AE GRADUATION PLAN

PERSONALIA
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STUDIO
Name of studio: Architectural Engineering
Graduation studio: Monique Smit
Teacher Research: Pieter Stoutjesdijk

TITLE AND CHOICE
Title project: “Life in Limbo”
“Leven in niemandsland”
Choice studio: Architectural Engineering is the future! Society is heading towards a more sustainable and smart architecture derived from a scarcity of natural resources. If technology seems to be the answer I want to be involved. This was the main reason for choosing this studio. In addition the free choice in fascination, program and context, was an opportunity to realize a very personal graduation project.

PROBLEM STATEMENT
Many countries at the moment are in the grip of war and terrorists. As a result 45 million people are on the run (UNHCR, 2015, pp. 3-5). For some their goal is to get to Europe. A hope for an opportunity for a safe and better existence. But how exactly are these refugees welcomed in for example the Netherlands? From a temporary location (up to 4 weeks), mostly in empty halls, the asylum seeker is moved to a more permanent stay (up to 3 years) in an asylum seekers centre somewhere spread over the country mostly abandoned from cities. Asylum seekers are not housed but welcomed. Use is made of existing buildings or facilities, which have in common that they were always destined for a temporary stay. However the difference is that the original functions were tuned to a rather homogeneous target group, while asylum seekers represent a wide variety of lifestyles and cultures. This variety is not taken into account while designing the AZC. Besides the family composition and cultural differences lack of privacy is also a big problem. These shortcomings of the AZC results in polarization. The integration process after obtaining a residence status is severely hampered. Besides using existing buildings use is made of semi-permanent barracks. They are being built in an unsustainable way because of their short live-span and material use. By using digital fabrication the amount of waste can be reduced thereby an material can be chosen which can be used as CO2 storage. The housing of asylum seekers is a controversial issue that requires statements about both political and architectural charged issues. Therefore it’s a barely researched typology.

OBJECTIVE
The technical research aims to provide an adaptable and customized AZC fulfilling the very basic needs of an asylum seeker. The goal is to design homes that fulfill minimal privacy and are adapted to the family composition and cultural background. These cultural background can be divided into social aspects, plan, ornaments and colours of the vernacular architecture. The homes have to be able to adapt to every new occupant and therefore in a different setup, every half-a-year. A suited technique is needed that has the potential to build these adaptable, personalized and cheap homes. Digital fabrication might be the right technique that allows mass customization with the benefits of mass production. The main focus during my graduation will be if it is possible to print homes that can be put in a different setup time after time.

If these different configurations prove to be possible, by using digital fabrication, the biggest problems that asylum seekers currently experience in AZC’s would be solved. It’s therefore important to investigate which digital fabrication technique suits best, and what kind of joints and connections can be used to design these adaptable customized homes.

The architecture of the houses is used to create a more gradual transition to the asylum seeker from their home country to the Netherlands. In this way the AZC can act as a transitional phase. By looking at the vernacular architecture of the country of origin, and re-interpret this in an abstract way, this is can be achieved. The ability to add and remove abstract ornaments will hereby also be examined.
RELEVANCE

By the additional influx of asylum seekers at the moment the social debate is fiercer than ever (COA, 2015). New centres are being built at a rapid pace that cost tens of millions (Goet, Helder & Siebers, 2014, pp. 19-65). The question will be whether these centres still meet the requirements in 15 years when the number of asylum seekers might be decreased? Besides building new accommodations use is made of existing buildings, which have in common that they were always destined for a temporary stay. However the difference is that the original functions were tuned to a homogeneous target group, while asylum seekers represent a wide variety of lifestyles and cultures. This variety is not taken into account while designing the Asylum Seekers Centre (AZC) yet. This causes many problems within the centre. The COA receives for example the highest number of complaints from refugees about the way housing is organised (Valk, 2014, pp. 3-5).

We can state that there is an demand for flexible homes. Digital fabrication can be used to design these mass customized homes. By placing these digital fabricated flexible homes within available empty spaces within a city or village centre, not only the space shortage is resolved where the COA currently has to deal with (COA, 2014) , but the AZC can also rely on existing functions available in the neighbourhood such as schools, childcare and recreational space. The costs of the AZC can be reduced because of this. But maybe even more important the asylum seekers will gain more chance to organize their lives themselves which will ultimately stimulate the integration process.

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OVERALL DESIGN QUESTION

How to design a flexible Asylum Seekers Centre within the van Gendthallen using digital fabrication.

THEMATIC RESEARCH QUESTION

How to use digital fabrication to design flexible homes that can adapt to every new occupant and function as one toolbox that can be implemented in various empty spaces within urban settings.

SUBQUESTIONS
1. What is the current situation in relation to the housing of asylum seekers (literature study) (location visit) (interview)
2. How can the dwelling be flexible adaptable and customized to:
   - Family composition (literature) (interview)
   - Cultural background, Syria, Mongolia, Nigeria (literature) (interview)
3. How can there be xenogamy between the AZC and its existing urban environment? (literature) (research by design)
4. In which empty space can an AZC best be accommodated? (literature) (research by design)
5. How to design dwellings within these empty spaces? (research by design)
6. What kind of digital fabrication technique suits best to design flexible homes? (literature)
7. What kind of joints can be used to design demountable homes that can adapt every half-a-year? (case study)
8. How can you design removable ornamentation based on the vernacular? (literature)
# Graduation Plan

## Planning

### MSC3

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### MSC4

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### Schedule

**February**
- RESEARCH METHODS
- PIDO BOOTWEEK
- TIDO BOOTWEEK
- WEEKLY COURSE BOOTWEEK

**March**
- HAND IN
- FINAL
- PRESENTATION

**April**
- MOTIVATION LETTERS
- PRESENTATION
- HAND IN

**May**
- PRESENTATION

**June**
- PRESENTATION

**September**
- DEADLINE APPLICATION

**October**
- WEEKLY COURSE BOOTWEEK

**November**
- PRESENTATION

**December**
- PRESENTATION
- PREPARING

**January**
- FINISHED
LITERATURE

BOOKS


WEBSITES


Central Institution Asylum Seekers. Retrieved 2 1, 2015, from COA: http://www.coa.nl

COA. (2014) Leadlijst WOB-verzoek De Telegraaf


Central Institution Volontuur work asylum seekers. Retrieved 2 1, 2015 from Vluchtelingenwerk: http://www.vluchtelingenwerk.nl