UNLOVED INDUSTRIAL HERITAGE

AS A MOTOR FOR URBAN REGENERATION

The brewery Wiels, Brussels,
- reused as a centre of art,
Architectural concept:

The brewery Lamot, Mechelen,
- reused as a conference and heritage centre where culture and commercial activities are integrated,

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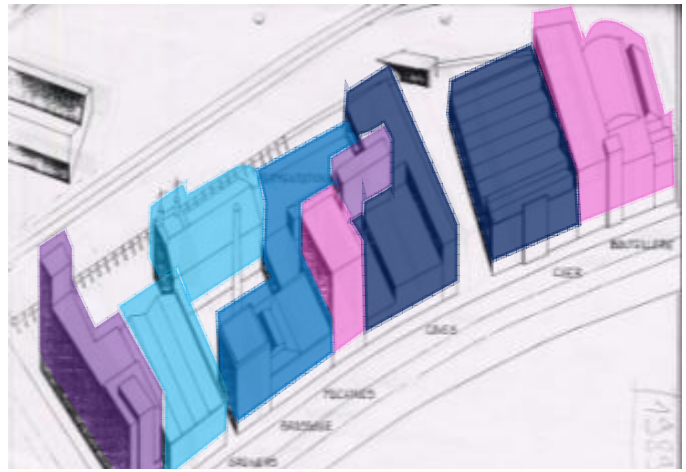
maria.leus@artesis.be - ine.wouters@vub.ac.be

1. **Introduction**
2. Reuse concept
3. Construction
4. Structural repair
5. Sustainability

BREWERY WIELS, BRUSSELS (1930).

INTRODUCTION



Architect Adriaan Blomme
Engineer Sarrasin

Architectural concept:

- rationalism of production techniques
- display window' transparent architecture
- modernistic building with art deco elements

Evolution:

- 1879-1893: oldest part
- 1893-1900: first extension
- 1900-1930: new brewery room + machinery room
- 1930-1947: modernistic Blomme building
- 1988 the last Wiels was brewed

maria.leus@artesis.be - ine.wouters@vub.ac.be

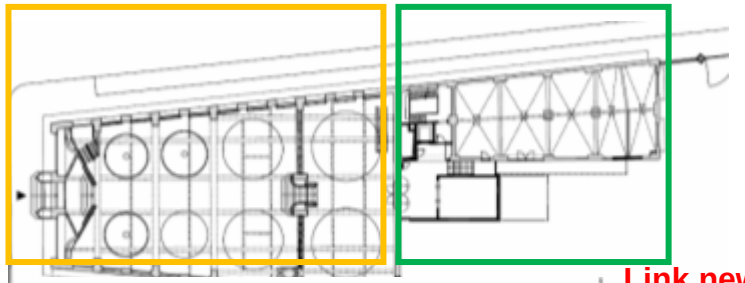
BREWERY WIELS, BRUSSELS (1930).

REUSE CONCEPT

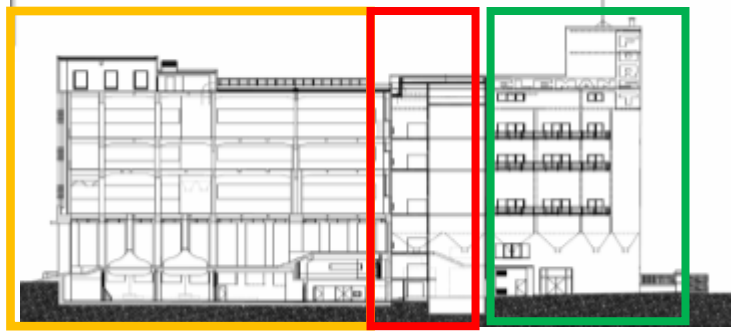
The Blomme - building exists of two components

Brewery rooms – brewery process
exhibition room, reception, restaurant, ba

Silo or grain warehouse
adminstration area – studio's for artists
documentation centre



Link new circulation



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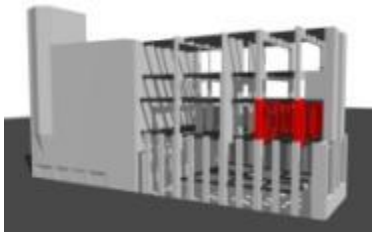

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BREWERY WIELS, BRUSSELS (1930).

