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“... And Not a Single Injustice Remains”: Hydro-Territorial Colonization and Techno-Political Transformations in Spain

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6.1 Introduction

In this chapter, we explore how changing political visions, socio-cultural imaginaries and hydro-territorial configurations interact with shifting practices of water justice. In Plato's *Republic*, Socrates comments that justice is what those in power consider just. Over the centuries, this statement has haunted any discussions and efforts to create a fairer society. Recent social-justice debate has extended to include the physical world as an integral component in structuring just/unjust socio-ecological relations. This chapter examines how hydro-territorial politics finds expression in the diverse actors' confluences and encounters with spatial and political-geographical projects that compete, superimpose and align their territorialization strategies to strengthen their governance positions, ideologies and water-control claims. This continuously transforms the territory's hydraulic grid, cultural reference frames, economic base structures and political relationships.

Territorial struggles go beyond battles over natural resources per se, as they also involve conflicts over meaning, norms, knowledge, decision-making authority, representations and discourses. Policy actors commonly tend to present socio-natural, geopolitical territories as mere biophysical "nature" or legal-administrative "governance units," portraying water problems and solutions as politically neutral, technical and managerial issues to be objectively managed through "rational water use" and "good governance" – a conscious or unconscious veil to legitimize deeply political choices sustaining specific political orders (Harris, 2009; Hommes *et al.*, 2016; Perreault, 2014). Challenging such powerful conventions, we examine the contradictions, conflicts and societal responses generated by the configuration of hydrosocial territories (see Boelens *et al.*, 2016; Swyngedouw and Williams, 2016); how water politics are ingrained in such socio-natural and techno-political arrangements, enhancing or challenging unequal distribution of resources and decision-making power in water governance (Boelens, 2015; Swyngedouw, 2015). Therefore, hydrosocial territories (imagined, planned or materialized) have contested functions, values and meanings as they define processes of inclusion and exclusion, development and marginalization, and the distribution of benefits and burdens that affect different groups of people in distinct but often deeply unequal manners.

Taking the co-production of "nature and society" in twentieth-century Spain as our entry point, we seek to elucidate the relationship among transformations in and of "hydrosocial territory," the state, and the contested modernization, and to tease out the multiple power relationships that enroll, transform and distribute water. In doing so, we seek to excavate how nature becomes political and, through this, how environmental reconfiguration parallels ongoing state transformation (Swyngedouw, 2014; cf. Carroll, 2012; Perreault *et al.*, 2015).

The chapter illustrates how there is indeed a strong relationship between the changing nature of the state and modes of producing nature, and both are intrinsically bound up with often radical, contested imaginaries, cultural practices, and political-ecological power relations. In this interaction among nature, technology and society, the materiality of the physical environment and its dynamics – more than merely an external given – provide a historically constituted, materially produced environment that becomes enrolled in shifting frames of reference, new cultural and social imaginaries, and new discursive registers (see Swyngedouw, 1999, 2007, 2015). It is precisely in and through the contested production of new hydrosocial territories that new forms of state and societal organization are forged (see also Duarte-Abadía and Boelens, 2016; Hoogesteger *et al.*, 2016; Kaika, 2006).

This chapter¹ illustrates the notion of hydrosocial territories with Spain's tumultuous twentieth century, as a political-ecological project marked by profound transformations, punctuated by periods of great hope and expectations, intense social and political conflict, democratic reform as well as political closure, brutal civil war and dictatorship, deep crises and remarkable socio-spatial and cultural change.

6.2 Hydrosocial Territories

A political ecology perspective – to conceptualize and understand hydrosocial territories, their constitution and reconfiguration – must go beyond dichotomies separating nature from society (Latour, 1993; Lefebvre, 1991; Smith, 1984). As hybrids, these territories are simultaneously biophysical and cultural; hydrological and hydraulic; material and political. Different, divergent human interest groups inscribe their life worlds, particularly their biophysical environments, by using, inhabiting and/or managing them according to their ideologies, knowledge and socio-economic and political power, thereby generating territory. Creating hydrosocial territories involves socializing nature based on social, political, and cultural visions of the world-that-is and the world-that-should-be (Boelens, 2015; Swyngedouw, 2015). Water flows and hydraulic technologies connect places, spaces and people to each other, while human and/or non-human induced variations in its flow create, transform or destroy social linkages, lived spaces and boundaries as they produce new configurations (Linton and Budds, 2014; Mosse, 2008). These, in turn, create and transform social/political hierarchies, conflicts, and forms of collaboration (Barnes and Alatout, 2012; Brenner, 1998).

Conceptualizing hydrosocial territories as "socialized nature" or "socationatures" means insisting that they are not fixed, bounded, spatially coherent territorial entities. Rather, territory and territorialization are – and should be examined as – spatially bound, subject-built,

socio-natural networks produced by actors who collaborate and compete in defining, composing and ordering this networked space (Boelens *et al.*, 2106; Swyngedouw and Williams, 2016). Politically speaking, *territory is the socio-materially constituted and geographically delineated organization and expression of and for the exercise of political power*. Territories are actively constructed and historically produced through the power-laden interfaces among society, technology and nature. Consequently, hydrosocial territories can be conceptualized as "the contested imaginary and socio-environmental materialization of a spatially bound multi-scalar network in which humans, water flows, ecological relations, hydraulic infrastructure, financial means, legal-administrative arrangements and cultural institutions and practices are interactively defined, aligned and mobilized through epistemological belief systems, political hierarchies and naturalizing discourses" (Boelens *et al.*, 2016:2).² Hydrosocial territory, therefore, is socationature deeply embodying its constituting societies' contradictions, conflicts and struggles (e.g. Agnew, 1994; Baletti, 2012; Elden, 2010).

