COMPLEX REGENERATION OF ZINKERBLOCK, FEIJENOORD NEIGHBORHOOD

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TU DELFT 2012
CULTURAL SIGNIFICANCE OF THE AREA

CRADLE OF PORT INDUSTRY

Nassaukade, Rotterdam, 1900
(Picture source: Gemeente archive, Rotterdam)

WATER BORDERS

Nassauhaven, Rotterdam, 1900
Steven Hogendijkstraat (Picture source: Gemeente archive, Rotterdam)

ARCHITECTURAL HERITAGE

STATE MONUMENTS
LISTED BUILDINGS
FUTURE MONUMENTS

HERITAGE OBJECTS

BORDERS OF HISTORICAL WATER PATTERN

CULTURAL SIGNIFICANCE
IDENTITY OF THE PLACE
ZINKERBLOCK. PANORAMIC VIEW

STRUCTURAL CHANGES IN THE LAYOUT

- DEMOLISHED PART
- NEW STRUCTURE
- PRIVATE SPACE
- NEW PASSAGES
- SEMI-PUBLIC SPACE
- PUBLIC SPACE
CURRENT LAYOUT

URBAN RENEWAL: CURRENT STATE OF BUILT ENVIRONMENT

[Diagram and images showing current layout of areas named FUENOORDDIJK, ZINKERWEG, and NIJVERHEIDSTRAAT with markings for renovation and new structure.]
CURRENT PROBLEMS OF THE AREA

PHYSICAL ENVIRONMENT

- TUMBLEDOWN DWELLING STOCK
- POOR QUALITY OF PUBLIC DOMAIN
- POOR MAINTENANCE OF PUBLIC DOMAIN

SOCIAL ENVIRONMENT

- UNFAVORABLE IMAGE OF THE AREA
- ETHNIC CLUSTERING
- SELECTIVE MIGRATION
- POVERTY OF THE INHABITANTS
CURRENT PROBLEMS OF THE AREA

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CURRENT PROBLEMS OF THE AREA

"'NON-PLACES' ARE SPACES OF TRANSPORT AND TRANSIT THAT ARE LACKING ANY HISTORICAL SIGNIFICANCE AND STRONG SYMBOLISM. WHILE CITIES' TRADITIONAL PUBLIC SPACES BRING PEOPLE TOGETHER, THESE TRANSITIONAL SPACES DO NOT APPEAR CAPABLE OF DOING SO»

MARC AUGÉ
CURRENT PROBLEMS OF THE AREA

PHYSICAL ENVIRONMENT

TUMBLEDOWN DWELLING STOCK

POOR QUALITY OF PUBLIC DOMAIN

POOR MAINTENANCE OF PUBLIC DOMAIN

SOCIAL ENVIRONMENT

UNFAVORABLE IMAGE OF THE AREA

POVERTY OF THE INHABITANTS

ETHNIC CLUSTERING

SELECTIVE MIGRATION

SOURCE OF INCOME

- Salary
- Pension
- Benefit for unemployed
- Benefit 35-65
- Benefit for jobseekers
- Benefit for registered unemployed
- Other benefit
CURRENT PROBLEMS OF THE AREA

PHYSICAL ENVIRONMENT

TUMBLEDOWN DWELLING STOCK

POOR QUALITY OF PUBLIC DOMAIN

POOR MAINTENANCE OF PUBLIC DOMAIN

SOCIAL ENVIRONMENT

UNFAVORABLE IMAGE OF THE AREA

POVERTY OF THE INHABITANTS

ETHNIC CLUSTERING

SELECTIVE MIGRATION

ETHNIC COMPOSITION
Sequence of public spaces
Diversification of public spaces
Diversification of housing
Elaboration of public domain
MASTER PLAN: GENERAL IDEAS

