

# **Graduation Plan**

## **Heritage & Architecture**

MAXWELL LINSTRA - 4012429

J. Roos, N. Clarke, M. Kuipers, H. Plomp

### **Personal Information**

Name	Maxwell Linstra
Student number	4012429
Address	Rivierstraat 32
Postal code	3016CH
Place of residence	Rotterdam
Telephone number	+31 6 83 17 46 87
E-mail	<a href="mailto:max.linstra@gmail.com">max.linstra@gmail.com</a>

### **Studio**

Theme	Heritage and Architecture
Title of Project	Project Westfort
Location	Pretoria, South Africa
Teachers	1st Mentor Architectural Design ir. Job Roos 2nd Mentor Building Technology Design Nicholas Clarke 3rd Mentor Cultural Value Prof dr. Marieke Kuipers 4th Committed guest teacher ir. Huib Plomp
Argumentation	Great opportunity to learn from architecture in other parts of the world and try to use our knowledge to work in other boundary conditions.

## **Product**

### **Problem Statement**

#### The posed problem

Westfort is an old leprosy institute build in the late 19<sup>th</sup> century by Dutch Architects Sytze Wierda and Klaas van Rijse. Several years ago the institute got abandoned and squatters took over the place. Nowadays Westfort houses around 4000 residents living in primitive conditions and lack of living facilities as water, electricity and sanitary. Due the lack of building maintenance, decay is dominating the positive input from some residents. Besides that, this historic isolated institute is endangered by the urban expansion of the city Pretoria. Westfort, historically always located far outside of the city, is becoming a part of the city as the urban sprawl is slowly surrounding it. The main problem is that these urban expansions are designed without any urban context relevance towards Westfort. This could result in Westfort losing its identity and thereby its historic value.

#### Design assignment

Which method can be used to transfer the heritage of Westfort into a positive HUB for the less affluent western part of the city Pretoria, keeping in mind that the urban sprawl is slowly but surely coming over to swallow Westfort as a part of the city?

#### Research question

Which link can be made between the minimal standardisation of low cost labour and social housing and the health of the user during the urbanisation history of South Africa?

#### Research sub-questions

- Who maintained and ran these facilities, government / public / private input?
- How did they come up with these minimal standards?
- What were the health standards during that time of history?

## **Goal**

#### Design

Westfort is located in the less affluent part of the city Pretoria. The aim for this project is to redesign Westfort into a new centre for this part of the city to generate working conditions and social cohesion for newcomers of the city and the neighbourhood. This means redesigning an institute, which was historical always isolated and only accessible for patients and staff, into an open centre for everyone. To generate working conditions and social cohesion I want to involve a national issue by redesigning a big part of Westfort into an asylum centre, or as I would call them the newcomers of the city Pretoria. Mixing the users of Westfort will create a place for knowledge exchange, a starting base for the new residents of the city, economical productivity and will therefor result in more affluent city in total.

#### Research report

The goal of the research report is to understand the new surrounding urban context of Westfort. To understand the surroundings we have to look back in to the history of these urban areas. This could result in a better anticipation on the tension of the border between the new city and the historical isolated leprosy centre. Besides that the historical knowledge could result in a more historical respectful design for the users. Leading up to the P2 presentation, the design and the research report changed several time resulting in almost individual projects that don't really match each other anymore. I still think the research report is an interesting way to understand more about the surroundings of Westfort, but it could be possible that this knowledge won't be useful for the design assignment. But that we will see in the subsequent process.

## **Process**

### **Methods**

- Literature research
- Case studies
- Housing plan analysis

### **Description**

The research report will be based on a theoretical framework that will be gained by doing intensive research and analysing. I choose to focus on the new surroundings of Westfort instead of the leprosy centre itself. Therefore this research will focus on the history low cost housing in South Africa. The research will consist of 3 studies of low cost labour and social housing during the urban history of South Africa. These, sometimes dark, historical changes in the urbanisation of South Africa are still visible in the urban context, and could be called dark heritage.

- (1880) Diamond mining compounds & (1885) Gold mining compounds
- (1950) Non-European 51/9 housing (Apartheid)
- (1994) Reconstruction and Development housing project (RDP)

All these individual studies consist out of a prominent case study. Within these low cost housing several changes were made on the minimal standardisation. This usually had to do with health reasons. Therefore this research will analyse which effect these minimal standards had on health and how these investigators came up with these standards.