A hydrosocial-territory perspective also highlights how local human actors and non-human actants connect to broader political-economic, cultural, and ecological scales (e.g. Swyngedouw, 2009). Spatial scales – geographically constituted levels of social interactions and interconnectedness, from households to global networks – are neither natural nor fixed, but produced, contested and reconfigured through myriad state, market, civil-society and individual actions (Bridge and Perreault, 2009; Heynen and Swyngedouw, 2003; Kaika, 2005). All hydro-territorial configurations relate to and are embedded within other territories that operate at broader, overlapping, counterpoised and/or hierarchically organized scales. In the (trans)formation of hydrosocial territories, scales and the ways they connect require continual reproduction and are therefore subject to negotiation and struggle (e.g. Ferguson and Gupta, 2002; Hommes and Boelens, 2017). Divergent territorial interest groups struggle to define, influence and command particular scales of resource governance (Swyngedouw, 2004).

Projections of how these territories, their water and people are and ought to be organized may commonly empower certain groups of actors while disempowering others, and offer arenas for claim-making and contestation (Duarte-Abadía *et al.*, 2015; Hoogesteger *et al.*, 2016; Hommes *et al.*, 2016; Rodríguez-de-Francisco and Boelens, 2016; Seemann, 2016; Vos and Hinojosa, 2016). Therefore, though the impacts of de-territorialization and re-patterning hydrosocial territories may be felt mostly by individuals and organizations at the local level, the processes dynamically interconnect various scales (Brenner, 1998; Hoogesteger and Verzijl, 2015; Swyngedouw, 2009).

In sum, using the illustrative case of twentieth-century Spain, this chapter's core argument is that hydrosocial territories, constituted and reconfigured on different interrelated scales, are sites of political contestation that provide deep insight into defending existing socio-natural relationships and producing alternative ones. It argues that re-patterning territories' scale, composition and control crucially depends on support and power from an interlocked multi-scale coalition of heterogeneous actors that provides technical-scientific, political-economic and discursive support for this reconfiguration.

6.3 Regenerating Spain's Hydrosocial Territory: Imagining a Modern Hydraulic State

half the reconstruction work involves hydraulic policy, to civilize our land; the other half falls to pedagogical policy, to civilize the populace: the two are complementary and either, without the other, would prove sterile.

(Ricardo Macías Picavea, 1896. *La Tierra de los Campos*)

When, in 1898, Spain's once invincible Armada was sent to the bottom of the ocean by the American Navy in the Philippines and in Cuba, the Spanish empire came to an end. Modernization, progress, economic power and political glory could no longer be secured through geographical expansion, imperial conquest and colonial robbery. There was no alternative but to turn their gaze to the lands and people of Spain itself. A new hydro-territorial imaginary took over, centered on internal geographical conditions and reworking the nation's environment (Swyngedouw, 2014). A new modernizing discourse, articulated around water, and nurtured by heterogeneous social and political actors emerged, who shared a disdain for the imperial discourse of a "great" Spain and a concern for the need for a national vision, in the early twentieth century. This imaginary gradually imposed itself, but the traditional power choreography kept its implementation in check, boosting antagonistic political and social tensions.

After *el Desastre Colonial*, and faced with a mounting economic crisis, rising social tensions, and an antiquated, largely feudal social order, Spain's modernizing political and intellectual elites were desperately searching for a way to revive or to "regenerate" the nation's socio-economic base (Ortega Cantero, 1995). This drive to revive the nation's "spirit" became known as "*el regeneracionismo*," associated with a movement of intellectuals, writers, technocratic modernizers (particularly the Corps of Engineers), enlightened politicians, journalists, smallholder farmer leaders and some industrialists (see e.g. Costa, 1981; Macías Picavea, 1977; Mallada, 1890). Their key themes center on sensitivity to central and southern Spain's arid, austere lands, the nation's disintegrated character, political critique, intellectual crisis, social malaise and the need to revive Spain both physically and spiritually (Maeztu, 1997). In their attempt to carve out a new socio-ecological destiny for the nation, the regenerationists pursued a mythical vision of an integrated, cohesive Spain, one that would cut through the more radical imaginaries pursued by communists or anarchists, while attenuating the more socially reactionary ideologies of the liberal and conservative forces (Swyngedouw, 1999). This section summarizes the key threads of this emerging hydro-territorial discourse and the hesitant, ultimately failed, attempts at its material realization.

Geographical isolation and the disappearance of its external geographical expansion (within which the traditional myth of a glorious Spain was framed) was to be overcome by materializing a new discourse of radically transforming Spain's *internal* geography and, particularly, its water resources (Gómez-Mendoza and Ortega-Cantero, 1987). To achieve this, regenerationism advocated reorganizing the country's physical and social geography through intervention directed by a strong state and wise men, moral revival and regional and municipal autonomy (Boelens and Post Uiterweer, 2013). This new geographical

imaginary would have to lead to a new socio-physical configuration: through "internal colonization." The utopian project was to colonize Spain internally instead of distant lands, incorporating all regions and people into modernity.

