

# Liquid Power

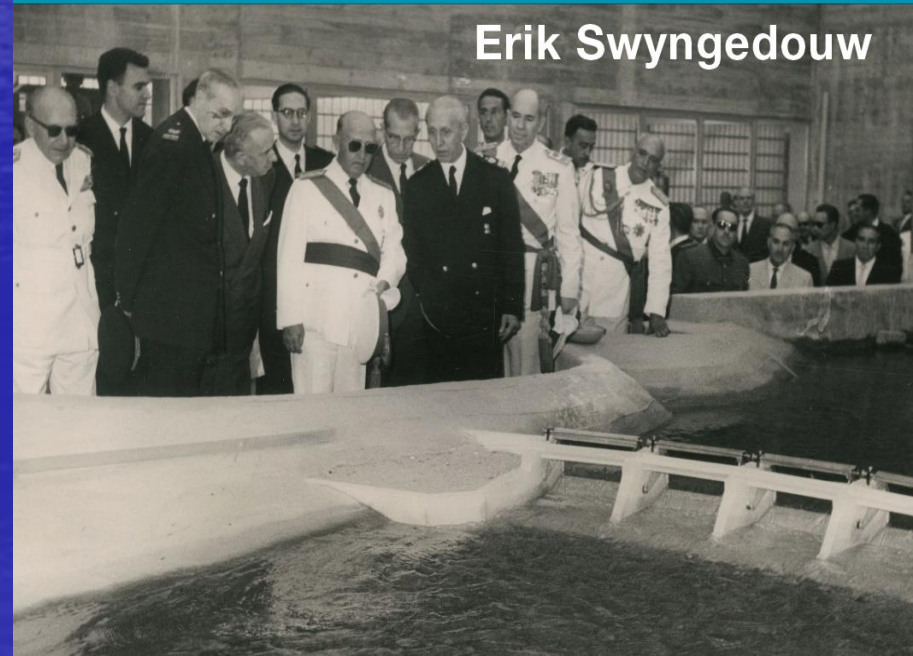
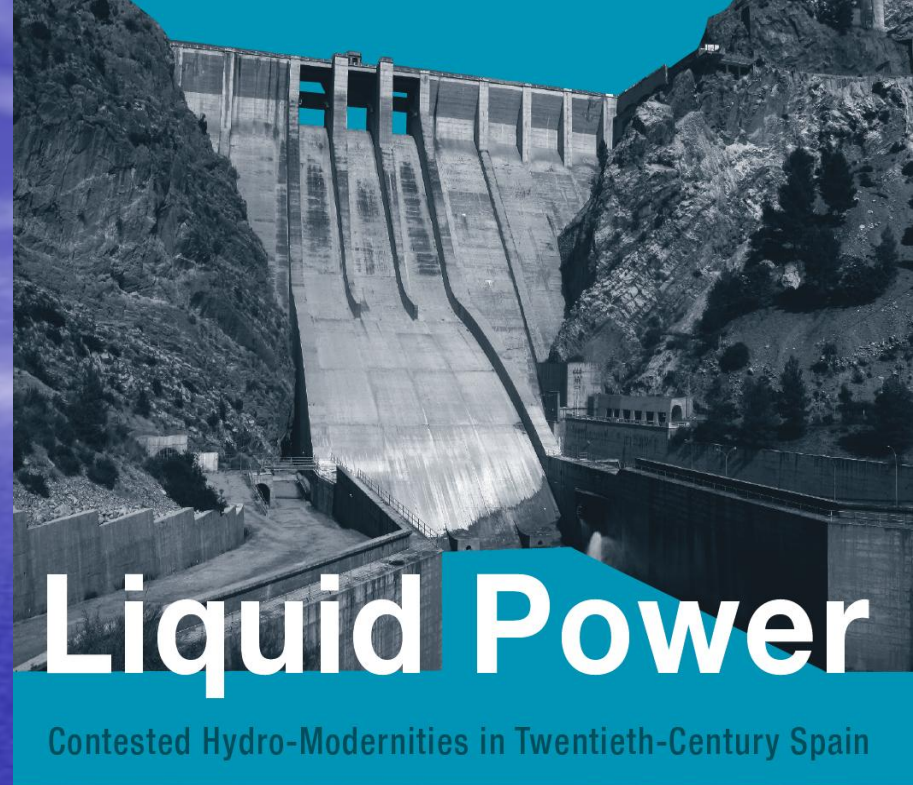
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# *Liquid Power*

*Contested Hydro-  
Modernities in  
Twentieth-Century  
Spain.*

MIT Press,  
Cambridge, Mass.  
(April 2015).



