FLEXIBILITY WITHIN
THE PERIMETER BLOCK
CONTENT

LOCATION

BRIEF

PERIMETER BLOCK

PROBLEM STATEMENT
THEME RESEARCH
URBAN DESIGN
CONFIGURATION
COURTYARD

FLEXIBILITY

PROBLEM STATEMENT
RESEARCH FLEXIBILITY
DESIGN CONCEPT
CONSTRUCTION
FACADE SYSTEM
CLIMATE
DWELLINGS

FACADE

REFLECTION
LOCATION
LOCATION

ADJACENT TO THE IJ
LOCATION

RESTORATION OF THE OLD STRUCTURE
LOCATION

PROGRAMMATIC CONNECTION

Facilities

SPAARNDAMMERBUURT

Shopping

HOUTHAVENS
LOCATION

SPAARNDAMMERSTRAAT PROFILE

SPAARNDAMMERSTRAAT

19 meter

15,5 meter

20 meter

15 meter
If we compare the Houthaven to the Spaarndammerbuurt we can conclude a shift on different levels. For example, the target group for the Houthaven. The inhabitants of the Spaarndammerbuurt are mainly single people, which is in relation to the small dwellings. In the Houthaven, the focus is at families, therefore larger dwellings will be built. At least 50% of the dwellings should be larger than eighty-five square meters. Also, the economic group will be different. From the leefbarometer we could see the Spaarndammerbuurt increased in liveability. The Houthaven is focusing on people with a higher income. In the Spaarndammerbuurt, almost 70% of the dwelling stock is social housing, in the Houthaven they will only provide 20% of social housing.
What kind of **dwellings** do we need **in the 21st century** and how do we need to develop on one of the most interesting new sites at the Waterfront in Amsterdam? **The masterplan** as developed by the City of Amsterdam **will be leading** for the implementation of the third island as a central part of Houthavens.
BRIEF

Dwelling of the 21st Century

Flexibility

Existing Masterplan

Perimeter Block
BRIEF

DWELLING OF THE 21ST CENTURY

FLEXIBILITY

EXISTING MASTERPLAN

PERIMETER BLOCK
PROBLEM STATEMENT

UNUSED OUTDOOR SPACE
THEME RESEARCH

HET FUNEN
DICK VAN GAMEREN
AMSTERDAM

HET FUNEN
NL ARCHITECTS
AMSTERDAM

JUSTUS VAN EFFENK-WARTIER
MICHEL BRINKMAN
ROTTERDAM

KASBAH
PIET BLOM
HENGelo

WALLISBLOK
HULSHOF ARCHITECTEN
ROTTERDAM

NOORDBUURT
VMX ARCHITECTEN
IJBURG

HET GROTE HOF
RAPP+RAPP
NOOTDORP

LE MEDI
GEURST & SCHULZE
ROTTERDAM

PATIO EILAND
J. BOSCH
YPENBURG
THEME RESEARCH

RESEARCH ASPECTS:

- PRIVATE - COLLECTIVE - PUBLIC
- ACCESSIBILITY
- ORIENTATION
- DWELLING ACCESS
- FACADE - FLOOR PLAN
- MATERIALS - MARKINGS
- LAYOUT
The collective outdoor space is used more when a private outdoor space functions as a transition.

“People use open space if it is sunny, and do not use it if it is not”
- C. Alexander, Pattern Language, p. 514 -
THEME RESEARCH

ACCESSIBILITY

The outside space should only be accessible to the dwellers to increase the use of it.

NOORDBUURT - VMX

DWELLING ACCESS

The outside space should be directly accessible from the dwelling.

