

From Shining Icons of Progress to Contested Infrastructures: "Damming" the Munzur Valley in Eastern Turkey

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CHAPTER 9

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FROM SHINING ICONS OF PROGRESS TO CONTESTED INFRASTRUCTURES: "DAMMING" THE MUNZUR VALLEY IN EASTERN TURKEY

Laurent Dissard

Once upon a time, dazzling marvels of infrastructural engineering were of course publicly celebrated. But in the eyes of literature and of literary criticism, the narrative of progress based on bridges, tunnels, sewers, railways, gas lines, electrification, and so on almost immediately came to seem naïve and misguided.¹

Introduction

Dams were once symbols of modernity for "emerging" countries, the material manifestation of progress and the technological achievement that best expressed the power of the nation. In the opening quote, Bruce Robbins points to a shift occurring across the globe in the perception of such infrastructures. Once celebratory totems raised by engineers hired by the state to glorify the nation, the status of Turkish dams has moved from shining icons of progress to contested infrastructures wreaking havoc and destruction. These engineering projects no longer easily take part in the utopian fantasies of nation-state building. Attempts are still made to celebrate them of course, and they are still inaugurated festively now and then, sometimes even placed on commemorative stamps. But the heart is no longer there. Once proud providers of water and electricity to all, dams today have become questioned, challenged and disputed across Turkey.

Since its inception in 1923, the Turkish state has built more than 800 dams within its borders to regulate floods, provide water and produce electricity. Signs of their time, these "marvels of infrastructural engineering," I argue, serve as remarkable chronological markers of Turkey's recent political, economic and cultural history. The "turning point" from *celebrated* to *contested* is difficult to isolate precisely. And this is not the paper's aim. Rather, I simply narrate in its first part, *Shining Icons of Progress*, how Turkish dams, these immobile and silent infrastructures, have witnessed the demise of an empire, helped to build a nation, and fought in the Cold War.³ Here, I can only start to trace the change in Turkish public opinion of these technological masterpieces from the late nineteenth century to the late twentieth century. What can be ascertained now is that, at the start of the twenty-first century, these same dams are being perceived very differently, and opposed vehemently across the nation.

This is precisely the focus of the paper's second part: Contested Infrastructures brings the reader to Eastern Turkey's district of Tunceli, known as Dersim⁴ by Turkey's Kurdish Alevi minority, and to a particularly disputed set of dams built (or planned) in the Munzur Vadisi Milli Parkı (Munzur Valley National Park). In essence, this other half of the article presents some of the results of my ethnographic fieldwork in the region.⁵ It describes the (failed) transformation of a social space through Turkish neoliberal policies, recent state institutional involvement and military intervention, as well as massive infrastructural development. It also focuses on environmental protests against the intrusion of Hydro-Electric Power Plants (hereafter HEPP) financed by the state and built by private firms under neoliberal arrangements. This anti-dam activism in Dersim, I then conclude, reveals more than a fight to protect nature however, going beyond the shift, in this particular contested landscape, from "Red" (leftist) to "Green" (environmentalist) political activism, and testifying instead to a larger discontent of citizens across Turkey against state-imposed and profit-driven engineering projects of a neoliberal nature.

Shining Icons of Progress

Dams as Signs of their Time in Turkey

In Science and Technology Studies, infrastructures are noted for their lack of visibility, including small things like pipes and wires, larger engineering feats such as roads and bridges, as well as more abstract techniques like computer protocols. All these remain largely unnoticed in our everyday lives. Pipes in a city are laid underground out of people's sight; wires of a computer are hidden behind its outer case; and rail tracks that enable trains to move are rarely the subject of travelers' conversation. Unless it is broken, one also rarely thinks about the plumbing that brings water to homes. Hence, while infrastructures enable people, objects, resources and information to transit, they remain largely

concealed, unnoticed and taken for granted. Small or large, abstract or concrete, oftentimes immobile and invisible, the pipes, wires, roads, bridges and protocols work so that other human activities can be performed. As a part of the urban background, infrastructures only become visible during moments of crisis.⁶

Unlike other types of infrastructures, dams are too large to be concealed. These towering walls of stone or concrete are difficult to ignore in the natural landscape. On maps the stretched-out arms of their water reservoirs resemble the younger siblings of seas and lakes. Dams are not buried underground like pipes nor are they as discreet as wires. But more visible than other infrastructures, dams are nevertheless removed. Most often, as a large part of the rural infrastructure that caters to the needs of cities, dams are away from the urban gaze. Dams provide water and produce electricity while simultaneously, silently perhaps but not innocuously, disturbing the countryside, nature and its wildlife, rural and nomadic lifestyles. Most of the time quiet and serene, dams and their associated reservoirs begin to make a loud growling public noise, in the process transforming themselves into contested infrastructures, when they spark social or political problems that humans have to deal with.

A total of eight dams were built outside İstanbul between the seventeenth and nineteenth centuries to provide water for the city, including the Sultan Mahmut Dam in 1839, hidden today amongst the trees of the Belgrade Forest. Removed from the center and thus less visible, this dam nevertheless exhibits the style and design characteristic of the time. The shape of Sultan Mahmut Dam itself resembles other masonry gravity arched dams built contemporaneously in Western Europe. A room built like a shrine inside its walls around the water valve serves both a technical and aesthetic purpose. Roman columns, tulip-shaped gargoyles, and an oval shaped medallion with a radiating sun also adorn the dam's exterior. The assorted mix of Baroque, Rococo, Neo-Classical and Empire style is typical of Ottoman architecture during this period of westernization. Like many other monuments in the city built during the nineteenth century, European architectural forms and designs reveal the larger social and economic changes witnessed throughout the empire.⁷

The Sultan Mahmut Dam was constructed to reinforce the already existing Taksim water conveyance system serving the growing westernized, non-Muslim, upper-class population of Beyoğlu. As the rest of the city lagged behind in the nineteenth century, this neighborhood, where banks and foreign embassies bordered the mansions of wealthy families, had access to electricity, telephone lines and a tram system. Beyoğlu is also home to the world's second underground subway (Tünel), built in 1875. Scrutinizing infrastructural development alerts us to the profound social inequalities embedded in the urban fabric. I am not ascertaining here a one-to-one correlation between wealth or class and access to public amenities, but infrastructures do force us to

ask, who benefits the most from them? Who is included and excluded from the water and electricity grids? How are cities and countries imagined and what social, historical, economic, as well as technological factors determine privileges?⁸ Again while one part of İstanbul profited from all sorts of public works to develop a modern lifestyle, other parts would have to wait their turn to benefit fully from modernity's advantages. A more thorough historical study of infrastructures in İstanbul would indeed reveal that entrance into modernity does happen at disparate speed.

Like archaeological artifacts, dams are signs of their time. Not only do they constitute interesting chronological markers, they are also indicative of larger processes like the structures built around Ottoman İstanbul that follow the empire's social and economic transformation. Dams seen as materialized forms of ideology narrate the stories of empires and nations, which, over the centuries, have been built both ideologically, and just as significantly, materially. "Bridges, factories, radio networks, and railways", Brian Larkin writing about Nigeria explains, "are as much objects of fantasy and imagination as are forms of fashion, literature, and film. [Their] building ... is nothing if not an aesthetic form that tells us as much about the melodrama of Nigerian politics as it does about production and economics. All over the world, highway projects, corporate headquarters, and the laving of fiber optic cable networks occupy that messy conceptual boundary where the economic and rational meet the symbolic and fantastic." Public works are entangled in a larger web composed of politics and technology, nature and science, institutions and people; a complex network of human and non-human actors which disentangled can tell us about the dreams and fears of states, the fulfilled and failed promises of governments, as well as the more personal hopes and fantasies of individuals. Indeed, the core of nation-building projects consists, more often than not, in the building of infrastructural projects.

