

## **From Manufacturing Rivers to Desalting the Seas: Reconfiguring Hydro-Social Territories in Spain<sup>1</sup>**

De l'aménagement des rivières au dessalage des mers :  
la reconfiguration hydro-sociologique des territoires en  
Espagne

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### **RÉSUMÉ**

Dans la présentation j'explore la production socio-environnementale de la société espagnole au cours du 20<sup>ème</sup>, à travers l'optique du rôle central que la politique, l'économie, la culture et l'ingénierie de l'eau ont joué dans le processus de modernisation tumultueux de l'Espagne. J'étudie d'abord les origines du processus de modernisation espagnol au début du vingtième siècle (1890–1930) et la production d'un imaginaire national de modernisation tel qu'il est exprimé dans les débats et les actions autour de l'état de hydrologie et du remaniement du réseau fluvial espagnol. Dans une seconde partie, je mets l'accent sur la manière dont le processus de modernisation de l'Espagne après la guerre civile est devenu un projet géographique scalaire profond et très spécifique, articulé autour de la production d'un édifice techno-naturel au cours de la dictature de Franco (1939–1975). Dans une troisième partie, j'étudie comment le dessalage de l'eau de mer est devenu l'un des principaux domaines de contestation de la gestion des hydro-pénuries depuis la transition vers la démocratie.

### **ABSTRACT**

In the presentation, I excavate the socio-environmental production of Spanish society during the 20th century through the lens of the central role water politics, economics, culture and engineering played in Spain's tumultuous modernisation process. I explore first the origins of Spain's early-twentieth-century modernisation process (1890–1930) and the production of a national modernising imaginary as expressed in debates and actions around the hydrological condition and the re-making of Spain's river system. In a second part, I focus on how Spain's modernisation process after the Civil War became a deeply and very specific scalar geographical project, articulated through the production of a specific technonatural hydraulic edifice during Franco's authoritarian rule (1939–1975). In a third part, I explore how the desalination of seawater has become one of the key contested terrains for managing hydro-scarcities since the transition to democracy.

### **KEYWORDS**

Production of Nature, Making Rivers, Desalination, Spain, Modernity

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## 1 IMAGINING A MODERN HYDRAULIC STATE

1898 is etched into the consciousness of every Spaniard as the year of *el Desastre*. When on 1 May in the Philippines and on 3 July in Cuba Spain's once invincible but ill-equipped and underfunded Armada was sent to the bottom of the ocean by the American Navy, the Spanish empire 'on which the sun never sets' came to an end, turning Spain into the first post-imperial European state. I take 1898 to be the symbolic moment that launched a new political sequence and would shape the century to come. Modernization, progress, economic power and political glory could not any longer be secured through geographical expansion, imperial conquest and colonial robbery. There was no alternative but to turn the gaze to the lands and people of Spain itself.

By the early twenties, the imaginary of a hydraulic politics had solidified in the minds of many Spanish leaders. The relentless campaigning, the endless flow of reports, plans, speeches, analyses, and proposals had produced a new imaginary around water as a quilting point around which a particular metonymic string of signifiers was woven: modernization, development, regeneration, irrigation, engineering technologies, steel and concrete, dams, integration, social cohesion, national pride. This imaginary constitution, however, had not been paralleled by a similar enthusiasm for the realization of the dream.

## 2 PACO RANA'S WET DREAM FOR SPAIN

Under General Francisco Behamonde Franco, more than 600 dams, small and large, as well as the first major water transfer were constructed, leading to a complete re-engineering of the ten continental river basins of mainland Spain. The hydraulic policies of Franco's regime reflected the scalar transformation of the socio-hydrological structure of Spain. They aimed at "correcting the existing inequality in the distribution of water by means of a physical interconnection between river basins". The approval and construction of a large inter basin water transfer scheme, from the Tajo to the Segura basin, would become the pivotal scheme, which triggered the physical consolidation of the national scale as the central arena for hydrological planning. Throughout the Franco years, water infrastructures and the transformation of the techno-natural edifice of Spain would be mobilized with relentless zeal by the propaganda machinery to such an extent that the popular nickname for General Franco is *Paco Rana* (Frankie, the Frog). The omnipresent image of Franco during this period is he being 'on water', while inaugurating yet another hydro-infrastructure.

## 3 FROM LAND TO SEA: THE TRANSFORMATION OF THE STATE-HYDRAULIC REGIME

At the turn of the 21<sup>st</sup> century, Spain was already the fourth producer of desalted water in the world, with a daily production capacity of 1.5 million m<sup>3</sup>. Extending the management of the hydro-social cycle into the sea as a new geographical 'fix' for the conundrum of the country's uneven distribution of water had been contemplated since the dying days of Fascism, but was now rapidly emerging as new panacea. The sea constituted, for its advocates, a seemingly endless, free, and uncontested source of unlimited supplies of water that, with the right techno-managerial and political-economic support, could be fused together with terrestrial waters in a combined techno-natural assemblage capable of assuring supply, particularly to the Mediterranean coasts. While terrestrial waters are increasingly marred by complex property rights, inserted in dense regulatory, institutional and other legal arrangements, subjected to all manner of social, cultural and ecological conflicts, and integral parts of often intractable multi-scalar inter-regional tensions and rivalries, seawater is seemingly free of these highly charged meanings, practices and claims. As such, the incorporation of the sea into the politics of produced water can be usefully identified as a scalar 'fix', one that can allegedly contain conflict by displacing the terrain of water mobilisation to uncontested oceans.

## 4 CONCLUSION

The paper explored the dramatic and contested transformation of the state and its relationship to the hydro-social system in Spain during the 20th century. It focused on how Spain's modernization project and modern state formation, articulated around the hydraulic nexus, became formulated and gradually

implemented after 1898. Indeed, Spain's torturous modernization process after the US-Spanish War has been characterized by a continuous reconfiguration of the country's hydro-social cycle. Whilst throughout the 20th century, this process focused around engineering the flow of mainland waters, the 21st century's techno-natural configuration extends this to the Mediterranean waters by means of major desalination projects. The political-ecological processes that marked this transformation of Spain's hydro-social landscapes were mobilized as the emblematic entry through which a wider set of issues related to nature, the environment, modernity and political power are explored.

Three interrelated theses informed the paper. First, I demonstrated how modernity as a heterogeneous and historical-geographically contested process unfolded in and through a series of contested socio-natural transformations and revolutions. Second, I showed how socio-environmental modernization implied the making and re-making of both physical and socio-political landscapes on the one hand and the re-organization of scalar spatial relations on the other. Third, the paper explored how the production of particular socio-technical configurations (likes dams, desalination technologies, irrigation systems and inter-basin water transfers) depended on the assembling/enrolling of particular social groups, cultural discourses, technical expertise, material conditions and political-economic power relations within a continuously transforming configuration of the state.