BRIDGING GAPS
A CASE STUDY OF THE SOCIALIST MASS-HOUSING QUARTER IN VILNIUS

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INTRODUCTION
INTRODUCTION TO VILNIUS

VILNIUS
Area: 401 km\(^2\)
Population: 544,206
Density: 1,357/km\(^2\)

AMSTERDAM
Area: 219 km\(^2\)
Population: 762,057
Density: 4,459/km\(^2\)
INTRODUCTION TO VILNIUS

Medieval old town and fast growing central business district

Source: J. Maciulaitiene
INTRODUCTION TO VILNIUS

Industrial Newtown district next to the old town
Source: miestai.lt
The chosen study area is this mass housing quarter located just in between the old town and large housing estates.
INTRODUCTION TO NEWTOWN DISTRICT

Vilnius in the beginning of 19th century

Vilnius in the end of 19th century
CAN THIS SITE BE A JOINING ELEMENT INSTEAD OF SEPARATING?
CONTEXT ANALYSIS
STREET CHARACTER
ACTIVITY GAPS
SITE ANALYSIS
INTRODUCTION TO THE SITE

- Built in 1957 to accommodate factory workers
- First example of standardized prefabricated houses in Vilnius
- Initially planned to last for 30 years but has not been modernised ever since
IMPRESSION OF THE SITE
IMPRESSION OF THE SITE
RESEARCH AND ANALYSIS

THEORETICAL RESEARCH

LITERATURE STUDY

Public space
Urban living environment

EMPIRICAL RESEARCH

ANALYSIS

INTERVIEWS

Selection of main interview points: qualities and issues

<table>
<thead>
<tr>
<th>Interview no.</th>
<th>Location</th>
<th>Needs</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>City centre</td>
<td>More car parking</td>
<td>It's terrible to live here</td>
</tr>
<tr>
<td>2</td>
<td>District</td>
<td>Cut some trees down</td>
<td>City centre location</td>
</tr>
<tr>
<td>3</td>
<td>Park near by</td>
<td>More active play equipment</td>
<td>I don't like living here because of the neighbours</td>
</tr>
<tr>
<td>4</td>
<td>Kindergarten near by</td>
<td>More public transport</td>
<td>Many asocial people</td>
</tr>
</tbody>
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RESEARCH AND ANALYSIS

SPATIAL DIMENSION:
- Fit
- Permeability
- Variety | Diversity
- Spatial continuity
- Degrees of publicness
- Accessibility
- Adaptability
- Connectivity

FUNCTIONAL DIMENSION:
- Diversity
- Vitality
- Robustness
- Activity
- Relaxation
- Passive engagement
- Active engagement

PERCEPTUAL DIMENSION:
- Imageability
- Identity
- Legibility
- Sense | Sense of place
- Visual appropriateness
- Richness
- Discovery

SOCIAL DIMENSION:
- Access
- Control
- Stakeholders involvement
- Personalization
CONCLUSION: MAIN ISSUES

- MONOFUNCTIONAL
- EXCESS OF SEMI-PUBLIC SPACE
- LACK OF RECREATIONAL SPACE
- INSUFFICIENT PARKING
- ONE TYPE OF HOUSING
URBAN STRATEGY
1. ACTIVATING GROUND FLOOR
2. GROUPING PUBLIC CARE FACILITIES
3. NEW SOCIAL CENTER
4. DEMOLISHING PARTS OF BUILDINGS
5. REHOUSING RESIDENTS FROM DEMOLISHED TO NEW BUILDINGS
6. ADDING ADDITIONAL HOUSING BLOCKS WITH DIFFERENT HOUSING TYPES
7. ADDING NEW VOLUMES ON TOP OF EXISTING
8. COLLECTIVE SPACE
9. RECREATIONAL SPACE
10. PUBLIC AXIS
10. PUBLIC AXIS
11. PUBLIC AXIS - LINK TO LARGE HOUSING ESTATE
12. NEW BUILDING AS A CENTRAL NODE
IMPLEMENTATION
THE GREEN STRIP: PICNIC HILLS
THE GREEN STRIP: CHILDREN PLAY ZONE
THE GREEN STRIP: GAME ZONE
THE GREEN STRIP: GARDEN
INCREASED ON-STREET PARKING
ADDITIONAL POCKET PARKING
NEW UNDERGROUND PARKING
OLD AND NEW HOUSING
ARCHITECTURAL DESIGN
CONCEPT OF THE BUILDING
MIXED USE: PARKING
MIXED USE: COMMERCIAL SPACE
MIXED USE: HOUSING LIVE+WORK
PUBLIC PRIVATE RELATIONSHIP
SQUARE AS AN ACTIVITY NODE
CONCEPT OF THE SQUARE
CONCEPT OF THE SQUARE
CONCEPT OF THE SQUARE

Permeable pavement

Overflow to discharge or further treatment if required

Permeable sub-base

Infiltration
‘HOLES’ WITH TREES
ACCESS FROM/TO PARKING
THE GALLERY
LIVING+WORKING TYPOLOGY
TYPES OF WORKSHOPS

- Creative office (architects, designers...)
- Small cafe
- Art studio & gallery
- Design expo - furniture
- Foto studio
- Office & sales point literature, gifts...
- Culinary studio bakery, sweets...
- Design expo - textile
- Design shop - fashion
- Crafts studio ceramics, jewelry, textile...
TYPES OF WORKSHOPS

Continues space

Largely open area

Strictly separated zones

Two separate zones

Divided zones

Slight obstructions

Strictly separated zones
TYPES OF HOUSING UNITS
‘DOUBLE HEIGHT’ UNIT
‘TWO FLOOR’ UNIT
GLAZED TERRACOTTA TILES

SHEET METAL ROOF CLADDING

VIROC - COMPOSITE OF PINE WOOD PARTICLES AND CEMENT

MATERIALISATION
MATERIALISATION

NATURAL LOOK TIMBER PANELS - LARCH OR ASP

TERRACOTTA STICKS

- column
- plug-in unit
- 50X50 terracotta stick
- 25X25 steel square pipe
- bolt
BUILDING TECHNOLOGY
STRUCTURAL SCHEME

PITCHED ROOF

TIMBER BEAMS

TUNNEL FORM STRUCTURE

IN SITU CONCRETE COLUMN-SLAB STRUCTURE
VENTILATION SCHEME

cross ventilation

parking natural ventilation
cross ventilation

parking natural ventilation
VENTILATION SCHEME: COMMERCE

heat exchanger in the boiler room
heat exchanger in the boiler room
VENTILATION SCHEME: HOUSING

heat exchanger per unit
SOLAR ENERGY USE

cold water feed

solar thermal panels

tank

boiler

to taps

to taps

radiant heating
VISUAL IMPRESSIONS
THANK YOU!