This has been the case for the Turkish Republic that emerged after the demise of the Ottoman Empire. The Çubuk-1 Dam, for instance, constructed just 12 km north of Ankara between 1930 and 1936 under the supervision of Tahsin Ibrahim, a graduate of İstanbul's School of Engineering, Walther Kunze and Heiden Berger of Germany, and a certain "Mösyö Sapot" of France, expresses the Turkish State's new faith in engineering and progress. ¹⁰ While the original plan called for a stone-fill construction, the more conventional method used in the old capital city İstanbul, "Mösyö Sapot" eventually convinced the other three men that concrete would avoid the high cost of transporting rocks from a quarry. At the time, it was also thought that this newer and supposedly more advanced technique would make for an overall better dam. Concrete was eventually chosen as the building material and imported by railway from Germany. Importing it from northern Europe, however, made the dam's overall price much higher and, in the end, more expensive than using stones from a

local quarry. Despite its high price, Çubuk-1 in Ankara became the first concrete dam in Turkey, a building material that, at least visually, was more progressive than the old stones of defunct Ottoman İstanbul.

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Built to control floods and provide drinking water to the city, Çubuk-1 and its concrete made a larger statement, a fashion statement one might say, that followed global trends. Concrete, when manufactured locally, is in fact a cheaper material than stone and had replaced it for the construction of dams across the world. In the 1930s, it also seemed a better match for Ankara's new image. Infrastructures, Susan Leigh Star explains, are materialized forms of ideology inscribed within particular master narratives. 11 Choosing concrete both followed a global technological trend and affirmed Ankara's new status proving, no matter the cost, that the city was modern enough to be a capital on the one side, and that it could gradually destabilize the dominance in the national imaginary of old imperial Istanbul on the other. Thus, technologically at least, Ankara also rivaled with other European cities. The dam and its reservoir came with newly created republican spaces of a shoreline, beaches and green picnic areas. As such, it helped the Turkish State bring a recreational space to the step(pe)s of the city. With its own "Bosphorus," as some called it, Ankara could now compete with İstanbul in engineering achievements as well as natural attractions and leisure activities. Aslıhan Demirtas describes how this double point of reference -(Republican) Ankara surpassing (Ottoman) İstanbul while constantly making reference to it – characterizes Turkey's newly found identity. Embarking upon the road to progress, the Cubuk-1 Dam was celebrated as a technological achievement opening wide open modernity's gates and permitting new Ankara to outdo old İstanbul... without ever being able to completely free itself from it. 12

Hydro-Power

If Çubuk-1 in Ankara, and other concrete dams elsewhere in Turkey, began providing water for cities in western Anatolia during the first half of the twentieth century, large dams designed to meet the country's rising energy needs would only be built after World War II. Hydroelectricity in Turkey was first produced at Tarsus as early as 1902 and other small Hydro-Electric Power Plants (HEPP) would later be tested in İstanbul and other large cities. At the establishment of the Turkish Republic in 1923, however, electricity was only available in a very limited number of large cities and hydroelectricity only made up 0.3 per cent of the 33 MW produced by the 38 electric power stations across the country. An important turning point in energy production can be traced specifically to the year 1956 and the construction of the Sarıyar and Seyhan Dams, the country's earliest large HEPPs. Thanks to these and other large dams, the part of hydroelectricity would go from 6 per cent (30 MW out of 500 MW) of the country's total installed power in 1953 to 35 per cent (478 MW out of 1381 MW) ten years later. ¹³

Often promoted as guarantees of a better future, infrastructures such as dams are full of promises made by states to their citizens. In post-World War II Turkey, the Demokrat Parti (DP), newly founded in 1946 to challenge the rule of the Cumhuriyet Halk Partisi or Republican People's Party (CHP), made hydroelectricity part of its electoral promise. After its historic victory in 1950, which fully launched Turkey's era of multi-party rule, the building of roads, factories, and dams gave it the image of a party in action working for the good of its people. Geared towards helping landowners, the policies implemented by its leaders Celal Bayar and Adnan Menderes gained wide support from the rural electorate. With the help of foreign credit, investing in public works made the DP popular during its first years of rule, and helped it again in 1954 to win the elections. ¹⁴ The newly elected government upheld this appearance of a party that cared about its rural constituencies by building, for instance, the Seyhan Dam between 1953 and 1956 just north of Adana in Southern Turkey. Designed to control floods and produce electricity, it also served as an electoral platform for the party.

The Seyhan Dam is significant in recent Turkish history for another reason. Like the concrete of the earlier Çubuk-1, the steel for the dam was manufactured in Germany. This time, however, thanks to American subsidies from the Marshall Plan, the material produced from the German mills did prove to be the most affordable option. Furthermore, the dam was designed by an American engineering company based in Athens already involved in construction projects in Greece. One of Turkey's first World Bank-financed projects, Seyhan thus marks the increasing importance of the United States into Turkish economy and society. In addition, and as a revealing side note, the dam was built 20 km from Adana's Incirlik Base of the US Air Force, another symbol of American involvement in Turkey. Today the Menderes Island, in reality a small peninsula protruding into the reservoir of the Seyhan Dam, is still called "Amerikan Adası," the island of the Americans, a souvenir of the time when GIs from the Incirlik Air Base would go for a swim during their days off. ¹⁵

Besides serving as a chronological marker for the era of multi-party rule and the beginning of intense American imperial involvement in Turkey, the project holds another symbolic dimension as its head engineer was none other than the "King of Dams" himself, Süleyman Demirel, future Prime Minister and ninth President of Turkey. After studying Civil Engineering in İstanbul and the United States, Demirel was appointed in 1955, at the age of 31, Director General of the *Devlet Su İşleri* or State Hydraulic Works (hereafter DSİ). Obsessed with building major public works, Demirel, during his rule as Prime Minister and President, was involved in the majority of Turkey's post-World War II dam constructions. His success in politics was based on his vision of a "Büyük Türkiye" (or Grand Turkey), which placed development and the provision of services on the forefront of any political decisions.

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An engineer-turned-politician, Süleyman Demirel had dreams of large infrastructural projects for his "Grand Turkey." He understood water as a resource to be tamed so that light could rescue Anatolia from obscurity. Infrastructures, as Larkin described above, are the objects of fantasy and imagination occupying the messy conceptual ground where science, economy and nature meet the dreams and hopes of individuals. Born a year after the foundation of the Turkish Republic in a rural and impoverished area of Southwestern Turkey, Demirel traces back to his childhood his dreams of progress and development and his goals to eliminate poverty and darkness. He states in an interview that "[i]n his village, he witnessed draught and villagers organizing communal prayers for rain; he recalled vividly how there was no electricity in Islamköy during his childhood and how the villagers would watch the lights of the city of Isparta, the provincial capital twenty kilometers away."¹⁷ His vision of building large dams also went back to his time as a student in the United States, when sitting on the walls of the Boulder Dam in Nevada, he imagined the day his own country would own such a monumental structure. 18 His dream would come true, first with Seyhan, a project for which he was head engineer and, later, during his first term as Prime Minister, with the even greater Keban Dam.

The Seyhan Dam inaugurated more World Bank activities in Turkey. In 1967, for instance, the international institution provided Turkey with technical assistance for the reorganization of its electric power industry. Ankara also sought monetary loans from the World Bank, as well as from the United States and the European Economic Community (EEC), as early as 1961 for the construction of the Keban Dam near the city of Elazığ in Eastern Turkey. 19 While the European Investment Bank (the EEC's loaning institution) funded the building of the infrastructure, the International Bank for Reconstruction and Development (the World Bank's loaning institution) advanced Turkey \$25 million for transmission lines sending electricity from Keban to Ankara and İstanbul.²⁰ These loans played an important role in the West's diplomatic strategy in the Middle East during the Cold War years. Through investments in Turkey, a NATO member since 1952, the United States was strengthening its ties with a country bordering the Soviet Union and reinforcing its position against the Communist Bloc. Beginning in the 1950s, large immobile infrastructures seemed to move like concrete pawns across the Cold War chessboard.²¹

Mega-Dams and the Emergence of Concern over their Impact

Sariyar, Seyhan and other dams built after World War II announced many of Turkey's impending political, economic and social changes. The postwar enthusiasm for dams would reach its apex with Keban, the largest built in Turkey at the time. Constructed between 1966 and 1975, and thus overlapping with Demirel's first term as prime minister, Keban not only continued a period of intense investment in dams, but also marked a shift in their scale.