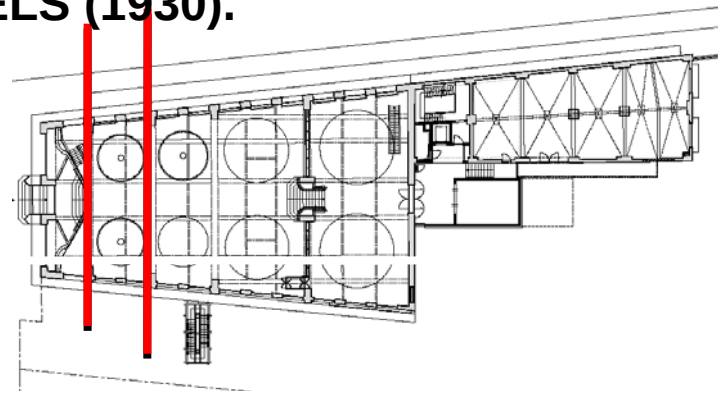
CONSTRUCTION

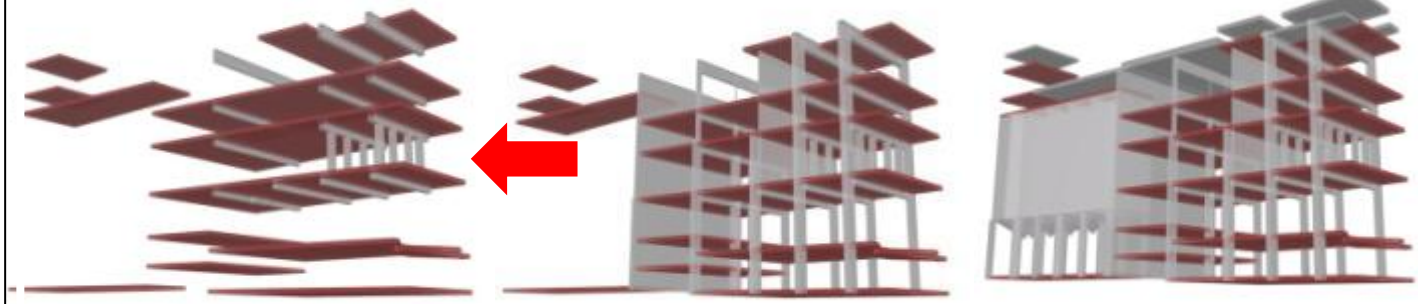
Brewery component

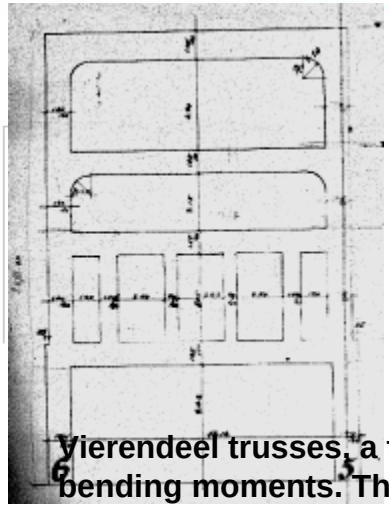
- **4 reinforced concrete porches**
- **2 Vierendeel trusses**
- **Bending is limited by this entire hyperstatic structure**

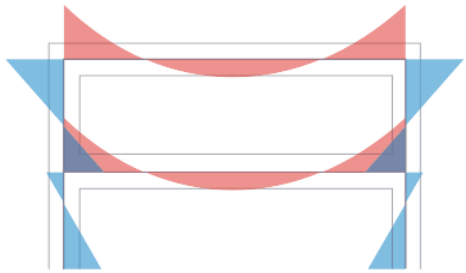
Silos = grain warehouse

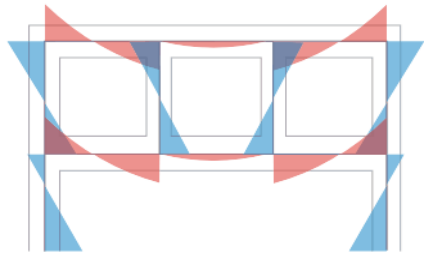
- **Monolitic concrete walls**











hyperstatic framework

Vierendeel trusses, a frame with fixed joints that is capable of transferring and resisting bending moments. The porches are connected with beams.

