GRADUATION PLAN

Master of Science Architecture, Urbanisms and Building Sciences
Allend Bamerni
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TU Delft 2018 - 2019
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**

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**STUDIO**

**Name / Theme:**
Heritage & Architecture: Bandung Shared Heritage Lab

**Teachers / tutors:**
Job Roos (Mentor of Architectural Design)
Nicholas Clarke (Mentor of Cultural Value)
Paddy Tomesen (Building Technology tutor)

**Argumentation of choice of the studio:**

Our world is a changing habitat. Throughout history, we have learned and experienced the constant developing of new characters in culture, visual aspects, conventions, and social habits. This change is inevitable, it has always happened, and always will. Our environment will continue to change in the future, it will lose and gain features that fit with our current state of living. It is, therefore, our responsibility to protect the built heritage, conserving traditions and cultural values for future generations. The ability to adapt to these new environments and conditions has since the early times been one of our greatest assets. Parallel to the changes in society we have understood the importance of climate change and the necessity of adapting our planet towards a more regenerative system in which we start to interpret with what we already have by producing long-lasting design, maintaining and reusing our built environment. Furthermore, we should be able to adapt our buildings towards a healthy circulatory system that can fit our requirements today. I found the shared heritage lab’s graduation layout suitable for my own views in architecture, and architectural heritage towards the future.

The aim of the studio is to explore the notion of shared Heritage between the Dutch and the Indonesians. Two very important things directed my choice of the studio from the very beginning. My multicultural background and the difference in my cultural background which demands me to learn and investigate both the Dutch and Indonesian history to position myself in terms of what shared heritage is was critical. The second important notion for why I picked this studio is the events that affected the social, economic and cultural development of the colonial city of Bandung to the current mega-city, and how we can through architecture find solution for more healthy cities in areas like Bandung.
GRADUATION PROJECT

Constellate Bandung – revitalize the balance of border conditions through Bandung’s informal and formal segregation via sports and music

GOAL

Location:
KNIL Magazijn
Jl. Gudang Selatan No.22, Merdeka, Sumur Bandung, Kota Bandung,
Jawa Barat 40113, Indonesia

The Posed Problem:
The current correlation of Bandung’s urban structure from north to south through the railway track isn’t done in an integrated and approachable way.

Research Question:
How can we conserve and adapt the heritage of KNIL Magazijn through integration to revitalize the balance of border conditions regarding Bandung’s informal and formal segregation?

How to develop a quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure to support social cultural development and human well-being with a focus on equitable access for all

How the railway backbone can be transformed to an inclusive, thriving and healthy environment for working, living and leisure

Design Assignment:
How can music and sports facilities offer in the shared heritage complex of KNIL Magazijn in a growing city that is continuously having segregation issues to reconnect people into constellation towards a balanced urban city and to create a showcase for similar circumstances in the world.

In the Shared Studio Lab, the focus lies on the translation of the design in the city of Bandung, Indonesia. The city of Bandung was once established by the Dutch as an important transport hub, governmental & military base and travel destination for the Dutch colonial society. After Indonesia became officially independent in 1949, the city saw a pressure on public spaces, networks, health and comfort as a result of the rapid growth in population. The aim of the studio is to explore the notion of shared Heritage between the Dutch and the Indonesians. The Shared Heritage Lab approach is to find a sustainable solution for these challenges by evolving the important heritage structures and areas of Bandung, in order to realize inclusive, thriving and healthy environments for working, living and leisure.

As part of this year’s, 2018-2019, Heritage & Architecture Studio: Bandung Shared Heritage Lab, we were assigned to investigate the historical, cultural and social development of the railway backbone in Bandung, Indonesia. The railway that once was the core of a servicing system that was feeding the areas around it, either in terms of the military or industrial sector is now a physical boundary between the north and south regions of the city and contributes to a significant extent to the traffic problems and the social inequality and segregation between the formal and informal areas of the city. The railway is today acting as a no-go zone throughout the whole middle section of the city. This is creating the current architectural discourse and the urgent need to face social inequality, segregation, availability of basic infrastructure to low-income communities and environmental change. This is directing the problem, and
my focus for the need for urgent intervention and re-interpretation of the original spatial and immaterial qualities of the area. During the fieldtrip to Bandung we saw several complexes, building and infrastructures that are abandoned or in bad condition. It was during this trip that I came across the “KNIL Magazijnen”. The previous military storage that is facing the railway directly is today partly abandoned or used for private agendas. One example is how the area is taken over by young people to perform different self-organized sports and music programs.

