Site  
Research  
Concept  
Construction  
At Home In The City
SITE HISTORY

[Image of an aerial view of a factory area with buildings, industrial structures, and a river.]
SITE  INDUSTRIAL ATMOSPHERE

Thomas de Bos | 1210548
LARGE SCALE CONTEXT

SITE

PONTSTEIGER

CENTRAAL

PIRAEUS

OVERWORKS

ALBATROS

LEKAANSPoOR

UZSM

Dwelling Graduation Studio: At Home In The City | P5 Presentation | July 5th 2012
SITE CURRENT & PROPOSED

NORTH
FOREST/GREEN
SQUARE
GONDOLA/ZANT
WATERFRONT
ij/CENTER

P

i
INTRODUCE NORTH
SITE LARGER CONTEXT
RESEARCH  INTRO

RESEARCH  INTRO
Most new building projects are focussed on a specific program for which they are perfectly suitable. However in these economically difficult times we need buildings that can easily adapt to changes in the market in order to prolong their durability. Also the switch from small industries to housing is a very current issue that architects should be dealing with in new designs.

The paradox that arises is that of creating a flexible building that can adapt to unknown future changes while maintaining an expression that connects it to its surroundings for a long period of time. Within this framework of flexibility the dwelling types also have to aim at a diverse target group that ranges from students and starters to families and businessmen.

**Goal:** To design a mixed-use building that has a long life span because of its (internal) flexibility and that adds value to its surrounding context. A building that offers a diverse supply of dwelling types and sizes in order to appeal to a wide range of user groups and make internal relocation a possibility.

**Research question:** Which characteristics provide a building with the means to change internal configurations of different program types over time?
RESEARCH  CASE STUDIES & THEMES

Thomas de Bos | 1210548

Multifunk
De Vrijburcht
Solid 18
Solid 1&2
Canal House
Tetterode

Concept
Program
Structure
Routing
Services
Skin
The final design tools below are based on the need for a flexible mixed-use building where program can be mixed throughout the building on each floor.
RESEARCH MOST RELEVANT ANALYSES

[Diagrams and images of architectural plans and elevations]

- Load bearing structure
- Diversity facade openings
- Program
- Working
- Living
- Living & working
- Structure
- Openings
- Façade
- Normal windows
- Shop windows
- Étage windows
- Adjacencies

[Tables with dimensions and measurements]
CONCEPT

INITIAL SCHEME

grid 10800x10800x9000

3 dwelling units

2 work spaces

1 dwelling unit
1 extra high work space

1 collective outside space

sample configuration
CONCEPT  GOAL

MIXED-USE?

MIXED-USES

MIXED SUPPLY OF SPACES FOR DWELLING & WORK PROGRAM
CONCEPT 3-PART FLEXIBILITY

building type
basic program
commercial space auction

program distribution
dwelling configuration
dwelling auction

final dwelling configuration
layout adjustments
CONCEPT SOLID

- Variable floor heights
- Integrated services
- Open floor plan
- Dwellings
- Offices
- Shops
- Fitness center
- Etc.
CONCEPT  DIVERSITY IN SUPPLY

DIVERSE USERS

DIVERSE SUPPLY
CONCEPT
DIVERSITY IN SECTION
CONSTRUCTION | FACADE GOALS

'Allow' flexibility

maximum flexibility

systematic flexibility

minimal flexibility

Show diversity

maximum diversity

some diversity

no diversity

Connect to site

reflect materials literally

textured facade connects to site

contrasting facade

FACADE
CONSTRUCTION FACADE COMPOSITION

- Mixed use
- Flexibility
- Freedom of wall placement inside
- Rigid facade
- No visible variations in spaces
- Visible differently sized spaces
- Freedom in height
- Subtle visibility in facade

- Work spaces/offices
- Dwelling program
- Public/commercial program
- Public view terrace

Diagram showing the composition of the facade with different sections labeled.
CONSTRUCTION  FACADE MATERIALISATION

Thomas de Bos | 1210548

slide 52 of 79
AT HOME IN THE CITY

PARKING

Thomas de Bos | 1210548
AT HOME IN THE CITY
WORKSPACE & TERRACE

Thomas de Bos | 1210548
AT HOME IN THE CITY

COMBI L

2-3 persons
116.6 m² BVO
connection to adjacent work space (233.2 m²)
AT HOME IN THE CITY

LIVE/WORK DWELLING M

L/W M

1-2 persons
116.6 m² BVO
live/work apartment
AT HOME IN THE CITY

DWELLING TYPE S

1 person
32.4 m² BVO
single room
AT HOME IN THE CITY  DWELLING TYPE S2

I-2 persons
48.6 m² BVO
small starters apartment
with mezzanine bedroom
L2+ 2-4 persons
181.4 m² BVO
spacious family maisonette
entrance with view on top floor
XL GARDEN

