Industrial Canal Waterfronts in The Netherlands: transforming the canal zones of B5
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INDUSTRIAL CANAL WATERFRONTS IN THE NETHERLANDS

Transforming the Canal Zones of B5
Industrial Canal Waterfronts in The Netherlands

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Eindhoven canal, 2012 (1846)
Industrial Canal Waterfronts in The Netherlands
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www.doorsofperception.com

Bilbao Waterfront, 2012
changeobserver.designobserver.com
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Hamburg Waterfront, 2011
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Former Industrial Canal zone in Duisburg, 2009
Industrial Canal Waterfronts in The Netherlands
IRENE CURULLI | NHC TILBURG | 28 06 2013

Former Industrial Canal zone in Duisburg, 2009
...but which scenario...
Industrial Canal Waterfronts in The Netherlands

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**CANAL**: a human –engineered waterway. It might be of outstanding universal value from the point of view of history or technology (...). The canal may be monumental work, the defining feature of a linear cultural landscape, or an integral component of a complex cultural landscape’.

UNESCO (1994). Report experts meetings on Heritage Canals
CANAL DEFINITIONS: the heritage

- uniqueness
- vulnerability
- complexity
- technological values
- economical values
- social factors
- landscape impact
In-between Waterfronts in The Netherlands

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- artificial & natural
- permanent & ephemeral
- fluid and solid
- softness
- blurring
- coexistence

Scenario

Built Water mediation
...consolidated urban fabric

...city and landscape
SCENARIO

...in the past: ‘Industrial scenario’

...in the future: new ‘urban scenario’

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Helmond and Tilburg, NL
The Industrial Canal Town

Eindhoven Canal, 1935

Courtesy H. van Melis
MORPHOLOGY

Eindhoven canal, 2012 (1846)
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Eindhoven canal
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SOBER ARCHITECTURE

Vlisco factory- building 1911, Het Kanaal, Helmond, 2012 (1825)
CANAL ZONES: PUBLIC and PRIVATE

Eindhoven canal, 1932

Courtesy RHCe
CANAL ZONES: UNSETTLED AREAS

Piushaven Canal, Tilburg, 1923

www.tilburgtewater.nl
### THE NETHERLANDS

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<th>Amount per type</th>
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<td>309</td>
<td>34,0</td>
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<td>Canals</td>
<td>141</td>
<td>15,4</td>
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<td>Large canals</td>
<td>69</td>
<td>7,6</td>
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<td>Canalized creeks</td>
<td>69</td>
<td>7,6</td>
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<tr>
<td>Not navigable canals</td>
<td>323</td>
<td>35,4</td>
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<tr>
<td>TOTAL</td>
<td>911</td>
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Source: [www.kanaleninnederland.nl](http://www.kanaleninnederland.nl) (retrieved on 03/12/2011)

### NOORD-BRABANT

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<thead>
<tr>
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<th>Amount per type</th>
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<td>3,2</td>
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<tr>
<td>Canals</td>
<td>6</td>
<td>4,3</td>
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<tr>
<td>Large canals</td>
<td>7</td>
<td>10,1</td>
</tr>
<tr>
<td>Not navigable canals</td>
<td>23</td>
<td>7,1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td></td>
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</tbody>
</table>

Source: [www.kanaleninnederland.nl](http://www.kanaleninnederland.nl) (retrieved on 03/12/2011)
Industrial Canal Waterfronts in The Netherlands

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BRABANTSTAD or B5

- 5 cities
- Cooperative network
- Former leading industrial area in NL
Length of the circuit: 122km/76mls

Ships class III and IV-capacity: 500-1300tons
**CANAL CIRCUIT**

**Zuid-Willemsvaart:**
- 123km/ 76mls to Maastricht
- 16 locks
- Den Bosch- Helmond: 38km/24mls

**Wilhelminakanaal**
- 68km/42mls
- 5 locks
- Eindhoven – Tilburg: 38km/24mls
- Tilburg – Breda: 30km/19mls

**Markkanaal**
- 6km/4mls

**Beatrixkanaal**
- 8,5km/5mls

**Eindhoven Kanaal**
- 15km/9mls
Timeline of construction and uses


's-Hertogenbosch
Helmond
Eindhoven
Tilburg
Breda

Construction
Industrial Use (Sail and Horsedrawn)
Industrial Use (steam and internal combustion)
Recreation Use
Industrial Canals
Waterfronts in The Netherlands