HET GROTE HOF - RAPP + RAPP
THEME RESEARCH

MATERIALS/MARKINGS

CLEAR MARKINGS INCREASE THE USE OF OUTDOOR SPACE

FACADE/FLOORPLAN

OPENABLE FACADE ELEMENTS WITH ADJACENT LIVING AREAS INCREASE THE USE OF OUTDOOR SPACE

JUSTUS VAN EFFENBLOK

NOORDBUURT - VMX
THEME RESEARCH

LAYOUT

DEFINED ELEMENTS ALLOW FOR DIRECT USE BY RESIDENTS

KASBAH - PIET BLOM

LAYOUT

DESIGNED ELEMENTS WITH MULTIPLE USES ALLOW FOR FREE INTERPRETATION BY RESIDENTS

DE GROTE HOF - RAPP + RAPP
URBAN DESIGN
CONFIGURATION

TYPE A

COURTYARD-SIDE

STREET-SIDE

LEVEL 0M + 1,5M
CONFIGURATION
CONFIGURATION

TYPE B

COURTYARD-SIDE

STREET-SIDE

LEVEL 3M + 4.5M
CONFIGURATION

TYPE C

LEVEL 9M + 10.5M

COURTYARD-SIDE

STREET-SIDE
CONFIGURATION

CORNER APARTMENTS (TYPE E & F)

STREET-SIDE

COURTYARD-SIDE

LEVEL 3M + 4.5M

STREET-SIDE

COURTYARD-SIDE

LEVEL 9M + 10.5M
CONFIGURATION

GROUND BOUND DWELLING (TYPE D)

WATER-SIDE

COURTYARD-SIDE

LEVEL 0M + 1,5M
COURTYARD
COURTYARD

COLLECTIVE LAWNS
PROBLEM STATEMENT

Dwelling of the 21st Century

Flexibility

Existing Masterplan

Perimeter Block
PROBLEM STATEMENT

CHANGES IN SOCIETY:

- INDIVIDUALIZATION
- DISTINCTION OF LIFESTYLES
- MODIFIED HOUSEHOLD COMPOSITIONS
- CHANGING WORLD OF EMPLOYMENT

DESIGNING FOR A WIDE RANGE OF DEMANDS
DWELLING + FLEXIBILITY = ADAPT TO DIFFERENT DEMANDS
POLYVALENCE:
THE ABILITY OF LUCID AND PERMANENT BUILT FORMS TO PERMIT MULTIPLE INTERPRETATIONS.

- B. LEUPEN, POLYVALENCE, A CONCEPT FOR THE SUSTAINABLE DWELLING -
RESEARCH FLEXIBILITY

CASE STUDIES

Housing Graz - Riegler & Rieuwe Architecten

Housing Grieshofgasse - H. Wimmer

Diagoon Housing - H. Hertzberger
RESEARCH FLEXIBILITY

- MULTIPLE EQUAL SIZED ROOMS WITH LARGE DIMENSIONS (MINIMUM: 16m²)

- POSITION OF FIXED ELEMENTS:
  - PERMANENT: BATHROOM
  - SEMI-PERMAMENT: KITCHEN

- INDEPENDENT SPATIAL STRUCTURE

CONCLUSIONS
DESIGN CONCEPT

SPLIT LEVEL CONFIGURATION

STANDARD HOME: SEPARATED FLOORS

ALLOWING VISUAL AND PHYSICAL CONNECTIONS
Polyvalent Space: Flexibility in the Use of Space

Design Concept

- Living Room
- Kitchen-Dining
- Kitchen
- Dining Room
- Master Bedroom
- Bedroom
- Working
- Exercise
- Atelier
- Practice
- Music-Room
DESIGN CONCEPT

POLYVALENT SPACES

SERVICE ZONE: BATHROOM, TOILET, ETC.

ZONE FOR: OUTDOOR SPACE, ACCES SYSTEM AND AN EXTENSION OF POLYVALENT SPACE

CIRCULATION ZONE

SPATIAL SYSTEM STACKED TYPE
CONSTRUCTION

STACKED DWELLINGS

4500 4500

+7.5M +6.0M

1800 1800

3500 3500

2500 2500

3500 3500

CONSTRUCTION SCHEME
CONSTRUCTION

FLEXIBILITY IN THE POSITION OF FACADE ELEMENT

ZONE FOR: OUTDOOR SPACE, ACCESS SYSTEM AND AN EXTENSION OF POLYVALENT SPACE

ROOM EXTENSION
OUTDOOR SPACE
GALLERY-ENTRANCE
FACADE

SPECIFIC WINDOWS RELATED TO THE USE OF SPACE
HOW TO CREATE A GENERIC FACADE SYSTEM THAT CAN BE ADJUSTED TO THE SPECIFIC DEMANDS OF THE INHABITANTS?
FACADE

