Stage & decor
Summary assignment, preliminary research and urban strategy

Concepts
- masterplan concept
- spatial and programmatic concept

Design
- overview of the building

Design / building technology
- load bearing structure
- climate control
- facade study
- details
Assignment, preliminary research and urban strategy
Rotterdam: city-block in-between the Coolsingel and the Lijnbaan
Lijnbaan (shopping street, v/d Broek and Bakema)

Coolsingel (boulevard / traffic artery)

Aert van Nesstraat (mainly offices)

Stadhuisplein (horeca)
research methodology
- Bottom-up perspective
- Mapping and defining the spatial experience from street-level

Gained insight into the relation between Rotterdam and commercial leisure
Setup a research methodology investigating spatial effects in relation to leisure area’s
Use the accumulated knowledge to define a conceptual strategy for the design location
Coolsingel has a wide profile

The main focus of the facade is not the functional rhythm but the volumetric rhythm of the block

The wide pedestrian areas are blocked by follies.
Restoring the spatial experience from one side of the street to the whole of the boulevard

Dividing the pedestrian strips in zones of ongoing traffic and place of stay
Each side of the block has its own identity

These identities need to be retained and improved

The stadhuisplein as horecasquare

The Coolsingel as boulevard

Aert van Nesstraat as extension of Meent and Schouwburgplein

Lijnbaan as commercial shopping and dwelling ensemble

urban scenario
Concepts

- masterplan concept
- spatial and programmatic concept
Concepts: masterplan concept

Height according to location

4 surrounding characters

Connection to identity

Connecting to form
Concepts: masterplan concept

Mass in block

Voids in-between mass

Exploded view

Attracting regional and local visitors
KEEP SKVR AND ITS REGIONAL AND LOCAL IDENTITY

Dwelling

Local and regional program

Concepts: masterplan concept
1) direct context

2) mass masterplan

2) basis
4) wall dividing public and private
5) giving wall thickness to integrate functions
6) puncturing the service-wall, making it a filter between public and private
7) spatial set-up becomes stage and decor in which the visitor becomes the actor and to which collective life is projected.

8) boxes with fixed program are projected against the ‘service-wall’ and in a second instance give shape to the main public space.

9) interaction between the existing skvr-program and the proposed program.
10) total spatial and programmatic concept
Design

- overview of the building
Design: overview of the building; plans
Design: overview of the building; plans

level 2 | 1/200
level 3 | 1/200

01 - cinema (143 seats)
02 - installation space; air handling unit hotel
03 - foyer (cinema)
04 - foyer terrace
05 - foyer (theatre hall 2)

level 4 | 1/200

01 - hotel salon; personal care
02 - game room
03 - housekeeping
04 - exhibition / workshop atelier
05 - 'sculpture roof'
06 - dressing rooms
07 - theatre hall 2 (306 seats)
08 - dressing room

level 5 | 1/200

01 - hotel rooms (11 x 2p-rooms)
02 - theatre hall 2 (306 seats)
03 - installation space; air handling unit theatre hall 2
04 - dressing rooms
05 - installation space - elevator machine room
06 - exhibition route

level 6 | 1/200

01 - hotel rooms (11 x 2p-rooms)
02 - second level theatre hall 2
level 3

01 - cinema (143 seats)
02 - installation space; air handling unit hotel
03 - foyer (cinema)
04 - foyer terrace
05 - foyer (theatre hall 2)

level 4

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04 - dressing rooms
05 - installation space - elevator machine room
06 - exhibition route

level 6

01 - hotel rooms (11 x 2p-rooms)
02 - second level theatre hall 2

Design: overview of the building; plans
level 5 | 1/200

Design: overview of the building; plans
level 6 | 1/200

Design: overview of the building; plans
level 7 | 1/200

(level 7 - 9)
Design: overview of the building; impressions
Design: overview of the building; sections
Design: overview of the building; impressions
section C-C | 1/200
Design / Building technology

- load bearing structure
- climate control
- facade study
- details
stability slab / brace

dotted line: rigid floor

blue line: rigid floor (transferring lateral stability between autonomous structures)
Design / Building technology: load bearing structure

- steel skeleton, concrete floors
- basement: concrete walls, concrete floors
- vertical cores: concrete walls
- steel skeleton, concrete floors

- theatre boxes as autonomous structures: self-bearing and stable / rigid

- theatre boxes supported by their own columns

- theatre boxes + columns derive their lateral stability from the main structure
1) hotel rooms: mechanical ventilation; air heating and cooling

2) theatre halls: mechanical ventilation; air heating and cooling

3) main hall: mechanical ventilation, floor heating and cooling (concrete core activation 3-tube system)

4) technical space / parking: mechanical ventilation
A) city-heating system  
B) heat-exchange  
C) floor heating system  
(blue scheme for cooling via underground thermal storage)  

1) city-heating system  
2) heat-exchange  
3) air-handling unit (outside air heated via heat-exchange, used to heat and ventilate theatre hall)
Facade study
Design / Building technology: facade study
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fasade construction:
- fiber reinforced concrete, 30 mm
- metal fitting rail / void
- water resistant fabric
- wood stud framing / insulation
- lightweight concrete panels
- wall finish (gypsum / plaster)

section B-B | 1/50

Design / Building technology: details
Design / Building technology: details
# TRL-PANEL, 30 mm
# RAIL FOR FIXING OF TRL-PANELS
# ROOF MEMBRANE
# PLYWOOD, 20 mm
# WOOD BEAMS/INSULATION
# CASTELLATED BEAM
# WOOD BEAMS/CEILING FINISH.

# TRL-PANEL, 30 mm
# VOID/RAILS FOR FIXING OF TRL-PANELS
# INSULATION (PRESSURE-RESISTANT LOCAL TO THE COLUMNS)
# HE-B-600 COLUMN
# STABILITY BRACE
# LIGHTWEIGHT CONCRETE SPACING
# WALL-FLOOR (INNER)

**VERTICAL SECTION THEATRE-HALL FACADE (TOP)**

**VERTICAL SECTION THEATRE-HALL FACADE (BOTTOM)**
Gabion facade, Herzog and de Meuron, image source: http://www.floornature.com/projects-commerce/project-herzog-de-meuron-dominus-winery-california-4025/(d.d. 16/12/11)
exploded view total design
Thank you for your attention.

Questions?

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