Modernity and Modernization as a politically contested and culturally tormented process of socio-environmental transformation

Every Political Project is an Environmental one (and vice versa)  
(Herzog's Fitzcarraldo)

# Techno-Natural Transformations in Spain

## 1. Techno-Natural Revolutions: from Re-Making the Rivers to De-Salting the Seas

Excavating the assembling, de-assembling and re-assembling of the socio-natural networks and power relations through which things and bodies, natures and stories, images and social relations, capital and political interests become enrolled and through which relatively stable quasi-objects (TechnoNatures and Hydro-social Configurations) are produced and transformed within the contested/conflicting process of modernization.







## **2.Re-Assembling Techno-Natural Networks: The 'Desal' fix**

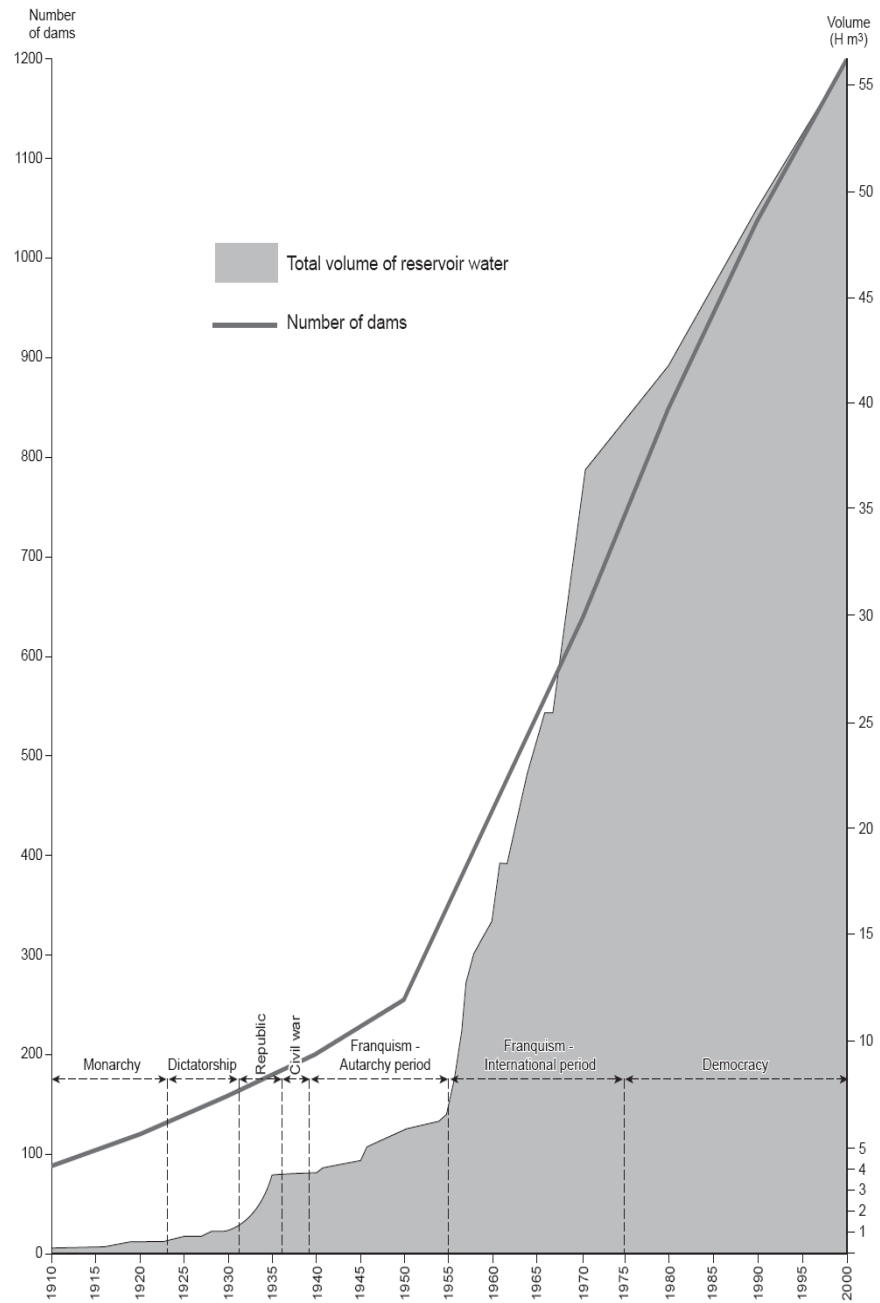
**To argue that such radical re-assembling constitutes a 'techno-natural' transformation that permits mediating/managing contradictions, tensions and conflicts within the contemporary socio-ecological configuration without radical transformation/questioning of that order**