INTRODUCING FACADE - FURNITURE
FACADE

COMBINED STRUCTURE + FACADE SYSTEM
FACADE

+ 500

+ 750
FACADE

+ 1000

+ 2300
FACADE

vloeropbouw:
- vloerafwerking 20mm
- dekvloer met vloerverwarming 50mm
- MatrixTegel vloerisolatie 90mm
- betonnen vloer 200mm (in het werk gestort)

akovpakket:
- baksteenpenant 180mm
- aluminium shutters (2500x345mm)
- alcoa vliesgevel (170x50mm)
- gevelmeubel (diepte 600mm)

+16500

+ 13500

VERTICAL SECTION 1 :20
Dwellings

Stacked Apartments

Type C

Type B

Type A
Dwellings

Type A (122m²)
Double Height Atelier, 2 Bedrooms, 2 Bathrooms
Dwellings

Impression Entrace
Dwellings

Type A (122m²)
Double height atelier, 2 bedrooms, 2 bathrooms

Level +1.5M Level 0
DWELLINGS

TYPE A (122m²)

DOUBLE HEIGHT ATELIER, 2 BEDROOMS, 2 BATHROOMS

LEVEL 1 + LEVEL 1,5 LEVEL 0 + LEVEL 0,5

level +4,5M level +3M

Type A

122m²

Double height atelier, 2 bedrooms, 2 bathrooms

LEVEL +4.5M LEVEL +3M
Dwellings

Variations on Type A

- Large Commercial Space
  - 1 Bedroom
  - 1 Bathroom

- No Commercial Space
  - 3 Large Bedrooms
  - 1 Bathroom
  - Extra 15m²

- No Commercial Space
  - 3 Bedrooms
  - 2 Bathrooms
Dwellings Type B
Dwellings Type C
FACADE

INTERIOR: FLEXIBLE INFILL

EXTERIOR: AMSTERDAM SCHOOL
FACADE

INTERPRETATION OF AMSTERDAM SCHOOL

EMPHASIZING CONTINUOUS ELEMENTS

EMPHASIZING CORNERS

VARIATIONS IN VOLUME

DIFFERENT USES OF BRICK PATTERNS
FACADE ELEMENTS

- VERTICAL STRIPS
- HEIGHT DIFFERENCES
- EMPHASIZING CORNERS
- PLINTH
FACADE

VARIETY OF BRICK PATTERNS
WOODEN SETBACKS

gevelopbouw:
- pleisterwerk 20mm
- hsb-element 170mm
- houten gevelbekleding (12mm) op regels

gevelmeubel (diepte 600mm)

alcoa vliesgevel 170mm

FACADE

+4.5 m

+6.0 m

+4.5 m

+4.5 m

+4.5 m

HORIZONTAL SECTION 1:20

85/92
FACADE

DIFFERENT COLOR STREET AND COURTYARD

STREET FACADE

COURTYARD FACADE
FACADE

IMPRESSION STREET
REFLECTION

DWELLING OF THE 21ST CENTURY

EXISTING MASTERPLAN

FLEXIBILITY

PERIMETER BLOCK
REFLECTION

PERIMETER BLOCK

- WELL ORIENTATED
- OUTDOOR SPACE EASILY ACCESSIBLE TO DWELLERS
- SEPARATED FROM THE PUBLIC
- USING DIFFERENT MATERIALS AND MARKINGS
- FACADE FURNITURE

FLEXIBILITY

- POLYVALENT ROOMS
- SPLIT LEVEL CONFIGURATION
- UNIFORM FACADE
- FACADE FURNITURE
Flexibility within the perimeter block

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Peter Steffens - 1503510