VISUALIZATION OF PUBLIC SPACE
LAYERING PRINCIPLE

COURTYARD FUNCTION

- SEMI-PUBLIC SPACE
- PUBLIC SPACE
- PRIVATE SPACE

PUBLIC FACILITIES

LEGEND:
- VERTICAL COMMUNICATIONS
- LIBRARY
- REPAIR SHOP
- PHARMACY
- ATELIER
- CHEESE STORE
- WINE STORE
- NEWSPAPERS AND POST
- FLOWER SHOP
- FRUIT STORE
- FOOD STORE
- BAKERY
- CAFÉ WITH OPEN TERRACE
- HOUSEHOLD GOODS
- HAIRCUT SALON

PET SHOP
BEAUTY SALON
GYM
MUSIC CLASS
CERAMICS
DANGLING CLASS
LANGUAGE CLASS
ART SCHOOL
CHESS CLASS
COMMON ROOM

FACILITIES FOR THE AREA

FACILITIES FOR THE NEIGHBORHOOD
LAYERING PRINCIPLE

HIERARCHY OF ENTRANCES

CURRENT SITUATION

GROUND FLOOR PLAN

DESIGN PROPOSAL

ENTRANCE FOR INHABITANTS

ENTRANCE FOR INHABITANTS

ENTRANCE TO FACILITIES

ACCESS TO COURTYARD FROM FACILITIES
LAYERING PRINCIPLE

VISUALIZATION: VIEWPOINT 7
LAYERING PRINCIPLE

SPATIAL CONNECTIVITY

COMMUNAL LAYER

INTROVERT
"STREET TO COURTYARD"
BELONGS TO OUTSIDE, BUT EXPANDS TO COURTYARD

GROUND FLOOR LAYER

EXTRAVERT
"COURTYARD TO STREET"
BELONGS TO COURTYARD, BUT EXPANDS TO OUTSIDE
**INNER PLANNING**

**TARGET GROUPS**

- Facing the park with children facilities
- Large sells
- Higher floors = necessity for elevator
- Historical building

**MAIN GOALS**

- Diversity
- New target groups

**FAMILIES = LARGE HOUSEHOLDS**

**19 TH CEN. PART**

**1980 S PART**

**YOUNG PEOPLE = SMALL HOUSEHOLDS**

- Smaller, but more diverse sells
- Small porches
- Lower floors = no necessity for elevator
- No heritage restrictions = more possibilities for reuse
INNER PLANNING: REPLANNING OF 19TH CEN. PART

CURRENT PROBLEMS

FUNCTIONAL ZONING

CIRCULATION

PROPORTIONS

FLEXIBILITY

CURRENT LAYOUT

NEW LAYOUT

LEGEND

- IMPROVEMENT OF ACCESSIBILITY
- MODERNIZATION OF LAYOUT
- ENLARGEMENT OF APARTMENTS’ SIZE

floor area 80-145 m²

NUMBER OF APARTMENTS
PER FLOOR:

BEFORE:
- 2BD - 12
- 3BD - 5
- 4BD - 1

AFTER:
- 1BD - 2
- 2BD - 4
- 3BD - 6

NUMBER OF APARTMENTS
PER FLOOR:

BEFORE:
- 2BD - 12
- 3BD - 5
- 4BD - 1

AFTER:
- 1BD - 2
- 2BD - 4
- 3BD - 6

floor area 80-145 m²
EXAMPLES OF TYPOLOGIES

1 BEDROOM
AREA: 40M²

2 BEDROOM
AREA: 82M²

3 BEDROOM
AREA: 120M²

3 BEDROOM
AREA: 145M²
INNER PLANNING: REPLANNING OF 19TH CEN PART - PENTHOUSE

CURRENT STATE

Dakterras

DESIGN PROPOSAL

Penthouse

PRESENTATION

- ACCOMMODATION FOR UPPER MIDDLE-CLASS FAMILIES

- CONTEMPORARY LAYOUT OF 2-LEVEL APARTMENTS

- MAXIMIZATION OF APARTMENTS' SIZE

floor area 120-200 m²
INNER PLANNING: REPLANNING OF 1980S PART

EXAMPLES OF TYPOLOGIES

TYPE 1
3D FLOOR

4TH FLOOR

3 BEDROOM
AREA: 130M²

TYPE 4
3D FLOOR

4TH FLOOR

2 BEDROOM
AREA: 84M²

TYPE 5
3D FLOOR

4TH FLOOR

4 BEDROOM
AREA: 192M²
INNER PLANNING: REPLANNING OF 1980S PART

CURRENT PROBLEMS

FUNCTIONAL ZONING

CIRCULATION

PROPORTIONS

FLEXIBILITY

CURRENT LAYOUT

NEW LAYOUT

NUMBER OF APARTMENTS PER FLOOR:

