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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<tr>
<th>Personal information</th>
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<td>Name</td>
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<td>Teachers / tutors</td>
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well-being. This raises the following research question:

"How can the existing buildings of the Plofbos be transformed sustainably, where elderly can live more independently and which stimulates the settlement of a self-supporting community?"

The Pavilions in the woods, with its natural atmosphere offers an ideal environment for the aging elder. Living in a natural environment could improve the overall well-being of the individual, opposed to living in an urban environment. Yet, especially elderly, suffer from loneliness, fear or depression. These problems demand another solution from the transformation on a bigger scale of program that deal with the mental well-being of the individual. It can be contested by hosting communal activities for the elderly, as well as to stimulate them to exercise and to do communal activities such as gardening, bike rides or hikes through the forest. However, all these activities need to be organized and taken care of, so who is going to put in the effort?

Another growing problem in the Netherlands is the huge housing shortage, especially in the Randstad. Mostly young starters are not able to afford an acceptable house. Within the two major cities Zaanstad and Amsterdam, Hembrug could offer an interesting alternative for those seeking a house. With the former mentioned elderly target group in mind, it is the idea to mix these young starters, families, and individuals together with the elderly. Together they will form a community, where people will focus on participation, hosting communal activities and help their elder neighbors. Whether it be small chores such as
groceries or assistance with particular tasks, the younger generation will agree on participating in the community, having a slight responsibility for the elderly. As society brings more and more people in the world, we can only take care of less. This drives us into changing from an individual driven society to a community of solidarity, empathy, and compassion, where architecture can provide the basement for creating a bond between the individual.

| research questions and |
| "How can the existing buildings of the Plofbos be transformed sustainably, where elderly can live more independently and which stimulates the settlement of a self-supporting community?"

| design assignment in which these result. |
| MESO I see the ensemble of the Plofbos as a little village because of its free standing structures, the small idyllic bridge, two grand ornamented structures in the hearth of the village and its overall contrast with the industrial site of Hembrug. This created the idea of giving the Plofbos its own neighborhood, with its own strong self-supporting community. The solution lies in the word itself: communal, being responsible for each other. Helping each other. When you come and live in this area, you will become part of this community. This way younger generations will have a certain responsibility for their elderly neighbors, whether it be assist in helping to hosting communal activities once in a while, small chores as groceries, or the assistance of extra private control on the elderly neighbor. This way the community itself will contribute to the physical- as well as the mental well-being of the elder. However, elderly people also require |
professional care. For that reason, the ensemble requires a building where a few professional medics can diagnose, treat and assist those in need, such as a geriatric doctor.

Therefore, the first design assignment lied in defining a suitable program on the Meso (ensemble) scale. One that provides an ideal collection of functions in this ensemble for this community to live, participate, unite and spend their day. This task demands a thorough investigation on the existing site itself; what functional program do you need, and is there enough space to assign this in the existing fabric? Do we need to add more volume to make it work, and how much building mass can be added to the site without losing the unique identity and character of the Plofbos?

MICRO

Secondly, I have chosen two interventions on the micro scale to focus on. The first intervention is a multiple generation living concept called Kangaroo housing; a deviant form of living where the elder and its younger family live under the same roof, but have their own house. Through smart building organization the interaction and meeting between the two individuals is stimulated, as well as that the younger family has a sense of private control over the elder; making them notice a potential accident of the elder. This way the elder can live much more independently without the required need of medical assistance. The design assignment in which this results is if it is possible to adapt the existing building fabric into a modern residence. What this means for the design itself is the consideration between privacy and safety; resulting in various levels of relation between the two residences
through playing with sight, sound and interaction.

The second building intervention incorporates space where the community can facilitate small events, communal gathering, singing, participation; all in order to prevent loneliness and its negative effects on the mental well-being that is common among elderly.

Moreover, this hall also provides a silent space for contemplation; providing an environment to mentally escape from the busy life and distractions. An activity that becomes more and more significant in this age of the mobile telephone constantly demanding your attention. It is about the approach towards this structure, where on the road, the individual is able to be distracted from their daily thoughts and worries for a moment and is carried away by nature. During the approach the mind is able to focus on the elements; the chirping of the birds, the scents created through different plants along the trail, the touch of tall grasses, through different spaces under the trees; open, light, or darker spaces, reaching the Contemplation Hall, finishing the walk inside. This way it is endeavoured to prevent mental instabilities of the community on the long-term. This design demands for specific acoustic qualities, light infill, use of space, structure and the integration of natural elements that contribute to the awareness of the elements that will have a restful impact on the visitor.
Transformation of the existing structures into residences designed for elderly target groups or younger families/single studios. Transformation of two old structures built around 1900 into public facilities that aid both the elder and younger target groups. Proposal for a coherent ensemble redesign that stimulates a self-supporting community.

- Definition of the new architectural design language and the design of the added mass.
- Development of the “Kangaroo Housing” living concept
- Design of The Contemplation Hall.
- Conceptual transformation of the two Farms (Building 85 and 69)
- Transformation of the shell roof modules on the head of the axis (Building 416)
- Transformation of the shell roof modules on the head of the axis (Building 419)

### Process

#### Method description

- Literature study on the typology of a Contemplation
- Literature study on the senses and architecture (Pallasmaa)
- Literature study on the approach and experience (Klaske Havik)

#### Literature and general practical preference

- Meurs, Steenhuis. 2016. “Gebiedsparapport omgevingenplan, Hembrug Terrain”.
- Meurs, Paul. 2016. “Heritage Based Design”.


Havik, Klaske. 2014. Urban Literacy. “Reading and Writing Architecture”


**Reflection**

See appendix .1

**Time Planning**

No extra minors/possible exams need to be assessed in the following course.

**P3:**
- Literature study on the typology of a Contemplation Hall
- Literature study on the senses and architecture (Pallasmaa)
- Literature study on the approach and experience (Klaske Havik)
- Provisional design of the Contemplation Hall
- Definitive design proposal for the transformation of existing structures and added mass.

**P3-Presentation (04-04-2019):**
- Provisional design of the Contemplation Hall and the approach towards the structure through spaces.
- Provisional design proposal for the transformation of existing structures and added mass.
- Provisional design proposal
- Provisional design proposal

**P4:**
- Definitive design of the Kangaroo House
- Definitive design of the Contemplation Hall
- Technical drawings
- Site model including transformations 1:200
- Design concept/booklet

P4-Presentation (23-05-2019):
- Definitive design model of the Master plan. (Natural spaces, transformations and added masses).
- Details, façade fragments, model and renders of the Contemplation Hall + Kangaroo house, transformation, urban master plan vision.
- Model: The Contemplation Hall
- Sustainable climate interventions
- Structure/practicability
- Poster: A0 Technical drawings, A0 Design overviews, A1 Design concept
- Façade fragment

P5
- Model: Façade fragment of the Kangaroo house intervention.
- Model: 1:50 Contemplation Hall
- Renderings
- Presentation booklet