IN FAVOUR OF SPONTANEOUS GROWTH

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The Case of Turin
Research Question
THE DREAM OF PERMANENCE
"THE ONLY CERTAINTY IS THAT EVERYTHING CHANGES"
PROJECT BACKGROUND

URBAN REGENERATION

INTRODUCTION
Urban Regeneration
Problem Definition
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The Case of Turin
Research Question

07/100
Abandoibarra, Bilbao, Spain (before and after)
**Criticism**

1. Social-spatial justice (Harvey, 2012 & Smith, 2002)
2. Physical removal of the ‘undesirable’ elements e.g. fabric and communities instead of fitting them into a new context (Orueta, 2007)

**Challenge**

1. Neither available financial capital nor political urgency after 2008 in the Western World
2. Planning and reality are generally poles apart (Oswalt, Overmeyer & Misselwitz, 2013) - ‘to be redeveloped’ syndrome
PROJECT BACKGROUND

PROBLEM DEFINITION

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PROBLEM DEFINITION
PROBLEM STATEMENT

After two decades of intensive urban regeneration process today, mainly in Europe, there is an urgent necessity for innovative modes of sustainable urban transformation which are able to utilise the ever-changing driving forces of development within cities.
THE CASE OF TURIN

Strong Industrial Heritage
(Presence of a Substantial Amount of Former Industrial Sites)

Regeneration Ambitions
(Holistic Policy Approach towards Regeneration & Renewal Programs)

Economic Recession
(City experiencing Problems due to the Economic Recession)
THE CASE OF TURIN

Challenge Remains

[1] Substantial effort in physical revitalisation and promoting post-industrial image since 1990s

[2] Half of the target areas are still waiting actual interventions to be grounded (De Rossi & Durbiano, 2008)

[3] Not sufficient financial resources available for large-scale, top-down initiated redevelopment projects
How a sustainable urban regeneration approach can be developed on the basis of spontaneous growth and temporal utilisation of urban space while being practically applicable in the case of Turin, Italy?
THEORETICAL FRAMEWORK
urban form Evolution
Spontaneous Growth
Temporary Urbanism
Concept
User Profile

URBAN FORM EVOLUTION

“Urban Form is an incident of history, we are what we have built” (Kostof, 1991:93)
SOLID VS. LIQUID MODERNITY

Liquid Modernity


[1] Perfect state does not exist
[2] Uncertainties, continuous risk and shifting trust as permanent conditions; thus, priorities flexibility, adaptability and resilience

Solid Modernity


[1] Fully ‘rational perfect world’
[2] Uncertainties and personal insecurities could be overcome by control mechanism such as hierarchical bureaucracy, rules and regulations
Today cities confront the paradox of relying on structures and practices established during the ‘solid’ modernity to resolve problems of the ‘liquid’ modernity.
SPONTANEOUS GROWTH
**Theoretical Framework #2**

**Concept**

**Definition**

1. Arises when multiple actors spontaneously adopt a set of actions that provides them with a competitive advantage (Hayek, F. 1973)

2. Spontaneous urban growth essentially relies on the complex relationships between the urban inhabitants

**Possibilities**

1. Spontaneous urban order still generates urban morphologies today

2. Enhances the urban vitality and distinctiveness (Urhahn, 2010:13)

3. Support the creation of an adaptable, flexible and self-sustaining urban structure (Hélie, 2009:75)

The essence of the concept is rather problematic to be operationalised
THEORETICAL FRAMEWORK

TEMPORARY URBANISM

Urban Form Evolution
Spontaneous Growth
Temporary Urbanism
Concept
User Profile
TEMPORARY URBANISM

**Definition**

1. Adaptive temporal (re)use of urban space for only days, weeks, or months at a time
2. Highly flexible in terms of form depending on functional demands
3. An effective, low-cost approach to revitalize urban areas

**Favourable Conditions**

1. Vacancy
2. Financial Insecurity
3. Creative Milieu
4. Urban Activism
Temporary Users

Profile

[1] Newcomers, people whose lives are in a state of influx

[2] Lack of financial capital seeking for acquiring space for free or on favourable conditions

[3] High social and cultural capital, educated and active, most of the time young people