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BREWERY WIELS, BRUSSELS (1930).

STRUCTURAL REPAIR

Structural repair brewery component:
insufficient concrete cover of the steel

Steel reinforcement bars: corroded and carbonated.

Repair:

- **epoxy layer was applied first**
- **reparation and equalisation mortar**
- **new plaster**

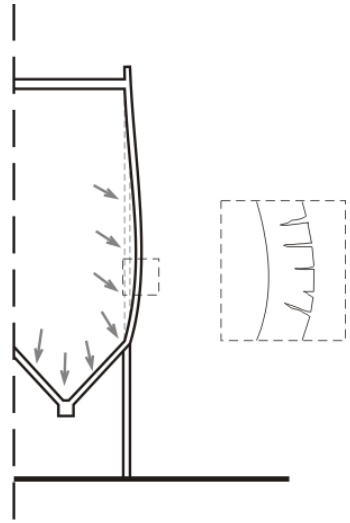
Structural repair silo's: poor concrete composition

Deformation by continuous load bearing

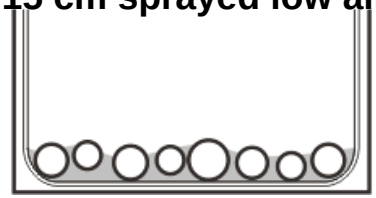
- **cracks in the concrete**
- **strong carbonisation**
- **corrosion of steel reinforcement bars**

Repair:

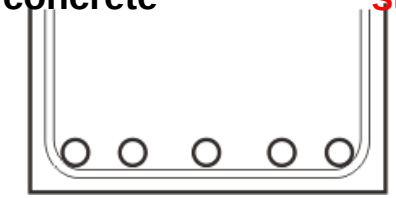
- **new steel reinforcement net**
- **+ 15 cm sprayed low alkaline concrete**



Structural repair silo's



Situation Wielemans
Poor concrete composition



Current
Reinforced concrete configuration

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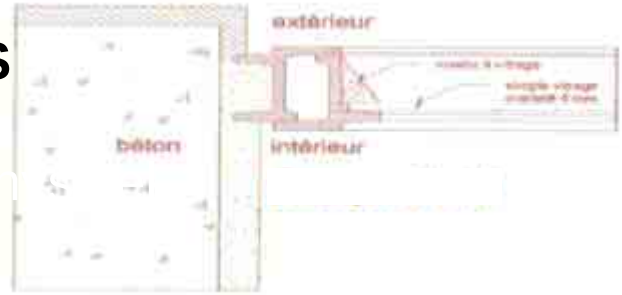
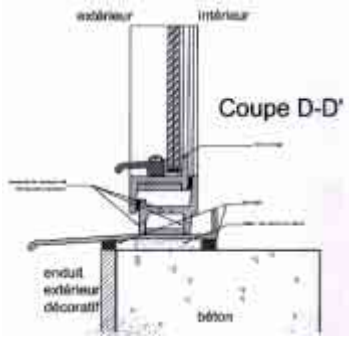
BREWERY WIELS, BRUSSELS (1930) SUSTAINABILITY



Sustainability concept:

to preserve as much as possible in the original state.
- no heat insulation
- no double glass
- no heat isolated window

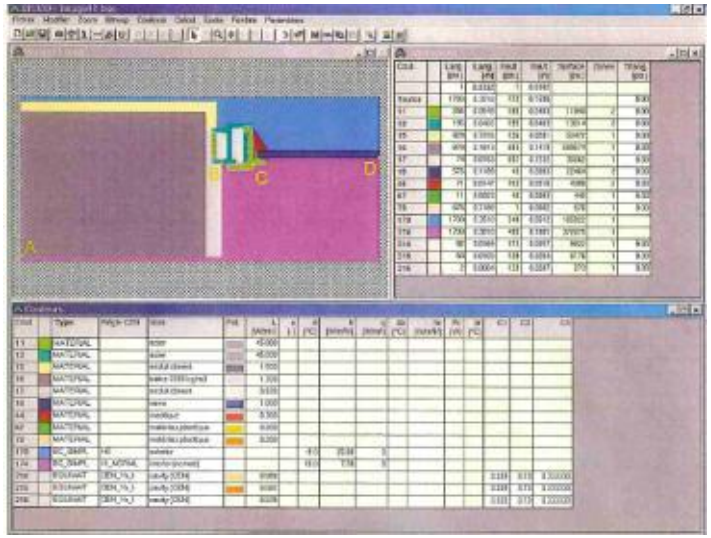


Thermal interventions:

10 cm thick roof heat insulation.