The earlier Sariyar (160 MWh) and Seyhan (54 MWh) were no small matter of course. But the HEPP at Keban, less than 20 years later, with its yearly energy production as high as 1240 MWh, easily dwarfed both of them. The 207 m high Keban Dam carried Turkey from the era of high dams (over 15 m) into the era of mega-dams (over 100 m). In his book *Silenced Rivers*, Patrick McCully explains how the benefits of hydroelectricity have been largely exaggerated over the years while its negative effects on nature and society downplayed.²² A long-time director of the Non-Governmental Organization *International Rivers*, he argues that no large dam can be built without their negative impact outweighing their positive ones. In Turkey, as the size of dams increased, it also became more and more difficult for people to ignore their unwanted consequences. With a ten-fold increase in physical size and energy production from Seyhan to Keban, it is at this time that dams also began to occupy more room in the country's consciousness.

The Keban Dam was celebrated as an engineering feat, a shining icon of progress and, for Süleyman Demirel, a dream come true. When news of the dam reached the public, however, a handful of people were more concerned about the region's threatened cultural heritage. Kemal Kurdas, president of Ankara's Middle East Technical University, and archaeologist Halet Cambel, met in 1966 to launch the "Committee for the Salvage of Cultural Property in the Keban Dam Area," which organized a rescue project to study the ancient monuments and archaeological sites threatened by the dam's rising waters.²³ Still, construction continued unabated. After the first surveys in the region, the newspaper Milliyet launched a national fundraiser to collect money for further scientific work. Money donated by Turkish banks and foreign corporations, as well as villagers and schoolchildren, helped to fully launch the international and multidisciplinary project at Keban during the summer of 1968. Over a period of eight years, its participants managed to record and protect some of the pre-history and history of an area now under water.

This was the first time in Turkey when researchers came together as a community to respond to the threat of dam construction. If the project's participants successfully fulfilled their scientific goals, needless to say, they were not what we could call today environmental activists. Behind the fundraiser and rescue project were archaeologists more concerned with ancient sites than with the preservation of nature. Their rescue efforts did not jeopardize, or even begin to put into question, the existence of dams itself. If the negative effects of dams do make a first public appearance on this occasion, anti-dam sentiments in Turkey would wait another 30 years to fully materialize.²⁴ Hydroelectricity production remained the Turkish national priority as defined by the state and any negative attitude towards dams was not expressed as such at the time.

If anything, this new public awareness represented only a small stain on their large, shiny concrete armors.

The Keban Dam paved the way for more constructions on the Tigris and Euphrates Rivers, the most renowned being the Atatürk Dam built during the 1980s near Adıyaman.²⁵ Infrastructures, and more particularly dams, are often seen as necessary for the economic development of "impoverished" countries. In Turkey, a strong link indeed exists between their construction and the prevailing development ideology. The series of dams built in Southeastern Turkey after Keban is presented as the backbone of a larger plan to "develop" the region and with the intent of the state to solve the country's "Kurdish Question." Initiated in 1984, relatively soon after the emergence in Turkey of neoliberalism in the aftermath of the 1980 military coup, 26 the Güneydoğu Anadolu Projesi or Southeastern Anatolian Project (hereafter GAP) has been contingent upon such infrastructural development in the Tigris-Euphrates River basin. Its goals in the underprivileged, mostly Kurdish, provinces of Southeastern Turkey have quickly moved beyond the provision of water and electricity, however, to now include an ambitious remodeling in the region of life itself, be it economic, political, cultural or social.

In her ethnographic work in Southeastern Turkey on the GAP, Leila Harris forces us to think beyond the positive or negative impact of dams and development, and consider instead the ways in which infrastructures participate in the different social reconfigurations of this predominantly Kurdish region. Just as importantly, her research also illustrates how not one aspect of this development project has remained unquestioned or unchallenged.²⁷ While dams in Eastern Turkey have been interpreted by some as symbols of a Republican attempt to modernize "backward" parts of the country, others have perceived them as unnecessary and unwanted interventions by the state into local affairs.

This last sentence is precisely the theme of the article's second part. Thus far, I have illustrated how dams, these shining icons of progress, could signal some of Turkey's political and economic, as well as social and cultural, changes over the last two centuries. Over the last 20 years or so, however, dams and HEPPs, in and out of Turkey's southeastern Kurdish provinces, have become questioned and disputed by a wide range of social actors. I now shift to a discussion of the politics of hydropower in one particularly disputed area of Eastern Turkey, known locally as Dersim. I first consider the significance of the Munzur Valley for Alevi Kurds in this region in order to then discuss the specific political effects of dams on this contested geography, and later examine in more details the "Campaign to Save Munzur" led by local activists against these state-imposed and profit-driven infrastructural constructions.

The Munzur Valley and Alevi Kurds in Turkey

Contested Infrastructures

The Munzur River finds its source near the town of Ovacık below the high peaks of the snowcapped Dersim Mountains in Eastern Turkey. It flows south to join the Pülümür River near the city of Tunceli and later meets the Murat River, one of the main branches of the Euphrates River, before reaching the Keban Dam. Hidden among high mountains, the Munzur Valley is composed of deep ravines and narrow gorges. Known for its unique and diverse fauna and flora, it was declared a national park in 1971 and placed under the supervision of Tunceli's Directorate of Environment and Forest. Over the past 40 years, the Munzur Valley National Park, to say the least, has not been well preserved. Some areas of the park have suffered from environmental degradation due to deliberate forest burning by the Turkish army, while in other parts of the district delineated as a natural reserve, villagers have been forced to resettle in order to rehabilitate this same forest.²⁸

A perfect locale from an engineering perspective, the valley has not been left undamaged by the construction of dams. In 1983, almost a decade after the construction of the infrastructure at Keban and just before the start of the conflict between the Turkish army and the Partiya Karkerên Kurdistan (Kurdish Worker's Party, hereafter PKK), Turkey's DSİ included the construction of 6 dams and 8 HEPPs in its master plan for the rivers of the Tunceli District; numbers that have since risen to 10 and 16 respectively. Eight of these projects are located on the 85 km-long Munzur River and its tributaries; six of which are within the borders of the national park itself.²⁹ With respect to these large infrastructures, the laws designed to protect the national park have been inefficient or simply ignored. Additionally, a recent 2004 amendment on the regulations for national parks now allows companies to lease for a period of 49 years parcels of such protected zones for their damming and mining projects. As is often the case, these latest legal developments occurred with almost no public debate; the people most concerned having very little say in the future use of their land.30

A large majority in the Munzur Valley is Alevi, a religious minority constituting more than 15 per cent of Turkey's population. These Alevis, on the one side, are related to their (Turkish-speaking) Alevi neighbors across the country through their very Anatolian form of Islam. In the Munzur Valley, a part of the Dersim, most Alevis speak different varieties of a northern Kurdish dialect called Zazaki, however. Alevi Kurds here are therefore, on the other side, related to their Kurdish-speaking neighbors living further south and east through their language. *Tuncelililer*, as Alevi Kurds from Tunceli are sometimes called, are related, on the first hand, to their Turkish Alevi neighbors through their religion and, on the second hand, to their Kurdish neighbors through

their language. On the third hand, however, they are both and neither of these. And as numerous examples across the world have already informed us, three-handed creatures seldom fare well in the purgative projects of ethnic purity adopted by the nation-states of the nineteenth and twentieth centuries. By simultaneously belonging to both minorities, Alevi Kurds, in the end, constitute a minority within minorities. Doubly rejected, they occupy the ambiguous place of a very contested identity in modern-day Turkish society.³¹

And for every contested identity, there exists a contested space. For the Alevi Kurds, the Munzur Valley occupies a large parcel of this disputed terrain. Difficult to access, it has sheltered over the years a population subsisting on animal herding and low-scale farming. Mostly rural, the largest city in the valley, Tunceli (formerly known as Dersim), has a population of only 32,000 today. Alevi Kurds consider much of the tangible and intangible natural and cultural heritage of the Munzur Valley sacred. In fact, nature and culture seem to intermingle to the point of being indiscernible as trees, caves, rivers, springs, forests and cliffs, dispersed throughout the valley, act like small natural sanctuaries. During the Ottoman Period, tribes in the Dersim did not feel the need to pay taxes nor to provide soldiers to the army.³² Subsequently, at the birth of the Turkish Republic, the region remained more or less autonomous from the centralized government.

