Canal Plus
moving to the bank
WHY RMIT?
Assignment

MSc 4: Post-war areas, Utrecht
transformation of the southwestern areas (AR3Ar111)

Problem statement

The southwestern areas of Utrecht was known for its industrial activities next to the channel. By the growth of the city the industrial areas become enclosed. Because of this expansion the industrial activity’s can not function anymore.

Therefore, most industry moved to adjacent industrial areas and the industrial site became vacant. These areas are often closed and a barrier for many residents.

Goal

Transformation of the whole industrial strip to a new urban fabric. Making the bank accessible for public en connected to the neighborhood. The ultimate goal is to zoom in on part of the canal project and redesign this chosen part until detail level.

Peiling 4
Technische Universiteit Delft
Architecture, Urbanism and Building Sciences
Studio RMIT, post-war areas Utrecht 2011/2012
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How to revitalize the disconnected and fragmented canal bank of the Vaartse Rijn and strengthen the historical layered structure of the area?
Vaartse Rijn Zone
Rotsoord
Harbor zone
Neerlandia

Public Zones
Existing and New
Public spaces and facilities

Connection Public
Chain of public spaces
One public area

Connection Neighborhood
New connection
Integration with neighborhood
Creating new urban fabric

- Access to experience the bank
- Public spaces and functions
- Continuous zone of public spaces

Preserving

- Historical landscapes
- Industrial buildings
- Potential value

Assemble

- Old program meets the new changing function of the old
Identity

Creative mixt use area
Living area
Continuous public space

Connections

Public space and neighborhood
Hotspots
Public space and city center
Connecting public spaces

Isolated public spaces connect to each other
Continious public spaces

Structuring of the open spaces

Connection public spaces with neighorhood
Structure open area
Relation neighborhood and public spaces
Entrance public spaces
Keep the front facade visual

Public zone

Continious public spaces
Differentiation in dimensions
existing composition

preserve main building

new composition

condition
- -
- 0
0 +
++

architectural value
- -
- 0
0 +
++
Program

New structures

> Residential

**Supporting diverse mix of people**

* diversity is important to support the living area
* attracting people by creating different kind of living
* different group have different needs and bring different things
* the Neerlandia as public function needs residential

> Public function

**The Neerlandia as a public building that facilitates the neighborhood**

* functions based on the neighborhood
* services: daily living needs, health care, leisure, employment and community

> Parking: for new residential, existing residential & visitors

Preconditions, Principles & Values

**toolbox** as masterplan instrument

Neerlandia as an **attractor**

**translation** of the past

quality of the **water**

use of old **construction elements**

transport by water

focal point, **chimney**
program

- starters
- middle class
- upper class
- luxury apartments
- public function
active period
Building concept

**Movement** in the central nave by production is taking over by the **movement of people**

Side aisle - **storage** for production **products** becomes **storage** of products & **services**
Building program

The Neerlandia as a public building that facilitates the neighborhood

Functions based on the neighborhood

Services: daily living needs, health care, personal services, leisure, employment & community

Daily living needs  >  supermarket, bakery, butcher, florist, fish
Health care center  >  doctor, fysio, dentist, dental care, GGD, obstetrician
Personal services  >  hairdresser, manicure, beautysalon
Leisure  >  grand cafe, lunchroom
Employment  >  the new functions creates employments
Community  >  community center

Preconditions, Principles & Values

spatial quality, central hall
structural elements, columns structure
separating wall, remans of productionproces
functions (visual) connected with central nave
movement in the central nave
translation of the past

the daily living facilities, entrance H.C.C. > ground floor
leisure > located at the waterfront, terrace and view direct visual connected to canal.
derivative of the original, use of the same materialization

model

as existing, not as original because of instability

cost

relatively light and simple construction, using existing buttresses.

functional

easy to place, by the lower beam a visual ceiling created like the former steel beam

consideration

existing structure is in very poor condition, restoration is not possible. HEA profile adds no value to the new spans, history not readable & constructive more complex not a replica, renewal may be visible but will need to blend into the existing, symbiose
Ventilatie unit met warmte terugwinning dakmodel type TX 3100

Deze industriële warmte retour unit is speciaal ontworpen voor decentrale ventilatie combinatie met een hoog rendement.

Toepassing
- grote ruimtes, magazijnen of werkplaatsen

Samenstelling
- Warmekooiing
- Ventilator
- Toevoer ventilator
- Toevoer filter
- Afvoer filter
- Fan
- PIR sensor
- Hygrostaat
- CO2 sensor
- WKO systeem

Filter
- SF-Draad
- SF-touw

Opties
- PIR sensor
- Hygrostaat
- CO2 sensor

SUMMER

DAKOPBOUW RC 3,5 M2K/W (br.net. 60 min.)
- Zinken roovendak 890 mm zinkbaan - 0,95 mm ongeschaafde delen 25x100 mm tussenruimte 5 mm
- Regelwerk - min. 40 mm t.b.v. ventilatiedakbladen 12 mm
- Geïntegreerde verstijvers 18x45- 3 mm spaanplaat
- Geïntegreerde dampremmende laag- 3 mm spaanplaat
- Houten gordingen tussen spanten- Stalen spanten
- Betonnen ringbalk t.b.v. funderingsplan

WINTER

DAKOPBOUW RC 3,5 M2K/W (br.net. 60 min.)
- Warme keuingen dakmodel 6x1,2 m
- Metalen C profielen 50 x 50 mm luchtklep 60mm
- Klemplaat 10 mm tussen metalen delen- metalen C profielen 50 x 50 mm luchtklep 60mm
- Dubbele gypsumplaten 18 mm

DAKOPBOUW RC 2,5 M2K/W (br.net. 60 min.)
- Dubbele gypsumplaten 12,5 mm
- Metalen C profielen 50 x 50 mm luchtklep 60 mm
- Dubbele gypsumplaten 12,5 mm

WANDOPBOUW RC 3,5 M2K/W (br.net. 60 min.)
- Dubbele gipsvezelplaat 2x12,5 mm
- Metalen C profielen 50 x 50 mm luchtklep 60 mm
- Dubbele gipsvezelplaat 2x12,5 mm
- Dubbele gipsvezelplaten 18 mm

WANDOPBOUW RC 3,5 M2K/W (br.net. 60 min.)
- Dubbele gipsvezelplaat 2x12,5 mm
- Metalen C profielen 50 x 50 mm luchtklep 60 mm
- Dubbele gipsvezelplaten 18 mm

VERD.VLOEROPBOUW RC 0,5 M2K/W (br.net. 60 min.)
- Cementdekvloer 60 mm
- Koel/verwarmingsleiding 12 mm
- Drukvaste isolatie 20 mm
- Kanaalplaat vl. bovewapening
- Regelwerk 22 mm
- Luchtspouw 20 mm
- Regelwerk 22 mm
TX 3100

inhoud 11.900 m³
ventilatievoud 4

benodigd 47.600 m³
16 x 3100 = 49.600 m³/h
8 spantvakken x 2 units per vak

Climarad

personal services, practice room h.c.c.
use of a climarad. Total 18 units
Thank you for your attention