[4] Common to all temporary users is a tendency to set to work spontaneously with existing conditions

Demographic Statistics

Data Source: Statistics Office of Turin

- 8% Annual growth rate of Newcomers in Turin
- 40% Percentage of Single people in Turin
- 32% Share of the residents between 20 and 45 years
- 27% Percentage of the citizens with a University Degree
EXPLORING TURIN
EXPLORING TURIN

CITY OF TURIN

City of Turin
Background
Urban Regeneration
Study Area
Strategic Context
Urban Tissues
Design Task

25/100
**Industrial Heritage**

1. Former **highly Industrialised City** during 20th century
2. Long-term engagement with automobile manufacturing (FIAT) - ‘European Detroit’
3. After 1970s a severe economic and urban crisis takes place in Turin
PHYSICAL CONSEQUENCES
URBAN REGENERATION

THE THREE AXIAL CENTRALITIES PLAN

CORSO MARCHE
METROPOLITAN AXIS

SPINA CENTRALE
URBAN AXIS

PO PROJECT
RECREATIONAL AXIS

STURA

PO PROJECT

DORA II

REBAUDENGO

PORTA SUSA

ZAPPATA

LINGOTTO

GRUGLIASCO

ORBASSANO

SAN PAOLO

25 10 km 2.50
SPINA CENTRALE

3.5 km to Turin Airport
SFM 4 to Genova

850 m/0.50 km

Spina 1

Spina 2

Spina 3

Spina 4
**RAILWAY NETWORK**

**Consideration**

1. Promotion of transit-orientated development
2. “City of cities”
3. Ambitions to become a regional transport hub
EXPLORING TURIN

STUDY AREA

City of Turin
Background
Urban Regeneration
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Strategic Context
Urban Tissues
Design Task
**Strategic Context**

1. **Strategic axis** in respect to the three axial centralities plan
2. **Highly connected** area in terms of future ambition of Turin (2025-2030)

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**Consideration**

- Major Railway Station
- Regional Railway Station
- Urban Railway Station
- Future Railway Station
- Metro Station
- Future Metro Station
- Existing Railway
- Railway (extension)
- Metro Network
- Metro Network (extension)
**Strategic Context**

**Redevelopment Failures**

1. Re-location of Piedmonte Tower in Lingotto area (currently under construction)
2. Construction of the Lyon-Turin’s high-speed connection **on hold**
3. Lack of investment interest
"To be redeveloped" areas
Restricted areas
Non-maintained or left over Green Area

Legend
(RE)DEVELOPMENT ON HOLD
**PHYSICAL TISSUE**

- **Spatial Fragmentation**
- **Decaying Areas as Spatial Voids**
- **Lots of Distinctive Landmarks**
- **Lots of Green but disconnected**
CONNECTIVITY TISSUE

Non-efficient Traffic Junctions

Car-dominated Environment

Poor Walking Conditions

Adventurous Mobility Mode
Exploring Turin #3

City of Turin
Background
Urban Regeneration
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Design Task

Legend
- Commercial Activities
- Horeca (Hotels, Bars, Restaurants)
- Cultural Activities
- Sport & Recreational Activities
- Churches
- High Concentration of Activities
- Medium Concentration of Activities
- Low Concentration of Activities
- Concentration of Recreational Activities
MAJOR PROBLEMS (spatial, activities, connectivity)

[1] Not existing public space network (S/A/C)
[2] Complicated and non-efficient traffic junctions (S/C)
[3] Poor conditions for slow-speed mobility modes (C)
[4] Presence of derelict buildings and outdoor, left-over urban spaces (S)
[5] Lack of outdoor activities (A)
[6] Lack of physical flexibility hampering the variety of activities within the area (S/A)

FUTURE CONSIDERATION

[1] The area is incorporated within the strategic redevelopment framework of Turin
[2] Construction of new railway station e.g. Zappata from urban importance & interconnection with the network of Turin’s metro system
Exploring Turin #3

City of Turin
- Background
- Urban Regeneration
Study Area
- Strategic Context
- Urban Tissues
Design Task

**THEORY**
- Spontaneous Urban Growth
- Temporary Urbanism

**STRATEGY**
- Three Axial Centralities Plan

**SPATIAL CHALLENGE**
- Urban voids

**DESIGN TASK**

Research Question: ‘How a sustainable urban regeneration approach can be developed on the basis of spontaneous growth and temporary utilisation of urban space while being practically applicable in the case of Turin, Italy?’

