LIVING OR LEAVING?
Towards a socially sustainable design for post war housing blocks.
The case of Simonsterrein in Feijenoord, Rotterdam.

Theodora Chatzi Rodopoulou_4118146
Supervisors: L. Spoormans, W.J. Quist, O.Triekenks

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Source of images: Meijel L. van, Hinterthur H, Bet E., 2010, Cultuurhistorische verkenning Feijenoord, Rotterdam
Galema W., 2010, SIMONSTERREIN Monument van activivistische stedenbouw, AIR Rotterdam
WHO?
• 7300 inhabitants

WHERE FROM?
• 82% of the population is Ethnic minorities

WHICH SOCIAL STRATA?
• 40% of the population is unemployed
• 25% of the families is below minimum income level

PROBLEMS?
• Social & financial problems
• Social segregation
• Criminality
• Downgrading of the district
CHARACTERISTICS

- 3-floor portiek flats
- 490 flats
- Open urban blocks with internal courtyards
“MONUMENT OF ACTIVISM” & a NATIONAL MODEL FOR PARTICIPATORY PROCESS.

Located in one of the MOST PROMINENT LOCATIONS OF ROTTERDAM, in direct connection with the RIVER, overlooking two PARKS.

Solid structure with significant POTENTIAL.

— OUT-DATED. It does not cover its residents needs
SOCIAL ISSUES WILL NEVER REST. PLEASE GIVE A THOUGHT.
IDEA
Exploit the opportunity of physical enhancement to have a social and financial result
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Exploit the opportunity of physical enhancement to have a social and financial result

Goal
Achieve social sustainability through participation process and physical interventions
1. **QUALITY**: Design outcome
2. **SCOPE**: Methodology
3. **SCHEDULE**: Phasing
4. **COST**: Investments & Benefits

http://en.wikipedia.org/wiki/Project_management
1. **QUALITY**: Design outcome
Intervention

Waterfront modification

Social mixing

- New core
- Modified waterfront
- Mixed social strata
- Modification
- Lower social strata
A. Functions

1. EDUCATION: Workshops
2. RECREATION: Café, restaurant
3. COMMERCE: Small-scale grocery shop
4. TRANSPORT: Water bus station
5. SERVICE & OFFICE: Vet, hairdresser salon Hunter Douglas office
6. SOCIAL FACILITIES: Communal rooms
7. PARKING

GOAL: Create SOCIAL and FINANCIAL opportunities
B. Network

C. Visual connection to the river

D. Traffic and parking rearrangement
E. Redefinition of public & private space
GOALS

• Emphasis and physical expression of the indoor collective space
• Enhancement of indoor circulation
GOALS:

- Give each apartment something extra
- Optimise functionality and comfort.

**Floor Plans - Main Typology**
Goals

- Structure façades
- Introduce a contemporary aesthetic result
- Exploit the context potential
- Refurbish

The new facades reflect the interior interventions.
1. Entrance towers
2. Corner addition
3. Studios
4. Balconies
5. Bay windows
QUALITIES

- Luminous
- Functional
- Contemporary materialization

NEW ARCHITECTURAL ELEMENTS _ ENTRANCE TOWER
QUALITIES

- Comfort
- Connection with the context
- Contemporary materialization

NEW ARCHITECTURAL ELEMENTS_CORNERS ADDITION
QUALITIES

- Comfort
- Contemporary materialization
- Exploitation of the building potential
QUALITIES

- Larger space
- Contemporary materialization

NEW ARCHITECTURAL ELEMENTS_Balconies
QUALITIES

- Comfort
- Connection with the context
- Contemporary materialization

NEW ARCHITECTURAL ELEMENTS_BAY WINDOWS

Existing

New
DETAILING PRINCIPLES

• Non-distractive intervention
• Addition of building elements

Corner construction

Entrance tower construction
A set of interventions in the building envelope and the installations contribute to a significant update of the building’s energy efficiency.

(Konstantinou T., 2011, Façade Refurbishment of the Building Stock. A strategic approach to sustainability, TU Delft)

Source
QUALITIES

- Comfort
- Lower energy cost
- Environmentally friendly
D1. Green roof

- Precast concrete
- Vegetation layer
- Filter sheet
- Drainage
- Separation and slip sheet
- Thermal insulation 100mm
- Waterproof membrane
- Concrete slab 150mm

D2. External wall

Ground floor slab

- Steel pipe
- Brick
- Thermal insulation 53mm

D2. External wall

Ground floor slab

- Flooring
- Mortar
- Waterproof membrane
- Thermal insulation 60mm
- Concrete slab 150mm
D3. Openings & Balcony

- Aluminium frame
- Steel pipe
- Aluminium facing
- Precast concrete slab
- Roller blind
- Aluminium beam 120mm
Lighting & Ventilation - Apartment - Vertical Section

Lighting & Ventilation - Entrance hall - Vertical Section

- Aluminium frame
- Steel pipe
- Aluminium facing
- Precast concrete slab
- Roller blind
- Aluminium beam 120mm
2. **SCOPE**: Methodology
1. RESEARCH
2. STAKEHOLDERS PARTICIPATION (decision making)
3. PRELIMINARY DESIGN + PARTICIPATION (feedback)
4. REVISION OF DESIGN
5. FINAL DESIGN
Simonsterrein Residents

and the consultation of:

- Housing corporation Woonstad
- Deelgemeente Feijenoord
- Residents of Neighbouring blocks
- Professionals working in the area
- The architect of Simonsterrein
- Researchers & Participation experts
1st phase (Decision making)

