest mentor architecture
Argumentation of choice of the studio	The reuse of existing buildings, monuments, structures. The choice for the chair of Heritage & Architecture is mainly driven by my fascination for the reuse and transformation of industrial heritage. The current time demands for more consciousness on the value of building. Also due to the economic crisis, it isn't obvious anymore to erect new buildings without looking at the value of the existing building stock. With creative innovations in design it is possible to transform an existing building and preserve the building in a durable way. This is not only the cases for monuments, but also industrial site or even structures provide possibilities for a new use.

title

title of the graduation project	Art (school) by transformation

product

problem statement

Located on Oostenburg, one of three islands of the Oostelijke Eilanden, an adjacent district to Amsterdam's city center, are the Van Gendthallen.

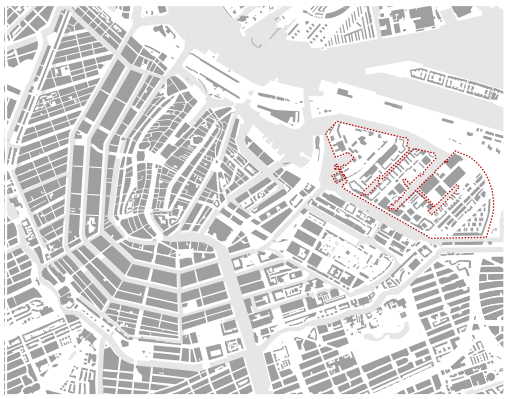

fig. 1: Oostelijke eilanden related to the city center of Amsterdam, the Netherlands
drawing: Kaartenkamer TU Delft
edited: F. Lindeman

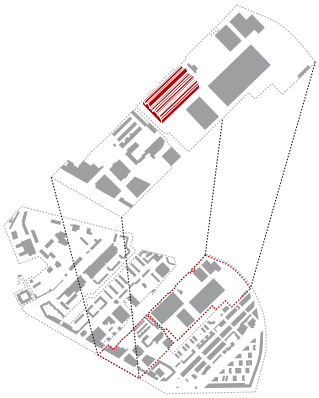

fig. 2: Oostenburg and the Van Genthallen related to the Oostelijke eilanden
drawing: Kaartenkamer TU Delft
edited: F. Lindeman

At the end of the 19th century the Van Gendt brothers, well known architects in the city of Amsterdam, got commissioned to design three new factory halls for the company Werkspoor. The construction of the new production facilities, for the ship engines, started in 1897. Due to the mayor contracts the fifth hall was partly added a few years after. During a second expansion of the ensemble the fourth hall was built in between the new erected halls, in 1905. After a fire in 1922, which destroyed both expansion, the two halls were reconstructed and the building got its current shape.

The Oostenburg island has always been an industrial area, which dates back to 1660 when the Dutch East India Company establish here their shipyards and warehouses. At the beginning of the 19th century the predecessor of Werkspoor is founded and opened their workshops on the former DEIC site. The workshops and factory halls cover more than half of Oostenburg island when the factory is closed around 1995. The Van Gendthallen are abandoned for years and become listed national monuments, to preserve the buildings for the future.

fig. 2: Van Genthallen, view from Wittenburg, date unknown
photos: Beeldbank Amsterdam, item 010003014009 & 010003014004
edited: F. Lindeman

Since 2003 the building and surrounding plots are owned by a housing corporation. It is the start of the search for a new function for the old production halls. At the moment the different halls are rented out to different temporary users.

Last year, in May 2013, the city government of Amsterdam and housing corporation announced their vision on spatial planning on Oostenburg Island. The Van Gendthallen will be in the center of the urban development. The redevelopment and transformation of the Van Gendthallen, with a permanent new function, will play a key role in the success of the urban development.

goal

Oostenburg island has been always an industrial site. The reuse and transformation of the Van Gendthallen will have impact on the identity of Oostenburg. Because of its isolated location the new users should be attracted from the neighboring islands and the city of Amsterdam. By opening up this industrial site for the public and make it into a vibrant area an attractive function is required.

The graduation project will focus on transformation and reuse of the Van Gendthallen and the revitalization the former industrial island. I would like to investigate the possibilities to realize the mentioned goals with the function of a School of Arts. The thematic research on the feasibility of such a function will be the starting point for the design investigation on different scale levels. The final result will be the best urban strategy and

integrated architectural design, according to the investigation, which secures the listed building for the future.

research question

How can a School of Arts, which has a very specific target group and introvert character, contribute to the revitalization of the Van Gendthallen, Oostenburg and the district Oostelijke Eilanden?

Subquestions:
- What is the contribution of a School of Arts for the city?
- Are factory halls, like the Van Gendthallen, suitable to be reused and transformed to house an educational function?

process

method description

The project can be divided in three parts, analyses, thematic research and design. All three parts are interconnected throughout the graduation:

- analysis
  The analysis will be divided in the *site* and *building analysis*. The *site analysis* will focus on specific aspects of the context of the Van Gendthallen, on different scale levels and in the past, present and future. The aspects are for example morphology, function, infrastructure and demographics.

  The *building analysis* will focus on the architecture and the building technology of the Van Gendthallen. The investigation on structure, façade, materials and building physics in relation with its history should give insight in the values of the different elements. The result of the analyses will be a value assessment of the Van Gendthallen.

- thematic research
  The thematic research should give insight into the different topics which arise from the research question, with the objective to provide some starting points for the design assignment. The research will be based on literature and case studies, by combining them the literature will be linked with the architectural practice. The case studies will be selected on the basis of relevance for answering the research question, in which situation of building and context are related to the Van Gendthallen and Oostenburg.

- design
  The analyses and the thematic research will form the starting point for the program of possibilities, the starting point of the design assignment. During the process the design will be reflected on the thematic research and analyses. The reflection gives the opportunity to readjust the design, the goals and research conclusions.

Literature and general practical preference

General literature:

- Brand, S. (1994). *How buildings learn; what happens after they're built*. New York: Viking.
- Stroux, S., & TU Delft Faculteit Bouwkunde RMIT. (2011). *Recomomo hoe echt is namaak, hoe dierbaar het origineel?* Delft: Publicatiebureau Bouwkunde.
- Findley, L. (2005). *Building Change Architecture, Politics and Cultural Agency Online resource*. Hoboken: Taylor and Francis.

During the research more literature will be added to the list, and will be finalized before the P2.

Thematic research:
- Booijink, A., & Krijnsen, M. (2009). *IJzer en lef: het nieuwe leven van een oude gieterij*: ROC van Twente/Boekhandel Broekhuis.

During the research more literature will be added to the list, and will be finalized before the P2.

reflection

relevance

As stated, in the choice for this graduation studio, the building environment is changing. The reuse and transformation of (old-)/ unused buildings will become one of the main approaches in architecture.

The context of the Van Gendthallen is very interesting, because it is comparable to lots of former industrial heritage sites in the Netherlands. These industrial sites were built at the edges of cities and were encapsulated within the expanding city during the last century. Nowadays there is barely any heavy industry left, or industries left the inner cities again. The abandoned areas become vacant islands in the city, but offer a lot of potentials for future development without demolishing the existing buildings. This graduation project could be a showcase for the redevelopment of a former industrial area in an inner city.

planning

The graduation is examined during five presentation moment (P1-P5). To take advantage of a planning it should realistic, so preceding each period a new detailed planning will be made. The planning

Besides the graduation project, I have to finish my history thesis (AR2AR010) before the first presentation moment.

The list below shows the products that has to be delivered at the presentation moments:
- P1 (28 October 2014)
  - thematic research
    - Research Rapport (RP)
  - analyses
    - Analysis (to Design) (AD *draft*) - Architecture and Technology
  - design
    - Program of Possibilities (PoP)
- P2 (19-23 January 2015)
  - thematic research
    - position paper (= PP)
  - analyses
    - Analysis (to Design) (AD) - Architecture and Technology
  - design
    - urban design (*draft*) - 1:1000/ 1:500
    - concept design (CD) - plans, sections and elevations 1:200

- P3 (30-31 March - 1-3 April 2015)
  - design
    - Overall Design (OD) - Architecture and Technology - plans, sections and elevations 1:200/ 1:100, façade fragment 1:20, details 1:5
- P4 (11-15 May 2015)
  - design
    - Elaborated Design (ED) - Architecture and Technology – plans, sections and elevations 1:200/ 1:100, façade fragment 1:50, details 1:5
    - Reflection Paper (RP)

- P5 (22-26 June 2015)
  - design
    - Final Design (FD) - Architecture and Technology – plans, sections and elevations 1:200/ 1:100, façade fragment 1:50, details 1:5
    - Graduation Report (GR)

wk 1.05 (44)	Monday 29.09	Tuesday 30.09	Wednesday 01.10	Thursday 02.10	Friday 03.10	Saturday 04.10	Sunday 05.10
	group analysis (technology)	site visit and group analysis (technology)		tutoring graduation plan	thematic research	group analysis (technology)	
			graduation plan	lecture		work	group analysis (technology)
					group analysis (technology)		

wk 1.06 (45)	Monday 06.10	Tuesday 07.10	Wednesday 08.10	Thursday 09.10	Friday 10.10	Saturday 11.10	Sunday 12.10
	group analysis (technology)	group analysis (technology) thematic research	group analysis (technology)		group analysis (technology)		graduation plan (edit)
		presenting analysis (technology)		lecture		work	
	thematic research			concert			graduation plan

wk 1.07 (46)	Monday 13.10	Tuesday 14.10	Wednesday 15.10	Thursday 16.10	Friday 17.10	Saturday 18.10	Sunday 19.10
	group analysis (technology) thematic research	group analysis (technology) tutoring - Jan Arends	group analysis (technology) thematic research	group analysis (technology) thematic research		thematic research	
		tutoring		lecture		work	
					history thesis		matchday
					theme research	Analysis (to Design)	Analysis (to Design)

wk 1.08 (47)	Monday 20.10	Tuesday 21.10	Wednesday 22.10	Thursday 23.10	Friday 24.10	Saturday 25.10	Sunday 26.10
	thematic research	thematic research	thematic research	thematic research	thematic research P1 preperations	Program of Possibilities	P1 preperations
		tutoring		lecture	Program of Possibilities	P1 preperations	
	Analysis (to Design)						
		Analysis (to Design)	Analysis (to Design)	Analysis (to Design)	Analysis (to Design)	Analysis (to Design)	

wk 1.09 (48)	Monday 27.10	Tuesday 28.10	Wednesday 29.10	Thursday 30.10	Friday 31.10	Saturday 01.11	Sunday 02.11
	P1 preperations	**P1** - Analysis (to Design) (AD *draft*)					
	P1 preperations	- Research Report (RR)				work	
	P1 preperations	- Program of Possibilities					

Research
Heritage & Architecture - Theme research
Lecture Series Reseach Methods (AR3AR160)

Analysis
Group analysis (technology)
Analysis (to Design)

Design

Other
Tutoring (AR3AR111)
History Thesis (AR2AR010)