In the 1930s, attempts by Ankara to reinforce its authority in the region brought some tribal leaders to resist and protest. These resistance movements were given a violent blow by the Turkish military in 1937 and 1938. Commonly referred to as the "Dersim Rebellion," a phrase implying a pro-state historiographical bias, these events are commemorated locally as massacres, and interpreted by a few scholars as ethnic cleansing, mass extermination or attempted genocide. The city of Dersim, renamed at this point in time Tunceli, subsequently became a hotbed for anti-government sympathizers; its mountains and valleys serving as a refuge for contested social identities and political ideologies in Turkey. Over the last decades, many *Tuncelililer* have in fact comprised the core of the Turkish Left and, until very recently, the TKP-ML (Marxist-Leninist Communist Party of Turkey) had more influence in the Dersim than any Kurdish nationalist movement or groups like the PKK.

Scattered around the landscape are the traces of this continuous struggle between local politicized Alevi Kurds and the Turkish state. Unlike everywhere else in Anatolia, the flags, quotes, statues and other icons of Turkish nationalism act more like reminders of the failed attempts by the state to assimilate Dersim into the larger nation. Never entirely normalized in the minds of local people, the military presence in and near the city constitutes perhaps the most striking characteristic of this contested space. For instance, soldiers at checkpoints control every important crossroad in the district, including the entrance of the Munzur Valley itself. In the last couple of years,

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these military barriers have somewhat faded away if not entirely disappeared, making room for more disguised stations built atop the region's high summits, and thus commanding highly strategic views of the surrounding valleys. With the assistance of helicopters roaming loudly above people's heads, this allows the army to not only "mark its territory" but also "keep an eye" on the population.

These attempts by the military to control the flow of people in and out of the region take part in the larger efforts by the state to mark its presence in a disputed zone that has witnessed since the mid-80s the undeclared civil war between the Turkish army, on the one side, and the PKK and other armed leftist organizations on the other. Now spanning more than three decades, the conflict reached a peak of violence in the Tunceli district during the years 1993 and 1994. At that time, the army in its fight against "terror" systematically burned villages and deliberately displaced villagers suspected of collaborating with the "terrorists." More than 15,000 villagers were displaced, causing a drastic decrease in the population, so much that today the number of people living in the district is half of what it was in the 1970s. 34 This forced uprooting and resettling by the military has supplemented the successive waves of past emigration to the metropolitan centers of power in Turkey and Western Europe, creating an even larger urban diaspora of Alevi Kurds in and out of Turkey, and thus simultaneously reinforcing their politicization at the national and international level.

The Munzur Valley comprises a small, but nonetheless symbolically significant, part of the larger terrain in this dispute as both sides attempt to infiltrate and establish their sovereignty over the same space. Traces of the resistance against this appropriation of space by Republican Turkey and its army are omnipresent in the valley. The traumas associated with the military suppression of 1938, for instance, have materialized as "lieux de mémoire" scattered in the landscape. The caves, "castles," and other hideouts used by the local resistance at the time are well known by locals today and serve to commemorate the massacres perpetrated. The most famous example is the high cliffs of Halbori, located 20 km away from Tunceli's center, where, according to witnesses, rebels were cornered by the army and forced to surrender or jump to their death into the Munzur River (see Figure 9.1). A more recent attempt to memorialize these painful events include the "Wall of Dersim 1938," erected in 2013 by the Tunceli municipality along one of the main thoroughfares of the city, which displays black-and-white images of women and children refugees next to the photographs of the leaders killed during the rebellion. The village of Lirtik, the birthplace of Seyid Riza, executed in 1937, has also in recent years welcomed different ceremonies and tributes in memory of all those lost in the conflict against the army both then and now.

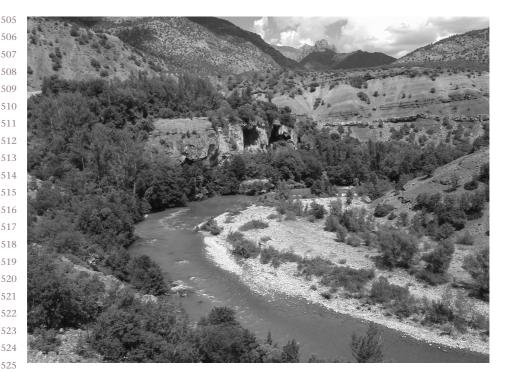


Figure 9.1 Munzur River from Halbori Cliffs, "lieu de mémoire" of 1938 massacres. (Photograph taken by author in July 2014.)

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In The Making of Modern Turkey, Uğur Ümit Üngör illustrates how different institutions throughout the twentieth century have helped the Turkish State inscribe its particular vision of modernity into the contested geographies of Eastern Anatolia.³⁵ Alongside these institutions, it is the infrastructures themselves that have been the means by which the state has reinforced its sovereignty in its Kurdish regions. Material constructions have actively participated in Turkey's bid to connect Dersim to the rest of the country, and consequently to the rest of the "civilized" world. A contested space in contemporary Turkey, the Dersim in general, and the Munzur Valley in particular, have been appropriated and re-appropriated through the building of roads, bridges, dams and other contested infrastructures that re-inscribe landscapes into politics. Built or planned, the dams in the Munzur Valley have also been incorporated within these particular discourses of assimilation and resistance. Perceived as more than merely symbols by local Tuncelililer, however, they have become instead the material manifestation of the state and the military in their attempts to appropriate the area, force people out of their homes into cities alongside the earlier village evacuations and submerge both their natural and cultural heritage.

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"Damming" the Munzur Valley

Under the supervision of the DSİ and financed by various export credit agencies and national banks, private construction companies have been "damming" the rivers of the Dersim for more than 30 years now. But what exactly does it mean to "dam" a river? Rather than examining dams, these immobile engineering feats and taken-for-granted physical infrastructures as nouns, I want to open new avenues of inquiry in the second part of this article by considering the act of "damming" itself. Instead of thinking about immobile walls of concrete blocking the flows of rivers, this methodological shift to the verb "damming" lets us ask, for instance, who dams? What gets dammed? Who benefits from damming? It introduces a relation between subjects and objects allowing us to scrutinize, beyond the thing itself, those who construct, those who use, and those who are most affected by damming. ³⁶ By considering the active process of damming, involving humans, nature and technology, we are brought closer to seeing the "hybrid subjectivities" of these seemingly immovable objects. In other words, infrastructures are transformed into "cyborgs" with a life of their own, and with more often than not unpredictable consequences that often escape human control.³⁷

The environmental impact of damming has been detailed elsewhere more eloquently.³⁸ Suffice it to say here that "to dam" entails the fragmentation of a riverine ecosystem into two. Firstly, rivers are transformed *upstream* into lakes that inundate wildlife and forests. Locals in Tunceli have complained, for example, that the Uzunçayır Dam built in 2009 on the Munzur River has submerged a countless number of local plane and poplar trees, some of which were more than a hundred years old. Large water reservoirs also restrict the movement of animals, severely disturbing their migration patterns, and can also become important vectors for diseases. Secondly, dams decrease the quality of downstream river plains that are often home to very diverse ecosystems. Once built, natural flooding disappears as water is diverted from its users further along the river. Biodiversity is drastically reduced and fish habitats are significantly disturbed. The accumulation of silt behind a dam also alters a river's ecology both up and downstream. In the end, damming deteriorates more than natural landscapes as it also disturbs the delicate balance between humans and animals.

Damming not only splits rivers into two; it also divides human lives into a before and after the dam. This before and after, more often than not, materializes into a here and there for the people displaced. Dams across the globe have moved a considerable number of individuals living and working in river valleys while simultaneously disregarding their rights. Water stored behind their walls usually benefits large-scale irrigation farming in the plains and the electricity produced by their HEPPs is transferred to industries in the lowlands or cities located even further away. In Turkey and elsewhere across the

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world, the victims of dam construction are families usually living on subsistence agriculture and belonging to ethnic or religious minorities with very little political voice.³⁹ In the end, the accounts of dislocation and relocation caused by dams from the shores of the Euphrates and Tigris Rivers and their tributaries in Eastern Turkey to crowded cities in Western Turkey and their suburbs augment the larger story of the country's internally displaced population.⁴⁰

In his urban ethnography of Johannesburg in South Africa, AbdouMaliq Simone characterizes cities by their "incessantly flexible, mobile, and provisional intersections of residents that operate without clearly delineated notions of how the city is to be inhabited and used."41 Simone extends our understanding of infrastructures from physical objects directly to people's activities. He adds how the constantly moving flow of human beings who are in relation with one another becomes "a coherent platform for social transaction and livelihood."42 It is this living social fabric of a city that Simone calls people as infrastructure. Despite being a rural and sparsely populated area, the Munzur Valley nonetheless possesses a similar resilient network of people as infrastructure. Damming not only raises troubling issues for the valley's ecology but also affects negatively these human intersections and social transactions. Building more dams in the valley would further isolate villages and villagers, disconnecting them from each other as well as from the center of Tunceli and, for instance, from emergency medical services. Activities that have sustained families for years such as animal herding or apiculture would also be rendered obsolete by more constructions. More damming, in the end, means more villagers leaving the valley, more communities broken apart and fewer chances for families displaced during village evictions by the military to return home.

