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PATHS OF WATER, PATHWAYS OF MEMORY



AGA KHAN TRUST FOR CULTURE
Education Programme

REPROGRAMMING HERITAGE

UPV INTERNATIONAL WORKSHOP

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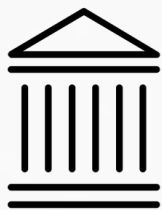
WHAT IS REPROGRAMMING?

DICTIONARY

Reprogramming: to devise and organize the actions necessary to carry out a project.

WHAT WE THINK IT IS

Reprogramming is the strategic reassignment of functions, values, and relationships within an existing landscape or urban system to increase its social, ecological, cultural, and economic performance without necessarily replacing its physical structure.



**BUILT
HERITAGE**



**ECOLOGICAL
ACTIVATION**



**SOCIAL
ENGAGEMENT**



**ECONOMIC
ACTIVATION**



**POLITICAL
STRATEGY**

ASPECTS WE FOCUSED ON

LEBANON, SAIDA



NOUHYEE AL ARD COMMUNITY GARDEN



BEFORE

- Neglected land used for dumping waste
- Abandoned agricultural plots
- Degraded soil and limited biodiversity
- Weak connection with the surrounding community
- Original project inactive or on hold

AFTER

- Productive and accessible community garden
- Stronger social connections
- New opportunities for farmers and local producers
- Increased awareness of Saida's agricultural heritage
- Improved soil health and local biodiversity
- Resilient green space within the city
- Stronger relationship between food, culture and community

REPROGRAMMING SYSTEM

- Cleared waste and rehabilitated the soil 🌱
- Introduced raised beds and permaculture methods 🌱
- Re-established productive agricultural areas 🌱
- Organised courses in permaculture, gardening and agronomy 🌱👥
- Created a Sunday market for produce, food and crafts 🐾💰
- Hosted collective planting, workshops and public events 🐾
- Encouraged shared responsibility for the garden 🐾

LEBANON

BEFORE

- Decline of the traditional silk industry
- Vulnerable and seasonal farming economy
- Low economic returns for local producers
- Limited tourism outside the summer season
- Seasonal population decline and weak youth retention
- Agricultural and natural heritage lacking visibility

AFTER

- Increased visibility and sales for farmers and local producers
- Growth of food, craft, hospitality and visitor-oriented activities
- Hammama established as a cultural and ecotourism destination
- Increased use and appreciation of orchards and natural landscapes
- Expanded cultural activity beyond the agricultural season
- Renewed interest in local traditions and rural heritage
- Diversified local economy beyond silk production and conventional farming
- Strengthened connections to regional hiking and tourism networks



LEBANON
HAMMANA



HAMMANA CHERRY FESTIVAL

REPROGRAMMING
SYSTEM

- Reframed the cherry harvest as a cultural and economic event
- Created opportunities linking farmers, local cuisine, artisans and visitors
- Opened orchards for cherry picking, walking and seasonal activities
- Supported local food products, crafts, restaurants, guesthouses and small businesses
- Reused a historic building as the Hammama Artist House, providing artist residencies, performances, workshops and year-round cultural programmes
- Combined agriculture, heritage, culture and ecotourism to create a broader village experience



LEGEND



ECOLOGICAL ACTIVATION



SOCIAL ENGAGEMENT



ECONOMIC ACTIVATION



BUILT HERITAGE

LEBANON, TRIPOLI

PEDESTRIAN NETWORK & GREEN CORRIDOR



BEFORE

- neglected space
- no accessible infrastructure.
- It lacked any pedestrian safety measures, proper drainage, or cycling infrastructure, effectively creating a hostile barrier between neighborhoods.

AFTER

- Green buffer landscaping
- Native drought-resistant plants
- Wider accessible sidewalks
- Rehabilitated pedestrian paths
- Protected cycling lane
- Active mobility promotion.



