Review Articles

Medieval Artefacts in their Social Setting

Gold and Gilt, Pots and Pins: Possessions and People in Medieval Britain, by David A. Hinton, 2005. Oxford: Oxford University Press; ISBN 0-19-926453-8 hardback £35; xi+439 pp., 108 figs., 8 colour plates.

Sam Lucy

The study of archaeological small finds has had a varied history: fashionable in some decades, and in some periods, and not in others. Medieval archaeology has had a more intimate relationship with its artefacts than other areas of the discipline, but this has expressed itself often in a tight focus on particular classes or categories of material by specific individuals. One person might be considered the expert, for example, on a particular type of early medieval brooch, or a particular style of pottery. While such specialization has become necessary, given the sheer quantity of material usually involved, it can mean that the 'big picture', the overall synthesis, and assessment of what the totality of material means, is lost. Moreover, the variety of material culture used in the medieval period, *c.* AD 400–1550, means that it is very difficult for a single person to appreciate both the detail of interpretation of individual artefacts and how they fit into broader systems of exchange, commerce and use.

Gold & Gilt, Pots & Pins is, therefore, an astonishing achievement, the culmination of decades of work on small finds across the medieval period. Not only does it span a far wider date range than many would attempt but it also considers the whole of Britain, making for a more balanced and thorough account of these periods, able fully to consider the interaction between different areas, and better to appreciate changes over time. Its real contribution comes, though, in its approach to the material, which is consistently questioning and critical. Rather than seeing items of material culture as passive indicators of fixed social groupings, Hinton looks deeper into how such items were used and worn, and asks the (seemingly obvious, but actually rarely expressed) questions about how they came to be in their final resting place: were they inherited, collected or purchased, or was their manufacture specially commissioned, for example? It is this constant pondering about things, and puzzling about people's behaviour, which makes this book both so readable and so interesting, for it makes the objects link directly with the people making and using them. Particular emphasis is placed on the role of material items in creating and reinforcing social identities and membership of social groupings, with ideas developed in early medieval archaeology tested for application in the later period (where good use is also made of documentary and pictorial sources). I particularly liked the exploration of the restrictions placed on the acquisition of particular items or types, as a necessary counter-balance to otherwise seemingly unrestricted 'choice': to be able to choose to use something, it first has to be available, and that availability can be restricted by other people, as well as by other mechanisms.

The volume is structured in a fairly standard chronological manner, with chapters running from 'Adapting to Life without the Legions' (late fourth to mid sixth century) to 'The Wars and the Posies' (fifteenth to mid sixteenth century), each dealing with up to a century and a half of development. The way the individual chapters are structured also helps to redress the balance between the Anglo-Saxon and Anglo-Norman east of Britain and the rest of the island. By consistently dealing with the western and northern material first, Hinton can then more clearly identify where the east diverges, and where it follows a similar development (albeit sometimes reflected through different types of material culture). This is able to reveal some intriguing long-term patterning: the effect of restrictions on the seventh-century gold supply to Britain influencing the importance some people placed on being able to display their access to it, for example, or the decline in importance of personal display using petty artefacts after the tenth century as social systems came to depend more on landholding and urban markets.

It is also worth reflecting on the environment in which this work was produced, for it bridges the academic world, and that of public archaeology, particularly in its use of artefacts reported to the Portable Antiquities Scheme. While these artefacts are of

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undoubted importance, they are also largely without context, for they tend to be the result of metal-detecting activity. They are therefore dated by reference to other, excavated, finds, and their significance inferred accordingly. One thing that the book is largely unable to draw on is the mass of data generated by contract archaeology since the early '90s. The first chapter, for example, on the fifth and sixth centuries, still largely relies on the multitude of published cemeteries with (as Hinton rightly notes) their ability to reveal how the dead were treated; evidence from settlement sites, with their potential for revealing information about how life was lived, is almost totally restricted to that from the traditional canon, West Stow, Mucking and (now) West Heslerton. One can only wonder (until wide-ranging syntheses of this material are undertaken) how the data generated through contract archaeology might change understandings and interpretations. This is not implied as a criticism (the book is an achievement in itself), but it does underline how medieval archaeology, as Richard Bradley has argued for prehistoric archaeology, may fundamentally change once the new data are taken into account.

Editorially, it can not be faulted: a solitary reference missing from the bibliography was all I noted. It also has very amusing (and often self-deprecatory, but always informative and detailed) end-notes, which add a welcome informal tone to the volume as a whole. Finally, the bibliography is a contribution in its own right; this volume is not only valuable as a synthetic work, but will also serve as a useful starting point for those engaged in artefactual studies, particularly when having to stray outside their normal fields of expertise. It should also be recommended reading for students, for its detail but also for its encapsulation of a critical and enquiring approach to varying types of evidence. David Hinton should therefore be congratulated on this book, which represents a lifetime's accumulated knowledge and considered study of artefacts in their social settings.

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A Class Act?

Society and Death in Ancient Egypt: Mortuary Landscapes of the Middle Kingdom, by Janet Richards, 2005. Cambridge: Cambridge University Press; ISBN 0-521-84033-3 hardback £45 & US$75; xv+245 pp., 112 figs., 2 tables.