The key protagonist of this revival-through-modernization was Joaquín Costa (1846–1911). He coined the term "hydraulic regenerationism" (Ortí, 1984) and argued that state-organized hydraulic politics should be a national objective "capable of reworking the Fatherland's geography and solving its complex agricultural and social problems" (Costa, 1911:90). He diagnosed the core of the nation's problem in strictly post-imperial terms and identified the foundations for a remedial therapy, a mission he formulated as a military-geographic project (Costa, 1981:13). The remaking of the fatherland would require urgently implementing a "veritable surgical politics," one that demanded "an iron surgeon" (Costa, 1998:15). Long before Neil Smith coined the term "Production of Nature" (Smith, 1984), Costa already insisted on the need to literally produce a new geography: "there is no land in Europe that less resembles a paradise than the Spanish one ... [I]f in other countries it is enough for man to help nature, here more must be done; it is necessary to create her" (Costa, 1911:3).

Many contemporaries of Costa voiced this concern for a re-engineered geography (Ayala-Carcedo and Driever, 1998). The regenerationist project became formulated as a "hydro-logical correction of the nation's geographical problem" (Gómez Mendoza, 1992: 236). Spain's presumably unfavorable natural conditions had to be corrected: God had made a mistake here and it was for humans to rectify the defects etched into the hydro-fluvial landscape. Hydraulic politics sublimated the totality of the nation's socio-economic program; "utopian hydraulism" (Boelens and Post Uiterweer, 2013; Ortí, 1984) became the political-ideological driving force for the great modernizing transformation Spain would have to embark on – the material and symbolic kernel around which the possibility for a national rebirth was articulated (Hernández, 1994). Just, inclusive development would depend, so the argument went, on rectifying the injustices inscribed in the fluvial regime.

The hydraulic argument was grounded in both historical facts and idealization of the Arab past: "If you wish to leave traces of your passage through power, irrigate fields; the Arabs passed through Spain: their race, their religion, their codes, their temples, their tombs have all vanished, but their memory remains alive, because their irrigation has persisted" (Costa, 1911: 1). In addition, utopian hydraulism was simultaneously built on the uneasy fusion of geographical facts, arguments and dreams: the uneven distribution of rainfall, and the torrential, intermittent nature of Spain's fluvial system. Costa and allies argued: "there are immense deposits in the crests and bowels of the mountains, and we can, with mathematical regularity, distribute it over the land, crisscrossing the country with a hydraulic arterial system that mitigates its heat and quenches its thirst" (Costa, cited in Gil Olcina, 2001:10). Ricardo Macías-Picavea summarized the hydraulic mission as a necessary strategy for national development:

There are countries which ... can solely and exclusively become civilized with such a hydraulic policy, planned and developed by means of designated grand works. Spain is among them ... Therefore, hydraulic politics imposes itself; this requires changing all the national forces in the direction of this

gigantic enterprise ... We have to dare to restore great lakes, create real interior seas of fresh water, multiply vast marshes, erect many great dams, and mine, exploit and withhold the drops of water that fall over the peninsula without returning, if possible, a single drop to the sea.

(Macías Picavea, 1977: 318–20)

Ortí shows the symbolic force of this material intervention by producing a new hydraulic geography: "hydraulic regeneration" constituted "a mythical power, a collective illusion and the imagined reconciliation of diverse ideologies" (1984: 12). For the regenerationists, producing a new geography while revolutionizing the state's internal operation would help mitigate social tensions. This, in turn, enabled a strong political bloc with a modernist vision of Spain's future to form – an alliance aiming to defeat the traditionalists *and* keep revolutionary socialists and anarchists at bay. Rather than following contemporary Socialist and Marxist thinking (which sought to reform basic economic and political structures) regenerationists aimed to "change men to change structures ... this creation of new men will necessarily save Spain from its slump – cultural, economic and political – largely caused by uncultured governance" (Maurice and Serrano, 1977: 55). Therefore, far beyond a mere material hydro-technological project, utopian hydraulism sought a radical change in nature and humans simultaneously; as such, Joaquín Costa proposed hydraulic policy as a means to "combat the misfortunes of geography and our breed, a work of art to remedy our inferiority in both respects" (quoted in Ortí, 1984: 93) – civilizing nature and people at once.

For the regenerationists, the national state was the vehicle for this reform and was called upon to take charge of a national plan for large dams and irrigation canals. Moreover, productivist modernization through the hydraulic engine would consolidate the liberal state in Spain: a free-market-based national economy driven by an alliance of small owners, industrialists, and modernizing engineers, supported by the state – grand hydraulic works would lay the foundations for modernizing Spain. Strongly driven by regenerationist imaginaries, the Corps of Engineers advocated state-based dam and irrigation projects to counter the agricultural crisis and to reverse the dismal results of private initiative in water works. They emphatically stated that "we [The Corps] have begun the war of peace, the war of labor, the fight for progress that, instead of devastating, restores; instead of destroying, builds; instead of draining, enriches" (Cuerpo de Ingenieros, 1899: 131).