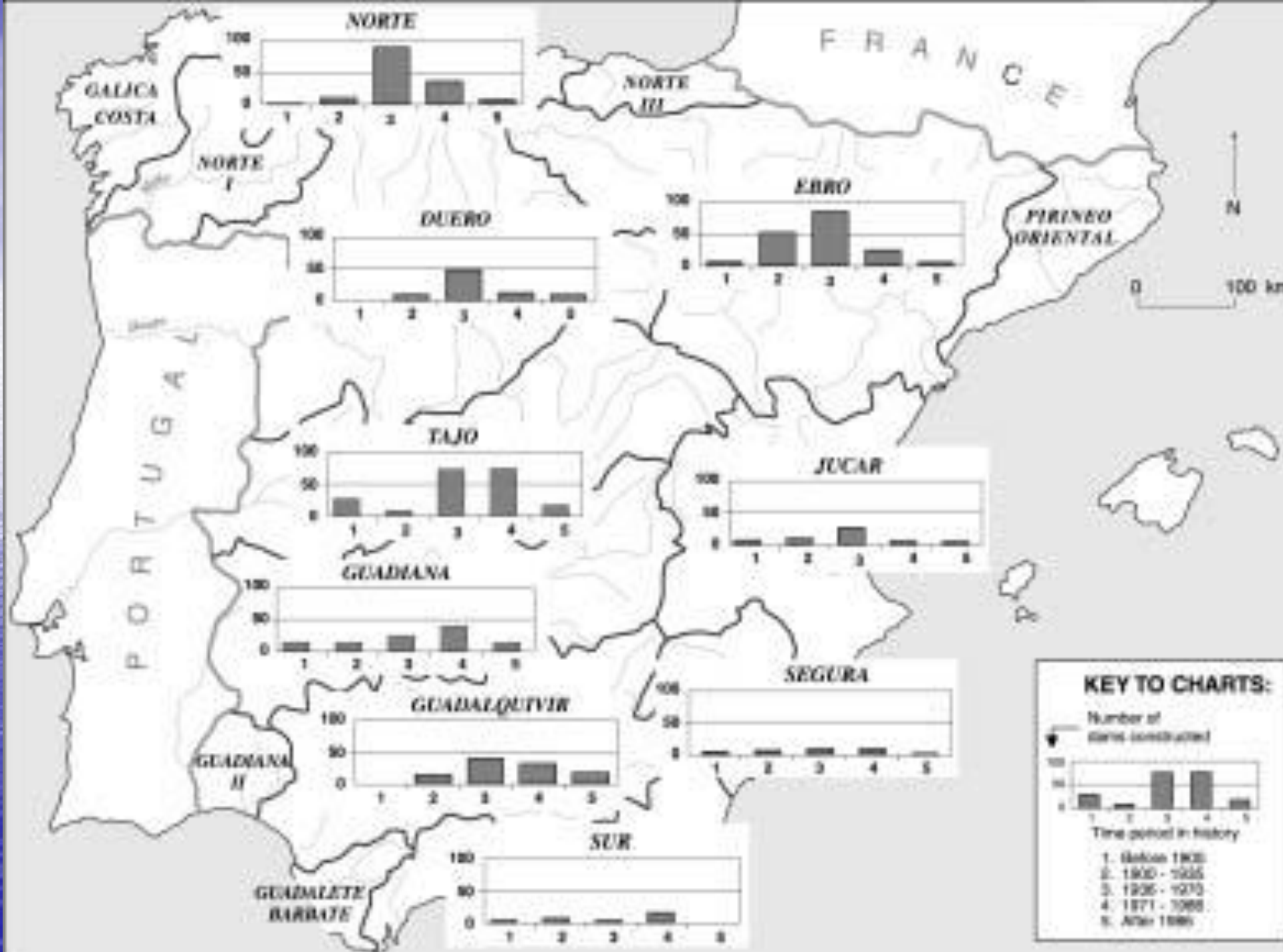


# Spain's 20<sup>th</sup> century Water Fever: an 'obsessive' theme

## **Water as the symptomatic torsion point of Spain's tormented history and present condition**

- More than 1200 dams (4th after US/China/India)
- Every river-basin (10) is fully engineered (state hydro-structuralism)
- Urban, industrial, tourism, agriculture
- More than 3,000,000 Ha irrigated
- Southern Basins used to 'the last drop of water'
- Changing metonymic imaginaries of H<sub>2</sub>O:  
Abundance, Aridity, 'Scarcity', Surplus-Deficit,  
New Abundance