Experimental design on the basis of spontaneous growth and temporary urbanism within the strategic regeneration vision of Turin.
EXPLORING TURIN

City of Turin
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Design Task

TURIN URBAN SCALE + STUDY AREA LOCAL SCALE = TEMPORARY URBANISM POTENTIAL INTERVENTIONS

I
Deal with Spatial Fragmentation

II
Alternative Mobility

III
Connection between Urban and Natural Environment

IV
Community-Building and Identity Values

V
Establishing of Creative Milieu

VI
New Provision of Rental Housing

(S/A/C)
Not existing public space network

(S/C)
Complicated traffic junctions

(C)
Poor conditions for slow-speed mobility modes

(S)
Presence of derelict buildings and outdoor, left-over urban spaces

(A)
Lack of outdoor activities

(S/A)
Lack of physical flexibility hampering the variety of activities within the area

Temporary path & shelters for bikes
Temporary socio-cultural institutions
Temporary community events
Urban gardening
Night clubs & event locations
Temporary commercial spaces
Temporary Housing
Beautification of existing spaces

DESIGN PROPOSITION
DESIGN CONCEPT

Design Concept
Rethink Regeneration
Goals
Principles
Urban Strategy
Structure
Tissue
Site Design
Workshop
Experiment
RETHINK URBAN REGENERATION

Design Concept
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Planning & Design Model
URBAN (RE) DEVELOPMENT
Policy & Stakeholder Model
Business & Financial Model
Physical Dimension
Societal Dimension
Economic Dimension

Blue-Print Plan
Open Development Plan
Hierarchical Power Mechanism
Heterarchical Power Mechanism
Financially-Based Scheme
Content-Based Scheme
DESIGN ≠ DESIGN
DESIGN = (OPEN) DEVELOPMENT STRATEGY

DESIGN = INITIATIVE / VISION

DESIGN = CONTENT MANAGEMENT

DESIGN = DEMONSTRATE WHAT IS POSSIBLE
Design Concept
Rethink Regeneration
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REGENERATION OBJECTIVES

LARGE-SCALE DESIGN
SPATIAL VOIDS
LONG-TERM VISIONS

SMALL-SCALE DESIGN
SPATIAL POTENTIALS
SHORT-TERM INTERVENTIONS
**SCIENTIFIC OBJECTIVES**

**Design Concept**
- Rethink Regeneration

**Goals**

**Principles**
- Urban Strategy
- Structure
- Tissue
- Site Design
- Workshop
- Experiment

**Blueprint Planning**
- Permanent (Heavy) Structures
- Single Developer

**Open Development Planning**
- Temporary (Light) Structures
- Developers Diversity
MAJOR DESIGN PRINCIPLES

[1] APPRECIATE THE INCOMPLETE

[2] PROMOTE COPRODUCTION AND COLLECTIVE VALUES

[3] BE USER-ORIENTATED

[4] COMBINE TOP-DOWN AND BOTTOM-UP
URBAN STRATEGY

Design Proposition

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URBAN STRATEGY

CITY SCALE
TURIN

DISTRICT SCALE
STUDY AREA

SITE SCALE
IDENTIFIED SITE

DESIGN CONCEPT
RETHINK REGENERATION
GOALS
PRINCIPLES
URBAN STRATEGY
STRUCTURE
TISSUE
SITE DESIGN
WORKSHOP
EXPERIMENT

DESIGN PROPOSITION #4

URBAN STRATEGY DESIGN

CITY SCALE TURIN

DISTRICT SCALE STUDY AREA

SITE SCALE IDENTIFIED SITE

STRATEGY

DESIGN
Spatial Interventions

1. More space for slow-speed mobility modes
2. More space for public transport
3. More public amenities
**Design Concept**
- Rethink Regeneration

