

## Book Reviews



Franco Cazzola, *Uomini e fiumi. Per una storia idraulica ed agraria della bassa pianura del Po (1450–1620)*. Rome: Viella, 2021. 432 pp. ISBN: 9788833137452

In recent years, the multifaceted relationship between the development of any human society and the environment in which it is built has become a prominent theme, not only in scientific research but also in public and governmental political debates.<sup>1</sup> As a consequence of the widespread concern about pollution and climate change, and also the impetus to rethink how humans can sustainably coexist with nature, much of the world's population now regards this relationship as a fundamental issue for discussion. Scholars of the humanities, including historians, have recently demonstrated increasing attention to such topics. In particular, environmental history has become an academic field of unquestioned importance for understanding the complexity of human-environment interactions across different contexts and times.

Eco-historical reasoning can thus play an important role in informing current significant debates, especially given its potential to elucidate the bigger picture by providing long-term context. On one level, environmental history combines different approaches, such as the history of science, with a range of institutional and socio-economic backgrounds. At another level, the discipline describes the concrete results of human choices, as these choices bleed into and influence the incessant reshaping of the earth itself. The result is a far-reaching analysis of the effects of human agency on natural habitats, and vice-versa.

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Franco Cazzola's research masterfully achieves this ideal result through the case study of the Po River and the Po Valley regions during the Renaissance. Water is a key element in any human-nature contact, and—as described by the author—a river is the form that water takes when it becomes the greatest agent in shaping lands and soils: a dynamic moving element which can act as both builder and destroyer (p. 11). In its relationship with human societies, water can thus be a friend as well as an enemy, as two of the chapters are titled. Cazzola reaches his goal of convincingly demonstrating the relationship between people, places and the Po. He does so in large part thanks to the richness of the sources with which he deals skilfully, combining a noteworthy set of archival documents with an extensive range of secondary literature.

This book, indeed, is the culmination of decades of research by the author, who has dedicated much of his scholarly career as an economic historian to understanding the complex connections between agriculture, the environment, society, and economics in the early modern Italian Peninsula. The main subject of this latest work is the history of the relationship between the Po and those individuals and communities who lived along its course from the mid-15th century to the 1620s. The core of the analysis begins with the first structural attempts made during the *Quattrocento* to control the water system(s), comprising the main river, its tributaries, and—more generally—the hydraulic structure of the Po Valley. The 15th century was a period of high population growth (after the decline that the Black Death had caused in the previous century), which necessitated a significant reconsideration of the agricultural organisation in these regions, in order to satisfy the demand for the new lands needed to support revitalised extensive farming. Land reclamation and land development subsequently became matters of substantial interest for both the leaders of the states of the northern Italian regions through which the Po flowed, and for the communities making a living from its waters and the marsh areas around its lower course. The book concludes with the end of that season of land reclamation and agricultural expansion when, at the beginning of the 17th century, the signs of an incipient economic crisis brought an end to those great business ventures involved in the speculative reclamations that had changed the Padan Plain. As a consequence of this crisis, land grabbing lost its earlier main objectives and commercial usefulness.

To understand this complex human-environment relationship, the author uses the opening chapters (1–5) to describe the area in broad terms. Cazzola surveys the studied regions from geomorphologic and hydrologic perspectives, and also traces their socio-economic and institutional evolution from the Roman period to the Middle Ages. In the first section, he provides a broad historical overview describing a period of optimal climatic condi-

tions during the High Middle Ages (ca. 750–1000 CE), which was followed by a rapid deterioration—caused by catastrophic climatic changes—that led to new hydrographic equilibria. Moreover, he stresses the role of human agency during that downturn and up to the early modern period. For instance, during the Middle Ages, the rise of communal institutions led to the creation of magistrates and officers in charge of managing water, which was regarded as a common resource. These officials were responsible of overseeing and directing projects designed to guarantee the water supply for agriculture and manufacturing; this latter was becoming one of the engines contributing to the Italian Renaissance (for example, see Cazzola's discussion on the role of the Reno river in Bologna, pp. 116–120). Human intervention became progressively more intensive in the riverine lands, spurred by institutional or private programmes, or often a combination of the two. Such efforts themselves benefitted from specialised officers and technicians devoted to “creating” lands capable of feeding the cities and sustaining trade while also ensuring an adequate supply of water for powering mills.

