

Onur İnal and Yavuz Köse (eds.). *Seeds of Power. Explorations in Ottoman Environmental History*. The Old Vicarage, Winwick, Cambridgeshire: The White Horse Press. 2019. 250 pages. ISBN-13: 978-1874267997.

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This edited volume by Onur İnal and Yavuz Köse with a foreword by Alan Mikhail is a welcome addition to the emerging field of Ottoman environmental history. The editors of the book humbly tell that they only put forward some questions for further research. They are indeed not the first to raise these issues, but are amongst a group of early adopters. The articles in the book were presented in the first international conference organised by the Network for the Study of Environmental History of Turkey (NEHT): 'Environmental History of the Ottoman Empire and Turkey' in 2017. The editors of the book are the organisers of the conference and Onur İnal is the founder of the NEHT. Thus, the book is a product of an ongoing institutional endeavour to kick off an avalanche in scholarship. The book is composed of four parts and offers a vivid picture of life in the Ottoman past and its entanglements in world history. The first part introduces environmental data, whilst the second and the third parts show how production activities were structured under the prevailing environmental conditions. The final part analyses how the interaction between nature and human beings shaped perceptions of nature.

Three articles in the first part 'The Climate and Landscapes' demonstrate the importance of regional case studies for understanding the different effects of the Little Ice Age in the Ottoman Empire. Elias Kolovas and Phokion Katzegeorgis (focusing on the Halkidiki peninsula and Crete) and Mehmet Kuru (examining the Anatolian coast) use microclimatic data and archive material to show the limitations of the arguments made by Sam White, the pioneer of research on Ottoman climate change; these essays show his conclusions should be taken with a grain of salt when considering other regions in the Ottoman Empire. Kolovas and Katzegeorgis show that the arid conditions in inner Anatolia did not apply so harshly to the Balkans and the Aegean islands, where an *increase* in olive production was apparent. Kuru differentiates between continental and Mediterranean climatic regions of Anatolia. Microclimatic data shows that high precipitation created better conditions in inner Anatolia, where some pastoral nomads changed to a sedentary life. However, the population did not increase in cities in coastal regions. The final article in the first part of this book reduces the scale of inquiry to that of a city. Using Domenico Sestini's detailed accounts of the vineyards of Istanbul in the late 18th and early 19th centuries, Suraiya Faruqi asks why these vineyards had vanished by the end of the 19th century, drawing a parallel to Paris, whose vineyards disappeared in the same time.

The second part focuses on ‘Resources and Energies’ and the third part on ‘Technologies and Infrastructures’; together they work to demonstrate how the Ottoman eco-system functioned. The chapters of the second part examine the way production changed in different localities. This narrative positions plants, animals and water as actors of history. The book challenges prevailing anthropocentric perceptions in the field. This sophisticated, non-deterministic appreciation of living and non-living actors of history helps the writers to see beyond the voice of their sources and to look for more data from other sources.

For example, Onur İnal shows how the shift from cereal and cotton agriculture to growing figs and grapes had changed the socio-economic landscape in Western Anatolia by the second half of the 19th century. Mountainous areas, which were more suitable for grapes and fig trees, were opened to agriculture. Land reclamations in the countryside went hand in hand with the expansion of the industrial and manufacture sectors. The West Anatolian Railroad accelerated this transformation, and exports boomed. Raisins and figs as commercial crops required a workforce for growing and processing; as a result, both in the countryside and the city, the population increased gradually. The land was divided into smaller plots, new commercial networks were established, and capital accumulation followed. The type of the agricultural product changed both agriculture rhythms and market relations.

In the second article, Semih Çelik represents the (miserable) life of the woodcutter villagers and their buffaloes in the Kocaeli district, an area in north-west Anatolia where forests were abundant. As the demand for timber increased from 2,000 trees in the mid-17th century to 4,000 by the 1830s, and 7,794 trees by 1847, the area underwent massive deforestation; almost two-thirds of the forests were cleared. Increase in demand in timber by the shipbuilding industry and large-scale infrastructure projects deepened the conflict between the state and the villagers in the 19th century. The extraordinary climatic conditions between the 1830s and the 1940s caused drought, famines and epizootics. Çelik helps us to understand the perception of the villagers by using travellers’ accounts. Accordingly, for the villagers the forests were both a treasure and a burden. At times, being near to the natural resources was as much a burden as being deprived of them.

