IN SEARCH OF WATER ENCHANTMENT

from disappearing water cultures to reviving water experiences on Mallorca

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In the land of Pastorix



Ahmed and the Spring of Freedom

Omment of the second se

A hidden treasure



A hidden treasure







Mallorca, a holiday paradise

"Malle is just once a year"



a place where happiness and enjoyment is expected a place without worries

The consequence



imbalance water supply and demand puts the water under pressure

Problem caused by people



overconsumption









overexploitaton (aquifers) water reserves falling at 46%

problem in behaviour



Problem caused by climate



extreme drought

heavy rainfalls resulting in floodings

climate change (more extreme weather conditions)

Research outcomes

On three different scales







year cycles

systemic

Village scale



cultural

Water cosmologies

yearly water calendar



discovery of a whole new universe showing the multiplicity of water



A hidden treasure



that just appears sometimes naturally



Extensive water harvesting traditions

before tourism



long history of self-sufficiency and harmony between humans and their arid environment recognized as cultural landscape by the UNESCO - continuous symbiosis



Visual water encyclopedia



visual encyclopedia of mallorcan water





Valldemossa



ajouter."

"C'est une de ces vues qui accablenet parcequ'elles ne laissent rien à désirer, rien à imaginer. Tout ce que le poète et le peintre peuvent rêver, la nature l'a crée en cet endroit. Ensemble immense, détails infinis, variété inépuisable, formes confuses, contours accusés, vagues profondeurs, tout est là, et l'art n'y peut rien

"This is one of those panoramas that calm the spirit, because there is nothing left for us to desire or imagine. Everything that the painter or the poet can dream of has been created by nature in this place: a tremendous general effect, infinite detail, inexhaustible variety, confused shapes, definite outlies, vague depths, they are all there, and art can add nothing more." (Sand, 1841, p.131-132)

Located in the middle of a mountain range



Mallorca's topography (every 50m)

0 5 10 15



2

15 20



Located in the middle of a mountain range



A tactile experiencable map as a way of physically engaging with the landscape's depth and complexity



Exploration

observe the intangible heritage



Embeded in the landscape













Profit system and drainage system



Ν \frown legend

- source
- bassin/depot
- ▲ distributor
- activity/production ٠
- water supply
 drainage (lefover) / torrent



Profit system



Profit system





autonomous system

communal system

legend

- source
- bassin/depotdistributor

- activity/production
 water supply
 drainage (lefover) / torrent



currrent system

Valldemossa's communal system



Valldemossa's communal system



A careful distribution



water distribution system withness of clever engineering with little effort

Water rights Weekly schedule



Water ruins the ghosts from the past



casa de neu

snow house

abeurador

drinking pond in the mountains sinia

infrastrucutre to extract water

water infrastructures used to be accessible to everybody throughout the landscape Monuments have character, tactilness



font

source

An Enchanted village



saint of the village Santa Catalina Thomas who did miracles, where figures appear through the merging of the natural and the supernatural realms, boundaries disappear water sources, water eyes are celebrated, remained magical



Personal Enchantment



traditions and enchantment continue throughout history a relationship that contributes to a strong sense of belonging and spiritual connection among the inhabitants with the place



Power of Enchantment



Enchantment: creates a feeling of wonder, awe, fascination that captivates the mind and the emotions. A feelong you do not control. Enchantment does magic: it destabilizes the boundaries between humans, animals, plants and environment, it challenges hierarchies it creates emotional value

dreams

Present: reading the envrironment throught water



Valldemossa's present water problem

to a dis-enchantment of water



disconnection to water and to the infrastructures



Water problem

to a dis-enchantment of water

DEPOSITO DE AGUA DE CONSUMO HUMANO

PROHIBIDA LA ENTRADA A TODA PERSONA AJENA A LA EXPLOTACION

disconnection to water and to the infrastructures


How can we care about water if we do not see it?

From an enchantment world



PROCESS OF ENCHANTMENT POSSIBLE WORLDS CAPTIVATED entry gate to imagination value and meaning

To a dis-enchantment of our environment





PROCESS OF ENCHANTMENT POSSIBLE WORLDS CAPTIVATED entry gate to imagination value and meaning

DIS-ENCHANTMENT **REPRESSIVE DESSUBLIMATION** DISORIENTATION cannot get to the core loss of value

by fostering emotional connections, enchantment strengthens a sense of belonging and care to a place or resource emotional investment and personal attachment to water can lead to more thoughtful, responsible resource use

Towards re-enchantment of water

Design questions

Can water be re-enchanted today? Can an enchantment of water be produced? How can architecture play a role in this enchantment?