While the book focuses mainly on the regions of the lower Po course, Cazzola also describes the different developments in agricultural reorganisation which occurred in various parts of the Po Valley from the 15th century onwards (chapters 4–5). The western regions of Piedmont and Lombardy, rich in water and “high” lands, could benefit from large estates where the spread of husbandry, water meadows and paddy fields was also sustained by the labour of farmers earning wages for their work. Conversely, in the eastern areas of Emilia and Veneto, “low” lands had to be reclaimed from water and were later to be colonised by families of smallholding peasants according to the *podere* system. In this system, these peasants would pay partly in-kind to land-owners, who were not just rentiers but also the promoters of that reclamation and often (for example, in the Venetian state) the holders of the rights to the use of the water. The farmers' labour was a substantial element of the process: reclamation comprised planning and producing a new man-made hydraulic environment (digging, drainage, artificial canals, banks, etc.), and thus obtaining farming lands from fertile former wetlands. Difficulties came later, once those lands were to be cultivated; local tenant farmers and communities had to defend and maintain their hard-earned results against the continuous environmental changes produced by both human activity and nature.

The precariousness of any human activity and the “hunger” for new farming lands are the subjects of chapters 7 to 13, in which the author describes, one by one, the history of the hydraulic reconfiguration of the regions in the lower Po basin, those touched by the other main rivers which flow to its delta areas (for instance the Adige and the Reno), and finally those which project

into the northern Adriatic sea. The case of the reclamation and rapid (d)evolution of the Polesine under the rule of Ferrara between the 1560s and 1620s (chapters 9, 11–14) is a clearly characterised example of how a successful engineering endeavour could quickly become a failure, if the interaction between ineffective political acts and decisions concerning water (as conducted by the Papal government) and foreign rivalry in both military and trade affairs (on the part of the Venetians) coincided with natural effects (following the reconfiguration of the Po delta in Porto Viro by the *Serenissima* at the beginning of the 17th century). The peculiar historical and geographical situation in that part of early modern Italy (divided into four main political powers: Venice, Ferrara, Mantua and the Papal States) allows Cazzola to observe and use a series of important threads to depict the wide-ranging picture of events, connecting the economic aspects and their (public and private) objectives with the social and institutional organisation of those lands. I will limit discussions thereof to three main features.

Firstly, those whom Cazzola defines as the “reclamation entrepreneurs” and their role as promoters and investors. These were individuals and families who aimed to do business by pursuing new lands. For such actors, the author’s research underlines a crucial point: water management cannot be successfully managed in private hands alone, because it is necessarily a collective effort. Great families could lead the work to develop wetlands and privatise new lands, but nothing would have been possible without a “solidarity” of water, a trait first realised within the communities living along the rivers (pp. 355–360). Entrepreneurs and states (and their rulers) had to collaborate with manual labourers and farmers, because none of those groups could have reached their goals without the work of the others (as in the case of the *consorzi* organised in the Venetian state, analysed by the author). The governance of water (and the environment more broadly) also required equipping communities and states with specialised officers and technicians. This aspect leads to the second feature well emphasised in this run of chapters: the flourishing position of specialists and scholars, which grew hand-in-hand with the refinement of hydraulic studies. However, Cazzola highlights how the peasants likewise possessed and employed practical water know-how; the success of any venture was contingent on the farmers’ constant struggle against river water’s natural tendency to fight back and revert changes. Thirdly, the case of the Venetian-Ferrara borders helpfully explains how water could be used as a weapon by states. For this reason, a diplomacy of water was to be practised; the effects of hydraulic transformations could impact large inhabited areas while transcending political borders. Collaboration was necessary to manage these effects (p. 144).

A further central facet of Cazzola's analysis lies in his connecting these varied elements with the formative role played by something which human societies cannot govern directly, but instead only react to: climate (examined mainly in chapters 6 and 14). The author highlights the need to move beyond a purely Malthusian view, devoting much time to establishing how climatic worsening—especially in the form of intensified precipitation caused by the Little Ice Age (ca. 1550–1850)—drove human activity in claiming new lands. Cazzola does not shy away from providing evidence for how human-nature interactions aggravated these developments, resulting in an increasingly unstable hydraulic and environmental balance. It is to Cazzola's merit that he has identified this theme, one which future research could productively investigate further.

The book is generally well written, and the set of richly documented and rigorously examined examples from the Emilia and Veneto regions do not break up a smooth overall reading. On the contrary, they speak to each other, providing an extensive and detailed background. They also align usefully with the main assumptions in the first chapters and with the author's goal of emphasising how human-water interactions may change (sometimes abruptly) due to complex arrays of demands originating in natural, political, social and economic circumstances. The abundance of sources employed in the analysis is also a treasure-trove for anyone conducting a historical study of those areas. The minor weaknesses of the book may be found in the maps. While the decision to use historical cartographic materials (drawn to accompany surveys and technical studies contemporary with the events described in the chapters) is interesting, these older maps are of perhaps limited legibility to non-expert readers or people unfamiliar with the investigated areas. Supporting the text with also modern, more readable maps and graphic material would have been of great help. The reader could also have benefitted from a glossary defining the more technical or localised terms which may again be inaccessible to the non-expert. Nevertheless, these minor flaws do not lessen the value of this important book, nor detract from its role as a strong example of a comprehensive analysis of the complex relationship between human societies and water.

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