The liberal bourgeoisie also embraced the state as the key protagonist of hydraulic revival: regenerationists expected harmony and collective progress from the "natural pacts" that (should) prevail between the state (represented by the Head of State) and "the people" (considered a collaborative network among classes). They assumed that hydraulic policy would be broadly accepted, because of its collective benefits and "intrinsic, unquestionable logic."

Once in government positions, though, the hydraulic reformers encountered what they felt as "broken pacts," blaming it on "the nature of the Spanish people" and deeply entrenched traditional elite practices. They concluded that the reforms would require force and "guardian dictatorship." Evidently, regenerationist mythology had always contained the seeds of strong, totalitarian, "enlightened" leadership. Costa had already called for "surgical policy" depicting a compassionate dictator as "an iron-hearted surgeon, familiar with the Spanish people's anatomy and feeling infinite compassion for them" (Costa, 1901: 86).

In practice, very few of the proposed projects were realized. While regenerationist policy-makers and engineers put their efforts into pushing through their techno-natural dreams, the social and political edifice around them was crumbling. Social agitation by anarchists, socialists and communists intensified, often leading to violent uprising and bloody repression; regionalist demands for autonomy grew. Strong traditional forces fought to maintain control over key state functions and stalled the nascent modernizers' rise to political power. All this resulted in social antagonisms that would eventually pave the way for dictatorial regimes from the 1920s onwards: the "iron surgeons" who would assemble heterogeneous forces to enable Spain's multi-scale hydraulic reordering (Swyngedouw, 2014). While a discourse of hydraulic national modernization was now firmly in place, it also pointed to the need of a "benevolent" authoritarian state to turn this watery dream into concrete, steel and institutional infrastructure.

Box 6.1 The Politics of Scalar Territorial Reconfiguration

Spain's recent history exemplifies the notion of contested hydrosocial territories, highlighting elites' material, political and discursive strategies to position and align humans, nature and thought within a network that aims to transform diverse socio-natural water worlds into a dominant governance system (Boelens, 2014). In general terms, "governmentalizing" territory (Foucault, 1991) and reshaping territorial configurations entwine technological, industrial, state-administrative, and scientific knowledge networks that enhance local-global commodity transfers, resource extraction, and development/conservation driven by non-local economic and political interests (e.g. Carrol, 2012; Hommes *et al.*, 2016; Kaika, 2005). To achieve this, they curtail local sovereignty and create a political order that makes these local spaces comprehensible, exploitable and controllable (e.g. Ferguson and Gupta, 2002; Rodriguez-de-Francisco and Boelens, 2016).

Territorial governmentalization projects like Spain's seek to fundamentally alter local water users' identification with community, neighborhood, kinship or federative solidarity organization, to change water users' ways of belonging and behaving, according to new identity categories and hierarchies (Boelens and Post Uiterweer, 2013). Making such new subjects requires these water users to frame their world views, needs, strategies and relationships differently, building and believing in new models of agency, causality, identity and responsibility. Simultaneously, such frames exclude other options and thus "delimit the universe of further scientific inquiry, political discourse, and possible policy options" (Jasanoff and Wynne, 1998: 5). Governmentalizing territories, indeed, means creating particular forms of consciousness that are called upon – presumably in a self-evident manner – to defend particular water policies, authorities, hierarchies, and management practices (e.g. Duarte-Abadía *et al.*, 2015; Harris, 2009; Swyngedouw and Williams, 2016).

Subtle imposition (or less-subtle indoctrination) of particular perspectives toward hydrosocial territories constitutes a politics of truth, legitimizing certain water knowledge, practices and governance forms and discrediting others. They separate "legitimate" forms of water knowledge, rights and organization from "illegitimate" forms (Forsyth, 2003; Foucault *et al.*, 2007). As a result, water knowledge and truth production – and the ways they inform

and shape particular water artifacts, rules, rights and organizational structures – concentrate on how to align local users and livelihoods to the imagined multi-scale water-power hierarchies (Boelens, 2015). Discourses about “hydrosocial territory” weld power and knowledge together (Foucault, 1980) to ensure a specific political order as if it were a naturalized system, by making fixed linkages and logical relations among a specified set of actors, objects, categories and concepts that define the nature of problems as well as the solutions to overcome them (Linton and Budds, 2014; Swyngedouw, 2004; Zwartveen and Boelens, 2014).

As Boelens *et al.* (2016) have explained, hydrosocial territoriality, as a battle of divergent (dominant/non-dominant) discourses or narratives, has the consolidation of a particular order of things as its central stake. Though thoroughly mediated in everyday praxis, ruling groups strategically deploy discourses that define and position the social and the material in a human-material-natural network to leave the political order unchallenged and stabilize their ways of “conducting subject populations’ conduct” (Foucault, 1980, 1991). Spanish history shows how these disputed socio-natural networking efforts entwine material-physical, political-structural and symbolic-discursive forms of violence, while always being challenged by “counter-conducts.”

6.4 Erasing and Reconstructing Spain’s Hydrosocial Territory: Imposing a Modern Hydraulic Nation

Early in the last century, despite practical failures, regenerationist discourse and policy efforts had infused the imaginary of an integrated hydraulic politics, and solidified in the minds of many Spanish leaders. Relentless campaigning, the endless flow of reports, plans, speeches, analyses, and proposals had produced a new imaginary around water and territory: 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 (Swyngedouw, 2014). This progressive, utopian-inspired hydro-territorial mindset set the stage for right-wing dictatorships to show that, unlike left-wing dreamer politicians’ failures, the multi-scale technopolitical water society was achievable. This also required scalar reorganization of territorialities for hydraulic organization and governance, enabling hydro-modernizers to take command of the country’s hydraulic modernization.