**Goals**

**Principles**

**Urban Strategy**

**Structure**

**Tissue**

**Site Design**

**Workshop**

**Experiment**

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**Legend**
- Tram Stop
- Bus Stop
- Existing [TO] Bike Stand
- Proposed [TO] Bike Stand
- Future Railway Station
- Future Metro Station
- Existing Bike Routes
- Proposed Bike Routes
- (Temporal) Pedestrianised Zones
- Future Metro Line
Design Proposition #4

Design Concept
Rethink Regeneration

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Tissue

Site Design
Workshop
Experiment

Before

Corso Rosselli

500 m

After
Design Proposition #4

Design Concept
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Principles
Urban Strategy
Structure
Tissue
Site Design
Workshop
Experiment

Via Gorizia

before

500 m^2

before
Spatial Interventions

[1] Continuous green elements: (a) boulevards & (b) buffer green

[2] Nodal green elements: (a) highlighted green, (b) pocket parks, (c) urban gardens and (d) playgrounds
Design Concept
Rethink Regeneration
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LEGEND
- Existing Boulevards Enhancement
- New Boulevards
- Urban Park
- Pocket Park
- Buffer (Isolation) Green
- Urban Gardening
- Highlighted Green
- Pedestrianized Area

0 100 250 500 1000 2000 m
Design Concept
Rethink Regeneration
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LEGEND
- Derelict Urban Fabric
- Underutilised Urban Space
- Inefficient Traffic Junctions
- Existing Activity Patterns
- Physical Barrier

STRATEGIC LOCATIONS
Design Concept
Rethink Regeneration
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Development Plausibility

Local Scale Importance
District Scale Importance
Landmark
Urban Scale Importance
Design Proposition #4

Urban Design Strategy

Phase I

[1] Explicitly based on the local potentials of the physical, connectivity and socio-economic tissues of the area

[2] Development of certain strategic locations aiming to boost the quality and the network of the area

Phase II

[1] The already established locations in the area assist the expansion of the activity patterns

[2] Ideally the developed patterns and functions can be translated in the permanent structure of the area for the future
### Urban Design Strategy

<table>
<thead>
<tr>
<th>Stage</th>
<th>Concept</th>
<th>Physical Structure</th>
<th>Time</th>
<th>Organisation</th>
</tr>
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<tbody>
<tr>
<td>I</td>
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<td>Loose Framework Spontaneous Shapes</td>
</tr>
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<td>Permanent for a Period</td>
<td>Strict Framework Forming Shapes</td>
</tr>
<tr>
<td>III</td>
<td>Heavy Structures</td>
<td></td>
<td>Permanent</td>
<td>Filled Framework Built-Up Shapes</td>
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**Design Concept**
- Rethink Regeneration
- Goals
- Principles

**Urban Strategy**
- Structure
- Tissue

**Site Design**
- Workshop
- Experiment

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# Urban Design Strategy

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**Design Concept**
- Rethink Regeneration
- Goals
- Principles

**Urban Strategy**
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**Site Design**
- Workshop
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**Design Proposition #4**
SITE DESIGN

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Experiment
**Design Proposition #4**

[00] “TO BE REDEVELOPED” (2014)

**Activities & Interventions**

1. Status Evaluation
2. Down Scaling
3. Financial Re-Formation

**Objectives**

- New regeneration plan
- New spatial design model
- Alternative investment model

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**Design Concept**

- Rethink Regeneration
- Goals
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- Urban Strategy
- Structure
- Tissue

**Site Design**

- Workshop
- Experiment

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**Site Design Workshop Experiment**

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Activity & Interventions

[1] Structural Establishment
[2] Organise Community Workshops
[3] Largo Tirreno Competition

Objectives

- Urban Integration
- Mobilise local communities
- Demonstrate what is possible
LARGO TIRRENO
PUBLIC IDEA COMPETITION

SPATIAL REQUIREMENTS

- Utilising light structures which can be easily removed
- Minimum 80% of the largo Tirreno has to be maintained as open green space
- The mobility structure proposed by the urban strategy should be preserved

**OBJECTIVES**
- Kick off the (Re)development
- Link local citizens and economy
- Promote the Locality

**ACTIVITIES & INTERVENTIONS**
1. Make use of the Spatial Voids
2. Place-Making

**Design Concept**
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[02] STAKEHOLDER MODEL

Design Concept
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**Design Proposition #4**

**Area of Interest 1**

**Objectives**
- Establish a flexible spatial framework to support further development.
- Develop the activity patterns of the area through the vacant lot.