2-4 persons
168.5 m² BVO
spacious apartment with large loggia
natural light inside hallway
LOFT XL

1-2 persons
168.5 m² BVO
continuous space with high ceiling
service element and mezzanine
PENTHOUSE

2-6 persons
337,0 m² BVO
luxurious roof patio penthouse
there is more...
ADDITIONS DETAILS REFERENCE

**ADDITIONS**

**DETAILS REFERENCE**

**Omschrijving Eenheid Waarde**

<table>
<thead>
<tr>
<th>Afmetingen</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengte</td>
<td>max 5.000</td>
</tr>
<tr>
<td>Breedte</td>
<td>max 2.000</td>
</tr>
</tbody>
</table>

**Technische gegevens**

<table>
<thead>
<tr>
<th>Hoeveelheid glasvezel (hm.%)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gewicht (kg/m3)</td>
<td>1900-2100</td>
</tr>
<tr>
<td>Druksterkte (Mpa)</td>
<td>50-80</td>
</tr>
<tr>
<td>Treksterkte (grens elasticiteit (Mpa))</td>
<td>3-7</td>
</tr>
<tr>
<td>Breukgrens (Mpa)</td>
<td>8-15</td>
</tr>
<tr>
<td>Slagvastheid (Nmm/mm²)</td>
<td>10-25</td>
</tr>
<tr>
<td>E-modulus (Gpa)</td>
<td>10-20</td>
</tr>
<tr>
<td>Schuifsterkte (vlak)</td>
<td>8-11</td>
</tr>
<tr>
<td>Schuifsterkte (tussenlaag)</td>
<td>3-5</td>
</tr>
<tr>
<td>Breuksterkte (%)</td>
<td>0,6-1,2</td>
</tr>
<tr>
<td>Gevaarlijke stoffen (-)</td>
<td>0,24</td>
</tr>
<tr>
<td>Absorbtie (%)</td>
<td>17</td>
</tr>
<tr>
<td>Krimp na drogen (%)</td>
<td>0,1-0,2</td>
</tr>
<tr>
<td>Geleidbaarheid (W/m0°C)</td>
<td>0,9-1,5</td>
</tr>
<tr>
<td>Lineaire uitzetting (x10-6/0°C)</td>
<td>7-12</td>
</tr>
<tr>
<td>Brandbaarheidsklasse</td>
<td>A - onbrandbaar</td>
</tr>
<tr>
<td>Brandvoortplanting (mm/min)</td>
<td>0</td>
</tr>
</tbody>
</table>

**Montagemethoden:**

De Kuiper 11  I  NL-5591 MZ HEEZE  I  Tel +31 40 84 200 63  I  Fax +31 84 727 48 72  I  info@creativcladding.nl  I  www.creativcladding.nl

Polycon GFRC gevelbekleding

**Structuur en kleur in vormvaste variatie**

Inklemmen Schroeven

Beddenhaak systeem

**Glasvezel versterkte beton panelen kunnen op verschillende manieren gemonteerd worden.**

**De montagemethode is in twee groepen onder te verdelen:**

1. **Zichtbaar**
   - Het beschikbare budget bepaalt mede de manier van bevestigen,
   - maar ook eisen op het gebied van brandgedrag en lokale richtlijnen spelen een rol bij het maken van de keuze.

**Creativ Cladding ondersteunt u bij het maken van de beste keuze.**

**Uitgekiende achterconstructies en een groot aantal varianten zorgen ervoor dat u zonder concessies aan uw**

**Door de Romeinen al op grote schaal toegepast:**

**Beton. Een bewezen duurzaam bouwmateriaal, ook voor gevelbekleding. Polycon glasvezel versterkt beton is de moderne versie.**

Leverbaar in onbeperkte reliëfs, kleuren en afmetingen. Ook voor complexe 3D-vormen is Polycon GFRC bij uitstek geschikt.
ADDITIONS

SQUARE ELEMENT

- Ferry
- Cafe
- Glass railing
- Concrete slab
- Waiting/sitting
  benches facing
  low deck or
  roof
- Shortcut with
  facing benches
- Light shed in
  parking
- Grass
- Concrete
  /Numeral stone

**ADDITIONS SQUARE ELEMENT**
ADDITIONS FLOOR PLANS

[Diagram of floor plans with various rooms and layouts]

[Diagram of floor plans with various rooms and layouts]

[Diagram of floor plans with various rooms and layouts]

[Diagram of floor plans with various rooms and layouts]
ADDITIONS
FLOOR PLANS

[Diagram of floor plans]