6.4.1 *Enlightened Hydraulic Despotism*

Spain’s September 13, 1923 coup-d’état by General Primo de Rivera set up a dictatorship to “save the nation from professional politicians,” abolished all political parties, depoliticized government and technified governance. Direct action replaced political debate, with particular focus on agrarian production, hydraulic development, transport and improving the country’s domestic economy. What had proven impossible to achieve during the first

decades of the century was finally set in motion, although it would prove too little, too late to save Spain from slipping into the abyss of Civil War. Many regenerationists welcomed the dictatorship as a means to unblock the political system's inertia and deadlock. The Corps of Engineers cautiously endorsed the dictatorship, combining military tradition with Costa's mythical "iron surgeon." The colonial disaster figured prominently in this ideological edifice; only after a major effort of national reconstruction could "the pulse of Spain" be restored (Swyngedouw, 2014).

The authoritarian regime's regenerationist credentials were secured by appointing a hydraulic engineer with impeccable conservative credentials, Rafael Benjumea-Burín, as Minister of Development in 1925. Benjumea, famous for his construction of impressive large dams, had always enthusiastically admired Costa and his utopian hydraulism (Boelens and Post Uiterweer, 2013; Martín Gaité, 2003); both shared their idealism for improving society through concrete works, avoiding political debates and abstract, bureaucratic solutions; they shared an ideology of a positivistic, plannable society based on scientific technical-managerial rationality, firmly rooted in natural sciences. They also shared an "admiration for the policy of enlightened despotism" (Martín-Gaite, 2003). On March 5, 1926, shortly after taking office, Benjumea changed the nation's water policy administration decisively by creating the River Basin Confederations. He appointed engineer Manuel Lorenzo Pardo, founder of the Ebro River Basin Confederation, to organize the Confederations throughout Spain. Lorenzo Pardo, an enigmatic figure in the unfolding of Spain's hydrosocial edifice and author of the First National Plan of Hydraulic Works in 1933, had coordinated some of the largest hydraulic projects at the time.

The new vision of integrated basin governance extended the hydraulic community's aspirations by insisting on the need to up-scale from a focus on individual projects to integrated, interconnected management of entire river basins. Based on the exemplary Ebro model (Lorenzo Pardo, 1930, 1931), Benjumea and Lorenzo Pardo materialized the internationally acclaimed concept of River Basin Confederations, to manage Spain's national water system. Benjumea later called this national process "the splendor of my loves, integrating river management by organizing industry, agriculture and society as a whole." The Royal Decree praised its supposed political neutrality, its technical and ecological superiority and its inherent "justice": "This undertaking entails justice, a great moral value, as a significant example of social solidarity and patriotic exaltation ... free of all parties and factions, creating a meeting-ground for Spaniards' regenerating drive" (Martín Gaité, 2003: 79).

In 1930, by the end of the dictatorship (overthrown because of scandalous squandering of resources and large-scale protests), several river basin authorities had been established as quasi-autonomous techno-administrative bodies to plan and implement the nation's hydraulic policy. However, the entrenched opposition to the new territorial power base, configured around river basins, signaled profound distrust of multiple, mutually conflicting political and socio-economic interests. Nonetheless, throughout this tumultuous period that would culminate in the horror of the Civil War (1936–39), the scalar geometry of hydraulic management was reordered to strategically align the national scale and the river-basin scale. This, in turn, would set the framework that the Franco dictatorship

later mobilized effectively (Swyngedouw, 2014). With river-basin authorities in place, the hydraulic-modernization discourse began to integrate gradually with emerging new water-governance configurations.

6.4.2 The Republican Interval

With the first constitutional government of the Republic in 1931, socialist Minister Prieto consolidated the river-basin authorities. Prieto appointed Lorenzo Pardo as head of the Hydraulic Planning Section and instructed him to create a national institute to plan and manage the nation's water resources. The First National Water Plan was developed, which set the parameters for water governance for the next 60 years. This plan radically "re-imagined" the hydrosocial cycle and mobilized H₂O in a national framework, a fundamental idea that later would be embraced fully by the Franco regime. The Plan envisaged constructing 215 new dams and canals, extending irrigation by an additional 1.3 million ha, thereby doubling the surface area of irrigated land. This, in turn, would make it possible to repopulate deserted areas and improve Spanish food production self-sufficiency, while strengthening its international competitive position. The most significant contribution is the view of integrated river basin management under a national assessment of regional water availabilities and requirements. This would transform the imaginary of water, from something to be considered and engineered within the unit of each basin, to a national vision. What Pardo defined as the "hydrological imbalance" between the Atlantic and Mediterranean basins would now be "rectified" by inter-basin water transfers. Water transfers from the Ebro and the Tajo River to the basins of the Levant and the south would solve the problem of systematic under-supply. A national hydraulic imaginary was brewing, one that linked national development with a national vision of how to organize water flowing on the surface.