**Spatial Interventions**
- Connect the vacant lot to public space network.
- Add temporary commercial spaces within the space.
- Provide open green spaces and places to meet and rest.

“To be Redeveloped
10,000 square metres
Former industrial land

**Design Concept**
Rethink Regeneration
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Love your local market
AREA OF INTEREST 2

OBJECTIVES
1. Integrate the former industrial land within the context of the surrounding urban form
2. Introduce socio-cultural functions within the area

SPATIAL INTERVENTIONS
1. Establish main entrances to the territory
2. Install service infrastructure (electricity, water, etc.)
3. Create an open public space which can be used for socio-cultural activities

Design Concept
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**ACTIVITIES & INTERVENTIONS**

1. Pop-up Mall
2. Place-Making
3. Support Pioneer Projects

**OBJECTIVES**

- Attract private investors
- Formalise local community initiatives and organisation(s)
[03] STAKEHOLDER MODEL

Design Concept
Rethink Regeneration
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Design ProPosition #4

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DESIGN PROPOSITION #4
Design Concept: Rethink Regeneration
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Experiment

Spatial Rules:
- Plot Size
- GSI | FAR (%)
- Layers (Max)
- OS (Min)

Residential
Commercial
Mixed-Use
Open Public Space
view B

- **Community Centre**
- **Path** (2)
- **Greenery** (2)
- **Shared Road** (6.5 metres)
  - *Installed Service* (Electricity, Water, Sewage)
- **Greenery** (2)
- **Path** (2)
- **Development Plot**
[04A] DEVELOPMENT SCHEME (2020-2030)

**OBJECTIVES**
- Maintain (re)development momentum
- Encourage local engagement

**ACTIVITIES & INTERVENTIONS**
1. Gradual development
2. Collective development
3. Urban strategy support
Design Concept
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ACTIVITIES & INTERVENTIONS

[1] Re-evaluate local potential
[2] New design framework

OBJECTIVES

- Protect the positive characteristics
- Promote (re)development based on the locality
PROJECT

EPILOGUE
Spontaneous Urban Growth

[1] The concept seems to have a potential to *revitalise* urban form (tissue) on *local scale*

[2] Mobilisation of the *local communities* is absolutely necessary to generate spontaneous developments

[3] Promotes redevelopments on various *pace* and in various *direction* that attract more producers of urban form
... on Spatial Design

[1] Establishment of a strong link between the spatial form (physical dimension), local community (societal dimension) and economy (economic dimension) seems to be a fundamental basis for favouring spontaneous urban growth

[2] Attention to the scale factor

[3] Providing freedom requires more rules

... on Concept and Principles

[1] Emphasis on the process rather than on spatial results

... on the proposed Models

[1] Open (spatial) developments has to require an active engagement of the designers during the whole process.

[2] Heterarchial planning seems to be an appropriate model of keeping the process alive since it promotes flexibility and resilience.

[3] Content-based planning can promote localities, sense of community and thus can actively reinforce the spontaneous urban growth.
**Limitations & Recommendations**

**Limitations**

1. The nature of the proposed approach limits to a certain degree the demonstration of its full capabilities.

2. The stakeholder and business models have not been fully explored; if aiming to establish a design approach on the basis of spontaneous urban growth further insights are essential.

**Recommendations**

1. The issue of balancing the dynamic relationship “Freedom-Framework” seems to be an intriguing topic for further research.

2. Research based on workshop and hypothetic simulation of the spontaneous urban growth process seems to be a promising approach in examining the concept.
ROLE OF DESIGN PROFESSIONALS

Beyond the experiment
DESIGN WITHIN “LIQUID” MODERNITY?

“Uncertainty is an uncomfortable position. But certainty is an absurd one.”

Voltaire (1694 - 1778)
Thank you!

In favour of spontaneous growth

Questions?