# Liquid Power

1. Spain's Post-Colonial Shock and the Imagery of Disaster: Re-Presenting Modernity and the Failure of Socio-Ecological Transformation (1898-1936)
2. Franco's Wet Dream for Spain (1939-1975)
3. "How to Change Radically so that Things stay the Same": Re-Imaging – Re-Assembling Modernity

# 1. The Post-Imperial “Disaster”: the drama of 1898 and the modernizing dream

“Here, nature has to be created” (Costa)

“Spain will never be rich as long as its  
waters rush to the sea”

“Not a drop of water should reach the  
ocean without paying its obligatory tribute  
to the earth”

# Spain's Hydraulic Modernisation Desire: 1898- 1939

- 1) Spain's post-colonial shock
- 2) Modernity Modernisation as a geographical project
- 3) Water as the pivot of Spain's modernisation
- 4) Humming to Nature's Tune: The generation of 1898
- 5) The State as Master Engineer
- 6) Hydraulic Engineers as Producers of Socio-Nature
- 7) => Failure: Chronicle of a Death Foretold

*“Today, Castro Duro [the village of the hero] has now definitively abandoned its pretensions to live ... The springs have dried up, the school has closed, the trees ... were pulled up. The people emigrate, but Castro Duro will continue living with its venerated traditions and its sacrosanct principles ... sleeping under the sun, in the middle of its fields without irrigation” (Cesar o Nada)*

## 2. Assembling Dams and Transfers, 1939-1975: Franco's wet dream for Spain

"We are prepared to make sure that no a single drop of water is lost and that not a single injustice remains"

"On my shoulders rests the responsibility to make a new Spain" (Franco, 1959 and 1961)





**“Spain pains us because of its drought, its misery, the needs of our villages and hamlets; and all this pain of Spain is redeemed with these grand national hydraulic works, with this Reservoir of the Ebro and all the others that will be created in all the basins of our rivers, embellishing the landscape and producing this golden liquid that is the basis of our independence.”**

(Francisco Franco, speech on the occasion of the inauguration of the Reservoir of the Ebro, 6 August 1952; del Rio Cisneros, 1964: 122-123)

**1) Drought – Drought – Drought !!! And the Injustices of Water: mobilising terrestrial H<sub>2</sub>O in national project – surplus/deficit**

**2) Seducing the peasants: Land Reform/Irrigation**

**3) Hailing the 'Latifundistas'**

**4) Hydro-Electrifying the Electricians and Concrete Pleasures**

**5) A Faustian Pact: The Civil Engineers**

**6) Creating a National Myth – La Vertebración del España**

**7) Galvanising the Nation: the Propaganda Machine – The beauty of the technological sublime**

**8) The Atlantic Alliance – Capital, Steel, Science, and Geopolitics**

**9) Repressing the remainder: class, region, left, republican, differential cultures**



“We have come to visit your province, to inaugurate various important works ... and with this to satisfy the thirst of your fields, to regulate your irrigations, which shall increase your welfare and multiply production ... We need to irrigate our fields, satisfy the thirst of many lands ... The whole of Spain has to be redeemed, sealing the brotherhood between the land and the men of Spain” (F. Franco)

50 aniversario

LOLITA SEVILLA - MANOLO MORAN - JOSE ISBERT

# ¡BIENVENIDO, Mister Marshall!

VERSION INTEGRAL  
SIN CORTES

con ALBERTO ROMEA  
ELVIRA QUINTILLA  
LUIS PEREZ DE LEON  
FELIX FERNANDEZ



ESTUDIOS  
CEA

DIRECTOR:  
JULIO BERLANGA

COLUMBIA TRISTAR FILMS DE ESPAÑA, S.A.

