The Case of Leipzig. A City between Migration and Integration
Social cohesion through a mixed-use housing model for a higher city competitiveness performance.

forecasting the Gartenstadt

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LEIPZIG BECOMES AN IMPORTANT FAIR TRADE CENTER 1190

500 INHABITANTS
FIRST SHRINKAGE DURING THE THIRTY YEARS WAR 1618-1648

20,000-14,000 INHABITANTS
EXPANSION OF HISTORICAL CITY CENTRE DURING INDUSTRIALIZATION, 1871

106,925 INHABITANTS
POPULATION CLIMAX BEFORE THE SECOND WORLD WAR 1930

718,200 INHABITANTS
SOCIALIST REGIME
FROM 1949-1989,
DECLINE TO 530,010 INHABITANTS
AFTER THE REUNION
100,000 PEOPLE LEFT IN 10 YEARS
1998: 437,101 INHABITANTS

Population density: SPRAWL and SHRINKAGE

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Brownfield and business zones
Public buildings
Historical City centre
Inner outskirts
Wilhelmina buildings
City-villas
Mixed inner city
Mixed periphery
Settlements until 1945
Settlements until 1970
Prefabricated buildings
Multi-family housing after 90
Family homes 1990-1999
Family homes after 1999
Family homes planned

inhabitant/area
inhabitant/1000 inh.
City Development:
Around 1900

Leipzig Today

Foundation of the German Democratic Republic

Peaceful Revolution 1991
Free election of the city council

Incorporation of municipalities

City Profile

01

Area: 297.60 km²
Population: 507,578
Density: 1,702 /km²
GDP: 11,670 mio EUR
debt: 900 mio EUR

1991

1945

Socialism, proclaimed through Soviet Union

In informal coalition between Social and Christian Democrats (Modell of Leipzig)

Tourism
Biotechnology
Distribution Hub

Coal mining
Energy production
Chemical industries

De-Industrialism
Social / economical aspects

- Low fertility rate, Aging population
- "brain drain" and Jobless growth leads to high unemployment rates -> on local level up to 25%
- Education not bound to local employment

Spatial aspects

- Suburbanization, Loss of quality in inner city
- Decaying buildings, Formation of stigmatized neighborhoods
- Vacancy rate 33%/36% especially in Wilhelmina houses

Environmental aspects

- New mobility, high car use rate
- Brownfields
- Education not bound to local employment

Problem on City level spatial fragmentation/perforation

- Improvement of accessibility/connectivity

Problem on Local level social segregation

- Enhance social cohesion through mixed-use housing

FOR a higher city competitiveness

Social / economical aspects

- Economic and demographical shrinking city
- High migration rate within and out of the city
- Young migrants, formation of stigmatized neighborhoods
**Sustainable Development**

According to Michael Porter (Porter 2005-2006) these factors are:
- Social cohesion: based on human needs, organized civic society
- Preservation of cultural identity
- Investment in education -> innovation, life-long learning
- Preservation of natural assets of production and recreation
- Quality of physical environment: water, air, soil...
- Quality of urban infrastructure: transportation (affordable mobility), communication, energy supply, sewage system, waste disposal...

**Cosmopolitan Vision / Mixed-use development**

Hartmut Haeussermann

Five reasons for mixed-use housing (Grant 2005):
- Mix creates an urban environment active at all hours, making optimum use of infrastructure.
- Smaller, post-baby-boom households can have a greater range of options (rather than just detached homes).
- Mixing housing types could increase affordability and equity by reducing the premium that exclusive, segregated areas enjoy.
- By providing housing near commercial and civic activities, planners could reduce the dependence of elderly and children on cars.
- Enabling people to live near places where they can shop, work, or play could reduce car ownership and vehicle trips, increase pedestrian and transit use, and thus alleviate the environmental consequences associated with automobile use.
RELAUNCHING THE GARTENSTADT IDEAS

- Living in a healthy environment
- Having an own garden
- Moving with sustainable transport
- Enjoying the city amenities

Case of Leipzig:
- Low density multi-units in the peri-urban
- Strong social cohesion in housing community
- Urban agriculture within housing typology
- Sustainable micro-mobility in and between sub-centralities
The spatial reaction of structural changes (reunion, demographical and economical changes) was dispersion and fragmentation of the city. Though a cohesive spatial structure as it is asked for in the European model, needs to be connected at all levels. Different spatial interventions which are there, such as the Free Economical Development Zone of adjacent countries, were analysed and taken as an element into the urban renewal strategy of the neighborhoods.

