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## Perspectives

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**Figure 1**  
 Babur supervising the laying out of the Garden of Fidelity. Miniatures from an illustrated copy of the *Baburnama* prepared for the author's grandson, the Mughal Emperor Akbar, attributed to the painters of Babur via Wikimedia Commons.

Flora J. Roberts

## Places in Translation: Of Rivers and Dams in Central Asia

The Emperor Babur (1483–1530), homesick ruler of Mughal India, owes a large part of his reputation today to his memoir. In the *Baburnama*, he channeled nostalgia for his native lands into lyrical descriptions of his birthplace in the Ferghana Valley. From his vantage point at the center of his newly founded empire in Agra, he lovingly described the landscapes, familiar sights, smells, and tastes of the valley in which he was born—and to which he would never return—a thousand miles to the north. In his memoir, Babur praises the violets, tulips, and roses of Osh, the great irrigation canals, and the beautiful orchards found in Akhsi. As an environmental historian of the Ferghana Valley currently based in Western Europe, Babur's writings are a precious resource for me, and I feel a distinct kinship with his nostalgia and keen sense of place.

Babur lingers over the astonishing variety of delicious fruits grown in the Ferghana Valley, many of which he associates with specific towns: the *subhani* apricot and the *dana-i kalon* (big seed) pomegranate of Marghilan, the almonds of Isfara, the *Mir-Timuri* melons from Akhsi, the excellent grapes and *ashpati* melons of Andijan.<sup>1</sup> Being distinctly less impressed by many of the fruits and trees of his new home (though he did appreciate the mangoes), the Emperor Babur ordered gardens be laid out in Agra, which can still be visited today. In figure 1 we see Babur in a yellow cloak, supervising work in the garden, which has already been planted with several pomegranate trees.

I have brought back apricot stones from my research trips to the Ferghana Valley and planted them in the Tuscan countryside where I grew up. For the past four years, while based at the University of Tübingen, I have been working on a project I call *The Sea in the Valley*, an environmental history of the Syr Darya river as it runs through the Ferghana Valley, which today is shared between Uzbekistan, Kyrgyzstan, and Tajikistan. The Syr Darya is a generous river. From its impetuous birth in the Tien Shan mountains it follows a leisurely flow through the whole Ferghana Valley from east to west, varying its course here and there over time, and looping continuously as it bestows the rich deposits that have given the valley its legendary fertility.

1 Babur, *The Baburnama in English (The Memoirs of Babur)*, translated by Annette Susannah Beveridge, (London: Luzac & Co, 1922), <https://archive.org/details/baburnamainengli01babuuoft/page/6>.

Plenty of delicious fruit continues to be grown in the bountiful valley, the most densely populated area of Central Asia, but today Ferghana's most important crop is cotton. The rapid expansion of cotton across the valley began in the nineteenth century following the region's conquest and incorporation into the Russian Empire, sharply increasing during the mid-decades of the twentieth century under Soviet rule. After crossing the Ferghana Valley, the Syr Darya passes on through hundreds of miles of relatively arid steppe land before eventually pouring into the Aral Sea. During the Soviet period, it was determined that any drop of water—whether from the Syr or the Amu, the region's other major river—that happened to reach the Aral was a drop of water wasted. It was also determined that cotton should always receive the highest water allocations in preference to any other crop. Under Khrushchev, thousands more acres of previously uncultivated steppe were sown with cotton.

The twin goals of reaching cotton autarky—so that the Soviet Union would no longer be obliged to buy raw cotton from its Cold War enemies—and of kick-starting the region's industrial development led to the construction of a series of large dams along the Syr Darya river. These dams, in combination with the hundreds of miles of channels irrigating cotton sown on former steppe land, drastically reduced the volume of water reaching the Aral Sea, thus precipitating the demise of one of the world's largest inland water bodies. The slow agony of the Aral Sea continues to create new, largely silent victims.

As I see it, environmental history extends social history's commitment to giving voice to the voiceless *beyond* human communities, proposing to consider the mutual interactions over time between people and their ecosystems—flora, fauna, and landscapes (mountains, rivers, swamps, and forests). In my research, I chart the relationship, as it developed in modern times, between the Ferghana Valley and the river that sustains it, the Syr Darya. My story centers on one Soviet era dam built at Kairakkum in 1956, which created a large reservoir known as the Tajik Sea. Through archival documents, interviews, memoirs, and environmental fieldwork guided by local ecologists, I seek to plot the cascade of consequences, intended and otherwise, that stemmed from the decision to block the Syr Darya's path, and the attitudes towards nature informing that decision. The voices that I uncover, unsurprisingly, do not speak in unison—working like a detective, I try to assess the register, intended audience, and motivations of each before being able to craft a coherent narrative that reflects the historical truth as

I see it. The advent of the Anthropocene demands that we take seriously the profound interdependence of humans with other life forms and take stock of the potentially irreversible impact of human activity and technology on the landscape.

