

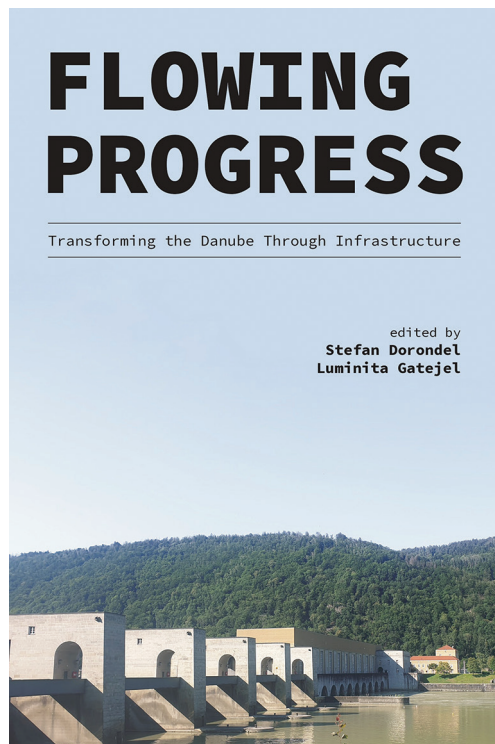
BOOK REVIEW SECTION

Dorondel, S. and Gatejel, L. (eds.): *Flowing Progress: Transforming the Danube Through Infrastructure*. West Lafayette, Indiana, Purdue University Press, 2025. 324 p.

Flowing Progress is a unique and fresh compilation of studies on the environmental history of river Danube from the 16th to the 21st centuries featuring an exciting theoretical framework. The book's premise (p. XI) is that the development of modern water infrastructure is not only a catalyst for physical and ecological change, but also a civilizational achievement and a political and economic instrument of power that interacts with the local population and the natural environment. The ten studies in the book provide strong evidence of this, as they explore modernization processes, the relationship between water, power, and the environment, and the connections between various levels – local, regional, national, and international – through the history of dams, bridges, power plants, and other elements of infrastructure.

Despite the title *Flowing Progress*, the chapters are not *in-progress* reports of research but finished works with a clear narrative. Although the term *flow* plays an important role in the book, the key concept is *disturbance*. Therefore, the title of the introduction fits better to the whole volume: *Disturbance. Danube River, Infrastructure, State*. This original term, disturbance, recalls Fernand BRAUDEL's *longue durée* perspective (BRAUDEL, F. 1958), where the long-term natural balance is suddenly disrupted – or disturbed – by man. A disturbance is a relatively rapid process (which may even be a cataclysm, e.g. a flood) that causes the landscape and ecosystem to be reorganized. Going beyond this approach, the editors of the volume, Stefan DORONDEL and Luminita GATEJEL, emphasize that disturbance is not a one-way process, but rather a circular interaction between hydrological processes and technopolitical and economic practices (p. 3). This is closely linked to the concept of the *socio-natural site*, which delineates the landscape of the co-evolution of nature and society. Two senior researchers, Verena WINIWARTER and Martin SCHMID used this term describing the Austrian section of the Danube (WINIWARTER, V. *et al.* 2013, 2020), and their work can be regarded as a direct precursor to the current volume. Moreover, SCHMID, in collaboration with two co-authors, Gertrud HAITVOGL and Severin HOHENSINNER, contributes a study to *Flowing Progress* as well, emphasizing the autonomous role of technological systems, independent of social and ecological ones, in the disturbance (p. 270).