BEFORE:
- 2BD - 15
- 3BD - 1
- 5BD - 1

AFTER:
- 0BD - 5
- 1BD - 14
- 2BD - 6

- MINOR CHANGES IN LAYOUT AND INSTALLATIONS

- ACCOMMODATION OF NEW TARGET GROUPS

- INCREASEMENT OF NUMBER OF HOUSEHOLDS

floor area 25-75 m²
EXAMPLES OF TYPOLOGIES

INNER PLANNING: REPLANNING OF 1980S PART

- **TYPE 1**
  - 2 BEDROOM
  - AREA: 72M2

- **TYPE 4**
  - 1 BEDROOM
  - AREA: 60M2

- **TYPE 7**
  - STUDIO
  - AREA: 27,5M2

- **TYPE 8**
  - 1 BEDROOM
  - AREA: 61,5M2
ARCHITECTURAL LANGUAGES: MAIN IDEAS

1980s Part

19th Cen. Part

New Structure
Old Structure

Standardization vs Diversity
- UNDERLINING IDENTITY AND DIVERSITY OF OLD ARCHITECTURE

  REMOVAL OF STADSVERNIEUING ADDITIONS

  + PUNCTUAL RESTORATION

- REINTRODUCTION OF ORIGINAL ENTRANCE PATTERN

  GROUND FLOOR ENTRANCES TO FACILITIES
ARCHITECTURAL LANGUAGES: 19TH CENTURY PART (PENTHOUSE)

- SAME RHYTHM OF LOAD-BEARING STRUCTURES
  VISUAL CORRESPONDENCE WITH OLD

- DETACHED FROM EXISTING
  VISUAL AND TECHNICAL «SMOOTH» CHANGES

- VARIOUS LIFECYCLE OF COMPONENTS
  POSSIBILITIES FOR PARTIAL REPLACEMENT - FLEXIBILITY

METAL FRAMING

TRUSS FIXING TO EXISTING WALLS

METAL FRAME 50 YEARS

SELF-BEARING FACADE 20 YEARS
LVL POLES AND GLAZING
SHADING AND DECORATION 5 YEARS
FLEXIBILITY OF DESIGN FOR EVERY OWNER
- INSPIRATION IN DIVERSITY OF OLD ARCHITECTURE
  NEW SECOND-SKIN MOVED ASIDE TO DIFFERENT DISTANCES + DIVERSE CLADDING MATERIALS

- PRESERVATION OF EXISTING STRUCTURAL RYTHM
  COHERENCE WITH SPATIAL IDEAS OF STADSVERNIEWING ARCHITECTURE
1980s Part: Types of Extensions

LARGE EXTENSION

Fragment of Facade

Fragment of Floorplan

Sketch of Interior
1980s Part: Types of Extensions

Small Extension

Fragment of Facade

Sketch of Interior

Fragment of Floorplan
ZINKERBLOCK: COURTYARD FACADES

FACADE 26-1

FACADE 1-32

- VISUAL UNIFICATION OF SPACE
  SIMILAR TREATMENT FOR BOTH PARTS

- LIGHT COLOR
  VISUAL ENLARGEMENT OF SPACE

- MORE COSY, INTROVERT CHARACTER
  GROUND FLOOR TERRACES AND BALCONIES
ZINKERBLOCK: UNIFICATION OF BOTH PARTS

UNIFICATION OF THE ARCHITECTURAL LANGUAGE:
- VERTICAL COMMUNICATIONS
- COMMUNAL LAYER
- SIMILAR ARCHITECTURAL LANGUAGE:
PENTHOUSE/ LARGE EXTENSION
OLD WALL/ SMALL EXTENSION
THANKS FOR ATTENTION