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Eindhoven canal, Eindhoven
B5 CANALS-Eindhoven

Present
- Ring road slides the canals
- No connection with water
- Almost full demolition of old factories
- 2 large imprints of factories
- Sharp edge between industrial and urban fabric

Past
- Gasworks factories
- Cigar boxes manufacturers
- Import glass/bulbs from Philips Electronics

Future
- connection with Helmond
- light industry/research industry
- short –term use housing
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The Het Kanaal, Helmond
B5 CANALS-Helmond

**Present**
- Ring road slides the canals
- Partial access to water
- Extensive presence of old factories
- Fragmentation (4 parts)

**Past**
- Textile factories
- Food distribution center

**Future**
- Connection to Eindhoven and Den Bosch
- Full public access to water
- Reuse of industrial heritage
- Urban agriculture activities
Industrial Canal Waterfronts in The Netherlands

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Piushaven canal, Tilburg
B5 CANALS-Tilburg

Present
- Smooth transition from urban to landscape
- Extensive presence of old factories
- Decay

Past
- Textile factories

Future
- Extensive use of water
- Public space policy
- Interface between old and new
- Mix of educational activities and housing

Piushaven canal, Tilburg
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Zuid-Willemsvaart canal, ‘s-Hertogenbosch
B5 CANALS- ‘s-Hertogenbosch

Present
- Hidden place from the city
- Limited access to water
- Head of the canal: factories pole
- New by-pass

Past
- Conservation and food distribution factories

Future
- Connection to the city
- Full public access to water
- Reuse of industrial landmarks
- Water transportation

Zuid-Willemsvaart canal, ‘s-Hertogenbosch
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Havenkwartier, Breda
**B5 CANALS - Breda**

**Present**
- Hidden place from the city
- No access to water
- Large scale industrial buildings

**Past**
- Turbine factories
- Food canning and distribution factories

**Future**
- Connection to the city
- Full public access to water
- Reuse of industrial landmarks
- Water network and transportation
PROBLEM FIELD

• Fragmentation of area
• Loss of identity/heritage values
• Standardization of open spaces
• Privatization of the water edge
MULTIDISCIPLINARY APPROACH

Parties
• B5 cities
• Province North- Brabant
• Ministry of VROM

Aim
• Understanding space qualities
• Potential elements of B5

Results
• Canals are the ‘golden chances’
• Cooperative investment

‘research-through-design’ as operative methodology
(Atelier BrabantStad1, 2006)
MULTIDISCIPLINARY APPROACH

Parties

• Province
• Municipalities
• University
• Guest advisors

Aim

• Full scale dialogue
• Enhance values of industrial canal zones
• Search on complementary regeneration
• Methods and tools

Activities

• Seminars, workshops, development projects

Enhancing canal values through the combination of theory and practice
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B5 Canal Waterfronts, TU/e 2009-11
24.10 - 04.11

ELIR 2011
European Laboratory Industrial Reuse
www.tue-elir.nl
METHOD

Analytical
• canal
• Canal and city. Past and Present

Operational
• Identification of a key site/building
• Projects developments

Filtering
• Concepts of design
Piushaven Canal in Tilburg
METHOD

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Filtering
• Concepts of design
RESULTS

- Identify elements of historical value
- Consider water as an active design component
- Provide access to water
- Grasps the interface between old and new

PHYSICAL

- Appraise qualities of landscape and collective spaces
- Encourage waterborne transport

PERCEPTIVE

- Quality of experience by the traveler
- Quality of use of the canals
- Quality of life

High Standards of Urban Quality
INDUSTRIAL CANAL WATERFRONTS IN THE NETHERLANDS

Transforming the Canal Zones of B5

Irene Curulli

This book is available at:
e-mailordini@alinea.it

Dr. Irene Curulli