If these large infrastructures are so harmful, not just to the natural environment, but to the social fabric of the valley itself, rendering dysfunctional its people as infrastructure, why then are they built in the first place? Damming the valley does not benefit local farmers since agriculture in this mountainous region of Turkey is negligible on the national scale and merely satisfies local needs. When considered as a whole the estimated production of the Munzur dams and HEPPs only constitutes a negligible fraction of the total installed power capacity of, for instance, the Keban, the Atatürk, or the yet-to-be-built Ilisu Dams. The sacrifice to nature seems too great for such a small amount of electricity that would only fulfill a minute percentage of the country's needs. But if the benefits to the local population are inexistent and the energy production is insignificant, the estimated cost of the dams put together, up to \$2 billion, is not. 43 Why then "dam" the Munzur Valley? The answer seems straightforward. "Damming," above everything else, profits financially private construction companies, in this case a consortium of Turkish, American and Austrian firms.

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The failed attempts to build the Konaktepe Dam on the Munzur River will serve here to illustrate the broad network of engineering companies and construction firms that have been working on the rivers of Eastern Turkey with the blessing of various Turkish Ministries and Directorates.⁴⁴ It demonstrates how Turkish dams and HEPPs privilege above everything else both economic and political interests. Valued at the relatively small sum of \$10 million, the design and engineering phase, before the actual construction of the Konaktepe Dam, was undertaken by the project's principal contractor, Stone & Webster, an American engineering firm owned by the Shaw Group in Massachusetts. 45 Once this initial stage completed, Stone & Webster would have entered the project's building phase estimated at the larger sum of \$300 to \$400 million. This work would have been shared with the Austrian companies Strabag AG and VA Tech Hydro GmbH (the former responsible for the tunnel and surge chamber and the latter for supplying the hydro-mechanical and electrical equipment). 46 In addition, the Turkish companies Soyak Uluslararası İnşaat ve Yatırım A.Ş. and ATA İnsaat Sanavı ve Ticaret A.S. would have also participated in this second phase of construction.⁴⁷ With the help of European and American export credit agencies, it is consortia of private firms like these, both Turkish and foreign, which are behind the damming of rivers all over Turkey.

In order to reach agreements, obtain deals and acquire funds to dam the valleys, this network of engineering firms relies on a larger web of public and governmental institutions. Again, the construction of the Konaktepe Dam was included as one of the many projects in a 1998 agreement signed between the United States' Department of Commerce and Turkey's Ministry of Energy and Natural Resources. This bilateral pact helped American companies acquire contracts for the building of 9 HEPPs in Turkey, while also securing the financing from the Ex-Im (Export-Import) Bank of the United States. 48 These types of arrangements, oftentimes involving the ministries and directorates supposedly responsible for preserving the country's environment, have led many to believe that successive governments in Turkey have simply acted as "clearing houses" for the private sector. Not seeing the benefits of "damming," many local people feel that their rivers are being "sold" to the private sector purely for financial interests.

Of course, dams and HEPPs are being built today on practically every river in Turkey unbiased to the fact that these might "belong" to Turks, Kurds, Sunnis, Alevis or others. Considering the particularly contested geography of the Dersim, however, the dams on the Munzur River, without knowing whom they are providing service or inflicting harm to, have become highly discriminatory. Far from benefitting local people, "damming" the Munzur River profits Ankara and a small number of private firms located outside the valley. Consequently, dams have been resisted by Tuncelililer, not only because of the degradation they cause to the environment, but because they embody the new neoliberal avatars of Dersim's traditional foes: centralized authority represented here by the DSİ and global capital incarnated by a network of foreign and Turkish construction companies.

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It is to the different acts of resistance undertaken at the local level against the construction of dams for the preservation of nature, as well as against the commodification of rivers undertaken through the government's neoliberal policies, that I now turn my attention to in the last part of this article.

Saving the Munzur Valley

When its supposedly protected status as a national park was not able to "save" the Munzur Valley, local people felt it was their responsibility to do so. Today, none of the dams in the Tunceli District have remained unchallenged. To preserve the unique nature of the valley against the consortium of engineering firms, state institutions and loaning agencies, local Tuncelililer have joined forces with activists worldwide to lead the "Campaign to Save Munzur." As an example, the point of confluence of the Munzur and Pülümür Rivers near the city of Tunceli, known locally as the Jara Gola Çetu and considered a sacred place by many Alevi Kurds, was first threatened by the Uzunçayır Dam in 2009. 49 As water levels began to rise that year, more than 20,000 people gathered in the city center to march against its possible inundation. At the time, construction companies had promised local authorities that the reservoir would be kept low enough to keep the area unharmed. In 2011, however, the Tunceli Municipality and its Barıs ve Demokrasi Partisi⁵⁰ or Peace and Democracy Party (BDP) mayor were nonetheless sued by Turkey's DSİ and fined 2.2 million liras for having transformed Jara Gola Çetu into a park. Sparked by a recent court decision to demolish it, and the probable rise in water levels, the latest demonstrations organized at Jara Gola Çetu by the "Campaign to Save Munzur" took place in June 2013, not incidentally just as protests in İstanbul's Gezi Parkı began to erupt, both of which were geared against environmental destruction but expressed a deeper social anger and political will.

Protests in Tunceli against dams often take the form of collective marches beginning in the city center and ending near the shores of the Munzur River itself, a few kilometers upstream (see Figure 9.2). Large crowds gather and chant in unison slogans like "Mun-zur Öz-gür A-ka-cak!" ("Munzur will flow freely!"), as onlookers applaud in approval and drivers (despite being jammed in their cars) honk in support. Anger that has accumulated over the years against state-sponsored infrastructural development is voiced here within the confines of the contested space, in a last cathartic attempt to save the valley from its fate. Again, the *Jara Gola Çetu*, situated at the entrance of Tunceli, was the furthest point affected by the reservoir of the Uzunçayır Dam. Faced with its possible eradication, *Tuncelililer* also expressed their resentment for the many other plots



Figure 9.2 Anti-dam protest march from center of Tunceli to shores of Munzur River (photograph taken by author in August 2014).

of lands, roads and paths, trees and homes already inundated. In a way, the park served as a central nerve and as an ultimate advocate against the destruction of both local nature and culture.

The Munzur Valley does not have a world famous archaeological site like Hasankeyf to serve as the "spokesperson" of the campaign. ⁵¹ Instead, activists fighting for the preservation of the valley put forward its natural beauty, the spiritual significance of its rivers, trees, springs and cliffs, as well as the many places of pilgrimage for Alevis like the *Jara Gola Çetu*. Animated by lawyers, teachers and journalists at the local level, this core receives additional support from environmentalists, academics and members of human-rights associations supporting similar causes globally, as well as famous musicians like Aynur Doğan and Ferhat Tunç who have both sung for the valley. ⁵² In addition, other anti-dam activists in Turkey occupied with their own contested infrastructures at Yusufeli, Hasankeyf and Allianoi have provided their support over the years to the struggle in the Dersim. If the "Campaign to Save Munzur" borrows the methods and discourses of environmentalists across the globe, thus participating in the larger international movement against dams, it is also unique, as Marie Le Ray

argues, in the manner by which it calls upon a certain type of "distinct locality" to function.⁵³

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For instance, the *Munzur Doğa ve Kültür Festivali* (Munzur Nature and Culture Festival), held every August since 1999, constitutes an opportunity for activists to assemble, discuss and organize protests against the construction of dams, HEPPs and mines in the Dersim. Besides the well-attended concerts held in Tunceli's *Atatürk Stadyumu* (renamed for the occasion the less Republicansounding *Şehir Stadyumu* or City Stadium in the festival program), festivities are also held during four days in the district's largest towns. The festival constitutes the ideal occasion for the "Campaign to Save Munzur" to rally people to its cause through roundtables, explain its actions in panels, make its voice heard during marches, as well as share the information it does have about future infrastructural projects to all. Attracting up to 20,000 people each year, the event also coincides with the return home of many emigrants from Western Europe and allows the campaign to gain an international stature.