The most important thing to take into account that the railway track that was built by the Dutch during the colonial period is the difference between the military areas and the informal settlement of the Pisang kampung. The two areas are strikingly different both in terms of their morphology, land use and support infrastructure provided by the government. This brings me to my research question; How can we conserve and adapt the heritage of KNIL Magazijne through integration to revitalize the balance of border conditions regarding Bandung’s informal and formal segregation?

Furthermore, how can music and sports facilities offer re-connection between the “two worlds” in the shared heritage complex of KNIL Magazijne. The idea is to change KNIL Magazijne to a new cultural destination along the “new green belt” of Bandung. The cultural destination should offer a wide variety of facilities for self-organized sports, as well a series of customized workshops area for music education.

The idea is that this will meet the aim of the increasing for self-organized and individual alternatives to attract local youth and create lasting social change through street sports and culture. The architectural concept is based upon the idea of an indoor Kampong streetscape. The idea is to open the storages and transform the “void” into new kind of interior spaces: a covered streetscape upon the cities informal Kampong lifestyle. In a growing city that is continuously having segregation issues, this can be an example of how to reconnect people into constellation towards a balanced urban city and to create a showcase for similar circumstances for the rest of the city.

**PROCESS**

**Method Description:**
- Cultural Heritage Analyses
- Ethnographic Research Method
- Research By Design
- Precedent Research

The Shared Heritage Lab Studio encourages students to use the research methods described in Designing from Heritage, Strategies for Conservation and Conversion by Marieke Kuipers & Wessel de Jonge. This book is a guideline for students to observe, analyze and the plot to make decisions regarding conservation based on cultural consciousness. The book guides us through three steps. We first go through a primer of observation. We use literature, documentaries, maps, archives, drawings, case studies, inventories, measurements, descriptions and photographs for analyzing the site before and during the field trip. This work allows us to observe the buildings on site in its present state in a coherent manner. The next step of this research method is to interpret the findings in the primer of observation to create a cultural value statement through the cultural value matrix. The matrix guides us through the qualities of the heritage building. By creating and working with the matrix we can argue for the transformation framework that is needed for the last step, the transformation of our built heritage. Now that the primer observation and the value matrix are completed, we are now able to distinguish the level of implications for the building.

It is also essential to choose an appropriate research methodology to analyze the transformation program of the built heritage. Ethnography has been chosen as the main research methodology. The changes to the external environment should be a product of the internal need. Therefore, during the site
visit in Bandung, I decided to interview the locals and developers. The goal was to observe the social life in order to learn and analyze the behavior of the city’s indigenous population.

I chose to use these two research methods because they are underlined by the idea that they will integrate and balance the outcome of the design proposal. From the Heritage & Architecture studio’s research methods, the notion is to argue the importance of what should be heritage listed, and how the building can possibly be reused. Ethnography, on the other hand, is a qualitative research method used to emphasize the observations internal and external social practices to recognize what the adaptation of the site can become.

Furthermore, I have also used precedent as inspiration for transformation, and the design will always be a result of research by designing and search for precedents with the two research methods mentioned above. The idea is to combine all of the methodologies to strike a balance between the preservation of cultural values for future generations and tailoring the program to the specific needs of the society.

**Literature and General Practical Preference:**

**Books**


**Journals**


**Precedent**
REFLECTION

Relevance:
One of the main goals of the Heritage & Architecture studio is to address the challenges of sustainability. Sustainability can be thought of as reducing energy waste, and therefore we should not rush to demolish and rebuild. It is of the utmost importance to protect the built heritage and conserve traditions and cultural values for future generations, but also present a new program to serve societal needs. Therefore, the goal of architectural heritage should not only be to preserve, but also to adapt the site to reflect the local needs of the population.

There should also be a strike in the project that is looking for larger social and scientific framework. It is here the research of the backbone is coming in. By understanding the wider perspective of the city, how it expanded and what its issues are today it allows us to explore and understand the role of the railway in the city’s development as well as its relationship with the areas that developed around it. The goal is to come up with a proposal that recommends how the railway that has created a physical boundary between the north and south Bandung that contributes to a significant extent to the traffic problems and the social inequality and segregation between the formal and informal areas of the city can be changed so it reconnects the city to one city, not two cities like we experienced during our trip. Moreover, the example of transforming the historical KNIL Magazijne to a sports and music community complex will be an example of how areas that are affected by the railway can be transformed to urban program for the inhabitants of the city.

Last but not least, the goal of this project is not only to showcase an example of how it can be changed for Bandung. But also be an example of how older colonial railway tracks that are crossing inner cities (such as several cities in Java, India and China) can be an assets for the people themselves after its transformation.

