dimension for those seeking to impute agency: 'The textual approach, in turn, makes agents more visible and allows for a fuller appreciation of historically particular synchronic situations and diachronic continuity and change' (p. 206).

For the most part, though, the contributors find a range of different ways of invoking the concept of agency at some point in their text. If the role of agency were the be-all and end-all of each contribution, it would be embarrassingly like the emperor's new clothes: one could divest almost every contribution of all explicit or implicit involvement with 'agency' and few would notice the difference. Most of the issues discussed could equally well have surfaced in a 'pre-agency' era, but it is of course well possible that the invitation to engage with the concept of agency has steered thoughts in directions they might not otherwise have taken. In any case, our authors all have perfectly respectable themes of their own to pursue within the broad topic of early writing, and this makes the volume a stimulating read and entices fruitful cross-cultural comparisons.

> Nicholas Postgate McDonald Institute for Archaeological Research Downing Street Cambridge CB2 3ER UK Email: jnp10@cam.ac.uk

First Migrants: Ancient Migration in Global Perspective, by Peter Bellwood, 2013. Chichester: Wiley-Blackwell. ISBN hardback 978-1-4051-8909-5, £55.00, €64.70 \$89.95; xvii+308 pp., 37 figures; paperback £19.99, €23.50, \$39.95; e-book £15.99, €18.99, \$31.99

Stephen Shennan

Peter Bellwood is an archaeologist well known for his work on the link between farming and language dispersals and in particular for his archaeological field projects and interdisciplinary syntheses aimed at reconstructing the history of the Austronesian language family and the processes that led to its extraordinary dissemination from Madagascar to Rapa Nui. In this remarkable tour de force Bellwood delivers on his title, covering the world from the initial out of Africa dispersal by early hominins to Holocene migrations in the Americas. Of course, the topic of migrations in human prehistory and their role in accounting for change is a controversial one. In the 1970s the prevailing assumption in the Anglo-American archaeological world was that change took place as a result of in situ evolution, a reaction against the culture-historical migrationism of the first half of the twentieth century. The renewed interest in migrations since the 1980s has been powered in particular by the staggering growth in the availability of genetic information

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but also by a willingness to return to previously toxic questions concerning the relationship between archaeology and language. The result has been the emergence of a highly inter-disciplinary subject, requiring the integration of evidence from archaeology, historical linguistics and genetics, all very technical subjects and the latter in particular highly mathematical. As the literature shows, there is plenty of room for confusion, misunderstanding and debate that has been all the more acrimonious because of the wide public interest in the subject.

Bellwood usefully provides his own definition of migration right at the beginning, 'the permanent movement of all or part of a population to inhabit a new territory, separate from that in which it was originally based' (p. 2, italics original). Population is the heart of the matter. Populations on the move will take with them their languages, their genes and their traditions of social and material life, but the pressures to which these are subject are not all the same so they cannot be expected to change over time in synchrony with one another. Using these attributes of populations to reconstruct their movement in the deep past is not straightforward. This is the topic that is addressed in the second chapter, which reviews the advantages and disadvantages of the different lines of evidence for this purpose. At least some of the disadvantages of one can often by compensated by one or both of the others, so interdisciplinarity, with all its dangers, is compulsory for work in this field and Bellwood is very much at home in it.

Chapter 3 outlines the Pleistocene dispersals of hominin ancestors and then *Homo sapiens* out of Africa. It provides a clear account of current archaeological and genetic evidence across the Old World, from the 1.8 mya site of Dmanisi in Georgia to the appearance of the Aurignacian in Europe *c*. 45,000 years ago, spelling out the many controversial issues that continue to be unresolved, such as the timing and nature of the expansion of anatomically modern humans out of Africa and the factors behind the demise of the Neanderthals. Chapter 4 continues the Pleistocene colonisation story on to Australia and the Americas, taking in Japan on the way and highlighting the ecological and climatic opportunities and constraints on human expansion.

When we turn to the Holocene the main story is clearly that of farming populations, but Bellwood rather subverts expectations by focussing first on the evidence for continuing hunter-gatherer migrations. The picture is pretty clear as the resolution of the evidence improves towards the present and linguistic evidence becomes increasingly relevant. When new opportunities arose for demographic expansion, people took them. Nowhere is this clearer than with the post-glacial colonization of northern Eurasia as the ice sheets retreated, opening up new empty landscapes that were being colonized at the same time by prey animals; however, the Palaeoeskimo, then Thule, expansions into the Arctic are equally striking, or the Athapaskan expansion in western North America. On the other hand, as Bellwood emphasizes, expansions by hunter-gatherer groups into areas with existing hunter-gatherer populations were less likely in the absence of social or material innovations that would

give the incoming groups greater demographic weight. Following this line of argument, he thus accounts for the distribution of the Pama-Nyungan languages over most of Australia outside the far north as the result of the development of a new hunting technology based on backed blades and microliths and hunting with dogs.