REPROGRAMMING SYSTEM

- Mobility and active transportation system
- Pedestrian accessibility system
- Green buffer and ecological landscape system
- Streetscape rehabilitation system
- Sustainable drainage and environmental infrastructure system



LEGEND



PEDESTRIAN
CONNECTIVITY &
ACTIVE MOBILITY



ECOLOGICAL
LANDSCAPE



BUILT HERITAGE &
URBAN FABRIC



SUSTAINABLE
DRAINAGE

EGYPT, OLD CAIRO

AL-AZHAR PARK CASE 01



BEFORE

- Former landfill and rubble dump
- Lack of public green space
- Hidden and deteriorated Ayyubid Wall
- Weak local economy

AFTER

- Major public park and leisure destination
- Restored Ayyubid Wall
- Improved urban ecology
- Economic revitalization
- Community development initiatives



REPROGRAMMING SYSTEM

- Reveal and interpret historic infrastructure
- Convert degraded land into productive public landscape
- Create gathering and leisure spaces
- Introduce revenue-generating public uses
- Integrated heritage and community management



LEGEND



BUILT HERITAGE



ECOLOGICAL ACTIVATION



SOCIAL ENGAGEMENT



ECONOMIC ACTIVATION



POLITICAL STRATEGY

EGYPT, FUSTAT

TRADITIONAL POTTERY VILLAGE

CASE 02



BEFORE

- Scattered pottery workshops
- Poor working environment
- Declining traditional craft
- Limited visitor engagement
- Weak institutional support

AFTER

- Organized pottery village
- Preserved traditional craftsmanship
- Cultural and tourism destination
- Improved artisan facilities
- Government-supported craft sector



REPROGRAMMING SYSTEM

- Maintain traditional production through active use
- Maintain traditional production through active use
- Transform production into an educational experience
- Consolidate artisans into a specialized production hub
- Formalize and support traditional industries



LEGEND



BUILT HERITAGE



ECOLOGICAL ACTIVATION



SOCIAL ENGAGEMENT



ECONOMIC ACTIVATION



POLITICAL STRATEGY

TUNISIA, MEDINA OF TUNIS



JNINET EL HAFSIA



BEFORE

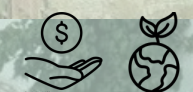
- Vacant urban space in the Medina of Tunis resulting from a collapsed building
- Lack of collective consciousness and no more sense of belonging in the neighborhood
- Neglection of the community and spirit of place that was previously important and valued
- Informal parking and waste disposal area.
- Environmental degradation and weak community use.

AFTER

- First community garden integrated into the Medina.
- Introduced more than 600 plants collectively maintained.
- Green public space for residents.
- Educational and environmental activities.
- Plant conservation and biodiversity awareness.
- Cultural and social gathering space.

REPROGRAMMING SYSTEMS

- Transform abandoned residual spaces into productive and ecological landscapes.
- Residents who became passive users become active managers.
- Introduce native, medicinal, edible and pollinator-friendly species.
- Use gardening and environmental workshops to reconnect people with the heritage.
- Integrate events, workshops and community gatherings into the landscape.