Rectifying unequal distribution of abundant waters, soon to be redressed as rectifying socio-spatial inequalities and injustices, would become the leitmotiv of the state's hydraulic intervention. Of course, turmoil in the thirties and forties would prevent early realization of Pardo's national hydraulic dream. The fantasy, however, would galvanize the imaginaries around which Franco and his allies would cement a hegemonic vision of autarchic national development and spatial integration (Swyngedouw, 2014). Indeed, after the Civil War, General Franco's iron hand, with the co-operation of most strata of Spanish society, would implement the long-cherished dream of national hydro-territorial transformation as the lynchpin for Spain's modernization.

6.4.3 Paco el Rana's Watery Dream for Spain

General Francisco Bahamonde Franco constructed more than 600 dams, small and large, as well as the first major water transfer (Vallarino, 1992), leading to a complete re-engineering of mainland Spain's ten continental river basins. As Gómez-De Pablos (1972: 242) puts it, "during the two decades after the Plan of 1940, Spanish rivers were really 'created'." Under

Franco's rule, Spain's hydraulic development indeed reached its apogee and its logic continued after the transition to democracy. The construction of a large inter-basin water transfer scheme, from the Tajo to the Segura basin, would become the pivotal project, which physically consolidated the national scale as the central arena for hydrological planning. Throughout the Franco years, water infrastructure and transforming Spain's techno-natural edifice was mobilized with relentless zeal by the propaganda machinery, to such an extent that the popular nickname for General Franco is *Paco El Rana* (Frankie the Frog). The omnipresent image of Franco during this period was "on the water," while inaugurating yet another hydro-infrastructure (Swyngedouw, 2007).

The fascist national project would seamlessly weld together the national engineering dream of "balancing" Spain's uneven hydrology with a discourse and vision of justice, equality and organic national development (Ortega Cantero, 1975; Ortí, 1984). If problems of scarcity and hydrosocial injustice remained, this was simply because the state was unable to perform its functions adequately. This vision of state water management generated a sense of unlimited potential availability. The older notion of water "scarcity" became rescripted and "scientifically" defined as "deficit," "imbalance" or "disequilibrium" between the regionally desired volumes and the nationally available quantities. The uneven distribution of rainfall and water availability became resymbolized as an imbalance requiring "rectification." Of course, imagining abundant "national" waters but regional "imbalances" required a scalar reconfiguration that shifted the gaze from considering the hydraulic balances at the river-basin scale to the national territorial scale. The latter, in turn, was predicated upon disavowing regional(ist) demands and regional hydraulic autonomy, rearticulating an integrated space by transferring water from "surplus" to "deficit" river basins in a vision of national and just solidarity. Indeed, this particular staging and mobilization of water was captured effectively by Franco himself: "We are prepared to make sure that not a single drop of water is lost and that not a single injustice remains" (Franco, 1959b:1).

The argument that water infrastructures would pave the way to a wet, fertile, balanced future was staged as one of the vital and central projects for realizing the Fascist utopia. The extract below is just one among dozens in which Franco mobilizes water as an integral part of his politics:

Spain aches because of its drought, its misery, the needs of our villages and hamlets; and all Spain's pain is redeemed by 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.

(Franco, cited in Río Cisneros, 1964: 122–23)

Towards the end of Franco's life, he was seen as the great dam-builder. *Paco El Rana* had indeed directed a complete socio-hydraulic revolution. Achieving this water "activism" depended crucially on the loyal support of a series of powerful (inter)national networks of interests (Swyngedouw, 2007) and on a new relationship between the authoritarian state and the international community.

However, despite significant support from a variety of actors, the early autarchic fascist model (1939–55) did not generate enough capital and investment to move the rocks and build the dams. To obtain the necessary capital, Spain's elites began to recognize that Spain's geo-political insertion into the Western Alliance was vital to modernize Spain, and to prop up the dictatorial regime. The US also started to turn its geo-political gaze toward Spain as a possible ally in the strategic post-war geometry. A most significant moment was undoubtedly the secret Pact of Madrid, signed in September 1953, in which Spain agreed to let the US use parts of Spain's territory for military bases in exchange for economic, military and technical aid. This capital inflow enabled rapid infrastructure development. Between 1951 and 1963, more than US\$1.3 billion were granted to Spain as economic aid, a substantial part for agricultural machinery, steel, electrical equipment, and infrastructure. Most of the Spanish counterpart funding was invested in agricultural irrigation projects, railroads, and hydraulic works. The dictatorship's scalar rearrangement of networks proved vital for modernization. The great hydraulic leap forward happened after 1955, with 276 dams built by 1970. The total volume of water reservoirs capacity skyrocketed exponentially from 8.3 to 36.9 billion cubic meters (Swyngedouw, 2014). The Tajo-Segura water transfer project was approved and construction commenced. Franco himself insisted that his "great hydraulic and irrigation works are changing the geography of Spain" (Franco, 1959:1).

Indeed, Spain modernized extraordinarily quickly during the 1960s and early 1970s, a process that further ensured the regime's survival. Franco's death in 1975 ended one of Europe's most repressive and long-lasting dictatorial-fascist regimes (Swyngedouw, 2014). The Franco era witnessed how utopian hydraulism necessarily became a large-scale dystopian drama, leaving a bitter legacy. The ideology and its materialization in practice are full of intrinsic contradictions and paradoxes (Boelens and Post Uiterweer, 2013), and the results achieved were the exact opposite of early regenerationism's progressive objectives. Under Franco, a system of inter-basin transfers was established as the backbone of this hydro-political territory, integrating the whole country under centralistic despotism – the sad, contradictory legacy of the regenerationists' dreams of autonomy and decentralization.

