

***Where Men No More May Reap or Sow: The Little Ice Age: Scotland 1400–1850.* Richard D. Oram. Edinburgh: John Donald, 2024. ISBN 978 0 85976 717 0. Pp. xii+420. £75.00 (hardback).**

This is an ambitious and important book. It forms the second instalment of Richard Oram's three-volume Environmental History of Scotland, covering a millennium and a half, from AD 400 to 2021. As its title indicates, the volume under review examines the 'Little Ice Age', defined as the period between the climatic deterioration in the late Middle Ages and the middle decades of the 19th century. It charts Scotland's transition from medieval to modern times through the lens of the two-way interchange between environment and humanity which lies at the heart of environmental history. Focusing on the rural environment and the agrarian economy and society, Oram explores how environmental factors, especially climate change, affected patterns of land use and economy, and also how changing patterns of human activity and resource exploitation resulted in environmental change. This interplay sets the agenda for the study.

Four strands run through the book: the history of woodlands; arable land and pasture; fuel supply; and fishing. Although not formally divided into sections, the chapters are grouped chronologically into four periods: the 'new normal' of the late-medieval climatic cooling; the 'age of shocks and transitions' across the 16th and 17th centuries, culminating in the harvest failures and famine of the 'Seven Ill Years' (1695–1702); the 18th century through to 1790; and the 'sting in the tail' of the weather extremes in the period 1790 to 1850. This gives the book a strong chronological structure, though it means that discussion of individual themes (woodland management; peat exploitation; enclosure; fisheries, for example) is fragmented and scattered. Throughout, Richard Oram has mustered a hugely impressive breadth and richness of detailed evidence, drawing on environmental data, published work by historians, geographers and archaeologists, and a wide range of printed and manuscript primary sources.

As well as tracing the four themes, the book provides a detailed reconstruction of Scotland's climate, decade by decade (in later periods, almost year by year), explaining in an accessible way the environmental indicators which can be used as proxies for climate data. The bulk of the reconstruction comes from a thorough trawl through documentary evidence (diaries, estate records, travel journals and so on) and thus represents a distinctively historical contribution to Scotland's climate history. However, it has to be said that the abundance of factual detail can result in the catalogue of short-term weather events obscuring longer-term trends in climate.

The thematic chapters are full of stimulating ideas, which consistently question assumptions and received narratives. The human response to environmental change is displayed on many fronts. Oram argues that the 16th and 17th centuries saw a change in mindset, presaging the Improvement rhetoric of the 18th century, in which landowners responded to shortages resulting from environmental shock by attempting to increase productivity, including the more intensive management of woodland. The use of seaweed as a fertilizer on arable ground, recorded from the 15th century, appears to have taken off at a time when greater quantities were washed up on the shore during extreme weather and storms. He notes the recurrent disputes and violence over peat mosses in the quest for adequate supplies of domestic fuel, exacerbated by the difficulty of securing fuel supplies when wet summer weather prevented cut peats from drying. Tensions over access to resources contributed to wider social and economic stresses – Oram argues that the environmental impacts of climate change contributed directly to the political and religious upheavals of the 16th and 17th centuries. Later environmental shocks – such as the sudden and wide fluctuations in herring numbers as a result of changing oceanic circulation patterns in the 18th and early 19th centuries, or the devastating effects of potato blight in the 1840s – also had wide social, economic and political consequences.

On the other side of the coin, human activity had major impacts on the environment, especially during the 'age of improvement', which naturally forms the dominant theme from the decades around 1700. 'Improved' farming had many faces: land reform (the replacement of joint-tenancy quasi-subsistence farming by commercial single tenancies); enclosure and partition of the land; land drainage; the conversion of muir and moss into arable ground; and single-species woodland plantations. It thus changed the face of Scotland and Oram vividly draws out the changing colour

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and texture of the rural landscape in the 18th and 19th centuries. But it also involved less visible changes, in soil structure and chemistry (notably through drainage, liming and the introduction of new manures such as guano) and in biodiversity (the replacement of multi-species unimproved grassland by rye grass and clover, for example, and the move from traditional management of mixed woodland to the monoculture of plantations).

The sheer wealth of evidence presented in each chapter is the book's most striking feature and its great strength, but the larger picture sometimes becomes lost in the welter of narrative detail. Could more have been done to synthesise the evidence? Distribution maps of some of the historical data could perhaps have helped to stress the diversity of landscapes and environments within Scotland, and their differing environmental histories, for example.

Penning this review from south of the Border, I am struck by the resonances of this book's themes well beyond Scotland. So much of the received understanding of agrarian and landscape history in England comes from the lowland southern and eastern counties. Yet in terms of climate and topography, much of the rest of England and Wales bears closer similarities to Scotland. Pastoral farming; agriculture on the climatic margins; the distinctive histories of mountain and moorland; peat bog and ancient woodland – themes explored in depth in this book – are also key elements in the environmental history of much of northern and western England and of Wales.

Handsomely produced and richly illustrated, this is a book which deserves to be savoured. The wealth of evidence it presents; the range of topics it touches on; and the subtle (and sometimes tentative) arguments it constructs require thoughtful reading; they are the great strength of this welcome study. Richard Oram has assembled an impressive body of evidence and drawn out the salient themes in the interplay between society and environment across the 'Little Ice Age', providing a new baseline for future research into Scotland's environmental history.

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