The editors highlight three key aspects of the research: natural and politico-economic dynamics, multiple scales, and flow. We can also distinguish a pre-modern and a modern era: from the second half of the 19th century, the construction of state infrastructure – driven by the capitalism, and the fossil-fuel-powered machinery (p. 268) – had a far more radical impact on the Danube's water flow than previously. The creative interpretation of the term *flow* – which is etymologically related to flood (in German: *Fluss*) – also appears in the dichotomy of discontinuity and continuity, and of the human and the natural. The concept of disturbance goes beyond mere description and is suitable for highlighting the agency of the river, as well as for connecting premodern and modern re-creation of the landscape, to demonstrate that modernity is not necessarily a new, unique phenomenon (pp. 11–12). Infrastructure itself can be examined from numerous



perspectives, it possesses both semiotic and aesthetic dimensions as Brian LARKIN's paper *The Politics and Poetics of Infrastructure* emphasizes which is cited in several chapters (LARKIN, B. 2013).

A difficult task of editing thematic volumes is to ensure cohesion among the individual studies. The editors have done an excellent job in this regard: the concept of disturbance appears in almost every chapter, and they are linked by numerous cross-references, too. Although numerous new river histories were published over the past two decades (EVENDEN, M. 2018), the Danube has remained in the background of research compared to many other international rivers, partly due to linguistic difficulties. This volume features studies based on primary sources and presenting new findings from researchers working in seven countries. Although the book's subtitle (*Transforming the Danube Through Infrastructure*) highlights the entire river, the volume focuses on the Lower Danube, specifically the section between Belgrade and the Black Sea: six of the ten studies deal with this area. The volume is based on two completed research projects, both focusing on the Lower Danube. One of them was supported by the Leibniz Institute for East and Southeast European Studies (IOS), Regensburg (Contested Waterway: Governance and Ecology on the Lower Danube, 1800–2018), the other by the Romanian Ministry of Research and Education (State, Communities and Nature of the Lower Danube Islands: An Environmental History, 1830–2020). The editor Stefan DORONDEL, lead researcher at the Francisc I. Rainer Institute of Anthropology of the Romanian Academy, has an unusual pair of doctoral degrees: one in history and ethnology, and another in agricultural economics. This also shapes his interest in the post-socialist agricultural transition and its environmental implications. The other editor, Luminita GATEJEL, senior researcher at the IOS, published a book recently about the technological and imperial cooperation at the Lower Danube. Although none of the editors has a research profile focused exclusively on environmental history, and only a minority of the authors identify themselves as environmental historians, the theoretical framework presented and the agency of the river makes places this volume in the field of environmental history. The book is organized logically: the chapters are in chronological order, followed by two studies connecting premodern and modern times. Formally, this book is a well-done work: the layout is aesthetic, and there is a useful index at the end.

The first study examines two cases – the 1566 siege of Szigetvár (Hungary), and the 1579 reconstruction of the three bridges at Turnu Măgurele (Romania) – to illustrate how the Ottoman Empire utilized the Danube in various situations. The two authors, Deniz ARMAÇAN AKTO and Onur İNAL, argue that the Ottomans did not seek to transform the rivers, but rather operated by adapting best practices from other

parts of the empire to local conditions and through interactions with the local population. For example, the population of Turnu Măgurele participated in the construction and maintenance of bridges at the request of higher authorities, and at the Iron Gate – a critical narrow part of the Danube for navigation – they established a special office called *whirlpool chieftain* to ensure the safe passage of ships. Applying the concept of the socio-ecological system allowed us to gain a deeper understanding of the environmental aspects of using the river.

In the second study, Luminita GATEJEL demonstrates how, in the 1830s and 1840s, state officials in Wallachia after the strict Ottoman rule, and the city leaders of Giurgiu, situated in a strategic location along the Danube, reshaped the waterfront. After the Russian army demolished the walls of the city's Ottoman fortress in 1829, the path to modernize the city was opened. From the perspective of the Danube, this was shaped by floods and state flood control measures, while the new embankment also became part of the modern city's public infrastructure, thus, restructuring the relationship between people and the environment through disaster management infrastructure. The transition between the premodern and modern eras is indicated by the fact that technical know-how and administrative reforms transformed the principality into a modern bureaucratic state.