The path that led me to study rivers in Central Asia and the footprint of a dam has a few twists and turns. I was born in Florence and raised in the beautiful hills south of the city, free to roam as I pleased through the olive groves with my brothers and sister. I studied Classics at Oxford, continuing the direction set by my Italian Liceo Classico. Upon graduating with no clear career plans in mind, I moved to London where I benefitted enormously from internships at the Refugee Council, the Fairtrade Foundation, and openDemocracy. In hindsight, each of these internships brought me urgent evidence of a profound and dangerous imbalance in humankind's relationship with the natural world. Harriet Lamb, my wonderful boss at the Fairtrade Foundation, described meeting babies with horrific birth defects born to banana plantation workers whose Del Monte bosses advised them to "stay inside" their straw huts whenever the crops were being doused with pesticides by helicopter. Meanwhile, most of the battered and yet strong refugees I met at the reception center in south London were fleeing precarious existences in fragile natural environments where twentieth-century modernization drives had led to accelerating desertification, habitat loss, and forced migration.

London, a central node in global capitalism, sucked in rivers of riches and resources, with a few lucky fugitives slipping in through the cracks—but I wanted out. Having made a pact with my traveling companion, an aspiring Persianist, I left a great job at openDemocracy for a leap into the unknown of Tajikistan where we would become freelance English teachers. We chose Tajikistan, as the safest of the Persian speaking nations, in preference to Iran and Afghanistan. As a classicist, it comforted me to know that the city we were headed to—Khujand—had been visited by Alexander the Great, who called it Alexandria Eshkata, the furthestmost Alexandria.

And what did we see there, in 2003? Tajikistan, predominantly Muslim, agricultural, and very poor, clearly belonged in Asia, and yet it was also an OSCE member state whose local field office organized popular summer camps for teenagers, and so also, somehow, partly European. Most urbanites lived in rather familiar 1970s apartment blocks where everyone seemed to have read *The Count of Monte Cristo* and had mid-

**Figure 2**  
Bahoriston resort,  
north bank of  
the Kairakkum  
reservoir, aka the  
Tajik Sea, 2017.  
The manicured  
lawn and artfully  
landscaped pool in  
the foreground con-  
trast with the forest  
of high voltage  
electricity pylons  
from the nearby  
hydroplant visible  
in the background.



dle-class aspirations, such as a nice car, an office job, and weekends in the countryside. Unlike most of the country, which is mountainous, Khujand lies in the Ferghana Valley and is the valley's only city to have been built on the banks of the Syr Darya river, which bisects it. I was taken to apricot orchards, between the city limits and the expanse of cotton beyond, and began to hear stories of the upheavals the twentieth century had visited upon the local population.

The favored destination for relaxing at the weekends, then and now, was by the shores of the so-called “Tajik Sea,” the large reservoir created just a few miles upstream of the city of Khujand by the dam commissioned in 1956. The Tajik sea is widely acclaimed on social media and in daily conversation as a place of great beauty with a perfect, health-giving climate: there is a large sanatorium on its shores, as well as several summer camps and simple holiday resorts. These aesthetic properties are far more prominent in discourse today than the economic rationales that animated the project's early years, when it was hoped that electricity generated due to the Tajik Sea would spearhead the region's industrialization, while its waters were to feed thousands of acres of cotton.

Press coverage in the 1950s, in both local (Tajik language) and all-Union (Russian language) newspapers, celebrated the dam at Kairakkum—a toponym glossed as “black

emery sands”—as bringing new life to an arid wasteland, an empty desert where the oppressive silence would only occasionally be “pierced by the cry of a solitary eagle.”<sup>2</sup> The dam was touted as a “fraternal collaboration,” to which not only the neighboring republics of Uzbekistan and Tajikistan contributed but also thirty-five other nationalities, according to official propaganda at the time. A Russian poet, Kirillov, waxed lyrical about the speed with which a garden city had sprung up on the shores of the sea that had submerged the “khanate of lizards and stones.” In reality, thousands of collective farm workers were recruited to the site, who under the supervision of Russian engineers and specialists toiled under the hot sun with rudimentary tools to bring the project to fruition.