6.4.4 Political and Socio-Technical Transformation

Long after the democratic transition, hydraulic administration continued with its mission to build large-scale state-led hydraulic interventions, militating to complete the transformation they had spearheaded during the Franco era. Estevan typifies this as the country's hydrological and cultural anomaly: "no country in Europe has gone as far as Spain, where exclusive identification of water policy with large hydraulic works was not simply a main feature of Franco's dictatorship, but had already existed for a long time, and after *Franquismo* survived in the political and administrative institutions of democracy" (Estevan, 2008: 22).

But the 1980s and 1990s also marked an era of heated controversies over water, that would gradually, and amidst great dispute and proliferating inter-regional conflict, move the water agenda – together with state transformation – into new, largely uncharted terrain. In the

transition years, policy discourse insisted on Spain's deficit and surplus river basins. Julián Campo, Public Works Minister in the first Socialist government, exclaimed with great pride: "I am going to build more dams than Franco" (Llamas Madurga, 1984: 18). Democratization, believed most hydro-experts, would finally complete Franco's watery dream for Spain.

Soon after the restoration of democracy, debate started over the need to replace the 1879 water law. In 1985, a new Water Law was passed. Key ingredients again emphasized the state's centrality and water as a public good. River basins were defined as the central management unit. Apparently significant power over water was devolved to the Autonomous Regions. However, trans-communitarian river basins stayed under central state control. Subsequent preparations for a new National Hydraulic Plan (NHP) would become a hornet's nest of intense social and political passions, sharpening social and spatial conflicts that had lain dormant for years. The draft NHP (published in 1993) hit the water community like a bombshell. It proposed an "Integrated System of National Hydraulic Equilibrium," seeking to upscale management of Spain's mainland waters to the national scale. Its doctrinal core was the thesis of national hydraulic disequilibrium. Hundreds of new dams and 14 major water transfers would rectify "nature's imbalance" and finally achieve a just distribution of the available resources. The draft plan proposed to interconnect all river basins, with an eye to transferring significant volumes of water from the Ebro, Duero and Tajo (with their presumed "excess" water) to the "deficit" basins of the South, the Levant and Catalonia. At the same time, a State Organization for National Hydraulic Equilibrium, a kind of super-basin management organization, would be established to organize and police the national water grid (Gil Olcina, 1995).

Soon after the draft plan was published, major controversies began to arise. Even from within the hydraulic engineering community, voices of dissent were raised against the single-minded supply-side measures based on constructing large hydro-infrastructure. Manuel Llamas felt that the nationally integrated hydraulic system was created "to reinforce even more the Orwellian figure of Big Hydraulic Brother who will decide all Spanish waters' destiny" (Llamas-Madurga, 1996: 101). Moreover, having the lever on water transfers enabled the national government to use water as *quid pro quo* in negotiating agreements with regionalist parties and with the newly established autonomous regions. The plan indeed became a central political controversy and political deadlock well into the early twenty-first century. The cacophony of new voices articulating their visions produced a stalemate. It also signaled the demise of the traditional hydraulic policy community. Greater regional identification cut through traditional nationally organized party cleavages, and water soon became a pivotal axis in choreographing inter-regional conflict (Lopez-Gunn, 2009). The proposed large-scale water transfers turned into a veritable Gordian knot in managing territorial political tensions, particularly between water-ceding and water-receiving regions (Sauri and Moral, 2001).

A final plan was approved in 2001; still reveling in constructing 200 more anticipated dams and continuing transfers, although its ambitions had been scaled down significantly, while water pricing and environmental concerns took a more prominent place. Immediately after approval, a highly active Platform to Defend the Ebro River had been established. The

Platform succeeded in staging an extraordinarily successful resistance campaign, bringing together 400,000 people in Barcelona and mass demonstrations in Zaragoza and Madrid in 2002. A "Blue March" was organized from Aragón to Brussels to bring the cause of the Ebro water and its peoples to broader European attention (Lopez-Gunn, 2009). The fusion of ecological arguments, the rights of humans and non-humans to water and defense of the intimate relationship between water practices and local/regional identity all forged a loose alliance of activists into a formidable oppositional force. Of course, the receiving regions, Valencia and Murcia in particular, defended with similar zeal "Agua para Todos" (Water for All) to make a case for "an equitable and just distribution" of Spain's water.