Thanks to the festival and other happenings, the campaign has made an impact across borders, disseminating information about the region's threatened ecology to the diaspora of Alevi Kurds that over the decades has woven strong political and economic ties across the world. Despite the distance separating them, members of this disjointed community have remained connected to their homeland – the springs, rivers, trees and cliffs of the Munzur Valley often providing the images bonding their different trajectories into one collective soul. 54 Many anti-dam activists also manage websites and blogs, own Facebook and Twitter accounts, in order to reach out to this resilient network of residents outside the Munzur Valley, who nonetheless remain concerned about its fate. Closer to home, other actions are taken by the campaign throughout the Tunceli District, away from the city center and deeper in the valleys, sometimes next to the dams and HEPPs themselves, in order to inform local people about diverse environmental threats. These panels and workshops also allow activists to remain connected at the grassroots level. In this manner, the campaign can more easily track down future projects hitherto undisclosed and ensure that villagers in the valley do not accept deals with public or private representatives promising to deliver them cennet (paradise) if they sell their lands for the construction of these infrastructures.

When marches, workshops, websites and other peaceful means to raise awareness and disseminate information remain unsuccessful, other strategies are adopted in an effort to stop the proliferation of unwanted dams in the region. One tactic has been to camp near the river as soon as construction work on a dam begins. Later, in an attempt to slow down the progress of workers, activists stand as a group in front of their drilling machines. As activists put their bodies on the line against dams, the state gendarmerie and private security companies try to stop these forms of civil disobedience; some confrontations

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leading to violent clashes where gunshots are exchanged and some occasionally wounded. SAnother tactic has been employed more recently against dams and HEPPs in the Dersim by members of the Türkiye İşçi Köylü Kurtuluş Ordusu (the Liberation Army of Turkey's Workers and Villagers), the guerilla arm of the TKP-ML better known as TIKKO. Over the past years, the partisans of this armed group have carried out "operations" at the Dinar HEPP in 2012 and Mercan Dam in 2014, placed bombs inside the control room of other HEPPs, and intimidated engineers and guards on-site, threatening to kill them if they continued working there.

Using more or less peaceful means, located in or out of the Dersim, belonging to the "Campaign to Save Munzur" itself or to armed groups like TIKKO, all of these anti-dam activists remain vigilant and more than ever organized in their efforts to stop unwanted infrastructural projects too often started without the prior notice of the DSİ, the Directorate of Forest and Environment, or the construction firms themselves. As a contested space in the political landscape of the Republic, the damming of the Munzur River has given the valley an additional dimension in the larger struggle of Alevi Kurds in contemporary Turkey. By actively resisting the construction of dams, members of the "Campaign to Save Munzur" are fighting against what they see as an encroachment of the state into their lands and into their lives. First instigated by citizens concerned about the valley's ecology, the campaign has grown to express a broader discontent of citizens in the ineffective management of the country's rivers by the state and the relentless march of destruction brought forth by top-down neoliberal projects, infrastructural and other, imposed by its successive governments.

What might seem at times like a desperate struggle against the inevitable, the campaign has nonetheless been successful in slowing down the tide of construction in the valley. After a lawsuit filed at Turkey's Council of State by the lawyer Barış Yıldırım, the Konaktepe Dam, discussed earlier to illustrate the network of construction firms behind the "damming" of rivers in Eastern Turkey, was eventually cancelled in October 2010. 56 The latest judicial victory dates to November 2014 when the decision to effectively stop all ongoing constructions within the borders of the national park was taken. This is no small feat indeed and brings encouragement and hope to activists continuing the battle as new and supposedly more environmentally friendly dams are being prepared to replace the abandoned ones that lacked the appropriate Environmental Impact Statements. Finally, besides succeeding in halting the building of these particularly contested infrastructures, the recurring acts of resistance and ongoing legal battles against dams instigated by the "Campaign to Save Munzur" have raised awareness about their destructive effects across the country and encouraged a greater appreciation of natural and sacred places about to be submerged.

Conclusion

In his ethnographic work on India, Anand describes how "(f)ederal, state and municipal governments have identified infrastructure to be a critical area of state intervention, and have been busy unrolling ambitious plans to construct highways, piped water networks and electricity plants in an effort to make Indian cities (and the nation) 'world class'". ⁵⁷ As promises made to its people, governments understand the importance of building, and just as crucially maintaining, infrastructures. It is therefore no accident that election campaigns in Turkey are filled with promises of roads, bridges, metro lines and dams: each election cycle surpassing the previous one in terms of infrastructural promises.

For instance, highways, airports and bridges are built in İstanbul to transform the city into a cosmopolitan metropolis that will attract more and more foreign investments. A priority for states and municipalities, public works are also at the core of *Hedef 2023*, President Erdoğan's vision for the Republic's centennial anniversary, which, according to the official website of his *Adalet ve Kalkımma Partisi* or Justice and Development Party (AKP), aims to develop wind, geothermal and nuclear energy, build railways, highways and high-speed trains, design satellites and unmanned aerial vehicles, as well as possess one of the world's largest seaports. Infrastructure, after all, is what makes a city, as well as a country, "world class."

Opposed to this never-ending gluttony for infrastructural "development" and an insatiable appetite for monumental construction projects in Turkey, campaigns like the one in Munzur illustrate how people across the country are expressing their dissatisfaction in what successive waves of governments have called "progress." No longer part of the utopian dreams of nations, and associated instead with the broken hopes of displaced people and the destruction of ecological habitats, dams and other such mega-infrastructures are now being incessantly questioned, disputed and opposed. Alevi Kurds have adopted the avatar of environmentalism in their efforts to protect their nature and their culture in the Munzur Valley, shifting ever so slightly the traditional leftist discourses of the Dersim from a socialist struggle against capitalism, imperialism and the state, to an ecological battle, oftentimes against the same foes, for the preservation of nature: in other words, a move for many *Tuncelililer* from "Red" to "Green" political activism.

The negative reaction to dams, however, underlines more than just a post-Cold War dissatisfaction in the building of contested infrastructures and destruction of natural habitats, highlighting in addition the manner in which citizens, with the escalation of identity politics in Turkey, have started to challenge top-down state projects by voicing their concerns and engaging in resistance in and out of the contested spaces themselves. Elsewhere in the country, other political actors like the anti-dam activists in Munzur have taken

up different social causes under different names. What unites them, however, is surely to be found in the commonly shared discontent of neoliberal practices and top-down decisions taken by the successive waves of governments in Ankara in the name of its people, which over the past decades have materialized as contested infrastructures inside Turkish cities as well as across the Anatolian landscape.