## Literature

- Calderwood, D. M. (1955). *Native Housing in South Africa*. Cape Town, Cape Times.
- Calderwood, D. M. (1964). *Principles of Mass Housing*. Pretoria, South African Council for Scientific and Industrial Research.
- Chipkin, C. M. (1993). *Johannesburg style, Architecture and Society*. Cape Town, David Philip Publishers.
- Chipkin, C. M. (1998). *Preparing for Apartheid: Pretoria and Johannesburg. Architecture from the transvaal*. Pretoria, UNISA.
- Dewar, D. (1998). *Settlements, change and planning in South Africa since 1994. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Japha, D. (1998). *The social programme of the South African Modern Movement. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Jeppie, S. (1998). *Interiors, Distrixt Six, c. 1950. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Labuschagne, E. (1998). *From Trekboer to Builder: Pioneer Builders: Materials, Techniques, Traditions, Types. Architecture of the Transvaal*. Pretoria, UNISA
- Low, I. (1998). *Building and self-reliance. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Morojele, M. (1998). *Towards an architecture of empowerment. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Minkley, G. (1998). *"Corpses behind screens": Native space in the city. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Owen Crankshaw, S. P. (1998). *Interpreting the 1994 African township landscape. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam, NAI.
- Robins, S. (1998). *Bodies out of Place: Crossroad and Landscapes of Exclusion. Blank: Interrogating Architecture After Apartheid*. I. V. Hilton Judin. Rotterdam NAI.
- Roger C. Fisher, S. L. R., Estelle Maré (1998). *Architecture of the Transvaal*. Pretoria, UNISA.
- Roux, F. E. I. (2011). *Tge provision of low-cost housing in South Africa: A wicked problem with a systems theory solution*. Stellenbosch, the University of Stellenbosch.
- Greyling, C. (2009). *The RDP housing system in South Africa*. Pretoria, University of Pretoria.
- J.S. Harington, N. D. M., E.Z. Chelkowska (2004). *"A century of migrant labour in the gold mines of South Africa."* *The Journal of The South African Institute of Mining and Metallurgy*.
- Wasserfall, J. (1989). *Early mine and railway housing in South Africa*. Cambridge, University of Cambridge.
- Turrell, R. (1984). *"Kimberlys model compounds."* *Journal of African History* **25**.
- Sullivan, M. (2013). *"Sixteen tons": mineworkers and their communities in Clifton Morenci, Arizona and Kimberly, South Africa, 1880 - 1910*. Michigan, Michigan State University.
- Crankshaw, O. *Labour, class and urbanisation in the South African city. La Question Urbaine en Afrique Australe, Perspectives de recherche*. S. J. Phillip Gervais-Lambony, Alan Mabin. Paris, Karthala.

## Reflection

### **Relevance**

This project continues on a wider interest of doing projects abroad. I find it very interesting to learn and understand other countries. New places can give you new input and it will widen your view so you can position yourself better in the world. Besides that I think we have learned a great base with the Delft approach, but with these totally different boundary conditions this approach will be slightly deformed into a more personal approach.

### **Time planning**

#### P2

Week 2	10 – 17 January	- <b>Hand in Graduation Plan</b>
		- Working on research report
Week 3	18 – 24 January	- <b>Examination: Architectural Design</b>
		- <b>P2 Presentation</b>
		- Scenarios Impression / Research result / Explanatory drawings / story / <u>foundation of the project</u> / Sustainability design
		- Working on research report

#### P3

Week 4	25 – 31 January	- Reflecting P2
		- Enhance PVE / Story when needed
		- Finalizing research report
Week 5	01 – 07 February	- Finalizing research report
Week 6	08 – 14 February	- <b>Hand in Research Report</b>
		- Enhance landscape into design / form study
		- Density analysis
		- Enhance boarder design with result of r.r.
		- <i>When possible, short week winter sport</i>
Week 7	15 – 21 February	- Enhance functional and walkthrough design
Week 8	22 – 28 February	- Enhance sustainable design
Week 9	29 – 06 March	- Enhance constructive design
Week 10	07 – 13 March	- Enhance material design
Week 11	14 – 20 March	- Enhance detailing design
Week 12	21 – 27 March	- Start making final models
		- Enhance story design
Week 13	28 – 03 April	- Finalizing material for final P3 presentation
Week 14	04 – 10 April	- Finalizing material for final P3 presentation
Week 15	11 – 17 April	- Floor plans / Sections / Elevations / Situation / Façade fragment / Details / Impression / Model / Research result / Explanatory drawings /
Week 16	18 – 24 April	- <b>P3 Presentation</b>

#### P4

Week 17	25 – 01 May	- Enhance constructive design
Week 18	02 – 08 May	- Enhance detailing design
Week 19	09 – 15 May	- Finalizing material for final P4 presentation
Week 20	16 – 22 May	- Finalizing material for final P4 presentation
Week 21	23 – 29 May	- <b>P4 Presentation</b>

#### P5

Week 22	30 – 05 June	- Finalizing material for final P5 presentation
Week 23	06 – 12 June	- Finalizing material for final P5 presentation
Week 24	13 – 19 June	- Finalizing material for final P5 presentation
Week 25	20 – 26 June	- Finalizing material for final P5 presentation
		- Working on 3 or 4 pictures which tell my

		whole story / making booklet with the rest of the information
		- Working on models
		- Digitally store the graduation project at TU Delft repository.
Week 26	27 – 03 July	- <b>P5 Presentation</b>
Week 27	04 – 10 July	- <b>P5 Presentation</b>

**Attention**

The individual project will be an on-going process. I will constantly reflect back to the steps I made in the design process. In the time planning every week in P3 has an enhance subject, in reality I will work with a mix of different enhance subject at the same moment. The enhance subjects do stand in chronological order I want to implement them into my design.