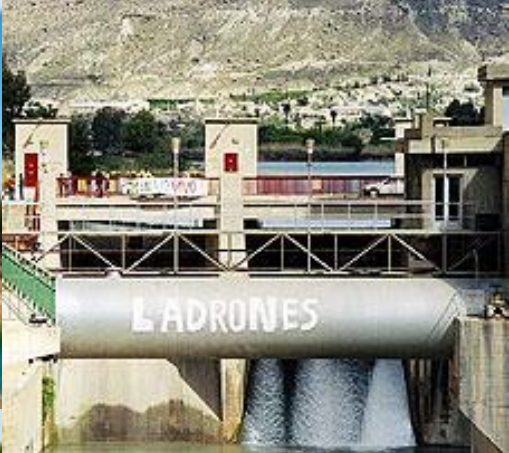
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# Towards an 'Integrated System of National Hydraulic Equilibrium' (1968-1975)

"If the ideas of Joaquin Costa were based on the unity of the river basin as the framework for the implementation of hydraulic projects, Hydrologic Planning [after 1940] extended this framework to the national scale, by advancing as one of its objectives the correction of the existing disequilibria on the Iberian Peninsula by means of interconnecting the river basins"









# Franco's Wet Dream Realized

- **Construction of more than 600 dams, among which all existing mega-dams**
- **1.6 million Has of additional irrigated land**
- **Creation of Backbone of National Water Grid (Tajo Segura Inter River Basins Water Transfer)**
- **Cities fully watered – 70% of energy hydro-based**
- **As Gomez De Pablos (1973: 242) argued:**

**“During the two decennia after 1940, the Spanish rivers were really ‘created’, on which a nationally integrated water politics rested”**

**3. De-Assembling - Re-  
Assembling the Hydro-Social  
Cycle, 1975-2010**

# **The State-Engineering National Project Continued – THE NHP**

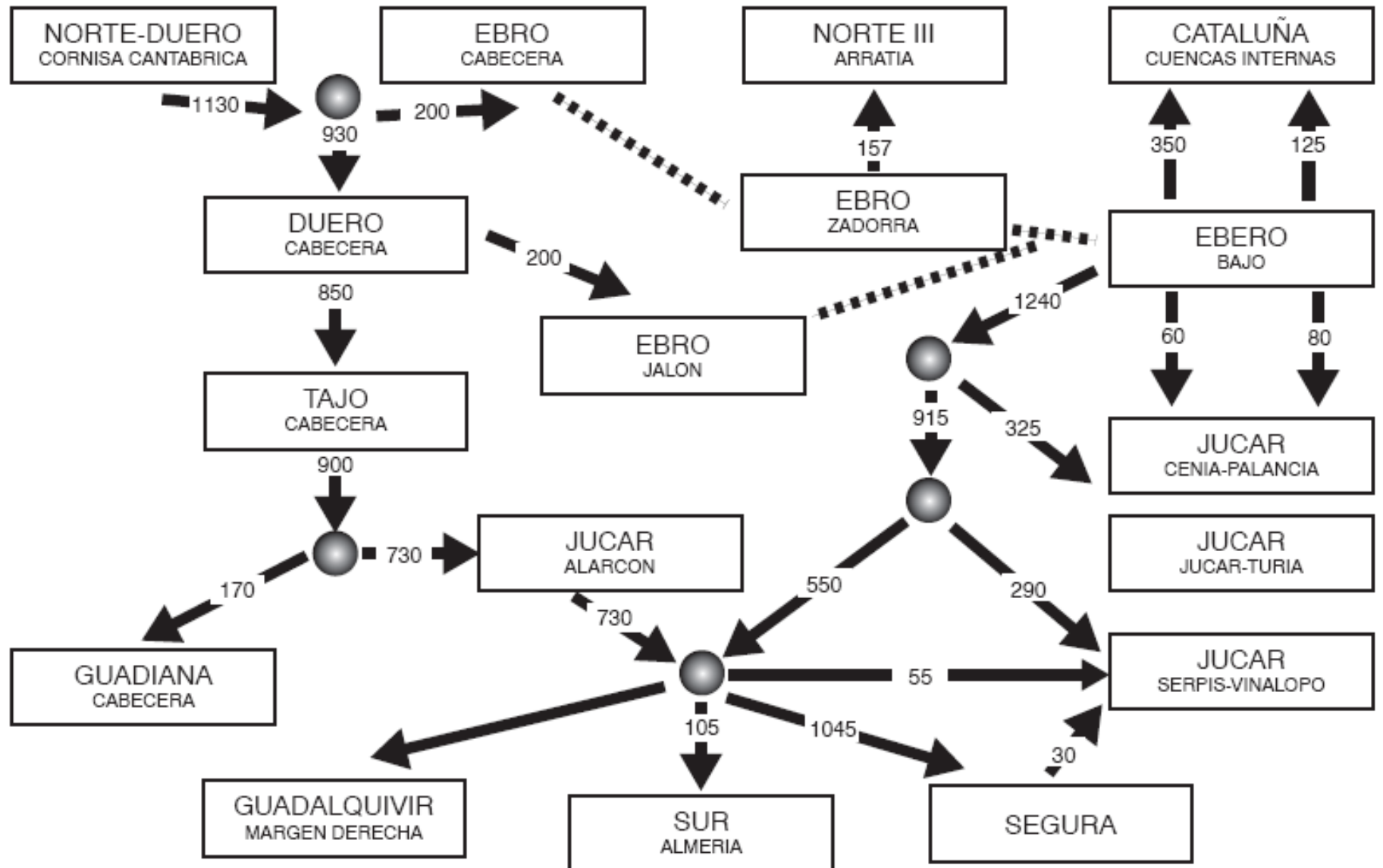
## **From 'Wet Dream' to 'Water Delirium' – The long march through the institutions**