Notes

- 1. Bruce Robbins, "The Smell of Infrastructure: Notes toward an Archive", in *Boundary* 2 34:1 (2007): 26.
- 2. Nina Laurie, "Dams", in *Patterned Ground: Entanglements of Nature and Culture*, edited by Stephan Harrison, Steve Pile and Nigel Thrift (London: Reaktion Books Ltd., 2004, 157–9).
- 3. This first part thus summarizes, in essence, a larger project examining the social history of dams in Turkey, which uses an understudied archive composed of files from Ankara's *Devlet Su İşleri* or State Hydraulic Works (DSİ), documents from the World Bank, Turkish and foreign newspaper articles, as well as oral histories of engineers, politicians and the local people most affected by their constructions.
- 4. Dersim corresponds to a zone a little bit larger than the modern district of Tunceli comprising areas populated by Alevi Kurds within the districts of Tunceli, Bingöl, Erzincan and Elazığ.
- 5. Information used to write this second part was gathered very differently from the archive of part one. Leaving behind bureaucratic files and other greyish literature, I have over the last ten years visited Dersim repeatedly, following local lawyers, teachers and municipality representatives during the "Campaign to Save Munzur," visiting the proposed sites of the future dams themselves and recording, up and down the region's valleys and all around its reservoirs, countless stories about dams.
- 6. On infrastructures' supposed invisibility, see Susan Leigh Star, "The Ethnography of Infrastructure", in *American Behavioral Scientist* 43:3 (1999): 380; Susan Leigh Star and Karen Ruhleder, "Steps toward an Ecology of Infrastructure: Design and Access for Large Information Spaces", in *Information Systems Research* 7:1 (1996): 111–34; Geoffrey C. Bowker, Karen Baker, Florence Millerand and David Ribes, "Toward Information Infrastructure Studies: Ways of Knowing in a Networked Environment", in *International Handbook of Internet Research*, eds Jeremy Hunsinger, Lisbeth Klastrup and Matthew Allen (Dordrecht, Germany: Springer, 2010), 97–118; Robbins, "Smell of Infrastructure", 33. For a differing point of view, see the excellent article by Brian Larkin, "The Politics and Poetics of Infrastructure", *Annual Review of Anthropology* 42 (2013): 327–43.
- 7. Şükrü Sönmezer, "Comments on the Influence of the Western Architectural Styles on the Ottoman Water Structures: Case Study Sultan Mahmud II Dam", in *Proceedings of the 1st International Conference on Architecture and Urban Design,* 19–21 April 2012 (Tirana, Albania: EPOKA University, Department of Architecture, 2012, 947–58). Also located in the Belgrade Forest, the Valide Sultan and Topuzlu Dams were built by Krikor Balyan, a member of the Armenian family of architects responsible for, among many other monuments,

- the Dolmabahçe Palace and the spread of this particularly eclectic architectural style in Ottoman Istanbul. On Ottoman architecture in nineteenth-century Istanbul, see Zeynep Çelik, *The Remaking of Istanbul: Portrait of an Ottoman City in the Nineteenth Century*, Publications on the Near East, University of Washington Number 2 (Seattle: University of Washington Press, 1986). On the particular influence of Armenian architects, see Hasan Kuruyazıcı, ed., *Armenian Architects of Istanbul in the Era of Westernization* (Istanbul: International Hrant Dink Foundation Publications, 2010).
- 8. For a discussion of these questions, see for instance Stephen Graham and Simon Marvin, Splintering Urbanism: Networked Infrastructures, Technological Mobilities, and the Urban Condition (London and New York: Routledge, 2001).
- 935 9. Brian Larkin, *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria* (Durham: Duke University Press, 2008, 251).
- 936 10. Fatma Aslıhan Demirtaş, "Artificial Nature: Water Infrastructure and its Experience as Natural Space" (MS thesis, Massachusetts Institute of Technology, 2000, 33–42).
- 11. Star, "Ethnography of Infrastructure", 385.
- 12. Demirtaş, "Artificial Nature", 38–41.
- 2940 13. Zehra Yumurtacı and Ercan Asmaz, "Electric Energy Demand of Turkey for the Year 2050", in *Energy Sources* 26 (2004): 1157–8, accessed February 17, 2014, doi: 10.1080/00908310490441520.
- 14. Feroz Ahmad, *The Turkish Experiment in Democracy: 1950–1975*, The Royal Institute of International Affairs (London: C. Hurst and Company, 1977, 49);
 Feroz Ahmad, "Politics and Political Parties in Republican Turkey", in *The Cambridge History of Turkey Vol. 4: Turkey in the Modern World*, ed. Reşat Kasaba (Cambridge: Cambridge University Press, 2008, 236).
- 947 15. If the US no longer builds dams at home, it exports its expertise abroad once with the help of the World Bank and now with other loaning 948 institutions. Ties established during the Marshall Plan between Turkey 949 and the American government, private companies, and banks, are still 950 resilient as the dams later in this article illustrate. For a discussion of the 951 Incirlik air base's key role in Turkish-US relations, see Selin M. Bölme, "The 952 Politics of Incirlik Air Base", in Insight Turkey 9:3 (2007): 82-91. See also Gingeras in this volume for another US-Turkey relations story during the 953 954
- Greated in 1953, the DSİ, modeled on the United States Bureau of Reclamation, is the government agency responsible for the oversight and administration of Turkey's water resources in relation to energy, agriculture, services and the environment.
- Yeşim Arat, "Süleyman Demirel: National Will and Beyond", in *Political Leaders* and Democracy in Turkey, eds. Metin Heper and Sabri Sayarı (London: I.B.Tauris,
 2002, 88).
- 18. Süleyman Demirel and Aslıhan Demirtaş, "Süleyman Demirel ile Röportaj,
 Interview with Süleyman Demirel", Modern Essays 5 Graft SALT Research,
 accessed on February 17, 2014, http://saltonline.org/en/623/modern-essays-5/.
- 963
 19. Finished in 1974, the rising waters of the Keban Dam reservoir materialized the
 964 "invisible line" mentioned in this volume's introduction by Göçek; it separated
 965 Turkish, Sunni, "modern" and "developed" Elazığ to the south, and Kurdish,
 966 Alevi, "rebellious" and "backward" Dersim to the north.

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- 967 20. Documents concerning the Keban Transmission Line Projects (Appraisal of the Keban Transmission Line Project Turkey and the Report and Recommendation of the 968 President to the Executive Directors on a Proposed Loan to the Republic of Turkey for 969 the Keban Transmission Line Project both dated to October 1968) are available on 970 the World Bank Group's website, accessed on February 17, 2014, http://www. 971 worldbank.org.
- 972 21. For another similar Cold War story, namely the Aswan High Dam constructed on the Nile River in Egypt between 1960 and 1970, see Patrick McCully, Silenced 973 Rivers: The Ecology and Politics of Large Dams: Enlarged and Updated Edition 974 (London: Zed Books, 2001, 238-9); Hussein M. Fahim, Dams, People, and 975 Development: The Aswan High Dam Case (Oxford: Pergamon Press, 1981). For the 976 earlier Aswan Low Dam built in 1902, see Timothy Mitchell, Rule of Experts: 977 Egypt, Techno-Politics, Modernity (Berkeley: University of California Press, 2002, 978 34-6).
- 22. McCully, Silenced Rivers. 979
- 23. Cevat Erder, "Lessons in Archaeological and Monument Salvage The Keban 980 Experience", Monumentum 17 (1978).
- 981 24. See McCully, Silenced Rivers, 281-311 and Laurie, "Dams", 157-9 for the 982 emergence of anti-dam activism across the world beginning in the 1980s. For a 983 broader discussion of environmental activism in Turkey beginning in the 1990s, see Fikret Adaman and Murat Arsel, eds, Environmentalism in Turkey: Between 984 Democracy and Development (Aldershot: Ashgate, 2005). 985
 - 25. Construction after Keban continued first on the Euphrates River with, among others, the Karakaya, Atatürk and Birecik Dams, and later on the Tigris River with the very contested Ilisu Dam. John F. Kolars and William A. Mitchell, The Euphrates River and the Southeast Anatolia Development Project (Carbondale: Southern Illinois University Press, 1991).
- 26. See Göcek in this volume's Introduction. 990
- 27. Leila Harris, "Modernizing the Nation: Postcolonialism, Postdevelopment, and 991 Ambivalent Spaces of Difference in Southeastern Turkey", in Geoforum 39 (2008): 992 1698-1708; "Irrigation, Gender, and Social Geographies of the Changing 993 Waterscape in Southeastern Anatolia", in Environment and Planning D: Society and 994 Space 24:2 (2006): 194. On the ambiguity of the term "Euphrates-Tigris Basin", see Leila Harris and Samer Alatout, "Negotiating Scales, Forging States: Comparison 995 of the Upper Tigris/Euphrates and Jordan River Basins", in *Political Geography* 29 996 (2010): 151. For the connection between the Turkish state's war with the PKK and 997 the function of the GAP, see also Aksov in this volume. 998
- 28. Hugo de Vos, Joost Jongerden and Jacob van Etten, "Images of War: Using Satellite Images for Human Rights Monitoring in Turkish Kurdistan," Disasters 32:3 (2008), 449-66; Martin van Bruinessen, "Forced Evacuations and Destruction of Villages in Dersim (Tunceli), and Western Bingöl, Turkish Kurdistan September-November 1994", in Report by Stichting Nederland-1002 Koerdistan (1995): 15-6.
- 1003 29. As of August 2015, out of the 26 projects in the Tunceli district, four dams and 1004 two HEPPs have already been built while the rest are either under construction 1005 or in the planning stage. On the Munzur River itself, three projects out of eight (the Uzunçayır Dam in 2009, the Mercan HEPP in 2003, and the Dinar HEPP in 1006 2010) have already been put in operation. The other five have either been 1007 cancelled (the Bozkaya Dam and Konaktepe Dam and HEPP as I explain later) or 1008

