Feeling home in a temporary environment

creating a temporary living environment with shipping containers which creates a feeling of home
Introduction

Marine Area
Context
Problem statement
Objective

Research

Shipping container
Feeling of home

Design

Guidelines
Overview
Configurations
Climate strategies
Construction
Material
INTRODUCTION
**Hoogste aantal buitenlandse studenten ooit**

In totaal gaat het om 312.000 studenten die les volgen op hogescholen of universiteiten, © ANP

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**Aantal short-stay buitenlandse studenten**

<table>
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<tr>
<th>City</th>
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<th>'23-'24</th>
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<tbody>
<tr>
<td>Amsterdam</td>
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<td>Utrecht</td>
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**INTRODUCTION**

**Context**
Het Parool

Internationale studenten boos over slechte huisvesting UvA
INTRODUCTION | Problem statement

Stanvangerweg
INTRODUCTION

Problem statement

Wenckehof
Creating a temporary living environment for students with shipping containers which creates a feeling of home
RESEARCH
RESEARCH | Overall design question

How can you create a temporary living environment for students on the Marine Area with shipping containers which creates a feeling of home?
What are the technical possibilities and solutions for the transformation of a shipping container into a home which creates a feeling of home?
RESEARCH | Shipping container

- Construction
- Facade
- Foundation
- Structural connections
- Insulation
- Climate design
Construction

- Roof Panel
- Top Side Rail
- Rear End Frame
- Door Assembly
- Flooring
- Cross Member
- Forklift Pocket
- Bottom Side Rail
- Side Wall Panel
- End Wall Panel
- Front End Frame
- Door Header
- Top End Rail
- Top Side Rail
- Corner Fitting
- Corner Post
- Bottom End Rail
- Cross Member
- Forklift Pocket
- Door Sill
- Bottom Side Rail
- Corner Post
Construction

A shipping container is designed to distribute vertical forces only through the corners.

A shipping container has also its weak points which can cause structural problems when stacking.
Construction

Stacking is only possible if the forces can be distributed through the corners or if reinforcements are applied.
RESEARCH | Shipping container

Facade

If one wants to change the facade, a secondary construction is needed.
RESEARCH | Shipping container

Foundation

Pier Foundation

Strip Foundation

Slab Foundation
Structural connections

Container - Foundation

Container - Container

Container inside - Container inside
Insulation

Fiberglass Insulation

Foam Panels

Closed Cell Spray Foam
RESEARCH | Shipping container

Climate design - ventilation

Vent

Turbine vent

Supply only ventilation
RESEARCH | Shipping container

Climate design - heating

Floor Heating

Standard radiator
Conclusion

For the purpose which is being set, it can be concluded that a shipping container is NOT suitable.
Conclusion

Too much effort

Structural unstable
PERSONAL: structure, lay-out, style, decoration

PHYSICAL: facilities and services

SOCIAL INTERACTION: entertainment and enjoyment of other people’s company.

IDENTIFICATION: difference in boundedness, distinctiveness, scale and proportion

SOCIAL INTERACTION/SHARED SPACE: attachment, identification, and involvement in one community
DESIGN
DESIGN | Guidelines

Marine Area
DESIGN | Guidelines

Site
DESIGN | Guidelines

Site
DESIGN | Guidelines

Plot
DESIGN | Guidelines

Clusters
DESIGN | Guidelines

Inner garden
DESIGN | Overview

1 : 200
DESIGN | Configurations
DESIGN | Configurations
DESIGN  |  Configurations
DESIGN | Configurations
DESIGN | Configurations
DESIGN | Climate & recycling strategies
DESIGN | Climate & recycling strategies

- Solar panels
- Collecting rainwater
- Constructed wetland
- Natural ventilation
DESIGN | Construction & Material