Time Planning:

Q1 research
Week 1.1 - 1.3
- Introduction to studio, courses, theme of the studio
- Study to (the design research framework)
- Historical timeline
- Mapping of themes
- Joint exploration / mapping
In general, the beginning of Q1 we were informed about the theme of Shared Heritage Lab as well as Heritage and Architecture. Me, together with two other Heritage students focused on the railway, being one of the backbones of Bandung. Also, introduction to Shared Heritage workshops and seminars on Cultural Value to make us more familiar with issues regarding Architectural Heritage. We also started to investigate the context of the city in collaboration with Architectural Engineering, Landscape Architecture and Urbanism students. We mapped the three backbones of the city to understand the effect of the colonial period on the city structure.

**Week 1.4 – 1.6**
- Investigating the history of Bandung
- Mapping
- Backbone Mapping
- Read book ‘designing from heritage

Research on what we could research and explore for our fieldtrip. In general, more investigation on the history of Bandung, the railway, mapping and literature regarding the trip.

**Week 1.7 – 1.9**
- Fieldtrip Bandung
- Investigate, Explore and Research the City
- Find Individual Fascination
- Ethnographical Research
- Searching for a plot + measuring it
- P1 presentations, collective + individual

During the fieldtrip we examined our research of the city railway. We walked along the railway to observe and research how the surrounding areas of the railway had been affected by it. We also searched for an area to investigate closer for our own personal design interventions. We also did ethnographical research to learn more about the citizens of Bandung. Mapping schemes, diagrams, photographs, sketches and other means of illustration are to be used to present our findings for the P1 presentation as a collaboration between TUDelft and ITB students.

**Q2 research**

**Week 2.1 – 2.4**
- Cultural Value Report
- Methodology Paper
- Urban Scale analysis of Bandung
- Research solution for Backbone Problem

Analyzing the chosen site and make a cultural value book where we introduce our research towards the history of the city, city scale mapping, backbone scale mapping and architectonic and building technology to understand the tangible and intangible characteristics of the site. Research towards a final Heritage Matrix, searching for obligation, opportunities, dilemmas and problems for our own personal design. We also started to create a masterplan of the railway backbone.

**Week 2.5 – 2.10**
- Formulation of research question
- Research Precedent
- Combining Values, Program, Relevance, Themes
- Scenarios

Further work on the Backbone analysis and master plan. Drawing future scenarios for our interventions. In the same time this period introduces the early thoughts and sketches of future intervention of the area. Combining heritage values, program, relevance and themes towards a preliminary design. Different alterations discussed with tutors.

**Week 2.10 – 2.11**
- Prepare research question
- Prepare design question
- Prepare personal urban vision
- Prepare personal cultural value assessment
- Prepare program
- Prepare Strategy
- Prepare preliminary Design
- P2 Presentation

Preparation for the P2 Presentation on the 22nd of January.

**Q3 research**

**Week 3.1 - 3.3**
- Plans, sections, elevation and 3-dimensional drawings
- Introduce project to BT tutor
- Research on architectural design
- Detailing
- Climate Research

The idea is to work on the feedback and direction I will get from the P2 Presentation. Start to draw the project in more detail, in plans, sections and elevation + 3 dimensional models. Continue working on research on architectural design and try to understand the climate condition and what type of materials will fit the area the best. Also start introducing my project to the Building Technology teacher.

**Week 3.4 - 3.10**
- Further exploration of plans, sections & elevations
- Large – small scale development
- Program
- Spatial arrangement
- Work towards a more detailed project

This is the period I want to start draw the project in depth and try to get a clear view of the project. Program have to be clear. Spatial configuration should be more less done. Creating detail drawings for building technology. For P3 Presentation the project should have a clear storyline from research, idea to design.

**Q4 research**

**Week 4.1 - 4.4**
- Detail design
- Plans, section and elevation in more details
- BT design fragment
Work and develop the project further after feedback from P3 Presentation. It is important to work towards a finalize project that make sense, that is challenging and new. Working as well towards detailed fragment drawing in terms of technical aspects. Structure, façade, acoustic and climate control should be more less in details.

**Week 4.5 - 4.6**
- P4 Presentation
- Whole project in detail
- Storyline from A-Z
- Final stages of design

This is the period where I aim to present the project in full depth. From my early research, how I came up with my research question, and how I am approaching these issues. The design is more less in its final stage.

**Week 4.7 - 4.9**
- Finalize drawings
- Finalize changes
- Finalize renders
- Model

Continue working on the feedback from P4 Presentation to finalize drawings for P5 Presentation.

**Week 4.10 - 4.11**
- P5 Presentation
- Graduation