Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences
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:

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<th>Personal information</th>
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- Lost value of citywall and Berkelpoort
- Limited function Berkelpoort
- Lost function of boat deck

| research questions and design assignment in which these result. | How to connect St. Elisabeth backyard to surrounding area to activate Klein Vatican and to improve the daily lives of elderly residents? Urban analysis, architecture analysis, culture value assessment, program and space design, building technology solution |

Nieuwstad in Zutphen has a population cavitation phenomenon.

To solve this problem and to make Zutphen as a sustainable city, I focused on the Klein Vatican area. Located at the edge of the Nieuwstad, Klein Vatican includes Berkel river, city wall, old gates and Lake. In this aspect, Klein Vatican has high potential opportunities from the historical, economic, and environmental perspectives.

St. Elisabeth complex is the south part of Klein Vatican area. It consists of Berkel river, water gate, city wall and tower, St. Elisabeth sanatorium and St. Elisabeth Chapel. Among these complex, I took notice of the Elderly house’s backyard.

Can I activate Klein Vatican through connecting this backyard to surrounding area with new programs and functions? How to attract people? How to solve the social problems with new programs and new functions? Is it possible to solve the confliction between young generation and old generation in this area? Can I sustainably develop tourism of Zutphen? What is the identity of this region and how to give this character in design? How to utilize heritage element to achieve these goals? Above all, Can all these things improve the daily lives of elderly residents?

Once again, How to connect St. Elisabeth backyard to surrounding area to activate Klein Vatican and to improve the daily lives of elderly residents?
## Process

### Method description

- **Literature Study:** To gather information of the historical building context and to understand how it worked in the complex heritage environment.

- **Case study:** To find relevant precedents to sustain and inspire the future design.

- **Site excursion:** To experience heritage renovation space, to learn its atmosphere, dimension and technical detail of the building.

- **Observation:** To collect objective physical environment and accurate current situation which text and internet can’t describe.

- **Urban analysis:** To understand building’s socio-cultural environment and to find the identity of the site.

- **Culture value Matrix:** Use the Brand-Riegl’s value matrix to define the value of the different aspects of the building in order to decide how to intervention.

- **Design criteria:** Based on the value matrix and urban analysis, I dragged design aims. I proceeded scenario scoring of different designs based on this criteria. This scenario scoring is a tool to compare different design solutions. (See appendix 1)

## Literature and general practical preference

**Literature:**

- Modern movements in architecture, Jencks, C. (1973)
- Alois Riegl and the Modern Cult of the Monuments, Architects, ERA (2011)


The Tall Building Artistically Considered, Sullivan, L. (1896)

The Modern Cult of Monuments: Its Character and Its Origin, Riegl, A. (1903)

Precedents:
Hedmark museum, Sverre Fehn, Norway
Water church, Tadao Ando, Japan
Vieux Port Pavillion, Foster, France
Mucem, Rudy Ricciotti, France
Changdeok Palace Secret garden, Korea

Reflection

Relevance

The renovation of existing building is an issue belongs to the topic of sustainable development for local people and the residents with historical preservation of the heritage building.

St. Elisabeth is an elderly housing complex located at the edge of Niewstad above the Berkel river in Zutphen. It was built in 1993 as a postmodernism building including some historic heritages such as city wall, tower, and Berkelpoort which were dated back to 14th century. However, these historic monuments are not used properly in the current situation.

St. Elisabeth cultural garden project suggests a design which can contribute to the heritage and surrounding, but also to the residents who live in the direct environment.

Time planning

(See appendix 2)
Appendix 1 _ Design criteria

(+) General design aims (63)
   Urban Fabric (39)
      - Route circulation & accessibility (9)
      - Protection of residence privacy (9)
      - Publicity for activate atmosphere (6)
      - Relation between programs (6)
      - Harmony between additions and existing. (6)
      - Improve local economy (3)
   Sustainability (24)
      - Natural light and ventilation (9)
      - Material & Energy circulation (6)
      - Energy efficiency (6)
      - Future space transformation (3)

(+*) Special design aims (27)
   Development of the backyard
      - Activating city wall (3)
      - Productive green (3)
      - Public & Private (3)
   Development of the space between city wall and elderly house. (9)
   Development of the chapel environment (9)

(+*) Degree of impact on the key elements (56)
   City wall (8)
   Berkelpoort (8)
   Chepel (6)
   Pastorie (6)
   Luthers hofje (6)
   Eastern tower (6)
   Part of city wall on the north wing back façade (4)
   Twin towers (4)
   Boat tour (4)
   Berkel river (4)
### Appendix 2  
Time planning

#### Graduation project time planning

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**First phase**
- Research & Methodology
- Urban Analysis
- Architecture Analysis
- Value matrix

**3D Urban modelling**
- 3D Building modelling

**GAD Drawing**

**Next phase**
- U-value calculation
- Physical urban model
- Design criteria
- Value statement
- Masterplan

**Plan, Section, Elevation**

**Final phase**
- Facade design
- Building technology
- Physical building model
- Image rendering
- Bimiler

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P1 deadline  
P2  
P3  
P4  
P5  

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