**“A new century in which the old dream of Costa will be, able, at last, to become reality ... the Esera and many other Eseras will travel through the skin of Spain and their clean water will be, recalling the poetic words of Costa, their blood, their dew and their gold, the road of liberation and of collective wealth” (Anteproyecto PHN 1993)**

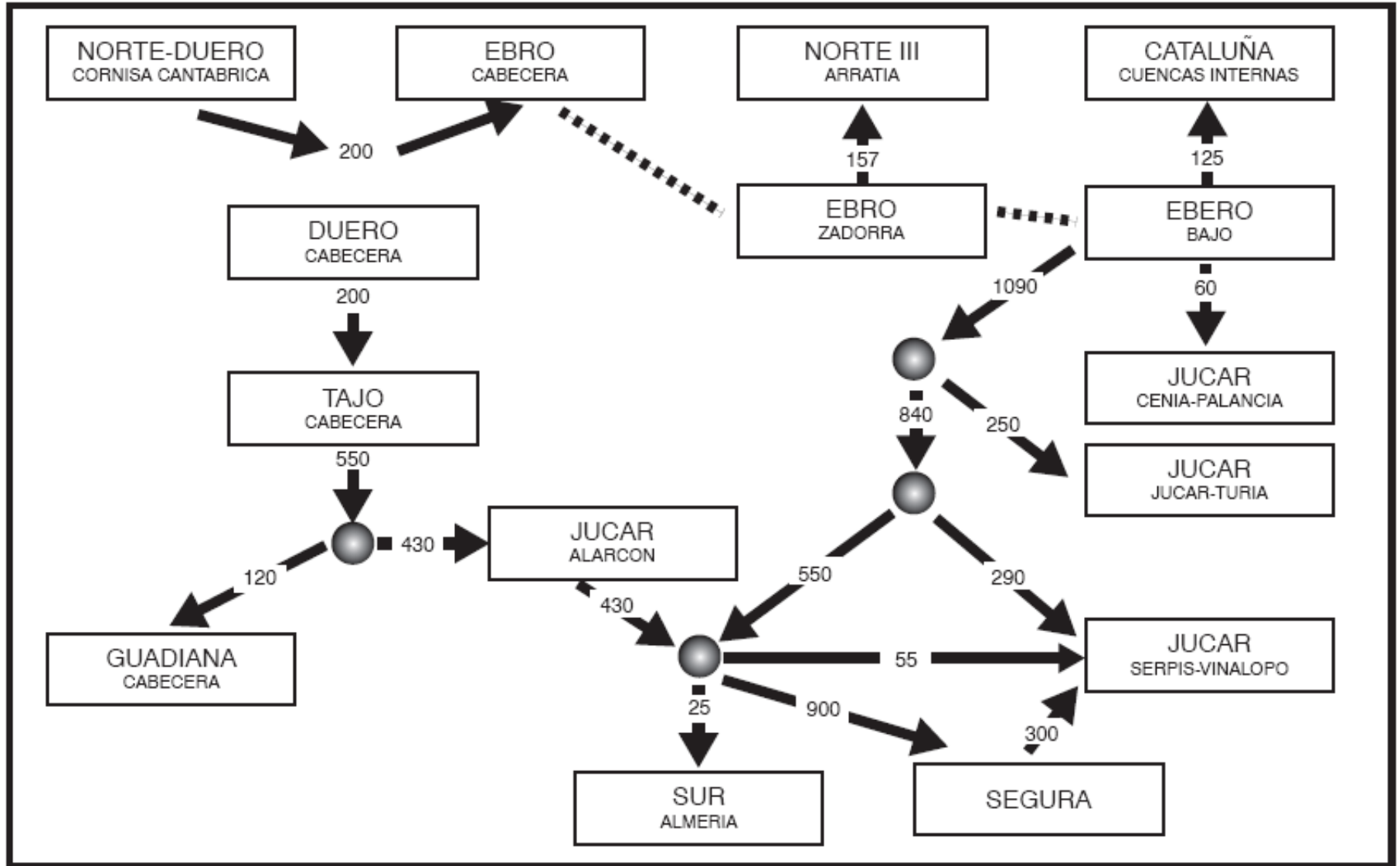
**A real national enterprise capable of remaking the geography of the fatherland (del Moral 2004)**