- are about to be (the Akyayik and Kaletepe Dams) because of their location within the Munzur Valley National Park itself. The status of these dams, however, is constantly changing.
- 30. As such, the Munzur Valley constitutes another case-study of the dynamic relationship between state, society, and the environment in Turkey, as illustrated elsewhere in this volume by Soylu, Akbulut and Adaman.
- 1014 31. On the contested identity of Alevi Kurds in contemporary Turkey, see Martin van Bruinessen, "'Aslını inkar eden haramzadedir!' The Debate on the Ethnic identity of the Kurdish Alevis", in *Working paper, Centre for the Study of Asia and*
- the Middle East, Deakin University, Malvern, Victoria (Australia) (1997); "Kurds, Turks and the Alevi revival", in Middle East Reports 200 (1996): 7–10; and Leyla
- Neyzi, "Embodied Elders: Space and Subjectivity in the Music of Metin-Kemal Kahraman", in *Middle Eastern Studies* 38:1 (2002): 89–109.
- 1020 32. Van Bruinessen, "Forced Evacuations in Dersim", 13.
- $_{1021}$ 33. For more details on the "rebellion" in Dersim, see the pioneering work by $_{1022}$ Ismail Beşikçi, *Tunceli Kanunu (1935) ve Dersim Jenosidi* (Istanbul: Belge
- Yayınları, 1990), which describes the suppression as an attempted
- genocide; and Martin van Bruinessen, "Genocide in Kurdistan? The Suppression of the Dersim Rebellion in Turkey (1937–38) and the Chemical
- War against the Iraqi Kurds (1988)", in Conceptual and Historical Dimensions
- of Genocide, ed. George J. Andreopoulos (Philadelphia: University of Pennsylvania, 1994).
- 1028 34. Van Bruinessen, "Forced Evacuations in Dersim", 15.
- 35. Uğur Ümit Üngör, *The Making of Modern Turkey: Nation and State in Eastern Anatolia, 1913–1950* (Oxford: Oxford University Press, 2011). See also Yüksel in this volume.
- 1031 36. On infrastructures as a relation, see Star, "Ethnography of Infrastructure", 380, and Star and Ruhleder, "Ecology of Infrastructure."
- 37. Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s", in *Socialist Review* 80 (1985): 65–107; Constance Penley, Andrew Ross and Donna Haraway, "Cyborgs at Large: Interview with

Donna Haraway", in *Social Text* 25/26 (1990): 8–23.

- 1036 38. McCully, Silenced Rivers, 29–64.
- 1037 39. Cheril Payer, *The World Bank: A Critical Analysis* (New York: Monthly Review 1038 Press, 1982, 250–1).
- 40. Van Bruinessen, "Forced Evacuations in Dersim", 35; Bilgin Ayata and Deniz Yükseker, "A Belated Awakening: National and International Responses to the Internal Displacement of Kurds in Turkey", New Perspectives on Turkey 32 (2005): 5–42.
- 1042 41. AbdouMaliq Simone, "People as Infrastructure: Intersecting Fragments in Johannesburg", *Public Culture* 16:3 (2004): 407.
- 1044 42. *Ibid.*, 410. See also AbdouMaliq Simone, *For the City Yet to Come* (Durham: Duke University Press, 2004).
- 43. Marie Le Ray, "Associations de Pays et Production de Locality: La 'Campagne Munzur' contre les Barrages", in *European Journal of Turkish Studies, thematic issue* 1047 n°2, Hometown Organisations in Turkey (2005): 41, accessed on January 15, 2014,
- url: http://ejts.revues.org/370.
- $_{1049}$ 44. The entire Konaktepe facility would have included a 100 m-high dam, a 15 km-long tunnel and a powerhouse with two Francis turbines generating a total of

- 1051 180 MW of electricity. I explain later in the article how, after multiple protests and a lawsuit, its construction was stopped. 1052
- 45. According to their website, Stone & Webster was involved in installing the first 1053 transmission line across the Bosphorus in 1965. Over the last 30 years, it has 1054 undertaken at least 30 projects in Turkey. According to the European Rivers 1055 Network (http://www.rivernet.org/ accessed on January 15, 2014), the company 1056 has also recently obtained the authorization to mine uranium in the region.
- 46. VA Tech Hydro GmbH's work in Eastern Turkey also includes the Atatürk, 1057 Birecik and Ilisu Dams. 1058
- 47. ATA Holdings has been blamed for taking shortcuts to save money in the 1059 construction of the earlier Atatürk Dam. Maggie Ronayne, The Cultural and 1060 Environmental Impact of Large Dams in Southeast Turkey (London: KHRP and 1061 National University of Ireland, Galway, 2005, 48).
- 1062 48. The Export-Import Bank of the United States is a government export credit agency that provides loans and insurances to US companies in order to help 1063 them export their goods and services abroad. According to its website, its stated 1064 goal is to create jobs at home by financing US companies working outside of the 1065 country. 1066
- 49. Ferit Demir, "Alevilerin kutsal mekanı için yıkım kararı," Hürriyet, June 22, 1067 2013, accessed January 15, 2014, url: http://www.hurriyet.com.tr/gundem/ 23558067.asp. 1068
- 50. For a discussion of the successive Kurdish political parties in Turkey, including 1069 the BDP, see Nicole Watts, Activists in Office: Kurdish Politics and Protest in Turkey 1070 (Seattle: University of Washington Press, 2010). 1071
- 51. For a discussion of the politics of the historic site of Hasankeyf and its many 1072 medieval monuments threatened by the construction of the Ilisu Dam, see 1073 Aksoy in this volume, as well as Maggie Ronayne "Archaeology against Cultural Destruction: The Case of the Ilisu Dam in the Kurdish Region of Turkey", in 1074 Public Archaeology 5 (2006): 223-36; Daniel Shoup "Can Archaeology Build a 1075 Dam? Sites and Politics in Turkey's Southeast Anatolia Project", Journal of 1076 Mediterranean Archaeology 19:2 (2006): 231-58.
- 1077 52. See Aksoy in this volume for a longer discussion of Turkish and Kurdish 1078 musicians taking up the cause of environmentalism and Kurdish rights.
- 53. Le Ray, "Associations de Pays," 2–4. 1079
- 54. On the Alevi diaspora, see Elise Massicard, "Alevist Movements at Home and 1080 Abroad: Mobilization Spaces and Disjunction", in New Perspectives on Turkey 1081 28-9 (2003): 163-187; Neyzi, "Embodied Elders." See Jean-François Pérouse, 1082 "Phénomène Migratoire, Formation et Différenciation des Associations de 1083 Hemşehri à Istanbul: Chronologies et Géographies Croisées", in European 1084 Journal of Turkish Studies, thematic issue n°2, Hometown Organisations in Turkey 2 (2005) (English translation available on Jean-François Pérouse's academia.edu 1085 website) for a discussion of hemsehri dernekleri or hometown associations in 1086 Istanbul, through which Alevi Kurds and others actively maintain social links 1087 after migrating.
- 55. This extreme form of police brutality constitutes another grim example of what 1089 Göçek refers to in this volume's introduction as the dark side of Turkish neoliberalism. 1090
- 56. Designed soon after the DSI's master plan in 1983, the project at the time did 1091 not require any Environmental Impact Statement. The license later awarded to 1092

the engineering firms by the country's Energy Market Regulatory Authority was withdrawn on the count that environmental degradation had not sufficiently been taken into account.

57. Nikhil Anand, Johnathan Bach, Julia Elyachar and Daniel Mains, "Infrastructure: Commentary from Nikhil Anand, Johnathan Bach, Julia Elyachar, and Daniel Mains", *Curated Collections, Cultural Anthropology Online,* November 26, 2012, accessed January 15, 2014, url: http://www.culanth.org/curated_collections/11-infrastructure/discussions/6-infrastructure-commentary-from-nikhilanand-johnathan-bach-julia-elyachar-and-daniel-mains.

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