PERFORMATIVE ARCHITECTURE AS A GUIDE LINE FOR TRANSFORMATION OF THE DEFENCE LINE OF AMSTERDAM

studio tutors: Ir. Huib Plomp, Dr.ir. Bige Tunçer, and Ir. Sander Mulders
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   B computing urbanization levels of sites

2 conceptual design of the transformation

3 performative design model
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4 building design

5 design development
1 design problem definition

A defence line
configuration of forts
- elements of fort
- photos of forts
- performative design of forts
- defence line - today
- defence line - future

B computing urbanization levels of sites
- input of the parametric model
- effect of strength and area of influence
- assigning strength and area of influence for inputs
- process
- results
1. Design problem definition

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2 conceptual design of the transformation
- transit points
- potential users
- new functions
- deformed stripes
- assigning performance criteria for the transformation
  - structural
  - illuminative
16
two groups of users
- those that use the fort as a transfer area that connects the urban elements within the site
- those that aim to do sightseeing and spend time around the fort

1 design problem definition

2 conceptual design of the transformation
- transit points
- potential users
- new functions
- deformed stripes
- assigning performance criteria for the transformation
  - structural
  - illuminative
1. Design problem definition

2. Conceptual design of the transformation
   - Potential users
   - Transit points
   - Structural performance criteria for the transformation
   - Illuminative

3. New functions
   - Deformed stripes

4. Complex functions
   - Educational
   - Recreational

5. Level of urbanization
   - Sunbathe
   - Play
   - Walk
   - Eat
   - Simple
   - Relax
   - Sit

6. Complexity of functions
   - Walk
   - Picnic
   - Relax
   - Sit
   - Eat
   - Simple
   - Play
   - Sunbathe
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   - Transit points
   - Potential users
   - New functions
   - Deformed stripes
   - Assigning performance criteria for the transformation
     - Structural
     - Illuminative

1. Health, safety and security performance
   - Structural
   - Illuminative

2. Functional, efficiency performance
   - Provide adequate space for required functions
   - Provide connections between urban elements of site

3. Psychological, social, cultural and aesthetic performance
   - Conservation of the UNESCO Heritage site
   - Compatibility with the surrounding
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\[ y = a \cosh \left( \frac{x}{a} \right) = \frac{a}{2} \left( e^{x/a} + e^{-x/a} \right) \]
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2 conceptual design of the transformation

3 performative design model
   - regional design (1/50,000)
   - urban design (1/1,000)
   - building design (1/200)
   - production of scale models

A form finding instance 1
dependency chain
   - stage 1
   - stage 2
   - stage 3

B form finding instance 2
dependency chain
   - stage 1
   - stage 2
   - stage 3
   - stage 4

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4 building design
- plan
- section
- visualization
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- why performative
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3 performative design model

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  - section
  - visualization
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  - why performative
revitalizing the fort as a new attraction point for new users

provide direct connection to the fort and the barrack

directing the users to experience the fort
1 design problem definition

2 conceptual design of the transformation

3 performative design model

4 building design
- plan
- section
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   - why performative

5 design development

curvature analysis
1 design problem definition

2 conceptual design of the transformation

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4 building design
   -plan
   -section
   -visualization
   -physical model
   -why performative

5 design development

Unroll glass parts
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4 building design
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- section
- visualization
- physical model
- why performative
5 design development
end of presentation