**The "Anteproyecto del PHN" enshrined this remaking of the geography of the fatherland through establishing a System of National Hydrological Equilibrium that would redistribute 4 billion cubic meters of water annually (enough for a population of 40 million) from the Northern River Basin (Asturias) to that of Sur (Almeria), passing via de basins of the Duero, the Ebro, the Tago, the Guadiana and the Guadalquivir.**

# The 1993 Draft NHP Proposal - PSOE



# The 2001 PHN – Approved - PP



# Re-Entangling Spanish Waters



- Plan approved 2001
- Massive protests: mobilising fish and fisher-people, sediments, science, ecologies, shorelines, cultures, popes, regions, tourists, Russian oligarchs and Oil Sheiks, golf courses, strawberries and olives
- Change of government (March 2004)
- National transfer schemes abolished – new TechnoNatural entanglements



# 2004: The 'Desal' Fix

- **The PSOE reborn:**
  - 11-14 March 2004
- **The AGUA Program**
  - Suspending the EBRO Transfer
  - Demand Management
  - Re-Use of water
  - **Desalination – Mobilising the Seas**
  - Silencing the 'PLAN'
- **"Una Nueva Cultura del Agua" – 2005 (broad and highly diverse left, regional, ecological alliances)**

Table 1

Programa AGUA proposed water additions, total estimated cost and new desalination facilities by Mediterranean province

Province	Water additions (hm <sup>3</sup> )	Estimated cost (million €)	Desalination facilities (new and upgraded)
Albacete	0	14	0
Alicante	212	618	7
Almeria	189	352	5
Barcelona	135	848	1
Castellon	78	173	0
Girona	10	47	1
Malaga	125	227	2
Murcia	204	876	5
Tarragona	0	215	0
Valencia	110	428	0
Total	1063	3798	21

*Source: MMA (2005).*

# Dis-Assembling and Re-Assembling the Networks, 1975-2004

- From Land to Sea: Re-imagining the scales of hydro-social management
- Re-figuring Nature:
  - From 'surplus' and 'deficit' to the new abundance
  - mobilising salt, high-technology, sediments, fish, rivers, coastlines and the new arid sublime
  - ... with a little help of 'climate change'



# COSAS de la VIDA

**LA SOLUCIÓN QUE LLEGÓ DEL MAR**  
La gran planta desaladora que se ha inaugurado el mes de febrero abastecerá un sistema de distribución de agua en un área de 4,5 millones de habitantes.

**El proyecto y su localización**  
El proyecto de inversión de 1.200 millones de euros, financiado por el Estado y la Generalitat, se localiza en el municipio de Vilanova i la Geltrú, a 20 kilómetros de Barcelona.

**La planta abastecerá al 20% de su potencia...**

**LA PLANTA DE DESALACIÓN DE VILANOVA I LA GELTRÚ**

- 1.200 millones de euros de inversión
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- 1.200 millones de euros de inversión
- 1.200 millones de euros de inversión

**THE SOLUTION THAT CAME FROM THE SEA:**

## La desaladora abre el grifo para abastecer a 4,5 millones de catalanes

Montilla subraya que la instalación acaba con peligros de restricciones como el vivido en la sequía del 2008 | La planta empieza a trabajar al 20% de su potencia, pero lo hará a mayor ritmo si baja el agua embalsada

