P5 PRESENTATION

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Museum of Contemporary Art in Warsaw

Introduction
Design brief
Process
Design solutions
  Spatial organisation
  Structure
  Climate
  Materials
Conclusions
Museum of Modern Art in Warsaw
Design brief

New building for museum of contemporary art in Warsaw
Research
Folding in architecture
Experiments
Exploring impact of folding in different scales on spatial qualities of architecture
Design brief

New building for museum of contemporary art in Warsaw
Research conclusions

Qualities of folding to use in design

- Artificial distance
- Diverse routing
- Light pattern
- Creates semi-spaces
- Movement
- Field of view
- Space differentiation
- Articulation
First attempt: testing research conclusions on design brief

Different approaches: folding horizontal planes to design circulation
First attempt: testing research conclusions on design brief

Different approaches: folding vertical planes for interlacing of interior spaces
First attempt: testing research conclusions on design brief

Different approaches: folding landscape
Second attempt: Use of folding at later stage of design

Urban analysis
Program analysis
Spatial solutions
Location

Warsaw: city center
Palace of Culture

Opening 1955
Destructions during war

Construction of Palace of Culture in 1955
Pre-war architecture and density

Buildings on the exact design location
Current situation
Master plan for city center
Underlines Palace axis
No connection with the park (across the street)
Master plan for city center

Underlines Palace axis
No connection with the park (across the street)
Change of design plot

Connection with park
Closer to metro
Diminishing the significance of Palace of Culture
Scale: comparison with Rijksmuseum

380 x 120 m
Current park
Process

Exploring scale of the plot and palace by models
Exploring possible volume scale and shape
Question 1

How to create in the park - the feeling of intimacy and peacefulness without losing the enormous open space?
How to turn emptiness and experience of length and distance into quality?
Frame in the city

The idea of oasis: enclosing a place in the city which provides completely different experience than can be found around
Step 1: enclosing the park with the wall

Exclusive experience, without interruptions, chaos and noise of the city.
Behind the wall - experience of discovery, mystery, curiosity.
Step 2: excavating the area of park

Connection to metro and the Old museum.
The idea of skipping the city.
Experience of isolation even stronger.
Park as connection
to between metro and the old museum building
Question 2

What should be the relation of the building with wall?
Exploring different location and shape of the museum building

Conclusions:
- volume that will underline length
- that will not interfere with experiencing the distance
The experience of length

To diminish the dominance of palace.
In response to strong verticality - a strong horizontal direction is created.
Exploring the relation between building and the wall
Underlining the experience of length

Breaking the symmetry and underlining the long perspective
Placing the building in the south wall

Visual connection with the Palace
Underlining the length by creating long volume
Detaching the volume from the wall to strengthen the experience of the wall
Question 3

How to introduce spatial variety in long and very narrow volume?
Exploring long perspective in the interiors

Experience of length in the interior or exterior?
Previous research conclusions

Division of space by changing the form of surface enclosing the space from above. Allows for visual and circulation continuity.
Spatial variety

By changing interior heights - keeping visual connections
Spatial variety

By changing interior heights - keeping visual connections
Spatial variety
By changing colour and material
Spatial variety

By changing colours and materials
Spatial variety
By changing colours and materials
Spatial variety

By changing lighting conditions
Spatial variety
By changing lighting conditions
Conclusions

What strengthens the experience of length but also allows for spatial diversity: rhythm of repeating structural elements; visual or movement axis through the changing space.
THE WALL

design solutions

Impact on the city
Structure
Program
2 axis

Cultural and commercial
Structure of the wall

space inbetween: 2,5 m wide
Program in the wall

Gallery
Shops
Studios for artists in residence
Hotel rooms
Cafe..
MUSEUM BUILDING

design solutions

Spatial organisation
Circulation
Art handling
Exhibition spaces
Climate
Structure of the building

3 floors + basement
Two separate elements of structure

Glazed facade
Concrete interior
Spatial organization

Diversity of interior components
Structure of the facade

Column structure + secondary structure for glass panels
Interior compartments

Reactionary gallery
Study center
Permanent exhibition hall
Permanent exhibition hall 2
Entrance hall
Temporary exhibitions
Art handling + Administration
Vertical communication
Column structure
Articulation of interior spaces
Organization element
Main communication axis
Curved shape closes view at the end and creates impression of even longer building
Entrances
Exhibition opening in the temporary building
Public space in front of museum

- common square with Palace of Culture
- on the axis
Exits to the park
Circulation

Compartments can be open and closed separately
Accessibility gradation

1  short exhibitions
   reactions to political and cultural events
   lectures
   festivals

2  researchers
   students
   artists

2  museum visitors
   tourists
   permanent collection

3  park / bistro / cafe / retail

4  temporary exhibitions

5  employees
Exhibition compartments
Exhibition compartments

Exhibition galleries differ as far as light, climate size and proportion of the interiors are concerned.
Exhibition compartments
Closed and climate controlled
Artificial lighting
Exhibition compartments

Open galleries - daylight and visual connection with park
Closed gallery room
Semi-open gallery room
Alina Szapocznikow sculptures
Open gallery space
Cross- sections

Spatial diversity achieved by different sections along main axis
Entrance hall
Study center
Reactionary gallery
Permanent exhibition hall
Temporary exhibitions
Climate

Two separately controlled climates
Climate

Two separately controlled climates

- 22-24°C (16°C)
- Humidity: 48-52%
- Mechanical ventilation
- Temperature control

- Dehumidified air
- Air-conditioning
- Temperature control
Cooling

glass with solar cells laminated under thoughened, high transmittance glass

diffused noerthern light

low-iron double glazing
Shadow study
Curved glass panels

Double glazing
Heating
Ventilation
Staircases

Vertical communication

Structurally:
- Dilatations between compartments

Wayfinding
- Colours help orientation in the building
Colour reflection experiments
Staircase

Colour reflected in aluminium facade structure and polished concrete floor.
Staircase reflection
Staircase reflection
How to emphasize the experience of length?

How to create impression of lightness and transparency?
Park sections

- Palace of Culture height: 230 m
- Museum length: 360 m
Louvre Lens
Park facade

rhythm of vertical elements
Staircases visible behind
Garden as the extension of groundfloor - no interruptions of long perspectives
Rafael Moneo

Kursaal
Lightness and unity of the facade
Curved glass
Rafael Moneo
Kursaal
Lightness and unity of the facade
Curved glass
Louvre Lens
Transparent glass and reflections
Depth of the facade
Sanaa, Art pavilion in Toledo
Transparent low-iron curved glass
Curved panels

Double galzing
Glued together
Curved panels

Steel profile on the perimeter of the building
Glass panels 18m
Suspended from top
Place for expansion
Impression of Garden facade

fabric-like
curtain
For P5

Impressions of park
Materiality of staircases
Visualizations of particular gallery rooms