

Preface to the third edition

Since 1986, when the first edition of this book was published, Holocene research has grown enormously, above all linked to wider concerns about global environmental change. Developments over recent decades have included new techniques of field and laboratory analysis, as well as remarkable discoveries such as Ötzi, the ice man. Important new data syntheses have been published and stimulating conceptual ideas have emerged. Some of these have prompted lively debate, such as Bill Ruddiman's early anthropogenic greenhouse impact. In a related vein, Paul Crutzen and Gene Stoermer proposed that we have now entered a new geological epoch dominated by global human impact – the Anthropocene. If this comes to be accepted, then the Holocene will already have ended! These and other developments demanded to be incorporated in a new edition of the book in order to bring it up to date. More than 500 new references have been added, so that the Bibliography now includes three times the number of items in the first edition – such is the pace at which Holocene research has been produced and published in the last three decades. At the same time, I have sought to retain the best of the older classic literature by pioneering scholars such as Ed Deevey, Winifred Pennington, Sir Harry Godwin and Johannes Iversen – 'giants on whose shoulders we stand'.

Important though these changes are, the biggest shift since the publication of this book's first edition is the realisation that we are now living through an era of human-induced climate change. This is no longer the possibility it was in the mid-1980s, but a reality. Every single year since this book was first published in 1986 has been warmer than the twentieth-century average, and during that time the mean global temperature has risen by around 0.5°C. The Holocene provides a vital long-term context for current climate warming, not least because it tells us that the planet is moving into previously uncharted territory. Realisation of the reality of human-induced climate change has produced a scientific response, notably since the establishment of the IPCC in 1988, but so far much less in the way of political consensus, let alone action. With hindsight, the major change that has been occurring in the Earth System in recent decades is now clear to see, even if it was not evident at the time. Where it will take us in the decades to come is much harder to foretell.

Note on chronology

As in the second edition of this book, calendar years before present (Cal. yr BP) are used throughout, sometimes abbreviated to ka BP (thousand years before present).

Glossary items appear in bold blue in the text