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RESEARCH & ANALYSIS

DESIGN AMBITIONS

DESIGN

REFLECTION
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REFLECTION
CENTRAAL BEHEER APELDOORN

Herman Hertzberger, 1972
Four core principles of structuralism

Use of units

Building as a city

Open ended

Social interaction
BUILDING ANALYSIS

Building consists of 58 units increasing in height towards the center creating the iconic exterior of the building.
QUADRANTS AND INNER STREET

4 quadrants divided by inner street

- social interaction
- city within a building
BUILDING ANALYSIS

Primary beams
- *main construction*
Secondary beams
- *floor bearing construction*

Construction creates ‘rooms’ for workspace
OPEN OFFICE FLOORS AND ORIENTATION

Open office plan
- lack of orientation
- lack of hierarchy

Freedom of interpretation
- creates personal ‘landmarks’
VERTICAL CONNECTIONS - VOIDS

Floor in between the units is open creating voids

Vertical connection between separate floors
CULTURAL VALUE

Iconic exterior composition

Connection outside/inside

Vertical connections

Quadrants/inner street

Primary/secondary construction

Diagonal sightlines
PROBLEM STATEMENT

Building is aging, vacant and not maintained:
It’s quickly deteriorating

Tight, overdimensioned grid of construction leads to:
Lack of hierarchy, orientation and spaciousness

Isolation of the building by lack of connection to its context
What are the possibilities and limitations of a structuralist building when transforming to a new function, without detracting from its iconic, cultural and structuralist values?
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NEW FUNCTION

NHV (Nederlands Handbal Verbond) Academy
Handball center for innovation and education

Why handball?
- Internationally popular
- Growing in popularity in the Netherlands
- Recent success of national teams
- The Netherlands have no excellent facility that focuses on handball

Combine functions into one building:
Dutch handball center for development of the sport on national and international level.
NHV Academy: Handball Center for Innovation and Education

Sports:
- full size training hall
- personal fitness/gym

Sports science and innovation:
- innovation lab
- research center
- office space
- sports medical research

Education:
in cooperation with colleges/universities
- study space/self-study facilities
- 6 classrooms/group education
- office space

Restaurant:
- specialized in food for sports
Exterior appearance vs. interior experience

City within a building
- combine all functions within the building, internally connected
CONCEPT

Redefine heart of the building

Raise inner street to layer 2

-essence of the building can be found on layer 2 and above
CONCEPT

Implement Hierarchy

Sequence of space
Three different approaches:
- preservation
- intervention
- addition
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Public space
ENTRANCE TOWER
ENTRANCE TOWER
MOVE INTO THE INTERIOR PUBLIC SPACE
EXISTING INNER STREET
NEW INNER STREET

Redefine and widen the inner street opposed to the narrow and filled street in the existing building.
INNER STREET - IMPRESSION
Three different approaches:

Preservation

Intervention

Addition
ORIGINAL EXPERIENCE
PRESERVATION QUADRANT
EXTERIOR COMPOSITION AND APPEARANCE
COMFORT - INSULATION
COMFORT - HEATING
COMFORT - VENTILATION
COMFORT - LIGHTING
Three different approaches:

Preservation

Intervention

Addition
EDUCATION QUADRANT
DIAGONAL AXIS
NATURAL BARRIER
NATURAL BARRIER
Three different approaches:

- Preservation
- Intervention
- Addition
WHY?

NHV ACADEMY
handball center
for education
and innovation

vs.

Research and education facility + Sports hall
INTERIOR vs EXTERIOR

Interior experience focused on creating ideal internal environment.

Exterior appearance that defines the volume and allows for transition of light.
Focus on handball
- Create your own perfect conditions
- No distractions from outside
- Ideal training and video analysis environment
The centerpiece of the building
- Practice of the actual sport in the building
- Uniform appearance, defining the presence of the hall
- Transmission of faded light creates interaction and awareness of hall being in use
LIGHT TRANSMISSION THROUGH FACADE
DEMOLITION PLAN

existing structure
after demolishing
additions
EXISTING VS NEW
FOUR SERVICE TOWERS
Preservation

Intervention

Addition

___________________ +

NHV Academy
EXTERIOR
Use of two idioms:

- Existing facade, as close to original as possible

- New volumes, clear difference in material expression
EXTERIOR COMPOSITION
ENTRANCE TOWER
EXTERIOR COMPOSITION
EXTERIOR COMPOSITION
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What are the possibilities and limitations of a structuralist building when transforming to a new function, without detracting from its iconic, cultural and structuralist values?
Three different approaches:
- preservation
- intervention
- addition
PRESERVATION:
preserve the original state of the building without affecting its original appearance or experience.

shows a glimpse of revolutionary architectural history, yet also exposes its practical problems such as lack of orientation
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INTERVENTION:

use and adjust original structure to create a new experience.

use existing qualities such as diagonal sightlines and improve on negative aspects by creating natural privacy and hierarchy.
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INTERVENTION:
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ADDITION:
create a new experience without having to work with highly defining construction.

allowing for freedom of interpretation of the grid
THANK YOU
CONSTRUCTION SCHEME - FACADE
VENTILATION LAYER 2
VENTILATION LAYER 3
FRAGMENT 3 (1:50)
FRAGMENT 4 (1:50)
DETAIL 12
DETAIL 17