P5 presentation

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Explore Lab 24
cross contamination
architecture and theatre as contaminant agents
Architecture and Theatre contaminant agents

Scattering and mixing their roles, tools, space and knowledge, letting them interact with the environment, and translating it into a spatial intervention.
Architecture and Theatre as contaminant agents
cross-contamination

Strongly contaminated culture of U937 suspension cells by yeast.
index

01 research
02 location
03 architectural composition
04 configurations
05 construction aspects
06 sustainable aspects
01 research
how:
- one entity
- challenge the existing convention
- shifting the roles
- position are ambiguous
- experimentality
- trigger contamination
Research question:

“How architecture and theatre can subvert the hierarchies and the conventions their are based on, and to what extent the edges of the disciplines can be blurred, contaminate and being contaminated by the users and the environment?”
analysed topics

+ **Performativity in Architecture**
+ **Hierarchies between disciplines**
+ **The black box concept**
+ **Case studies**
Performativity in architecture

Performative Object

“1. an object whose cornerstone is narrative and whose nature is completed by an action acted by the user
2. an object designed and made according to the action that demands or dictates, not designed upon its function. By extention, every object that request to assume a certain number of positions, both physical and mental.”

“In performative architecture, the emphasis shifts from building’s appearances to indeterminate patterns and dynamics of use, and poetics of spatial and temporal change.”

Performative Architecture, Branko Kolarevich, 2005
“The buildings characteristics are a reflection between the materials and to how they create the flexibility to the performance, instead of being a building that creates no movement visually or through. Both visually and structurally, the building is moving; the building complements the performance.”

Performativity in architecture

Performat Architecture, Branko Kolarevich, 2005
How to avoid that Architecture blindly produces containers for Theatre?

- Starting to treat the building processes as performances
- Operating a disjunction between form and function, allowing mismatches to create certain friction
The black box is that concept that sees the stage or the auditorium of a theatre as a pure aseptic black container which is not influencing its content at all. But that doesn’t exist.

“Architecture should not disappear when the lights go down”

Dorita Hannah
case studies

- modular and transforming configuration of the space
- integration in the urban-natural env.
- itinerant
- playing with perception and senses
- ephemeral and poetic

Folly for flyover, Assemble, London
Teatro del mondo, Aldo Rossi, Venice
Crown fountain, Jaume Plensa, Chicago.
Khor I, TAAT, Venlo
conclusions

About performativity in architecture:
- Design upon the action they suggest rather than on the function.
- Focus more on the flexible use rather than the shape.
- The building is changing nature, so in a way kinetic, and interacts with audience.

How to eradicate hierarchies between the disciplines?
- Allowing the unexpected
- Disjunction form - function
- Avoiding that architecture dictates strict spatial and social cues, but rather be flexible.

How to avoid the black box?
- With rupture between the stage and the rest, no dedicated spaces univocally for performance
- With structure and technical elements that are the stage, and they can be used to co-create the meaning.
location
3 reasons

1. Unconventional place
Unconventional audience
It's the first location of a series
2. **Small town.** 9000 inhabitants, mainly between 50 and 70 y.o. Intolerance is present, tolerance and respect too. Also the inhabitants think is difficult to connect with refugees.
from assessment to design

1. **Three functions.** All of them allow free encounters in different ways, with different levels of interaction and energy.
   Performance space. Playscape. Watchtower.
2 The type of performance is influencing the space

Immersive theatre,
classic performances,
contemplation space,
.....and open for any future use of the municipality of Ter Apel
.....or any private that wants to rent it
Flexible space that can host any type of performance and suitable for any future use, even from the local community
why the specific place
03 architectural composition
04 configurations
configuration 1

classic closed space
forse l'espero
configuration 2

4 closed space
configuration 3

1 irregular closed space
configuration 4

2 closed spaces, 2 semi-open
configuration 5

totally open space
configuration 6

1 closed space, 1 irregular semi - closed
05 construction
construction phases

1. *In the workshop*

2. *Transportation* with wider trucks, no permits needed

3. *On site: construction* done only by builders

4. *On site: changing configurations* can be done by the users with minor effort and tools

5. *Moving to the next location*
phase 1

in the workshop
phase 1

in the workshop
phase 1

in the workshop
phase 1

in the workshop
phase 2
transportation, typology of truck

3 Assige euro dieplader

<table>
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<tr>
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<tbody>
<tr>
<td>Leeggewicht</td>
<td>20.660 kg</td>
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<tr>
<td>Laadvermogen</td>
<td>Wettelijk = 49.540 kg</td>
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<tr>
<td></td>
<td>Technisch = 51.100 kg</td>
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<tr>
<td>Laadvloer hoogte</td>
<td>310 - 910 mm</td>
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<tr>
<td>Laadvloer breedte</td>
<td>2080 - 3280 mm</td>
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Wetelijk = 40.300 kg
Technisch = 41.760 kg
In order to be able to serve you as quickly and efficiently as possible, we have long-term permits for indivisible loads in the Netherlands, Belgium and Germany. In the overview below you can see with which dimensions and weights our vehicles can drive for you, without delay due to application deadlines. If these dimensions and weights are exceeded by your cargo, we will request an occasional exemption to get your cargo to its destination. We will then have to deal with a request period. You will also find the normal application periods in the overview.

