Embrace diversity: (un)divided Hebron

COEXISTENCE THROUGH ARCHITECTURE OF WATER
contents P5

problem statement
- location & background
- research & conclusions
- overall city strategy
- design introduction
- design concept
- design development
- design presentation
Water scarcity in the world

Water as the source of life: valuable to fight for

War over Water - example 1964-1967 Israeli-Palestinian conflict
hebron
hebron
background

Hebron pre-1929: **peaceful coexistence** of social groups

1948: declaration of independence of the **State of Israel**

1967: Arab-Israeli War, start of Israeli **occupation** of Palestine

1993: **Oslo peace talks**, definition of boundaries and other impacting agreements (Arafat-Peres, Arafat-Netanyahu)

from 2000: building of walls for ‘**protection and security**’
hebron

"Never was it this bad in Hebron, microcosm of the occupation"

- Derk Walters in NRC
"Some families in Hebron have been without water for over 40 days"
- Local Palestinian Journal
control areas of the west bank
water allocation in Israel and the Palestinian territories

PALESTINIAN WATER CONSUMPTION
in relation to WHO minimum standard of 150l/c/d

55% availability to consume
45% deficit
spaces of conflict and opposition through water and architecture

water as source for mistrust and misunderstanding through ‘Hydro-Apartheid’ (example: War over Water 1964-1967)

possibilities for e.g. architects through the spatial embodiment of water

importance of water systems in communities
connection and identification to society
creation of spaces to evolve in time

movement limitations

**analysis**
findings

communal area
dynamic/static movement limitations
conclusion
goal: mixed flows

finding: hebron theoretical walls
unequal accessibility to space within walls
static and dynamic conditions of movement limitations

overall concept
overall strategy

visibility of hebron walls as:
awareness of / reflection to current conditions (perhaps future past conditions)
relation between architecture/urbanism and inhabitants’ collective identity
overall strategy

demarcation of space within Hebron walls through:
- center of commerce
- house of rights
- temple of water
- road of freedom
- institute of rules

finding:
- Hebron theoretical walls
- space for gathering within walls through:
  - revival of local economy
  - equalization of rights
  - equal water allocation
  - decrease of movement limitations
  - towards peace in politics

contemplation:
- water: in densely populated old city, no terrain for water collection, Israeli and Palestinian people in proximity
- road of freedom:
- temple of actions:
  - house of rights
  - temple of water
  - road of freedom
- institute of rules
- demarcation of space within Hebron walls through:
  - fading and retraction of Hebron walls through time
  - supporting functions as catalysts
    awareness of / re/flection to current conditions (perhaps future past conditions)

relation between architecture/urbanism and inhabitants' collective identity
visibility of Hebron walls as:
- starting/connection points for transboundary movement
- strategically placed and themed catalysts for equalization
- points at space within walls as:
  - architectural embodiment
  - closed street
  - old city
  - important religious site
  - camera regions
  - settlements
overall strategy

fading and retraction of hebron walls through time
water

- water as the source of life -directly and indirectly
- water as environmental need and factor
- water as economical product
- water as political instrument
- water as substance for joy

lots of potential architecturally
water
water
water
platform for mixed flows through architecture of water

design concept
design relevance
idea translation

conception of unification through vistas of the city as one (final stage)

large top surface for maximum heating
wide horizontal lay-out for maximum water storage at one level
height for pressure creation

condensation water collection process
water collection
water purification

water use: drinking (primary)
water use: bathing (secondary)
water use: worshipping (tertiary)

water storage and cooling
large volume availability
atmosphere

water for life
water as spatial element

atmosphere
water as climatological factor
design process

architect study
Hans Scharoun
design process

space research
design drawings
design process

form study interpretations of suprematism
design process

space research
3D sketch visualizations
design process

appearance study
sketch models
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COEXISTENCE THROUGH ARCHITECTURE OF WATER
water - communal character in transmutation:

'ma' character
water - communal character in transmutation:

'da' character

transfiguration
- 3 dimensionalisation

KLAAS J DE JONG
April 13th, 2018
design concept

water - communal character in transmutation:

'ma' character

transfiguration
- 3 dimensionalisation

transformation
- materialisation &
texturisation

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idea translation

starting situation/horizontal barriers
towards space without barriers
idea translation

water storage well/water storage tower
idea translation

well topping/water purification basin
idea translation

completion/connection
plans

floor plan
ground level
Plans

Floor plan

Level -1
arm naar grot
plans

floor plan
level -2
plans

floor plan
level -2
plans

floor plan
level -3
plans

floor plan
level -3
plans

floor plan
water tower level
sections

section

transversal a
water treatment pump

water - communal character in transmutation: 'ma' character trans/figuration - 3 dimensionalisation

at least at 30m height for water pressure creation

public accessibility and connectivity to system

cooling or pre-eating from 13 degrees celcius

water to drink from

water to use (social practices)

water distribution

water storage & heating or cooling

water collection

well topping/water purification basin

transformation - materialisation & texturialisation
design in city

- temple of water as part of the city
- water supply to inhabitants
- wastewater extraction from city
conclusion

- relevancy of water and architecture
- problems of territorial water management
- architecture in spaces of conflict and opposition
- revitalisation of Hebron
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COEXISTENCE THROUGH ARCHITECTURE OF WATER

thank you
2015 Hebron numbers regarding water

daily water production:
western aquifer 0.4 Mm3
eastern aquifer 16.2 Mm3
(for entire West Bank)

yearly rainfall
(netherlands)
620.5 mm
(700-900 mm)
rainfall days 55 days
water evaporation 1951.6 mm

wastewater:
localities connected to network 4
localities in use of cesspits 78
localities with open channels 5
localities disconnected 88

needs based on WHO standard of:
daily:
water needs 34.2 Mm3
water deficit 17.4 Mm3
water supply 26.1 Mm3
water loss 9.3 Mm3
water consumed 16.8 Mm3

of WHO standards: 49%

150 l/capita/day
73.7 l/capita/day
materialisation
materialisation
materialisation