WHO?
13 residents of Simonsterrein blocks
12 residents of Dillenburg blocks

WHERE FROM?
Mainly Dutch. Turkish, Arab, Italian

HOW?
S: Interviews, on line-questionnaire
D: On line-questionnaire
QUALITIES?
S: Cheap, river, view
D: House quality, river, view, proximity to Rotterdam centre

PROBLEMS?
S & D: Social problems, Litter, Car circulation
2nd phase (feedback)

WHO?
6 residents of Simonsterrein blocks

HOW?
Interviews

FEEDBACK?
Context design ✓ ✓
Functions ✓
Rearrangement of the courtyards ✓ ✓
Communal rooms -
Apartment changes ✓/-
New social groups ✓
Existing Problems (Residents, Deelgemeente)

- Abandonment
- Delinquency
New courtyards

Existing

Problems

- Abandonment
- Delinquency

Proposal

- Privatization of inner courtyards
- Delineation of collective courtyards
- Communal rooms

Goals

- Maximise usability
- Create sense of belonging and responsibility
- Minimise delinquency
PARTICIPATION IMPACT ON DESIGN COLLECTIVE COURTYARDS
Dwellings with garden

PARTICIPATION IMPACT ON DESIGNPRIVATE GARDENS
• Creation of a collective indoor space
• Boost courtyard’s function
• Facilitation of social groups’ interaction

- Children playroom
- Playroom
- Elderly recreation room
- Meeting room
- Fitness room
- Multifunctional room
Problems

- Abandonment
- Delinquency
- Poor waterfront design

Proposal

- Demolition of a part of the block
- Creation of a new haven
- New functions
Goals

- Maximise usability
- Create the sense of security
- Offer social and financial opportunities

Benefited stakeholders

- Simonsterrein Residents
- Local professionals
- Hunter Douglas
- Geelgemeente
- Woonstad
Demands

according Woonstad market research

- Wider variety of households
- More one/two person households
- More houses with garden
## Proposal
- Wider variety of households

## Goals
- House different social groups in the same complex → Social mixture
- Meet market needs

## Benefited stakeholders
- Woonstad
- Simonsterrein Residents
- New residents

### Existing Typology allocation

### New Typology allocation

### Participation impact on design: floor plan typologies
3. **SCHEDULE**: Phasing
1st STEP. Nonadjacent Context
2\textsuperscript{nd} STEP. Corner addition
3rd STEP. Entrance towers & Roof apartments
4th STEP. Balconies and bay windows
5th STEP. Courtyards and gardens
1st STEP

2nd STEP

3rd STEP

4th STEP

5th STEP

- More financially feasible
- Completion of parts of the project
  - Visible results – Encouragement of stakeholders

FINANCING OF PHASING
4. **COST**: Investments & Benefits
1\textsuperscript{st} STEP

Deelgemeente
Local professionals &
Hunter Douglas

2\textsuperscript{nd} STEP

Newcomers

3\textsuperscript{rd} STEP

Woonstad & Newcomers

4\textsuperscript{th} STEP

Woonstad

5\textsuperscript{th} STEP

Deelgemeente
## Investments

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Time &amp; Effort</th>
<th>Money</th>
<th>Expertise &amp; education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>✔ ✔ ✔</td>
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<tr>
<td>New residents (middle social class)</td>
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<td>✔ ✔</td>
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<td>Housing corporation</td>
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<tr>
<td>Gemeente/Deel gemeente</td>
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<td>✔ ✔</td>
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<tr>
<td>Professionals</td>
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<tr>
<td>Social worker</td>
<td>✔ ✔ ✔</td>
<td></td>
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</tr>
</tbody>
</table>
Stakeholders

Residents
- Better living conditions
- Housing adjusted to their needs
- Bonded community
- Power and a say on their residential environment
- Opportunities to evolve

New residents (middle social class)
- High quality houses on a cheaper price

Housing corporation
- Good relations with the tenants
- Better area status
- Low risk of unsold property
- Higher market value
- Low degree of moving out
- Profit from the maintenance assignment

Gemeente/Deel gemeente
- Incorporation of minorities
- Higher area status

Professionals
- Bonds with the residents
- Standard clientele

Architect
- Ethical reward & commissions

Social worker
Project that combines:
• social and design solutions

The process and the design
• establish a living quality that satisfies the demands of the local residents
• strengthen socio-economic structure
• Make the living environment more suitable for the interaction of disadvantaged groups and middle income social strata.

The protagonist of the process is the resident.

This process is based on the existing practice of participatory design adapted for the current twenty-first century society and its unique socio-political, economical urban and architectural conditions.
Research question

How can I enhance people’s living conditions by altering their residential environment?

Research conclusion

• know their views over their residential environment and base its redesign on their needs.
• Involve users into the decision making, design and maintenance of their space.
Participation process
Interaction of the residents → formation of better social relations in the neighbourhood → more bonded and stereotype free community.

Maintenance
• makes users more responsible and careful towards their space
• facilitates users’ interaction.
Is this approach suitable for every project?

- Not an answer to every spatial problem
- Suitable for urban areas with acceptable building stock that face social problems
- Applicable if the state/city and the owner have social criteria and priorities.

Conditions?

Ladder of influence

- decision making
- consultation
- information
- ignoring
- non-participation
- trustful relation
- power
- choice
- voice

New ladder of citizen participation (Source: Evert Hasselaar)

Constrains?

SCOPE
QUALITY
SCHEDULE

CONCLUSIONS
• Focus more on the participation
• Interview more people
• Organize group meetings
• Get in a regular basis feedback from the residents and have more revise circles.
• Have an interdisciplinary approach
National unemployment rate, seasonally adjusted
As of April 2009

*Latest unemployment figures for Greece, Italy, Romania and Britain are from December 2008.

Source: