



## Book Reviews

### **TIME AND CHANGE: ARCHAEOLOGICAL AND ANTHROPOLOGICAL PERSPECTIVES ON THE LONG TERM IN HUNTER-GATHERER SOCIETIES, EDITED BY DIMITRA PAPAGIANNI, ROBERT LAYTON AND HERBERT MASCHNER**

Oxford, Oxbow Books 2008. 158pp, 13 b&w figs inc photos, 15 colour figs. pb ISBN 978-1-84217-320-6 (£30)

Archaeologists tend, as the editors note, to adopt long-term and coarsely-detailed perspectives on human behaviour, whereas social anthropologists tend to provide detailed 'snap-shots' of contemporary hunter-gatherers with little insight into long-term processes of stability and change. The purpose of this volume – which arose out of a session at the 2002 Edinburgh 9th International Conference on Hunting and Gathering Societies organised by Papagianni and Layton – is to redress this imbalance by focussing perspectives from both disciplines on stability and change in long-term perspective, and particularly to whether current models of individual agency are feasible objectives of study for early prehistoric archaeology. A starting point, as Layton succinctly notes, is that 'archaeology seems obliged to accept a trade-off between the very long time spans available and the relatively coarse grain of information, detail and interpretation that the archaeological data seem to provide and allow' (p4). But he notes that this assumption may not always be correct; some archaeological sites do provide brief, fine-grained windows into restricted time periods, and the issue of concern is how these can meaningfully be integrated into the study of long-term change.

Hunter-gatherers deal with cycles of change caused both by climatic and environmental change, and by social interaction. All of these can take the form of regular, irregular, cumulative, or catastrophic events. Ironically, our modern grasp of palaeoclimatic change is far more precise than archaeological data, which, as Papagianni notes, presents a further mismatch between the archaeology of hunter-gatherers and the disciplines from which it most fruitfully draws. Nine strong papers in this handsome volume address the issue of long-term change; six of these are specifically archaeological, two address ethnographic analogy, and Layton provides a useful survey of the issue. His introductory chapter provides an admirably clear history of the development of thought among social anthropologists about change in small-scale societies, as well as an integrative summary of contributions. From the reticence among anthropologists throughout most of the twentieth century to study long-term change and the lack of provision for explanation of social change among functionalists such as Malinowski and Radcliffe-Brown, a development began with the rejection of static culture by Bordieu and his emphasis on *habitus* as a means of variation through the constant re-negotiation of meanings between individuals. To Bordieu *habitus* is learned and thus different to genetically-determined behaviour, but Boyd and Richerson's subsequent *dual inheritance theory* provided a means by which the two could be linked, and those individuals who happened to use better-adapted artefacts or social strategies may have enjoyed greater reproductive success. Following this, Giddens emphasised agency, seeing social structures as emergent phenomena depending on network of individual agents stretching across communities – his phenomenon of *structuration*. Although these theories provide an explanatory basis for long-term change, as Layton notes the problem is how one can successfully apply these to an archaeological record which, while long-term, is far coarser-grained than that available for cultures with written records or from anthropological fieldwork. The contributions range in time from half a million years ago to the last few centuries.

In a consideration of group-based versus individual-based approaches to hunter-gatherer archaeology, Burke notes how it is only from the 1980s that 'humanistic' views of individuals as the social agents who build society have allowed archaeologists to integrate the short-term social approach with the long-term group/ecological approach. Specific examples of application are lacking in her paper, although it provides a useful problematisation of how hierarchical integration of long and short-term approaches might be possible.

Hosfield discusses the British Lower Palaeolithic, which is largely represented by artefacts from coarse-grained palimpsest at secondary context river gravel sites and for some 300,000 years of which we only have seventeen primary context sites of the likes of Boxgrove. The former provide the contextual long-term framework for the rare primary context sites and as Hosfield argues archaeologists need to get to grips with these if they are to evaluate long-term behavioural strategies. Hosfield proposes two analytical approaches with which to do so; focussing on the handaxe design as a means to employ the large samples from secondary context sites as proxies for demography, and making the assumption that variation in handaxe design reflects functional difference and thus allows the monitoring of material choices over time. Thus, one can recognise variation along the lines of morphological characteristics like s-twists and plano-convex forms, although it has to be said that the record is fairly homogeneous over some 0.5 million years. Herein lies a contrast with the dynamic aspects of the European Lower Palaeolithic record such as utilisation of organic materials for tools, differentiation of activity spaces and multi-phase lithic strategies. This, he suggests, may be due to the generic processing uses to which bifaces were put which effectively rendered them immune to adaptive pressure. This is an important point: if Lower Palaeolithic bifaces really were general purpose tools (butchery, plant and wood processing) and if, therefore, they were not subject to change (or at least *much* change), then one wonders how much they will repay future study.

Papagianni deals with palimpsest sites from the Greek Middle Palaeolithic which accumulated over tens of thousands of years. In her dataset, only those behaviours that were repeated over long periods are observable, and one wonders how much innovation and variation are invisible in this data set. She shows how foragers were repeatedly attracted to favoured sites in which the resource base was relatively wide, and argues that generalist subsistence strategies were well-suited to the climatic instability of the region. She uses an ethnographic study of transhumant pastoralists in northwest Greece to understand how Neanderthals may have coped with Upper Pleistocene change, arguing that in a mobile strategy, periods of difficulty could be met by relocating to less-favoured areas of the landscape, arguing that the Middle Palaeolithic reflects the exploitation of marsh-like open air locales with diverse resources, and hunting of large game by intercept strategies at land corridors, constantly open to remodelling as climatic change closed down and opened up water holes and their surrounding environments.