Towards re-enchantment of water

"The mood of enchantment is composed of affective attachment and acute sensory activity." (Jane Bannett, p. 5)



From passive observation into active participation

ENCHANTED

TACTILE ENGAGEMENT AND EXPERIENCES





Experiencing water turns passive observation into active participation

Mallorca's extreme drought periods



Panic over Mallorca water cuts

Balearic restaurant associations demand "urgent solutions" from the government



Panic over Mallorca water cuts

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Panic over Mallorca water cuts

Balearic restaurant associations demand "urgent solutions" from the government



Under the regulations, using drinking water to clean cars, refill swimming pools or to water plants is prohibited

Panic over Mallorca water cuts

Balearic restaurant associations demand "urgent solutions" from the government

JAN

Banyalbufar turns the water off

Two orders for cutting supplies in two days



Restrictions in Banyalbufar were introduced a month ago. | Archive

Andrew Ede | Banyalbufar | 22/05/2024 08:55

Mallorca town hit with water restrictions to avoid 'extreme emergency situation'

Under the regulations, using drinking water to clean cars, refill swimming pools or to water plants is prohibited

Mallorca reservoir capacity falls, and one municipality announces cuts to supply Esporles is again having to take measures because of a water shortage



Water cut in Mallorca from 11 pm until 11am on Monday

Natural resources under pressure

no more watere in private houses is expected in summer time

Water usage



Water usage



water cuts mean restricitoins in daily lives average 100-150L per day, tourists 400-500L

Going back to sharing water

water as common good and meeting place



water cuts are expected to become more in summer (we have to go back to communal)

Water hierachy



Water Futures: speculations: shared water facilities



Focus on public bath



located near 2 physically and socially disconnected neighborhood

Located in a neighbourhood of villas



located near 2 physically and socially disconnected neighborhood



Deposit located at the highest point of the village



Public bath house in muslim mallorca



bathhouse ruin remian in Palma de Mallorca



Water is mainly found and stored underground

water storage typologies



casa de neu

snow house, wells or cavity in the mountain where the snow is collected and stored for summer

safareig

artificial open water deposit, mainly used for irrigation

aljub

architectural structure, often half underground, intended for the collection and storage of drinking water



cisterna

underground reservoir for rainwater for human consumption

Design principles



bath house is underground

Design principles



capture as much water as possible, creating a sponge to capture the heavy rains (absorbe, store) humid and wet building, water almost constantly flows breathable building

Ca'n Aigua

"Casa de en" = "the house of" or "home of"



Can: the way houses in Majorca are traditionally named calling a house Can is a way of acknowledging a place, a house becoming a home Can Aigua is the home of water, where visitors are the guests



Steep site



Teraced landscape



a way to make the land usable



Dry-stone construction



control and regulate intensity of surface runoff



Filtering landscape



avoid soil loss, erosion (sediments are retained at the wall) divert the surface water to underground reservoirs

Dripping room



Steep topography



Site is the main resource



preppering the site carving out and using the soil to build the walls

Creating a sequence of terraces and undergroung spaces



Heavy autumn rainfall

Building acts as a sponge



Winter program bath house

dirty



getting clean

clean

deposit: water source

Winter program



deposit: water source
Winter program



deposit: water source

Dry summer program

Communal shower facility, public event space



Program dependent on water availability



Integrated in the surrounding





Design





on the street level, the first element you recognize is the tower



on the street level, the first element you recognize is the tower

Activities and production using water



rentadors

cleaning the clothes, place of meeting



lli





tafona

olive oil production

Water was also needed for production purpose using it as a cleaning liquid or power of the water



moli de coup

using the power of water flour grainding

Entrance Lower level



Entrance



Aiguarder

Care taker



who makes sure about the funtionning of the place, who has all this water knowledge that is being lost reappreciating the oral traditions and knowledge, and who has the keys

Water characters

the ghosts from the past



sauri

Person with a special sensitivity to find groundwater and minerals using an ancestral technique that stimulates the awareness of the senses. real person but more than human abilities?



slave

Slave: To free themselved slaves had to find water (qupte book)



maria enganxa

A whitch lives inside the wells which are all connected underground. If a child would get lean to forward to the well she would catch them.

around them stories and characters started to appear



dona d'aigua

Catalan mythodology of feminine beings of mesmerizing beauty hat live in places with abundant fresh water. (Fada que habita en fonts, en torrents o altres llocs on hi ha aigua.)

Changing room



Toilet



A public path





Showers



Showers



Shower: using water wisely



Shower: a celebration of drips



Shower: a celebration of drips



A dripping ceiling



refering to the stalagtite in the caves

A dripping ceiling



refering to the stalagtite in the caves

Almangra o mangra/ almagre: red ocher



almangra was traditionally used to coat water cisterns, bathhouse walls, warm rooms, and clay vessels waterproof coating = Almangra (is insoluble) + Lime (calç) creating a limewash or lime plaster + water (+beeswax or milk protein) used to prevent mold and algae



Almangra o mangra/ almagre: red ocher



natural iron oxide pigment that has been used for thousands of years



Waterproof coating



From the shower



To the bath house





Cold room





Winter usage



Summer usage



Square around water







Water reflects







Water lights up and reflects



You only realize what you are missing once it's gone


Connecting to the higher street



View from the site over the village



Water flows along a spine



Water comes from the ceiling and the ground



Natural ventilation



Ventilation outlets



maria enganxa

Rather then a building it is a landscape where visitors wander around and under



Mallorcan dry landscape





Dry landscape



Dry landscape with smells



which can be dried in the summer months to produce natural soaps, to avoid harm of the landscape while filtering water

Dry landscape





Water does not only shape the rock



water can shape a void and add material



Water also transports a material



Water creates its own architecutre

sculpturing with lime



water can shape a void and add material



A dripping ceiling



refering to the stalagtite in the caves

A dripping ceiling



refering to the stalagtite in the caves

A dripping ceiling



refering to the stalagtite in the caves

Over time



Over time



unpredictability

Over time



unpredictability

Biodivirsity



The natural environment reclaims dry-stone constructions, evolving into singular biotopes











thank you