Egy határfolyó környezettörténete: Háború és vízgazdálkodás a kora újkori Rába-völgyben [Environmental history of a boundary river: War and water management in the early modern Rába Valley]. By András Vadas. Budapest: Bölcsészettudományi Kutatóközpont, Történettudományi Intézet, 2021. 332 pp.

As Gábor Ágoston, professor at the Georgetown University in Washington and renowned scholar of early modern Hungarian history, observes, "[a]s in other parts of the world, border defense systems along the Ottoman-Hungarian/ Hapsburg frontier often followed major rivers and used river systems, marshlands, mountains and other natural defensive features that geography offered."1 Ágoston also notes that "[w]ar conditions demanded military work on waterways, such as creating protective marshes. On plain lands, protection was secured by building castles in river estuaries and river bends or by routing water via canals from nearby rivers, streams, or marshes into ditches dug around the castles."2 The Rába River, or more precisely the parts of this river under discussion, served as a good example of this in the first half of the seventeenth century. András Vadas, assistant professor at the Institute of History at Eötvös Loránd University, Budapest, intends to clarify the "sketchy picture" (p.45) we have of the river with the help of primary sources. However, he approaches the topic from the point of view not of military events, but of environmental changes (p.11). This widens the focus of the analysis to economic and territorial issues and problems of local risk management.

The strength of the work is its thorough use of the secondary literature and the analytical tools Vadas has chosen to handle his sources. Vadas' reflections on earlier research include developments in the study of the climate, forests, and waters of the early modern Pannonian Basin, situating his discussion of these issues in the international secondary literature. He does so by adopting an interdisciplinary approach to the topic, including works on history, the natural sciences, and technology. Vadas pays particular attention to the debates in

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¹ Gábor Ágoston, "Where Environmental and Frontier Studies Meet: Rivers, Forests, Marshes and Forts along the Ottoman—Hapsburg Frontier in Hungary," *In The Frontiers of the Ottoman World*, edited by Andrew C. S. Peacock, (Oxford: Oxford University Press, 2009), 57–79, doi:10.5871/bacad/9780197264423.003.0003 66–67.

² Ágoston, "Where Environmental and Frontier Studies Meet," 76.

the scholarship and evaluates them, for example, by drawing attention to the shortcomings in the handling of sources in the existing literature on Hungarian climate history, such as the work of Andrea Kiss³ (pp.28–33). He also reevaluates earlier, controversial assessments of uses of timber in the Ottoman wars (pp.37–39). Vadas draws for the most part on private correspondence. The fact that many of these letters have survived in the archives of the Batthyány manor in the region under study is fortunate, as these sources offer Vadas a unique glimpse into the environmental history of the Western part of the Kingdom of Hungary. The spatial and temporal limits of the research were thus practically determined by the location of the family estates (primarily in Vas County) and the death in 1659 of Ádám Batthyány, the landlord who played a decisive role in the area because of the size and of his estates and the detailed documentation of their operation (pp.13–21).

Vadas has been working on the topic for more than a decade, so the chapters following the introductory section (chapters 1-3) are based on his previously published articles.⁴ Chapter 4 deals with surveys of the river in the sixteenth and seventeenth centuries, comparing them with the maps of the period. The description of the alteration of the course of the river with felled trees and temporary dikes and palisades, sometimes for protection and sometimes for economic purposes, is also of ethnographic interest (pp.82-86). Chapter 5 describes the environmental and historical links between the floods and the mills, using the examples of Körmend and some nearby villages (such as Molnaszecsőd and Csákány) with mills belonging to the Batthyány estate. The importance of Körmend is due to its strategic location, the bridge over the Rába River, and its castle. The discussion of the mills is supplemented by a discussion of their relevance in the context of European historiography (pp.124-31). Vadas' analysis of the sources shows that, though it would have made sense, flood protection did not impact the nature of farming. The manor always rebuilt the mills in the same places after flood damage (pp.188-90). The benefits of flood protection, as discussed in Chapter 6, were probably greater for the manor than the costs of the repairs and reconstruction. Vadas also incorporates the latest

³ Andrea Kiss, "Historical Climatology in Hungary: Role of Documentary Evidence in the Study of Past Climates and Hydrometeorological Extremes," *Időjárás* 113, no. 4 (2009): 315–39, 317–20.

⁴ András Vadas, Körmend és a vizek: Egy település és környezete a kora újkorban [Körmend and the rivers: A settlement and its environment in the early modern period] (Budapest: Eötvös Loránd University, Doctoral School of History, 2013); András Vadas, "A Rába-mente környezeti viszonyai a 16. század közepén egy 1543–44-es folyófelmérés tükrében" [The environmental conditions of the Rába in the mid-16th century reflected in a river survey, 1543–44], Soproni Szemle 69, no. 1 (2015): 16–40.

literature on floods and forests based on research from the natural sciences.⁵ The section about droughts (pp.204–7), which has not been published before, shows even more clearly the military importance of water flows, which is, as the study demonstrates, more significant than their economic importance.

Vadas shows that the area under study was indeed a war environment, where water management and border control were both taken into consideration. Military and management considerations were mutually reinforcing in drought years, when maintaining minimum water levels was important both from an economic perspective (it was important to keep the mills running) and a defense perspective, but when these considerations came into conflict, for example during times of flooding, contemporaries generally prioritized military defense, which was the more pressing concern. The book concludes with the question of whether floods were unforeseen disasters or a conscious risk taken by contemporaries as part of a strategy of adaptation to their environment, including, for example, the rebuilding of flooded mills in the same place from time to time (pp.211-12). This raises an important question of environmental history: are the social responses of the past the same as the responses of the present, and can we draw relevant conclusions concerning the future based on these responses? Though the question obviously arises, Vadas' conclusion does not address it. Rather, in a measured way, it reflects on the subject of the study, concluding with the following lines: "I hope that this case study has demonstrated the relevance of the environmental history of early modern wars to the study of the war environments of the premodern age" (pp.213-14).

The book is supplemented by a collection of primary sources and a repertory of regests, and it also has important additional materials, especially maps which illustrate and clarify issues raised in the main text. Vadas' work is significant in the sense that it demonstrates how an environmental historian can contextualize his findings in the larger body of secondary literature, not only within Hungarian historiography but also within the most recent international and interdisciplinary discourse. This is a strength lacking in many works on Hungarian environmental history. A revised English edition for an international scholarly audience would be most welcome. From a methodological point of view, the analysis elegantly demonstrates the usefulness of private correspondence as a source

⁵ Žiga Zwitter, Okoljska zgodovina srednjega in zgodnjega novega veka na stiku Alp, Panonske kotline, Sinarskega gorstva in Sredozemlja (Ljubljana: Univerza v Ljubljani Filozofska fakluteta, 2015); Günther Blöschl et al., "Current European Flood-Rich Period Exceptional Compared with last 500 Years," *Nature* 583 (2020): 560–66. doi:10.1038/s41586-020-2478-3

of environmental history, and it would also offer, in good English translation, an important contribution to the environmental history of the region. Finally, it would be useful as a handbook for others seeking to pursue similar research.

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