The following third chapter, by Constantin ARDELEANU, examines the operations of the European Commission of the Danube (ECD) and the State Fisheries Service (SFS) in the Danube Delta at the turn of the 20th century, as seen through the work of two leading engineers. Although political interests prevented direct competition between the two "hydraulic missions" before World War I, their differing perspectives became sharply evident in the management of Lake Razim, located near the Black Sea coast. The ECD, an "imperial technopolitical organization", prioritized shipping, while the SFS, a "technonationalizing project", preferred fishing because of food security. The latter relied on the ECD's maps and surveys, which shows that, despite their opposition, both similarly represented the nature-transforming, high-modernist agenda. It would have been also interesting to compare the operations of the two organizations based on additional criteria, such as the nature of their operations and the ways in which they advocated their interests to the Romanian government.

The following two studies focus on the period between 1918 and 1945. In the fourth chapter, Steven JOBBITT demonstrates how hydrogeographical and water management arguments were used to support the cause of Hungarian interwar revisionism. Hungarian geographers and hydraulic engineers, in fact, described the Treaty of Trianon as a natural disaster or disturbance. According to their arguments, the unity of the Danube's and – especially the river

Tisza's – watersheds the main river of the eastern part of the Kingdom of Hungary prior to 1918 – as well as the water management works carried out, entitled post-World War I Hungary to possess these territories. The presentation of Hungarian water management developments in the 19th century is quite lengthy, and its main point is only stated at the end of the study: the river regulation primarily served the agricultural interests of large landowners. JOBBITT points out that, due to the new borders, most of the Hungary's river water came from abroad, thus, leaving the country vulnerable. The quoted 1930 newspaper article, which compares the situation of Budapest's drinking water to the Treaty of Trianon, is fascinating.

Stelu ȘERBAN's study examines the impact of the March 1942 Danube flood in the Vidin region, based partly on interviews. The most significant part of the story is the recovery: despite World War II, the immediate action taken by authorities and leaders enabled the state to strengthen its weak position in the region, for a long time. The aid made no distinction on ethnic grounds, and involved personal sacrifice, not only at the local level but also to the government. Petar GABROVSKI, the minister of internal affairs and public health, and his officials personally donated large sums toward reconstruction. Șerban explains this through the theory of the *affective state* derived from colonial studies, which, building upon Max WEBER's concept of the rational functioning of the modern state, emphasizes the acquisition of control through emotional attachment (STOLER, A.L. 2007). A key aspect and an interesting development in the research are the examination of how various actors describe the flood: as a neutral, tragic, typical, or unique phenomenon.

Two studies focus on the Cold War period. In the sixth chapter of the book, Robert NEMES investigates the local effects of the 1956 Danube flood in Hungary in the village of Dunavecse, primarily based on newspaper articles. Although no shared narrative emerged, local, regional, and government authorities attempted together to regain control over nature. This, combined with the size of the catastrophe, resulted that for the people of Dunavecse, the flood is more memorable from that year than the anti-Soviet Hungarian Revolution. In this chapter, as well as in the previous one, it could have been fruitful to use the theory of disaster history (OLIVER-SMITH, A. 2002; HOLM, I. 2012) and possible analogies of catastrophes (e.g. HALL, A. 2011).

Constantin IORDACHI explores the history of the Danube–Black Sea Canal, in the Danube Delta. Although he also adopts the concept of socio-natural site, he proposes the concept of *industrialized nature* as an alternative to the dichotomy between society and nature. He distinguishes the history of socialism from that of global infrastructure through four points: ideology-driven social engineering, the ad-

aptation of earlier Western developments, the prioritization of quantitative industrial growth, and a lack of efficiency. The accompanying photographs are revealing, as they simultaneously depict the various eras: the pre-1945 era, the structures of socialism, and those of post-socialism—the text could have devoted even more space to these photos. An important connection to ARDELEANU's study, that during the Cold War, the European Commission of the Danube was followed by two commissions, an Eastern and a Western one. While during the socialist era – similar to ARDELEANU's chapter – the structures in the Danube Delta were established as imperial projects, the new post-socialist projects were not: they were launched in response to the old ones, and the conservation perspective opposing industrial use became increasingly significant, as in the case of the Văcărești Natural Park in Bucharest.