Energetic level of the building.

To receive the Belgian minimum standard
- walls and the floors must be insulated + 4 cm polyurethane
- windows +better thermal glazing



Programm PHYSIBEL
A two dimensional and stationary simulation for two different details was use for the calculation

maria.leus@artesis.be - ine.wouters@vub.ac.be

BREWERY LAMOT, MECHELEN 1922

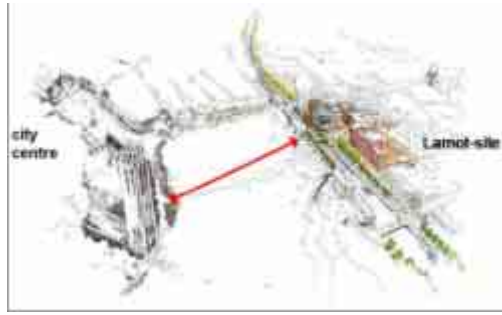
INTRODUCTION

Architect : Alex Desruelles
Engineer: Oscar Pierard
Status: not protected monument
Evolution:

- **1627: brewery – ‘ de Croon’**
- **1855: C. & R. Lamot owners of ‘ de Croon’**
- **1922: new Lamot at the place of the old brewery**
- **1922 – 1981 – all the old parts were replaced by new ones**
- **1981: owner : Inbev**
- **1995; the last Lamot was brewed**

Construction

- **Concrete structure - hidden by a brick facade**



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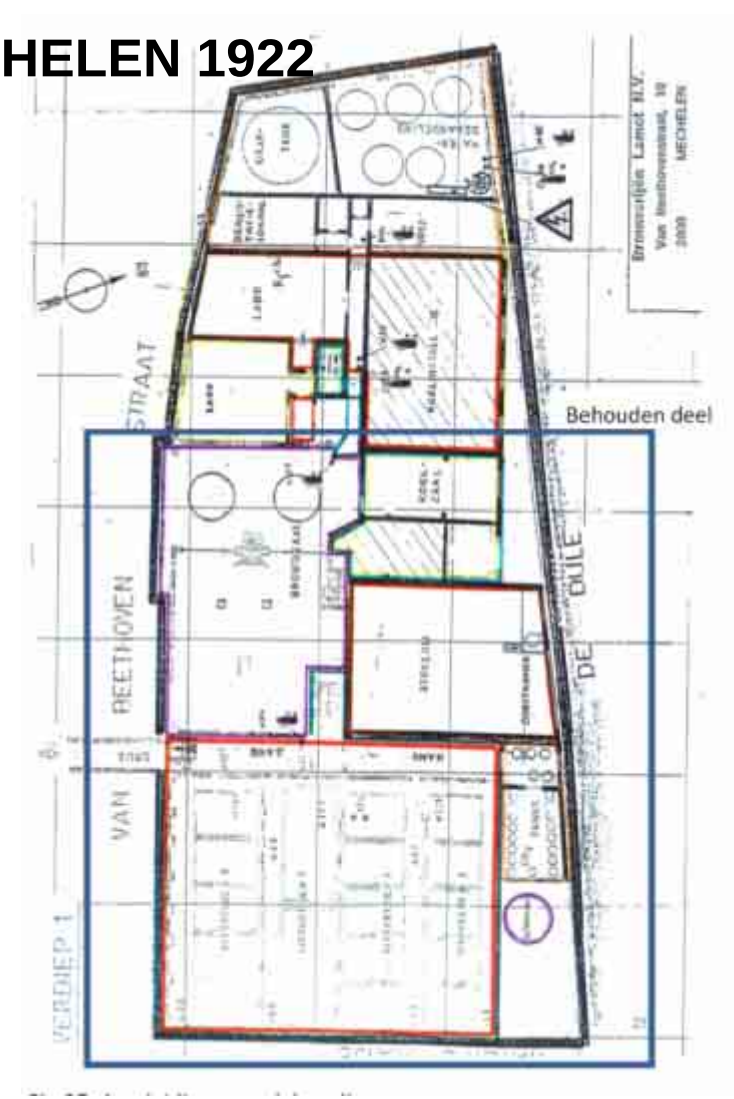
BREWERY LAMOT, MECHELEN 1922

