Pouchard, a creative factory in Paris

P5 Presentation
RMIT Graduation Studio Canal St. Martin, Paris

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Location Pouchard

Île-de-France
Two structural water elements

N

Paris
Hauts-de-Seine
Seine
Canal Saint-Martin
Canal de l’Ourq
Val-de-Marne
Seine-Saint-Denis
Hauts-de-Seine

Green gradient
Two big landscape parks on the edge

ca. 10 km
6-12 km

Parcs in and outside Île-de-France

Petite Couronne

Bois de Boulogne
Bois de Vincennes

Bois de Boulogne (864 ha)
Bois de Vincennes (995 ha)
Characteristics of Paris
Banlieues (suburb) of Paris

What and why?

Connection Paris Versus Paris

Banlieues are the suburbs of Paris. When the Haussmann-plan came into Paris, the inhabitants of Paris had to go outside the city, they formed the first banlieues, in the same (chaotic structure) as the old Paris since 1800: expansion of Paris

farmers economic growth

1945 - after ww2 immigrants farmers baby boom (from former colonies)

1959-1969 > RER for a better connection with the city but the RER gives only a connection to Paris, not a connection between the banlieues. The connection between the different banlieues is bad.

Inhabitants of a banlieue are not per se poor, there are also very rich banlieues, even richer than some arrondissements in Paris.

The north-east side of Paris is known for its poverty, while the south-west side is known for its wealth.

Banlieue: good or bad?
Average household size

Average income

Source: https://en.wikipedia.org/wiki/Social_situation_in_the_French_suburbs
http://projetparisbanlieue.blogspot.nl/
http://www.volkskrant.nl/vk/nl/2702/Reizen/article/detail/2827089/2011/08/02/Uitgekeken-op-de-Eiffeltoren-Bezoek-de-banlieues.dhtml
Demography Pantin

Population Growth

Population 15+ years 2009

Diplomas

Age Distribution Pantin 2009

Economy Pantin

Active - Inactive 2009

Economy Pantin

Income Active (15-64) Population 2009

63%

11%

26%

0-19 years

20-64 years

65+ years

Population Growth


Population Growth

Diplomas

Population 15+ years 2009

0.0%

5.0%

10.0%

15.0%

20.0%

25.0%

30.0%

No Diploma

Primary School

BEPC, College

CAP or BEP

Brevet Professionnel

Supérieur Court

Supérieur Long

Economy Pantin

Active - Inactive 2009

Employed

Unemployed

Retired and early retire

Students and trainees

Other inactive

Economy Pantin

Income Active (15-64) Population 2009

Income

No income

8%

92%
Arts & Crafts
Characteristics of Pantin

Area of Pantin 1854
Buildings around the main roads

Area of Pantin 1895-1900
Further development railroad
Buildings around railroad and the canal

Area of Pantin 1933
Shift and expansion of the canal

Area of Pantin 1972
Last major changes
Public use of the canal today

Movement: Slow
Medium
Fast
Recreation: Slow
Medium
Fast
Plan local d’urbanisme

Industry
Mixed Urban
Dwellings
Green
Cultural Area
Characteristics of Pouchard
Development and characteristics warehouses

- 1945
- 2 warehouses
- Grid size 25x10 m
Development and characteristics of warehouses

- Year unknown
- Grid size 25x10 m
Development and characteristics warehouses

- Year unknown
- Grid size 25x15 m
Development and characteristics warehouses

- 8500 m²
- Maximum height 15.5-18 m
Development and characteristics of warehouses

- Year unknown
- 4 warehouses
- Grid size 14x5 m
- 4200 m²
- Maximum height 9 m
Development and characteristics warehouses

- 1961
- 4 warehouses
- Grid size 14x5 m
- 5040 m²
- Maximum height 12.5 m
- Total surface area 17,740 m²
Inspiration and facination
Repetition and exception
Construction and materialisation

- Single glazing
- Tuiles Mécaniques
- Wooden frame
- Ribbed cassette elements of light weight concrete
- Steel framework
- Brick facade
- Steel construction
- Concrete floor
- Crane tracks
Conclusion

Extension public activity into building
Conclusion
Conclusion
Conclusion
Research question

What program and architectural means can be used to redevelop the building complex of Pouchard, in response to the social and economic problems in Pantin?
Program
Program

Theater  Drama & Music School  Start-ups
Program

Theater          Drama & Music School

Ateliers       Start-ups
Program

Theater <-> Drama & Music School
Ateliers <-> Start-ups
Architectural means
Architectural means
Architectural means
Architectural means
Masterplan
Entrance
In-between

Lina Bo Bardi
SESC Pompéia Factory
Sao Paulo
In-between

Angela Fritsch Architekten
International School
Seeheim-Jugenheim
Theater

Boor Bridges Architecture
Sightglass Coffee
San Francisco
Theater

Theater room:

- Fan shape
- better sightlines
- no flutter echo
- volume back of the hall higher
Reverberation time 1.2-1.4 s

Music Room:

- Rectangular
- better overall control acoustics
- Diffusing parallel walls
- No balcony
Reverberation time 1.4-1.6 s
Drama & Music School
Start-ups
Ateliers
Supporting Functions
Concept climate design
Hemp Blocks

**Hemp** + **Hydraulic lime** =

Thermal conductivity $\lambda$:
- Concrete: 2,00 W/mK
- Insulation: 0,04 W/mK
- Hemp block: 0,075 W/mK

Thermal resistance $R$ (100mm):
- Concrete: 0,05 m²K/W
- Insulation: 2,50 m²K/W
- Hemp block: 1,33 m²K/W

**CHANVRIBLOC**, a bio-sourced material

A material with natural components, environmentally sustainable, used for building insulation.
Concept climate design

**Constant:**
- number of people and time span
  - floor heating and additional radiators
  - mechanical ventilation with natural inlet

**Peaks:**
- large numbers of people and time span
  - air heating
  - mechanical ventilation

**Variable:**
- small numbers of people and time span
  - radiators
  - mechanical ventilation with natural inlet
Concept climate design

In-between:
lower demands on climate
- air heating

André van Stigt
Tramremise De Hallen
Amsterdam
Concept climate design

Verical heat Exchanger

Energyroof
Climate design Theater
Construction

A lightweight construction that makes use of the capacity of the ground floor of the former factory.
Construction
Detail
Lighting Entrance

Existing wall
Directional luminaires

Flytower
Wallwasher

Trees
Floodlight & Uplight
Lighting Exposition

Existing wall
Directional luminaires

New wall
Wallwasher

Art
Spotlights
Lighting Foyer

Existing Construction
Directional luminaires

Entrance Theater
Spotlights

Bar and Tables
Pendant downlights
Next steps

- The main entrance
- Details
- Models and impressions
Principles and impression ZAC Du Port
Masterplan

- Cinema
- Library
- Theatre
- Market
- Shops
- Offices
- Cafe/Restaurant
- Concert

The map illustrates the layout and location of various facilities, including cultural, commercial, and recreational spaces.
Masterplan