The final months of 2000 AD—a year which, according to one's taste, may be viewed as either the first of the third millennium AD, or the last of the second—were marked by a series of rather extreme environmental fluctuations. In Britain, months of flooding gave way to the heaviest snowfall for almost a decade. Midwestern America experienced ice storms the like of which had not been seen in twenty years, while Florida basked in weather more appropriate to the summer months of June, July and August, and southern California suffered scalding winds. For the first time in living memory the Boxing Day Test in Melbourne saw a full day’s play, uninterrupted by rain, while, across the Tasman Sea, Auckland waited in vain for its own summer to arrive. According to the newspapers, these freak occurrences are all palpable indicators of the adverse impact of human activity upon the environment. CFCs, fossil fuels, global warming, nuclear testing, ozone depletion—these are hot topics of early twenty-first century dinner table conversation among the socially and politically aware.

This sudden and acute awareness of the potential for human activity to reflect adversely upon the environment provides the context for the book under review here. Petra Dark’s study of the relationship between the two in the first millennium AD is a timely reminder of the complexity and long history of these interactions. Dark’s aim is to make the extensive scientific research into the environment of the historical period which has been carried out over the last two decades accessible to a wider academic community (179). Research into past environments has long been fundamental to archaeological reconstructions of prehistoric society, but it has been less integrated into studies of the historical period (vii). It is Dark’s intention to reveal the opportunities which such research offers to both archaeologists and historians of the first millennium AD (170).

In lucid prose, amply illustrated and documented, Dark presents and interprets the current state of palaeoenvironmental research for Iron Age and later Britain. The most important source of information is pollen analysis, and Dark focuses upon this evidence in her account. Where possible, the picture which this produces is supplemented by analysis of charcoal particles, soil sediments and peat deposits. Such an approach
presents certain problems, as Dark freely admits (5). The palynological
evidence itself presents certain difficulties. Pollen samples differ markedly
according to type and size of the site from which they are recovered.
Different types of pollen travel different distances, according to weight and
mode of transfer. Their survival in the palaeoenvironmental record is also
differential, according to the robustness of the specific type of pollen (5–
7). Pollen analyses use varying degrees of resolution, and different criteria
in ordering the information they provide (7). Perhaps the most significant
difficulty is that of comparing pollen sequences with settlement sites. All
too often, the two are geographically disparate (170; 175). In many cases,
too, the temporal resolution of pollen analyses is poor, accurate only to a
period of one or two hundred years (89). It can thus be difficult to
compare or combine the information these analyses provide, and to link
human activity with the pollen record (103). However, it is clear that this
is not, in fact, the role or value of palaeoenvironmental research.

The first chapter of the book provides a succinct introduction to each
of the sources of information used in this study, as well as strategies for
dating materials using radiocarbon dating, dendrochronology (tree-rings)
and tephrachronology (volcanic glass). There follows a chapter
reconstructing long-term trends in climate and sea level throughout the
first millennium. These trends ‘provide the background against which the
role of human activity in soil and vegetation are considered’ in the
following chapters (19). Dark observes a climate slightly warmer and drier
than that of the Iron Age, which became colder and wetter in the middle of
the sixth century, followed by an upturn which lasted into the mediaeval
period (27–8). Changes in the nature of Britain’s coastline and fluctu­
ations in sea level are more difficult to determine. However, these
limitations in our knowledge can be useful, as they ‘urge caution in
interpreting the archaeological record of settlement in relation to current
topography’ (33).

The following four chapters comprise a detailed analysis of the
evidence, divided chronologically by chapter and geographically within
each chapter. Dark’s methodology in each case is to reconstruct long-term
trends in the flora of Britain, commenting upon the palynological evidence
in light of what can be inferred from other sources. In some cases, the two
mesh well. For example, the emergence of hayfields in the Roman period
is suggested by the appearance of scythes in the archaeological record. This is independently confirmed by finds of seeds from characteristic meadow plants like ox-eye daisy, yellow rattle and knapwood (84–5). In others, the environment responded to human activity in a much more complex way than has been inferred from documentary and material culture evidence. Much attention has focussed upon the environmental implications of the construction of Hadrian’s Wall in the second century AD, particularly the massive woodland clearance that it must have entailed and the possibility of agricultural expansion to supply the Roman troops. The palynological evidence reveals a more complex history of interaction between human activity and the environment. In some regions, woodland clearance appears to have taken place as early as the Iron Age. In others, woodland may have remained even after the wall was completed (100–7).

Chapter 3, which establishes the Iron Age context, is necessarily the most detailed. Its key aim is to determine ‘the nature of the environment at the end of the Iron Age, as a prelude to consideration of the environmental consequences of the Roman Conquest’ (68). These consequences are examined in ch.4. In many areas of Britain, the Roman impact on the landscape is clearly discernible in the palynological record. In the Roman period, there is evidence for the institution of widespread drainage, woodland clearance and large-scale crop processing. In addition, iron-working and pottery industries were established on a hitherto unprecedented scale (119–21). Subsequent chapters outlining the evidence of the Anglo Saxon period to 800 AD (ch.5) and the Viking Age (ch.6) reveal that the environmental repercussions of the Roman withdrawal varied markedly. In some regions, woodland regeneration reclaimed land cleared for agriculture in the Roman period (146). In others, however, the open landscape established during the Roman period persisted into the second millennium (164). Such revelations reveal the potential value of palaeoenvironmental information in testing established historical paradigms.

The value of this book lies in its skillful presentation of a coherent, comprehensive account of both the current state of research and the picture which emerges from that research, at both national and regional levels. As Dark shows, palaeoenvironmental research provides more detailed tools with which to construct the context of historical events and processes, in
spite of problems of chronology. Further studies are needed to expand the current body of evidence. In Dark’s opinion, future research should concentrate on an expansion in the number of available pollen sequences, an increased use of high resolution analysis to produce tighter chronologies, and the extensive analysis of other types of micro-flora and micro-fauna (176–7). The wider academic community, for its part, should await these developments eagerly.

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