In the remaining chapters of the book, after an overview of the key theme of food production as the dynamic for population expansion, Bellwood turns to the link between migration and food production, examining five distinct 'food production complexes': the Fertile Crescent, East Asia and the western Pacific, and those of Africa and the Americas. Food production was undoubtedly the dynamo for the demographic expansion that led to migration, but it was necessary rather than sufficient. It is increasingly clear that local plants were cultivated or domesticated in many parts of the world that did not become major demographic expansion centres, as indeed Bellwood points out (pp. 137-8). Since the book is about large-scale migrations, expansions and dispersals, however, its focus is on those agricultural complexes that had this effect, the majority of them based around annual cereals.

Chapter 7 outlines the origins of the Fertile Crescent agriculture complex and its expansion, drawing attention in particular to the geographical limits marked by the transition from the winter rainfall regime that supported wheat and barley to a monsoon summer rainfall dominated climate. The archaeological evidence is linked to a discussion of the relevant historical linguistics and genetic data to make Bellwood's argument that this was the engine for 'the bulk of the human migration profile of Western Eurasia, including North Africa, during the past 10,000 years' (p. 173).

In the following chapter, he reviews the other great Eurasian agricultural complex, the millet and especially rice systems that originated in the Yangzi and Yellow River valleys of China and their expansion into Southeast Asia, again integrating the historical linguistics and genetics into his account. He devotes particular attention to the Austronesian expansion into Indonesia, Island Melanesia and Oceania, the topic of much of his own first-hand field research. While it seems clear that the origins of this language family lie in Taiwan, in farmers practising the East Asian system, this was not the system that spread into tropical Indonesia and Oceania with the Austronesian speakers. Rice and millet disappeared and were replaced by tropical root and tree crops, whether because of the new opportunities and constraints provided by tropical conditions or because of the impact of the already existing indigenous New Guinea system. In any case, as Bellwood points out, there was a significant indigenous Melanesian input into the populations that later spread into Oceania.

Finally, he considers the farming expansions of Africa and the Americas. As Jared Diamond noted a decade ago, the north–south orientation of these continents means that any agricultural system that could potentially provide the basis for a significant dispersal had to overcome significant climatic barriers and in both cases the expansions that occurred were significantly later than in Eurasia. In Africa there is still a great deal of work to be done in understanding early crop domestication, but the Bantu expansion from around 3000 years ago represented a major demographic dispersal supported by linguistic and genetic as well as archaeological evidence. In the Americas, too, there is still a great deal to be learned, especially in lowland South America, but here too there is extensive linguistic evidence for expansions and migrations, associated with maize and manioc, even if they were not on the same scale as the Old World.

Bellwood's emphasis on human dispersals and the driving forces behind them will not find favour with everyone, but this is not a dogmatic book in its attitude to different views, and the comprehensive and up-to-date nature of the survey is a remarkable achievement. Some of it will be familiar to most archaeologists, but virtually everyone will find something novel. Even if many of his specific interpretations are shown to be invalid in the future, there is no escape from the interdisciplinary approach to populations and their attributes that Bellwood adopts. In this respect he shows us the way forward for 'big prehistory', while his presentation of world prehistory as an epic of human expansion makes it highly relevant to today. Unfortunately, the rather dour, academic Wiley-Blackwell production doesn't really reflect the amazing nature of the story that he has to tell. Bellwood should be selling the film rights, if he hasn't done so already.

> Stephen Shennan UCL Institute of Archaeology 31–34 Gordon Square London WC1H 0PY UK Email: s.shennan@ucl.ac.uk

Space and Time in Mediterranean Prehistory, edited by Stella Souvatzi & Athena Hadji, 2014. London: Routledge; ISBN 978-0-415-83732-2 hardback £82.00, €104.00, \$132.00; xvi+303 pp., 35 figs., 2 tables

Antonio Blanco-González

This is a remarkable contribution worth reading by all those interested in theoretical issues dealing with the two chief dimensions of human perception: space and time. The editorial project is aimed at addressing several current flaws and problems shared in the social sciences at large, but especially entrenched in mainstream archaeological practice. Among these unresolved shortcomings, the editors have considered two core aspects: a) the imbalance in the scholarly treatment of the space-time continuum, with a wide and increasing interest in space and the comparative disregard of time (with some notable exceptions); and b) the traditional divide between space and time as self-contained categories

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