RE-USE METHODS

a doll's house



Values determination

1. Introduction
2. **Re-use concepts**
3. Re – use strategies
4. Phase models

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BREWERY LAMOT, MECHELEN 1922

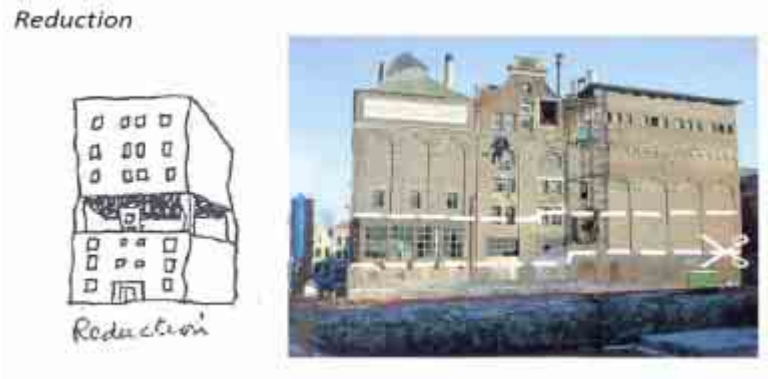
RE-USE CONCEPTS

Reduction
Addition
Insertion
connection
demolition
expansion

(Cedric Price 2003)

underground
1+1 = 1 unity
1+1 = 2 - contrast
continuity
palimpsest
hermit -crab
recapitulation phase
face - lift

Re –arch (Crimson 1995)



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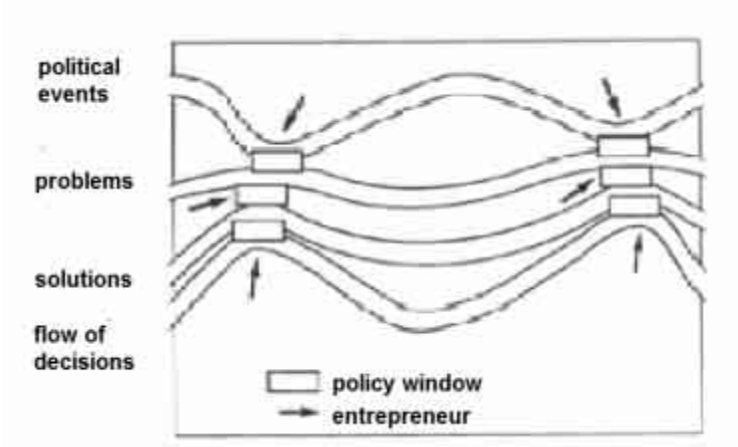
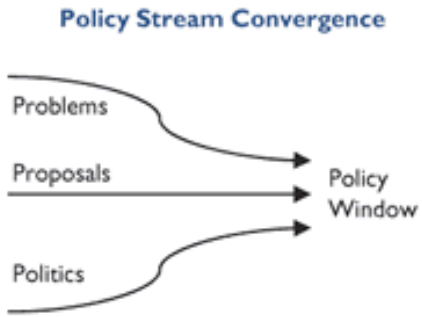
BREWERY LAMOT, MECHELEN 1922

STRATEGIES FOR SUCCES

The Netherlands Institute for industrial heritage (1995)





'Agendas, Alternatives and Public Policies' – (Kingdon 2002)

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BREWERY LAMOT, MECHELEN 1922

PHASE MODELS

Analysis phase
Model phase
Re – use phase
Planning and construction phase

Initiative phase
Design phase
Contract phase
Construction phase
Management phase

Phase model Oskam and Krabbe phase model TU Delft (Nelissen 1999)

Feasibility research
Inventory of use possibilities
Inventory of sticking points concerning the construction decisions
Design definition and programme requirements
Construction preparation and implementation

Phase model of DOORNENBAL (Nelissen 1999)

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THANK YOU FOR YOUR ATTENTION

maria.leus@artesis.be -
ine.wouters@vub.ac.be