After intensive struggles, the Ebro transfer was suspended, while simultaneously bringing forward a new hydro-political configuration and discursive construction project: a total of 21 newly constructed or upgraded desalination plants were programmed along the Mediterranean coast. Extending hydrosocial cycle management into the sea, as a new geographical "fix" for the country's uneven distribution of water, had been contemplated since the dying days of Fascism, but was now rapidly emerging as the new panacea (Swyngedouw and Williams, 2016). While terrestrial waters are increasingly marred by complex property rights, inserted in dense regulatory and institutional arrangements, subjected to all manner of social, cultural and ecological conflicts, and integral parts of multi-scale tensions and inter-regional rivalries, seawater is seemingly free of these highly charged meanings, practices and claims. And while water transfers and other big infrastructure projects relayed an imaginary associated with top-down bureaucratic politics, desalination was staged as "local," democratic, decentralized, market-efficient and ecologically sustainable. The techno-natural configuration of "desal" made it possible to align the water conflict with some stakeholders' desire to reinforce regional autonomy, defending it from what many consider the invasive powers of centralized Spain (Swyngedouw, 2015). In addition, some stakeholders discerned the kernel for "green" or "ecological" modernization in this new socio-technical edifice. So, again, the Spanish state's transformation was significantly paralleled by a new hydrosocial assemblage of social, technical, and physical relations, sustained by new imaginaries and symbolic framings.

6.5 Concluding Remarks

Investigating the hydrosocial territories concept, contested territorialization, and notions of water justice, in this chapter we have shown how Spain's hydraulic history expresses different forms of socio-ecological justice and equality. This was originally formulated around a naturalistic, utopian vision considering physical distribution of water and rainfall in Spain as unjust, requiring rectification through decentralized human intervention. The relative failure of this idealistic endeavor during the early twentieth century shifted their gaze to consider the national state as the conduit through which to deliver water justice. Rectifying "unjust" water distribution became one of the key ideological support structures of Spain's long fascist regime between 1939 and 1975. Water and justice became tightly knitted together in the fascist regime's national development vision. In the process, the discursive framing shifted

from considering localized and absolute scarcity as the object-cause of an unjust hydrosocial configuration to a focus on redistributing an unequally distributed resource throughout the nation-state, if necessary by outright force and violence. In the final part, we have examined the reworking of water justice in the transition to democracy, in a context of both social differentiation and intense neoliberalization. The Spanish case illustrates how justice is indeed in the eye of the beholder, and makes a case for considering hydrosocial equality as a politically more performative perspective, one that Spain is currently experimenting with, too.

We argue that water governance and production of new hydrosocial territories simultaneously steers and results from the intersection and confrontation of divergent territorial perspectives and the realization of contested political-economic, socio-environmental imaginaries and discourses, under unequal power relations. More concretely, we have shown how production of particular socio-technical configurations (such as dams and inter-basin water transfers) depends on assembling/enrolling particular social groups, cultural discourses, technical expertise, material conditions, the variegated actions involving water, and shifting political-economic power relations within ongoing state reconfiguration.

This way, a hydrosocial-territories perspective enables us to understand how everyday territorial politics finds expression in encounters among diverse, divergent political and geographical projects, such as: state organization, spatial control over water, and power relations among local, regional, national and global political and economic alliances. All of these compete, superimpose, and foster their territorial projects to strengthen their water control. Additionally, focusing on hydrosocial territories reveals the dynamics of water control, alternative ways of conceptualizing and building nature-society-power relations, and divergent claims and political strategies to foster "water justice." This argues for the need to politicize the water access and distribution mechanisms that are built into hydro-territorial planning, the relationships that shape norms, rights, and rules regarding water decision-making, and the discursive "regimes of truth" that underpin water policies and hydrosocial territorial reform.

Struggles for water justice therefore necessarily entail the effort to "redesign" and reshape the hydraulic grids, units and artifacts underlying dominant hydrosocial territories' structure and logic. They involve transforming technology-embedded cultural and distributional norms and political relations, including the corresponding definitions of proper functioning, social suitability, and technical efficiency. They also involve building and engaging in new multi-scale networks. Whether, to what extent, and in what ways, the dominant or opposing alliances are successful in producing, reinforcing, or reordering the hydrosocial territories and associated water justice paradigms they envision, depends on their capacity to network, mobilize, and exercise power.

Notes

- 1 Various parts of this chapter are based on Swyngedouw (1999, 2007, 2014, 2015); Boelens *et al.* (2016), and Boelens and Post Uiterweer (2013). See also Swyngedouw and Williams (2016).
- 2 "Hydrosocial territory" presents a further elaboration compared to related concepts (e.g. hydrosocial networks (waterscape and cycle), on the one hand, and literature on territories, on the other). Waterscape, socationature, and imagined geography literature provide important building blocks.

Most territory literature does not fundamentally theorize the particularities and fluid properties of technology (materialized and embedded norms) in shaping geographies (e.g. the (de)politicization and "moralization" of technology). Most waterscape literature focuses particularly on the hegemonic structures and discourses that drive (and follow from) socio-natural reconfiguration. While maintaining the essence of how water flows, technologies, institutions and power structures are arts of statecraft and shape multi-scalar political geography; hydrosocial territory conceptual innovation stresses the resulting diversity in terms of overlapping, simultaneously existing hydro-territorial regimes and imaginaries (in one and the same geo-political location, and with unequal power). Further, actor-oriented approaches and interface concepts have inherently stronger presence. Moreover, incorporating the governmentality focus turns attention to the domination-resistance web's normalizing subtleties. The concept also explicitly deals with modernist territorial recognition politics: the tactics of "recognizing" and "incorporating" local territorialities (integrating local norms, practices, and discourses into mainstream government rationality and its spatial/political organization) make state/formal and local/vernacular modes of territorial ordering depend on each other in complicated (and often confrontational) ways.

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