### The Netherlands

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<thead>
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<th>Trailers</th>
<th>Semi-lowloaders</th>
<th>Euro low-loaders</th>
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**Application period for incidental exemption:**

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<th>2 working days</th>
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<th>10 working days</th>
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<td>up to 100,000 kg*</td>
<td>up to 100,000 kg</td>
<td>100,000-150,000 kg</td>
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* A delivery period of 2 days is not feasible if the weight exceeds 50,000 kg and the road authority (s) The Hague, Amsterdam, Rotterdam, Zuid-Holland and Noord-Holland are included in the route. You must then take into account a minimum of 5 working days.

Source: [www.rdw.nl](http://www.rdw.nl/TET/nl/TET/transporteurs/ondeelbarelading/Pages/Levertijden.aspx)
phase 2
transportation, types of truck
phase 2

transportation, arriving on site
phase 3

building on site
phase 3

building on site
phase 3
building on site
phase 3

building on site
phase 3
building on site
phase 4
changing configuration done by performers
and municipality

1 **Opening and closing doors** to change the configuration of the space

2 **Closing curtains** to change light conditions

3 **Changing infill of the walls** with materials such as polycarbonate to change light and sensations

4 **Moving the trusses carrying the lights** where needed or can be removed
SANDWICH PANELS
- fir panelling 2cm
- wooden sticks 2.4 x 2.4 x 100 cm
- vapor barrier 0.6 cm
- extruded polystyrene 9 cm
- wooden sticks 9 x 4 x 150 cm
- fir panelling 2cm

PILLAR - PANELS JOINT
- laminated timber pillar with profile 16 x 16 x 300 cm
- metal "T" shaped frame 0.5 cm

DOUBLE SIDE HINGE OPEN RIGHT
- HINGE
double sided hinge 17 cm width

DOUBLE SIDE HINGE OPEN LEFT
- DOOR
- laminated panel 2 cm
- insulation
- internal frame 3.5 x 6 cm
- laminated panel 2 cm
moving trusses carrying the lights where needed
phase 5

in the future, in another location
06 sustainable aspects
water and energy autonomy

1. Self composting toilet
2. Rain water harvesting system
3. Energy autonomy with a generator
Toilet system

Number of toilets needed based on the European standard EN-16194

<table>
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<th>Kind of employment</th>
<th>A - Events</th>
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<td>Number of users</td>
<td>Up to 249</td>
</tr>
<tr>
<td>Duration of the event</td>
<td>Up to 6 hours</td>
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<td>Food and drinks served</td>
<td>No</td>
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Total number of bathrooms required: 2

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<td>Number of users</td>
<td>Up to 249</td>
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<tr>
<td>Duration of the event</td>
<td>Up to 12 hours</td>
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<tr>
<td>Food and drinks served</td>
<td>Yes</td>
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Total number of bathrooms required: 4
toilet system

self composting toilet: how does it work

1. maintainance once a month
2. no need of connecting to sewage system
3. no need of water
4. 110 volt power supply
5. produces fertilizer
5. needs ventilation
rain water harvesting system

calculations

1. time frame: 6 months, from April to September

2. average rainfall April-September in the area: 391 mm

3. my roof surface: 224 sq m

4. total liters possible to harvest in 6 months: 87,000 liters

5. in April the driest month: 356 liters per day

5. average waterbasin water usage per person per day: 7.5 l per 6 uses

5. 2 or 3 uses is: 2.5 / 4 liters

5. 125 people using the toilet twice in 1 day consume: 312 liters

5. even at it’s maximum daily use (312 l) it’s within the limit (356 l availables)
gutter
rain head,
sloped screen
diverts debris
finer filter anti
insects
flush diverter
10,000 l tank
overflow pipe
filter
pump
floater activation pump

biomass generator 10 kW
toilet system

sewage system for countryside recycling bed

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This system may be incorporated into an above-ground framework (to support the sheet of bed contents) or in a pit or hole in the ground.

* If "in-ground,"... perimeter trenches should be employed to divert storm water.

Dimensions of bed will depend upon expected input. See chart on previous pages.

Perforated pipe should be wrapped in nylon or cheesecloth (or something similar) to prevent sand entering into holes.
energy

bio mass generator

1 power 10 Kw

2 contained measurements 120 x 65 x 110 cm

3 fuelled with compost from toilets and woodchips from near forests.

4 in alternative electricity from city. this building can be provided with or without this type of generator for when we are in remote places

5 power needed in a house: between 3 and 4.5 kw, this generator is 10 kw so more than enough
management

- done by the municipality
- done by privates in case it gets rented
- maintenance needed during events, otherwise 2-3 times a week
thanks