LEGEND



BUILT HERITAGE



ECOLOGICAL ACTIVATION



SOCIAL ENGAGEMENT



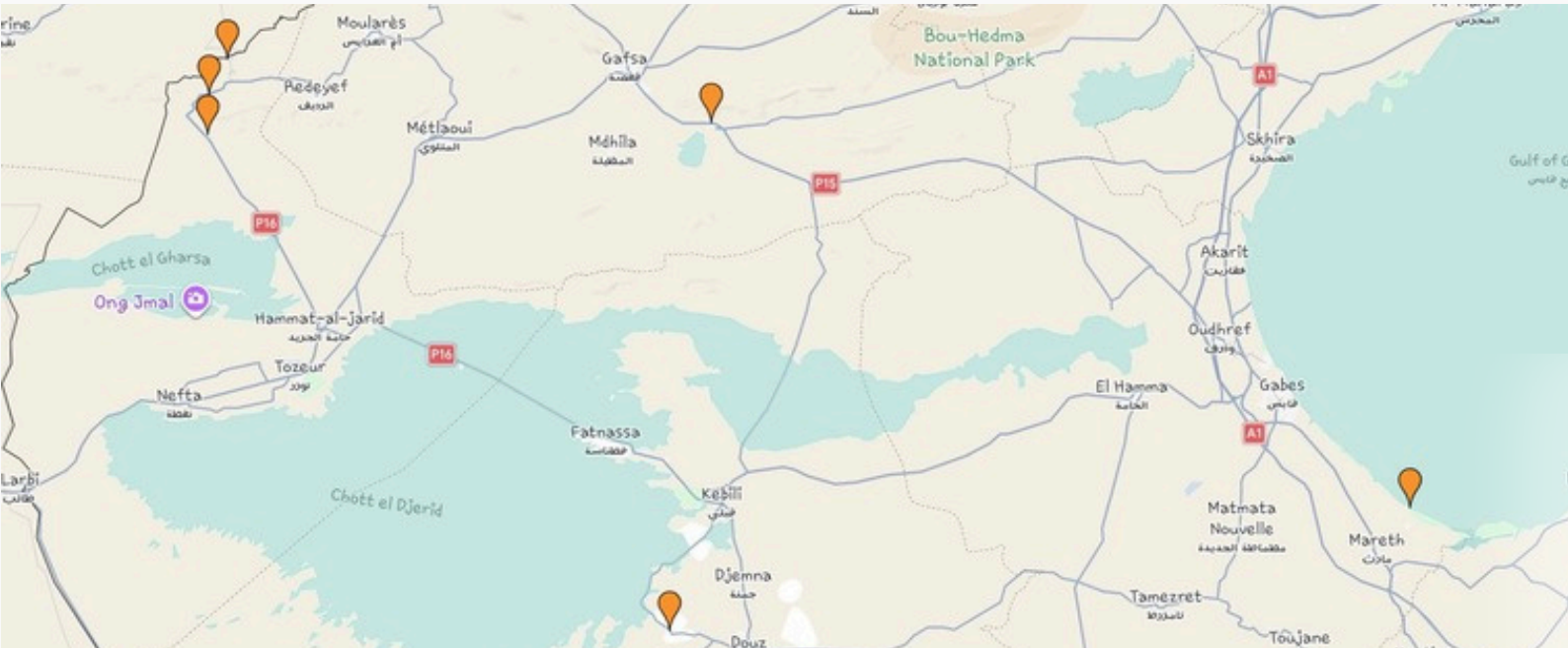
ECONOMIC ACTIVATION



POLITICAL STRATEGY

TUNISIA

TUNISIA (SAHARA)



GDEO PROJECT (OASES)

BEFORE

- Degraded irrigation infrastructure.
- Unsustainable water management.
- Declining agricultural productivity.
- Loss of biodiversity.
- Economic dependence on traditional agriculture.
- Climate vulnerability of oasis ecosystems.

AFTER

- Rehabilitated irrigation networks and water infrastructure.
- Sustainable agricultural practices.
- Diversified local economy.
- Improved ecological resilience.
- Ecotourism and cultural valorisation activities.
- Greater participation of local communities, women and youth.



REPROGRAMMING SYSTEMS

- Restore and adapt hydraulic heritage to contemporary environmental challenges.
- Combine food production, biodiversity conservation and economic development
- Introduce interpretation routes, local experiences and landscape discovery (Ecotourism).
- Support crafts, food processing, beekeeping, tourism and entrepreneurship.
- Interpret oasis knowledge, traditions and landscapes as heritage resources.
- Use the oasis as a space for ecological restoration, climate adaptation and environmental education.



LEGEND



HYDROLIC HERITAGE



ECOLOGICAL ACTIVATION



SOCIAL ENGAGEMENT



ECONOMIC ACTIVATION



POLITICAL STRATEGY

ITALY, MILANO



PARCO AGRICOLO SUD MILANO



BEFORE

Uncontrolled urban sprawl: direct threat to landscape continuity and ecosystems,
Economic decline of traditional farming and abandonment of historic hydraulic infrastructure.



