

BOOK REVIEWS

Climate and Society in Europe: The Last Thousand Years.

By Christian Pfister and Heinz Wanner. Bern: Haupt, 2021. 400 pp.

For historians interested in the history of climate change, Christian Pfister's name is very well known, and for climatologists, Heinz Wanner is a name that certainly rings a bell. Their joint undertaking to provide a concise overview of climate fluctuations, weather phenomena, and their societal impacts over the course of the last millennium in Europe is certainly a work that deserves attention. Both Pfister and Wanner spent most of their academic careers at the University of Bern in Switzerland, which (not independent of their activities) became one of the most important centers for climate history research worldwide. In the 1980s, Pfister worked out a system (referred to in the book reviewed here as Pfister indices) to interpret and quantify written sources and thus allow historians to enter into discussions in the growing field of paleoclimatology. His method has been widely accepted and used ever since, providing a common framework for historians and paleoclimatologists to study climate fluctuations using different datasets (proxies), including written sources.

In eleven chapters, the book provides a concise and accessible overview of European climate history over the course of the past millennium. It is a most welcome endeavor, as climate history in recent decades tended to use a language that became increasingly alien to many historians and others interested in climate change in human history. This approach is well reflected in Chapter 1 which explains the main concepts of historical climatology and the climate system, acquainting those who do not have any background in climate studies with basic terms, methods, and assumptions. Chapters 2 and 3 offer two case studies which serve different purposes. The first of these two chapters is on Ötzi the Iceman, the Neolithic man who lived in the Alps around 3200 BC and whose body was found naturally mummified at the site of his death in 1991. The research related to Ötzi (summarized in this chapter) offers an opportunity to address the main climatic trends of the Holocene and at the same time to put these processes in the context of the rapid global warming we have seen recently. Chapter 3 explains the complexity of the impacts of the 1815 Tambora eruption and the concept of vulnerability to extremes. While the chapter is an enjoyable read, it does not quite fit in the chapter structure of the book.

Chapter 4 provides a survey of the development of an interest in registering weather phenomena and climate fluctuations by drawing on the writings of ancient and medieval authors. It shows how this interest paved the way for the formation of scientific societies and networks, followed by the birth of scientific meteorology and climatology in the twentieth century. Chapter 5 is dedicated to the issue of how to use sources that have survived. It provides a survey of the main proxies, such as dendroclimatological data, stalagmite records, ice cores, and sediments and then gives a more detailed analysis of the variety of written sources that can be used by climate historians. The authors discuss the potentials and limitations of the different types of sources by providing examples of the ways in which these sources have been used.

Chapter 6 focuses on the main features of the present-day climate of Europe and then looks at the main fluctuations in the climate of the continent over the course of the past millennium as evidenced by sources from the natural sciences and simulations combined with meteorological measurements from the past. It addresses the reconstructions of regional temperature and precipitation patterns to show the main climatic trends of the last millennium, including the Medieval Climatic Anomaly (or the high Medieval Period, as it is referred to in the book) and the Little Ice Age.

Chapters 7 and 8 survey weather events and the main climatic trends by centuries. While the examples on which the two chapters draw are usually illustrative, their geographical coverage is somewhat unbalanced, and the presentation of some of the years is rather schematic. Chapter 9 shifts the perspective from weather events and climate change to their impacts on society. This term (society) is used in a most restrictive sense, as the authors focus almost exclusively on the demographic context of weather events and climate change, pointing to famine and death in various historical moments over the course of the past millennium. Other societal impacts, such as epidemics or the persecution of different marginal groups and elements of society, are mentioned only in inserts.

Following up on the data presented in Chapters 7 and 8, Chapter 10 presents seasonal climate fluctuations over the past millennium (the period that is adequately covered by the written sources and, accordingly, the Pfister indices, depending on the season, covers the last 500 to 800 years). From the point of view of readership, it is not evident why these reconstructions rely solely on the written sources and their quantifications when the introductory chapters put considerable emphasis on the variety of sources which offer relevant information concerning fluctuations in climate. The other main question with

the data presented here concerns their territorial validity. Most of the indices relate to Central Europe (although this is not necessarily explained), but the reconstructions presented are not limited to these areas. The final chapter of the book is dedicated to the recent global warming crisis and argues that, much as premodern societies that faced weather extremes and changing climate were vulnerable, considering the unprecedented global transformation of the past six decades, modern societies face similar challenges, despite their efforts to be independent of these phenomena.

The book includes numerous inserts that present case studies and weather-related phenomena summarized in a page or two. These additions are well-chosen and are entertaining, making the book a more enjoyable read. The one written on the Black Death and the climatic, military, and political background of the events involved is presented based on the seminal book by Bruce Campbell (*The Great Transition*, 2016) but omits recent works that highlight the mistakes in Campbell's narrative.

Despite some of the flaws mentioned above, this book, which was written by two of the foremost experts on the subject, offers one of the most accessible overviews of the climate history of Europe over the course of the last millennium. In most parts of the book, they do so in a style that will be readily understood by undergraduate students and the wider public as well. The visual materials (graphs, maps, and illustrations) were carefully chosen, and they make the text easier to comprehend. This will certainly make this volume (which has also been published in German) an important basic handbook for many courses dedicated to environmental and climate history.

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