Muñoz and Mondini take an ecological perspective in their discussion of Andean-Patagonian hunter-gatherer archaeology, arguing that the emergent properties of ecological systems which hunter-gatherers are generated by the long-term interaction of animal species. Marciniak takes a long-term perspective on the interaction of 'Mesolithic' hunter-gatherers and 'Neolithic' (LBK/Lengyel/TRB) agriculturalists in Poland, arguing that a number of behavioural trajectories can be recognised in the region, including independence and symbiosis, in the complex adoption of agriculture. A similarly stable long-term picture is presented by Etnier and Sepez in their study of Ozette, a Northwest Coast village of Makah Indians, which undermines the received wisdom that exposure to European culture all but destroyed the indigenous culture. An ample ethnographic and archaeological record back to ~1500AD forms the basis of detailed reconstruction of the fluctuation of marine mammal resources. The value of their study is that while change is caused by changes in the availability of resources, close examination of the data show how embedded cultural factors such as colonial expansion and resource exploitation levels are closely intertwined with environmental change.

Maschner and Jordan, present a comprehensive picture of the variable and profound agents of change in their study of the north Pacific coast of Alaska, a region in which environmental change is pervasive. They find long periods of cultural stability among the regional Aleut, who have inhabited the area for the last 6000 years, for the duration of which an archaeological sequence is available. The periods of stability have, however, been interrupted by episodes of catastrophic change induced by environmental factors such as seismic events, tsunami, volcanic eruptions, climate change, sea-level fluctuation and mammalian ecological community change. The eruption of Aniakchak Volcano ~1700 BC coincides with the replacement of early villages with an arctic tool tradition reminiscent of the contemporary Dorset tradition of the eastern Arctic, probably as the result of the expansion of an ecological 'dead zone' due to ash fall. Subsequently, a major earthquake hit the lower Alaskan Peninsula ~500-200 BC, dramatically altering the intertidal regime and destroying much of the region's salmon habitats. After this, large villages rise, faunal assemblages from which attest the importance of large sea mammals, particularly walrus and whale. Finally, although the period 650-1100 AD is poorly understood, large, corporate households appear ~1150 AD, apparently coinciding with recurve bow-based conflict arising from the expansion of Western Thule Culture.

Taçon and Chippindale provide an excellent account of stasis and change in the rock art of Arnhem Land. Arguing that rock art sites are dynamic places, often sampling vast periods of time, they argue convincingly that these provide useful data for addressing the nature of long-term change. Focussing on one of the richest areas of rock art in Australia, in the 'top end' of the Northern Territory, they attribute artistic change to changing ecology over a 10,000 year long period from 'well over 10,000 years of age' to 'less than 4000' (p74). The regional artistic sequence developed here (which has many similarities with that of Kimberley) is well-suited to the themes of this volume; many of the paintings have considerable detail, allowing the accurate description of thematic and stylistic change over the long-term. The oldest depictions consist almost entirely of naturalistic animals, with detail developing later. The ubiquity of human (or human-like) figures in later periods allows detailed reconstruction of activities in the landscape, which themselves are a marker of how humans responded to environmental change. During the 'Dynamic Figure Period' (at least 10,000 BP) humans were the most common depiction. Head-dressed human figures are depicted tracking and killing animals and carrying their corpses back to camps, their bulging muscles 'making bold statements about action and energy' (p76). To the aboriginals these figures were made by the *Mimi*, an indigenous group now inhabiting Arnhem Land only as spirits. As they drifted away – preferring the rock world to the real world – they were eventually replaced, perhaps by 6000 years ago, by depictions of the rainbow serpent, coinciding with a period of pronounced climatic, landscape and social change. Finally, beeswax human figures and painted animals – particularly fish dominate the most recent phase. Taçon and Chippindale correlate the first period of change with a final sea-level rise, the effect of which was to force groups to higher ground and forcing the redefinition of social relationships. This is an attractive argument, although no data are presented and one needs to take their argument on trust; one would like to see detailed chronological data for both artistic, palaeoclimatic and palaeoenvironmental change and the demonstration of a meaningful relationship between the three.

This is a useful volume. All of the papers demonstrate the dynamism of hunter-gatherer societies, even if there is something of a dichotomy in approach: American papers are rooted in data and cultural ecology, focussing on faunas and climate change, whereas European papers are more discursive and focussed on material culture. To read the volume correctly, however, this should be seen as a strength; the contributions demonstrate the sheer variety of causes – both simple and complex, uni-valenced and multi-valenced – of cultural change. One underlying message of the volume, as noted in particular by Maschner and Jordan, is that culture change is not a gradual process, but is instead abrupt and punctuated, and in this sense an analogy with evolutionary change is inevitable. As Layton (p6) notes, the critical issue is, however, how one distinguishes between regular behavioural 'oscillations' and linear or cumulative change. There is no sense among the contribution of how recursive cultural change can be, and I would

liked to have seen discussion of the variable trajectories of change, and whether these might be regressive, rather than involving increasing intensification such as suggested by Taçon and Chippindale. In this sense specialists might like to read this volume alongside Hovers & Kuhn (2005) in which a variety of recursive change is demonstrated for the Eurasian Middle Palaeolithic and contemporary African Middle Stone Age.

The study of British rock art is flourishing as never before, and these two books are both outstanding contributions to the field, although markedly different in content and approach.

### **References**

Hovers, E. & Kuhn, S. (eds), 2005. *Transitions before the Transition: evolution and stability in the Middle Paleolithic and Middle Stone Age*. New York: Springer

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