AFTER

City boundary established and an organized facility network,
Integration of peri-urban recreation; economic stabilization of farms through multi-functional diversification.



REPROGRAMMING SYSTEM

- Agricultural land was a tool to set the boundry – buffer zone,
- Introducion a mandatory, modern vision of agricultural development,
- Preservation and re-activation of unique historic water engineering systems,
- Rural activities promotion,
- Architectural guidelines were established,
- The existing buildings got new functions.



LEGEND



BUILT HERITAGE



ECOLOGICAL ACTIVATION



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ECONOMIC ACTIVATION



POLITICAL STRATEGY



AFTER

Tourism revenues,

Areas more attractive to residents and tourists: biodiversity hotspot: flooded rice paddies have become a giant wildlife corridor,

The birth of the local brand.

REPROGRAMMING SYSTEM



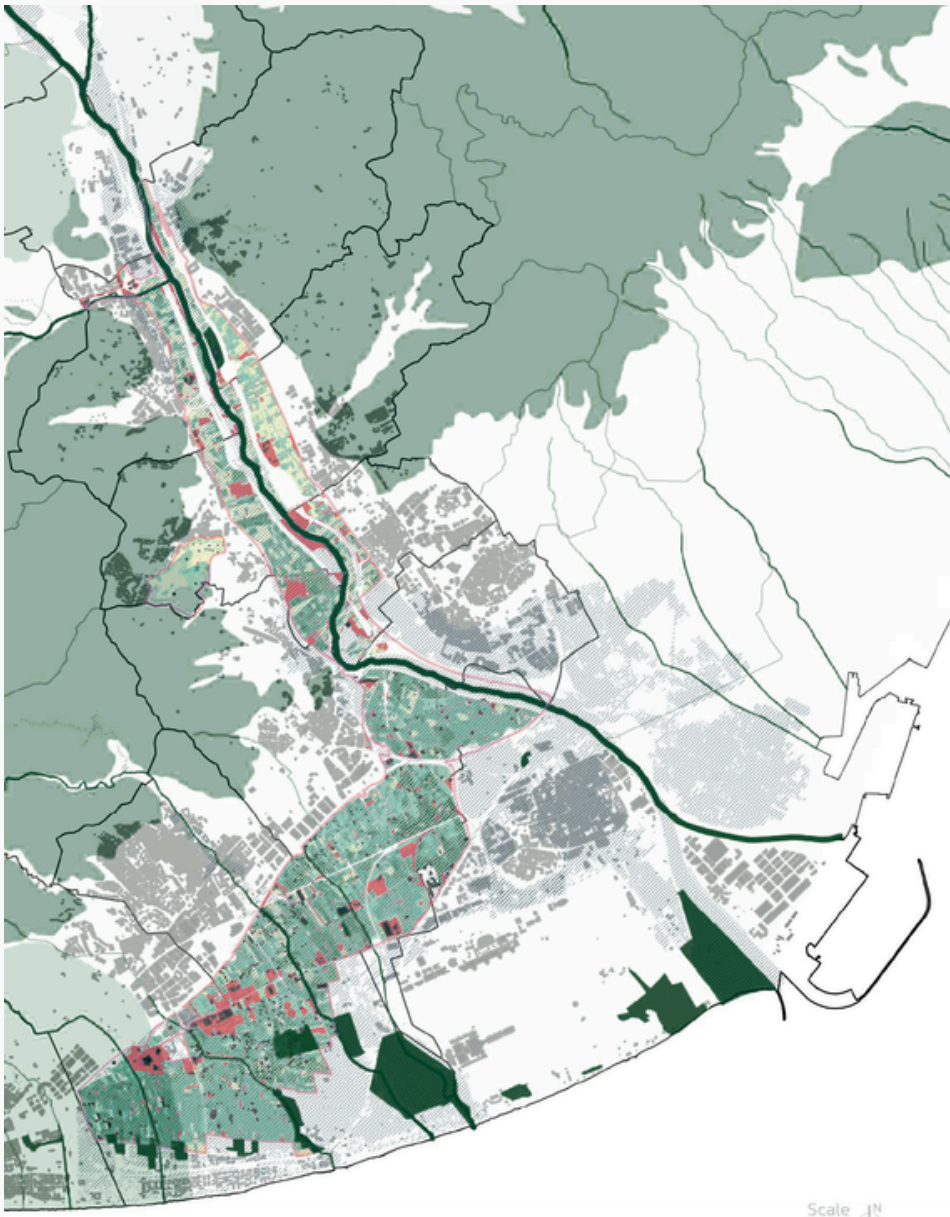
POLITICAL STRATEGY

SPAIN

SPAIN, BARCELONA

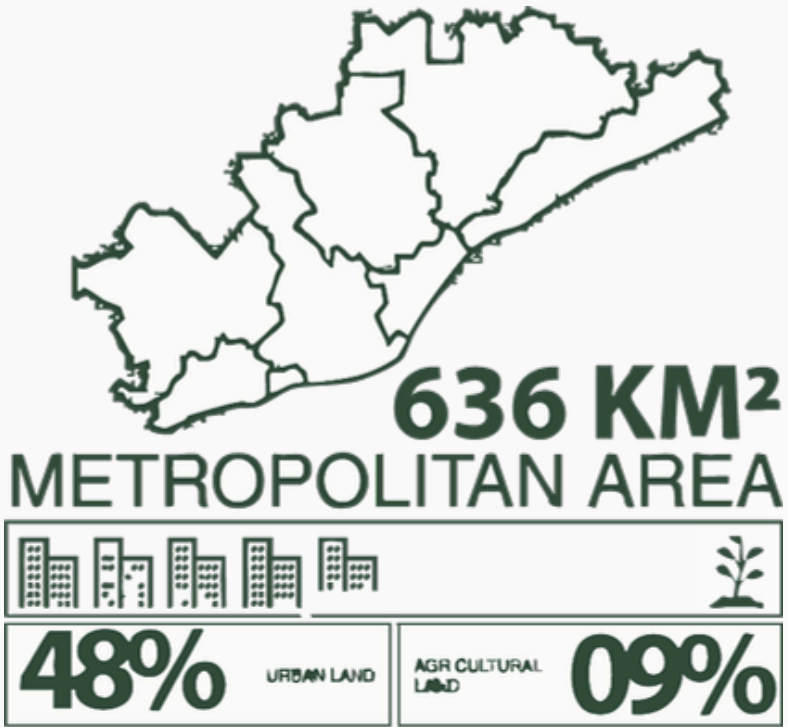


PARC AGRARI DEL BAIX LLOBREGAT



INFO

- Peri-urban agricultural parks.
- 1998
- 3.000 ha
- Management: Baix Llobregat Agricultural Park Consortium
- Main activity: Local agriculture and environmental conservation



SPAIN, BARCELONA

PARC AGRARI DEL BAIX LLOBREGAT



BEFORE

Fragmented, threatened by urbanization.
Declining farming viability.
Weakening agricultural identity.
Fragmented habitats.
At risk of disappearance.
Increasing dependence on imports.
Seen as development reverse.
Limited consideration.



AFTER

Protected agricultural landscape.
Structured agricultural economy.
Strong agricultural economy.
Strong regional food identity.
Connected ecological mosaic.
Actively protected and promoted.
Strong local food production.
Green infrastructure and climate benefits.

REPROGRAMMING SYSTEM



Reprogrammed farmland from a residual space threatened by urbanization into a multifunctional territorial infrastructure



Produces food, biodiversity, heritage, identity, recreation, and climate resilience.



This change in function, governance, and perception transformed the entire system.



IMPLEMENTATION AND IDEAS
ACROSS SCALES

REPROGRAMMING