The general strategy is to take the strength of the European model on highest level as an opportunity and scale it down on local level. The continuity of the European Spatial Development Goals is in spatial as well as social cohesion. That continuity is tried to apply in the city and neighborhood strategy as well.

PROXIMITY TO EASTERN EUROPE

source: www.cadses.net, 2007
Prevention of further suburbanization with counter-urbanization and infiltration of free spaces of the peri-urban for future demand.

URBAN RENEWAL ZONES IN PERI-URBAN AREA
-> especially in the West and the East of the historical city centre, the peri-urban areas are in desperate need for urban renewal.
Redirection of urban development

- Perforation through suburbanisation and deterionation
- Infiltration through transformation and redistribution

Dual City Model

- Network city around corridors and nodes new european city on regional model
- compact mixed-use development, traditional european city on local level
STRENGTHENING MAIN AXIS: FACILITATOR ON MULTIPLE LEVELS
Free Economical Development Zone
Local Employment
Sustainable Mobility
Sub-centrality
Quality Housing
Cross-over Park
Skate arena
Ludwigstrasse
Eisenbahnstrasse
Konradstrasse
Lorenzstrasse
Elsastrasse
Kohlgartenstrasse
Ludwig-Erhard-Strasse
Dresdner Strasse
Kreuzstrasse
Kuchengartenstrasse
Comeniusstrasse
Bergstrasse
Dornbergerstrasse
Zollikoferstrasse
Lilienstrasse
Melchiorstrasse
Hermann-Liebmann-Strasse
Wiebelstrasse
Wurzner Strasse
Wurzner Strasse
Bennigsenstrasse
Eisenbahnstrasse
Ludwigstrasse
Ludwigstrasse
Mariannenstrasse
Schulze-Delitzsch-Strasse
Meissner Strasse
Meissner Strasse
Thorgauer Strasse
Thorgauer Strasse
Bike+Ride
Station
1:5000
FIRST DEMOLITION FOR DEVELOPMENT ALONG MAIN AXIS 2008
Demolition
RENOVATION OF EDUCATIONAL BUILDINGS 2008-2012
STARTING THE DISTRICT PARK 2009

Demolition

1:5000
200m
EXCAVATING FIRST SECTION OF THE CREEK 2009
CONTINUITY OF THE DISTRICT PARK
2011-2013
INTRODUCING FOOT PATHS INTO THE BLOCKS 2013-2018
STARTING THE ACTIVE BAND AND CITY FARM 2015
CONTINUITY OF
ACTIVE BAND AND
NEW CITY HOUSING
2016
FURTHER TRANSFORMATION AND ACTIVE BAND 2017-2020

Demolition
NEW CITY HOUSING AND CLOSURE OF ACTIVE BAND 2020-2025
FUTURE DEVELOPMENT -> SUSTAINABLE TYPOLGIES
2025-2030
Step 1: 2008-2013
MODERATE SCENARIO

START-UP PROJECTS
Municipal Initiative:
Mediathek, District Park,
Strengthening of axis
-> not waiting for the market!

Step 2: 2013-2020
TRANSFORMATION
Private Initiative:
Improving living and working space in existing urban fabric
-> not depending on the market!

Step 3: 2020-2030
BUILD-UP
Public-Private Initiative:
New facilities for possible growth of the population
-> depending on success!

EXTREME GROWTH

Investment in any case

Build up can start earlier, according on demand

No new build up projects, but securing the quality of the existing condition

SHRINKAGE

Flexible Planning

URBAN Renewal alternatives
Stimulating Design Examples - Evaluation

Block Typologies

- semi-public courtyard
  - G+3
  - public service
  - streetlevel ramp
  - basin
  - gardens
  - public alley
  - threshold space (height difference)
- private courtyard
  - private house
  - private garden
  - community gardens
  - threshold space
  - flowerbed
  - playground for whole block
  - traffic device
City Profile - Problem Statement - Theoretical Framework - Strategic Planning Framework - Stimulating Design Examples - Evaluation