In the next article, Styliani N. Lepida examines how water problems made life precarious in Cyprus. Travellers’ accounts, as well as Ottoman and European archival sources, show how the availability of water became reduced at the beginning of the 17th century, after its relative abundance in the sixteenth century. Consequently, crops that needed less water replaced sugar and cotton. The draught of 1648 affected crops so harshly that some people left their lands and some even left the island altogether. Moreover, some non-Muslims who could not afford to pay the poll tax converted to Islam. The water shortage made infrastructure such as water canals and watermills useless, and made new policies inevitable. From the 17th century, the Ottoman state responded to the need for water with the organisation of water *vakfs*. Lepida identifies water management as a critical factor on the island that brought together all layers of society.

K. Mehmet Kentel works through the lens of critical geography in his chapter, showing how inequalities were reproduced through urban water infrastructure. In the 19th century, Istanbul experienced considerable growth, which led to deforestation. The Terkos area in the north of Istanbul was a passage ground for wild animals and became a popular place for the elite for hunting. Access to the area increased after the opening of the railway in 1871. Terkos became part of the contemporary water engineering projects. To bring water to the wealthy cosmopolitan inhabitants of Pera, the passage between Terkos lake and the Black Sea was closed in 1885, and the lake became a freshwater reservoir. The resulting floods in spring and the use of the local water produced unrest among the inhabitants of Terkos. Social power and the allocation of the natural resources of the city went hand in hand; this point is illustrated in further chapters.

Mohammed Gamal-Eldin introduces two cities, Ismailia and Port Said, which were built together with the Suez Canal in 1869 as examples of modernity. Port Said was famous as a clean and green city created from mud and sand, and Ismailia as a green city of canals, which brought water to the private and public gardens. In this case, although social power and the allocation of resources were matched, the projects did not simply produce prosperity for the powerful. There were also other results. The aim of planning a modern living space for human beings produced unforeseen marshy areas which opened new living places for other living beings, like flamingoes, pelicans, swans as well as mosquitoes. As a consequence, malaria cases in Ismailia increased from 200–300 cases in 1876 to 2,000 cases in the year of British occupation, 1882. The colonisers, who were not immune to malaria, were affected first. We observe the agency of mosquitoes as vectors carrying malaria and causing the decline of the cities.

The last part of the book introduces us to environmental politics of late Ottoman and early Republican Turkey, and shows the cognitive change in peoples perspectives and their relation to nature. Chris Gratien zooms in to the discussions in the Ottoman Chamber of Deputies concerning the 1910 Rice Cultivation Law. The debate between those who supported public health measures and those who denied the relation between malaria and rice cultivation culminated with the victory of the latter group, i.e. the wealthy rice cultivators. Gratien shows that parties often took the side of the cultivators if they saw an economic or political profit. This debate over environmental politics shows two visions of progress among the governing Committee of the Union and Progress (*İttihat ve Terakki Cemiyeti*): one aiming at citizen rights, and a second at economic growth. It also challenges the ethno-religious interpretations of the politics of the era. Yavuz Köse examines how geography became a political subject during the re-definition of Ottoman borders at the beginning of the 20th century. After the Balkan Wars 1912–13, and especially during the Turkish War of Independence, Alexander von Humboldt became a source of inspiration for Mustafa Neyzi, a geography teacher in the Istanbul Military High School. In his geographical work *Anadolu*, which appeared during the War of Independence, Neyzi took up Humboldt's idea of basing national unity on a country's natural geographical features. The book focused on Anatolia and sought to transform a leftover part of the Ottoman territory into the homeland of the

new Turkish state. Köse demonstrates that this book was far from being the first scientific description of Anatolia's geography in Turkish, as it was understood to be until quite recently. The book was political in that it labelled the local Greek and Armenian minorities as others and legitimised processes that sought to homogenise the population of Anatolia, which was to be a homeland reserved exclusively for Turks. The last article of the book also looks critically at the transformation from the Ottoman to the Republican era. Selçuk Dursun focusses on the change in laws about common lands and their implementation, in relation specifically to forests. Retrospective interpretations in the early Republican era claimed abuse and privatisation of the forests depended on the previous Ottoman law. However, when the issue is investigated, it appears that the right to use the common lands which was called '*cabal-ı mubaha*' was first made a state property and taxed to increase the state revenues, then partly privatised. This process ended with the dispossession of the commons. Nationalisation and state ownership do not always bring amelioration to the community but legitimise the use of commons for interests of the rulers.

In sum, the book robustly accelerates the diffusion of environmental history. The articles are based on a strong theoretical background, offer new methods for a differentiated use of sources, and introduce new sources and ask critical questions. Interrogating the entanglements between nature and human beings challenges standard historiography and opens new horizons. Overall, the book, taking its place among other environment history publications of The White Horse Press, arouses appetite for new regional case studies, new types of sources and new methods to understand the Ottoman eco-system.