Stefan DORONDEL writes about the April 2006 flooding of the Danube, which destroyed 115 houses in the Romanian village of Rast. This ethnographic study commendably employs the concept of natural disaster (OLIVER-SMITH, A. 2002). The main research methods are fieldwork and interviews, during which the author ingeniously had the participants draw the flood's path on a map. His concluding observation is that the new infrastructure built after the disaster does not alleviate but rather exacerbates the tension between people and the river.

The last two studies provide a comprehensive overview. In the ninth chapter, Milica PROKIĆ examines the Great War Island, an island in Belgrade, from the 16th century to the present day. Since the island's function, size, and shape have all constantly changed throughout history, she suggests the framework of amphibious anthropology to address the land–water binary. This explains the near-total absence of infrastructure – making this chapter something of an oddity in the book. Once of military significance in the early modern period and bombed several times in the 20th century, the island is now an “urban oasis” in the Serbian capital.

The last chapter by Gertrud HAIDVOGL, Severin HOHENSINER, and Martin SCHMID is also unique: it is the only one that focuses on the Upper Danube, and it perhaps makes the most profound use of the concept of disturbance. It emphasizes the critical role of infrastructure, which also leads to undesirable path dependency. Based on a long-term overview of the transformation of three areas—the Danube in Vienna, the Machland, and the river Traisen, tributary of the Danube. The study identifies three zones along the rivers. First, the river's most frequently used channel, which also serves as a navigation corridor, alongside mill canals were built in premodern times. The second is the constantly changing riverbank, which was radically transformed by floodplain colonization beginning in the second half of the 19th century. The

third consists of nearby, dry, higher elevations—the traditional sites of settlement. In the second half of the 20th century, large dams and hydroelectric power plants aided river regulation: in cities, people, thus, moved closer to the riverbanks, and the value of their properties increased. With the narrowing of the floodplain, floods grew once again, and the cyclical process between nature and infrastructure continued.

As we have seen so far, one of the book's strengths is that the case studies, in most instances, offer conclusions not only for the micro, but for the macro level, and even suitable for comparison. In several instances, there is also an intention for a global perspective; however, in the absence of adequate context and explanation, this seems forced. Examples include the mention of globalization among the transformational drivers in the transformation of river landscapes by technological systems (p. 289), or "globalizing infrastructure" in connection with the 19th-century Danube (p. 6). When considering potential global implications, it is worth noting two important limitations. The first is that the primary physical boundary of a river's influence is the edge of its watershed. The other is that the book focuses on certain areas of Central Europe and the Balkans, whose states were not directly involved in the colonial competition and, thus, did not play a central role in the global flow of ideas, knowledge, and technology related to water engineering. The editors also use the term "flow" to refer to the movement of things other than water, but this leads to an irrelevant discussion of flow as a metaphor for globalization (pp. 7–9). The book's introduction concludes with a warning about the future, particularly regarding megaprojects. In 2014, approximately 3,700 hydropower plants were in the planning stages or under construction, which could lead to numerous serious ecological and social consequences, some of which may be unexpected. It should be noted that since the 1980s, social resistance strengthened globally (KANJEEV, S. 2015), and several reserves are being established to protect the natural environment and ensure its sustainable coexistence, such as the Văcărești Natural Park. Overall, however, the book is not a warning book but rather a guidebook that introduces readers to the environmental history of a region that has received little attention until now. The Danube, as an international river, provides a good opportunity for comparison, and the editors have taken full advantage of this opportunity to produce a volume that is well-focused on its subject. We are confident that the approach they have taken will inspire further research.

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