Public Courtyard

- Assembly space
- Solar panel sculpture
- Passage to courtyard
- Green roof
- Rain water collection
- Water tank
- Sauna
- Child care
- Bike-repair
- Playground
- Bike-storage
- Cafe
- Literature-court
- Communication
- Auditorium
- First address living space
- Second address office space
- Maisonnette
- Apartment
- Living+Working
- Atelier
- Displays
- First address living space
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DESIGN PROJECT
- 17 houses for individual use /
- 1 for community use
- Footprint: 4,085 sqm
- Living and working: 15,845 sqm
- Working space: 4,580 sqm
- Inhabitants: approx. 150 apart., 255
- Apartment-size: average 95 sqm

- Rent: 2 x 300 EUR warm
- Rent: 1 x 350 EUR warm
- Rent: 1 x 250 EUR warm
- Rent: 1 x 600 EUR warm

- Living+Working
- Green roof
- Rain water collection
- Summer sun: 62.2
- Winter sun: 15.2

- Atelier water tank
- Maisonnette
- Apartment
- Living+Working
- Studio
- Bike-repair
- Playground
- Bike-storage
- Cafe
- Literature-court
- Communication
- Auditorium
- Footprint: 4,085 sqm
- Living and working: 15,845 sqm
- Working space: 4,580 sqm
- Inhabitants: approx. 150 apart., 255
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Plagwitz before ... and after urban renewal

EVALUATION
Look back at Plagwitz

Qualities In The West:
- Proximity to Auewald
- Waterways, Living by the water, connection to lake district
- Proximity to city centre

Plagwitz was able to change its image from an industrial location to a creative district with mostly young people.

Plagwitz plays a crucial role in the whole city layout and has its impact on the East. Waterways are reachable easily by bike.

Local Enterprizes

Inhabitants of district
City Profile - Problem Statement - Theoretical Framework - Strategic Planning Framework - Stimulating Design Examples - Evaluation

Three Urban Scales

Neu-Paunsdorf: intra-regional redistribution (720 apartments)
new family homes in the city (ca. 55,000 new family homes are demanded until 2015)

Volkmarndorf
Neusiedl/ Neuschoenefeld: 13,886 empty apartments

FLEXIBLE URBAN RENEWAL STRATEGY
TRANSFORMATION OF URBAN SPACE

Intervention Unit (local level)
Bigger layouts combining living and working: 678 buildings with ca. 60m2/apart. -> 448 buildings with ca. 90m2/apart.

HIGHWAY-RING, DEVELOPING CORRIDOR AND RINGROAD
MAIN AXIS, BIKE BOULEVARD, LOCAL FACILITATOR AND CONNECTOR TO REGIONAL SCALE

Neu-Paunsdorf: intra-regional redistribution (720 apartments)
new family homes in the city (ca. 55,000 new family homes are demanded until 2015)

Bypass (city level)
Developing corridor (regional level)
Bike+Ride
Transition point, Bike+Ride

Bypass (city level)
Developing corridor
Bike+Ride
Transition point

Bypass (city level)
Developing corridor
Bike+Ride
Transition point
Analysis of the background of the city based on the geography of the region, and its socio-economic and technical structure and formulating of a PROBLEM STATEMENT

Development of different scenarios in relation to the problem statement and a strategy that will lead the city towards a VISION

Tackling the problem using various spatial interventions, SCENARIOS within the previous strategic planning.

Elaboration of the strategic project in a DESIGN PROJECT using the methodology research by design.

Reflection of the whole process: PROBLEM STATEMENT, VISION, STRATEGY AND DESIGN PROJECT in one consistent program.

Understanding of the city region

CITY PROFILE
PROBLEM STATEMENT
HYPOTHESIS

Comparative study
STRATEGIC PLANNING
-> VISION 2030

Strategic projects
LOCAL ANALYSIS
IMPLEMENTATION OF VISION ON SITE NEIGHBORHOOD SCENARIO CASE STUDIES

Typology of building block
DESIGN AND CALCULATION OF INTERVENTION UNIT

Evaluation of the project
TESTING ON THREE URBAN SCALES CONCLUSIONS LITERATURE EVALUATION

Research, analysis, design

Methodology

Envisioning perspective

Framing the design project

Evaluation of the project

City profile

Problem statement

Theoretical framework

Strategic planning framework

Stimulating design examples

Evaluation

Research by design questions

- What is the qualitative demand of the people living in the neighborhood?
- How are the material conditions of the neighborhood; quality of buildings?
- How can mixed-use housing influence the social structure of the neighborhood? What kind of typologies are needed?
- What is the spatial program, needed for sustainable local development? Employment facilities, connectivity, centrality,...