**La planta de desalación de Vilanova i la Geltrú**

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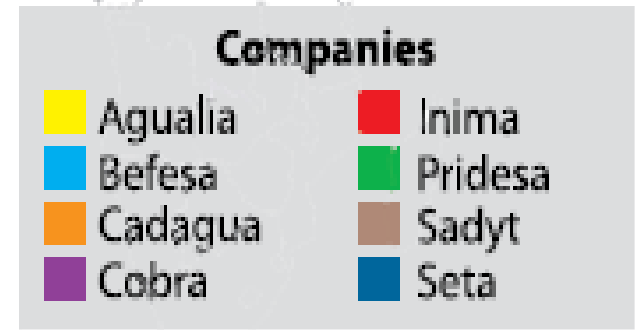
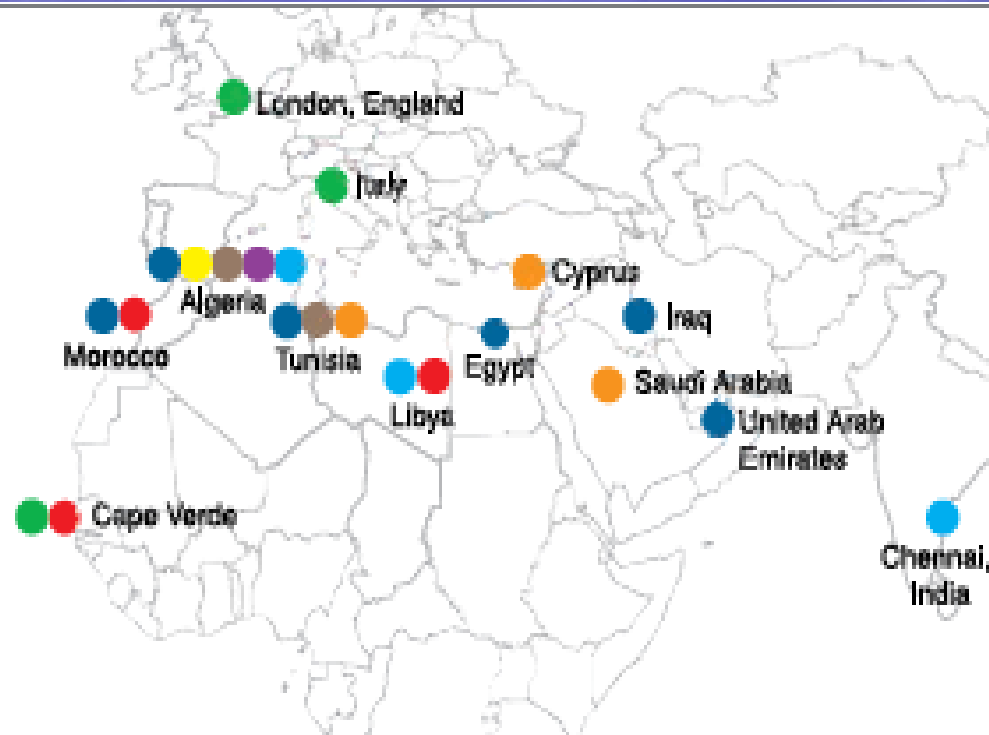


**FREE, ABUNDANT, UNCLAIMED, CONSENSUAL**

- Democratization and the re-emergence of party politics (PP, PSOE and the ecological wedge)
- 'Glocalising Spain': Regionalization and Europeanization – regionalizing/europeanizing H2O
  - Regional autonomies
  - Conflicting socio-ecological alliances
  - 'Greening' the left
  - 'Mercantilization' – New Water Law (1985) – EWFD
- New Class Alliances and Alliance formation
  - The new financialized urban boosters and agricultural modernizers
- Environmental Modernization and Globalization: environment as competitive strategy

# Spain's Global Desalting Industry

## Major International Operations



# Radical Change without Change

- Re-imagining Spain's waters
- The Productionist Logic Redux
- Re-articulating region, nation, Europe, World
- Commodifying (without privatising – yet?) the Seas
- Transfers deferred – extending into the seas: abundant, unclaimed, consensual
- Desalting Techno-natures as socio-ecological fix: “how to change such that nothings really has to change”

# But Emerging Contradictions: A Reassembled Techno-Natural Matrix and The Return of the 'Real'

- Pollution
- Climate Change
- Sea is not free and uncontested
- Socio-ecological shifts
- De-growth movements – M15/Podemos
- The crisis of the State: the state defaulting on its people
- '!Democracia Real Ya!'



**“If we want things to  
stay as they are,  
things will have to  
change”**

*(Il Gattopardo, Giuseppe Tomasi di  
Lampedusa)*