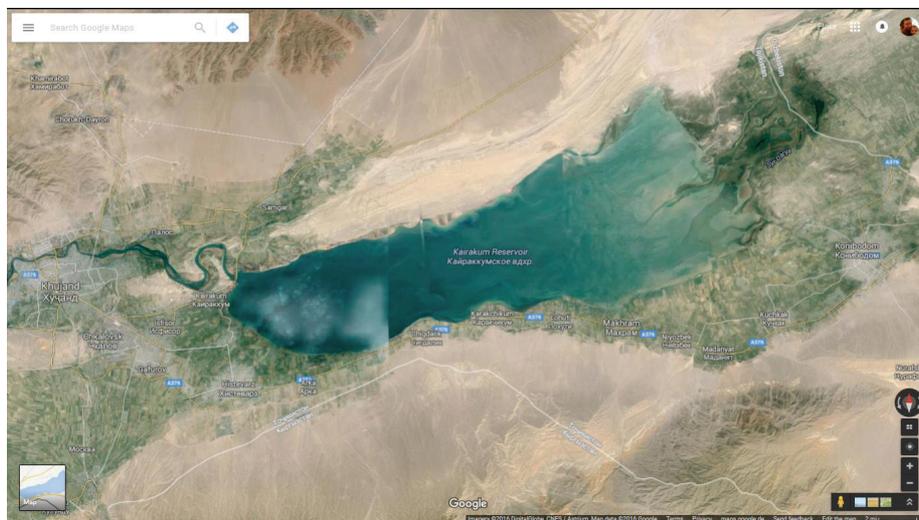
I did not realize until I began researching the Kairakkum dam that the project had been very controversial and bitterly contested by the leadership of the Tajik Communist Party.<sup>3</sup> Local leaders mourned the hundreds of acres of orchards and cotton fields to be submerged by the reservoir, alongside the “empty” steppe land focused on by propaganda. They argued that if—as was often alleged—hydropower was the main goal, a dam much further upstream in the mountains would be more efficient. Furthermore, at higher elevations less water would be lost to evaporation, allowing for greater storage capacity. These valid objections were disregarded, as the Kairakkum dam was also expected to regulate flow (and thus maximize capacity) for the hydropower station downstream in an important industrial region. If the perspectives of local party leaders, whose letters to Moscow I was able to track down in the central archives, were ignored, the suffering and resilience of those most directly impacted hardly made it into the historical record at all.

In May of 2018, I entered the home of an elderly Uzbek lady living alone in an almost derelict house in the town built beside the Kairakkum dam in the 1950s. I was hoping she would agree to an interview and tell me her life story, which she did. Following a quick introduction and minimal prompting, she began in a hoarse, keening voice in a headlong mix of Tajik and Uzbek to describe how she had been brought there as a child by her peasant parents, drafted to dig out the construction site with simple mattocks. No housing was provided, and her family were reduced to living in a dugout—a

2 “Na beregakh Syr Dar’i” (On the shores of the Syr Darya), *Izvestiia*, 16 February 1955. Article credited to the editors of the Leninabadskaiia Pravda regional newspaper.

3 Flora J. Roberts, “A Controversial dam in Stalinist Central Asia: Rivalry and “Fraternal Cooperation” on the Syr Darya,” *Ab Imperio*, no. 2 (Feb 2018): 117–143.

partially shaded hole in the ground, exposed to stifling summer heat by day and a desert chill by night. She mimed the cutting motion her mother used to share out tiny slices of bread for her children, several of whom died in the first few months on the site. Drinking water was scarce, and the workers and their family were constantly parched. The suffering and confusion of those years seemed as sharp in her telling as if it were yesterday, surely in part because the intervening years had hardly been gentler. Of the grand visions of modernization and development that echoed around the dam project, she had nothing to say. She had never received an education and had toiled for decades on a nearby collective farm before retiring on a miserable, ever-dwindling pension.



**Figure 3**  
The Tajik Sea, as  
seen on Google  
Earth, 12 January  
2016

The dam at Kairakkum was given the green light and left—I argue—an outsized footprint on human and nonhuman life in the valley because of all the competing ministries, economic goals, and political agendas it was supposed to satisfy. The high rate of evaporation, though injurious to irrigation aims, palpably transformed the microclimate, while the slow flowing river almost immediately began to silt up the eastern end of the reservoir.

Contemplating the brief but tumultuous life span of this artificial “Sea in the Valley” is what made an environmental historian out of me. Nothing seems more important than to use our voices and historical training to parse out the effects of human attempts to harness and transform nature. Yet questions still remain: How does one write about nature in a way that gives due weight to human and nonhuman agency, without overdetermining either? How best to acknowledge both the joy and solace that the artificial Tajik Sea brings to those who visit her, as well as the pain, economic devastation, and loss caused by its construction? This is the challenge I have set myself in researching and writing about the “Sea in the Valley.”