Helen Strudwick with Alice Stevenson

The bias within the study of Egyptology towards mortuary remains has for many years now been a 'truth universally acknowledged'. Its general concentration on material culture and textual evidence relating to elite members of society is similarly well known. There have been, in recent years, attempts to redress the latter imbalance, to try to find evidence relating to lives and deaths of the lower echelons of Egyptian society, and *Society and Death* attempts to utilize the wealth of mortuary remains to consider social stratification in ancient Egypt and, in particular, to assess the validity of an accepted Egyptological assertion that a 'middle class' emerged during the Middle Kingdom. Richards's reasons for doing so are the 'documented ancient Egyptian attitudes toward cemeteries as loci for the recreation of ideal and real social orders' (p. 2), and she asserts that mortuary evidence may be used to demonstrate the presence or absence of real social change. Despite Egyptology's shortcomings in general, this is not a new approach, as she makes clear in Chapter Four; it has, however, more usually been applied to predynastic material. Richards divides her book into two Parts and a Conclusion.

Part One introduces the study of ancient societies, beginning with the terminology she will use, including *class*, *elite* and *status*, and a review of studies of social status and organization. This is followed by the introduction of traditionally accepted interpretations of Egyptian society, using textual and representational evidence, usefully highlighting the great increase in textual material from non-mortuary contexts which survive from the Middle Kingdom. This part concludes with a consideration of the archaeological evidence and the conclusions which may be drawn from it about society. Here it is regrettable that the terms 'town' and 'city' are used without being defined.

Part Two, 'Society and Death in Egypt', occupies most of the book. It begins with a chapter looking in detail at the problems presented by the mortuary bias in the evidence available. Richards highlights

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the fact that the funerary monuments that have been most studied are generally substantial monuments, and that therefore the picture presented by them is necessarily biased towards the elite. She makes the important point that Egyptologists have generally focused on tombs as individual monuments rather than as part of the wider context of a cemetery, thus decontextualizing the available evidence. The situation is often exacerbated by the prevailing system of applying for and allocating concessions for studying individual monuments.

In discussing the general after-life belief system of the ancient Egyptians, she makes the valid point that mortuary practice should be looked at in totality, including the endowment of lands to provide income for the employment of priests to carry out necessary offerings. She regrets that with 'very few exceptions … the specific details of these nonroyal arrangements are also inaccessible' (p. 65); this is generally true but, in Greek and demotic documents of the Ptolemaic period, there are detailed records left by the *choachytes* (mortuary priests) of the time. Whilst these are clearly much later in date, they nonetheless do give a wealth of information about the workings of the mortuary economy and status of the individuals involved.

Up to this point, the pace of the book is rather slow, and this reader was left feeling that Richards was trying hard to ensure any traditional Egyptologists were nursed through what might be frightening territory. As a result, the first 87 pages have the feeling of an over-lengthy introduction, with much stating of the theories and opinions of others but very little of the author's own voice.

In Chapters Six and Seven, Richards presents studies of the mortuary sites at Haraga and Riqqa, in northern Middle Egypt, and Abydos, further south, including the results of the 1988 excavations of the North Cemetery at Abydos. These chapters present very useful overviews of the development of these burial sites and, for the first two, some limited quantitative analyses of the data available. The analyses performed are a little disappointing in their scope (e.g. correspondence analysis could have been used to look at relationships and variability between the data sets). There is also a lack of critical rigour in use of the data. For instance, comparison of graves from different sites is misleading since local geological conditions are just as likely to have affected the construction of graves as are the requirements of status display. The opportunity to engage with qualitative differences between artefacts has been missed. Variability within assemblages is a line of investigation that Egyptological data is well-suited to. Richards identifies the presence of numerous levels within a 'middle class', but what may be more significant is the complexity of its constituent elements — the ways in which the mosaic of social identities within it was understood and represented in death. Such diversity and complexity appears not to have been examined. However, the author concludes that a differentiation in burial practice, reflecting a difference in socio-economic status, can be detected in the Middle Kingdom mortuary data from Haraga and Riqqa, and that this is also reflected in the development of burial practice at Abydos.

In her concluding chapter, Richards draws together the evidence from the mortuary data and that from other sources, archaeological, textual and representational, and argues that a middle class did exist in the Middle Kingdom, but that it emerged earlier, during the late Old Kingdom and the First Intermediate Period. These conclusions are not new and may be found, for example, in the *Oxford History of Ancient Egypt* (Seidlmayer 2000). Indeed, much of the purpose of Richards's book seems to be to present the data from the 1988 excavations within a wider context.

Only two editorial problems made themselves noticed. On Figure 6, the 'Terrace of the Great God' is not marked, which makes it difficult for the reader to appreciate the location of the 'votive zone' Richards is discussing. On page 64, within Chapter Four, there is a cross-reference to the same chapter.

A source of unease throughout the book is the use of the phrase 'middle class'. Although her usage is clearly defined at the outset, the author has not addressed the inherent problems of using a phrase so full of connotations for this reader at least. Unlike American usage, 'middle class' is in today's Britain frequently used in a pejorative sense. Indeed, for many of my generation, the word 'class' has forever been coloured by the 1966 Frost Report comedy sketch in which three men, representing the upper, middle and lower classes, compare themselves with each other. The upper class representative is said to have no money, but innate breeding, which distinguishes him from the middle class man who has money but says of himself that he is 'vulgar', whilst the lower class man looks up to them both. On this evidence, 'class' in British terms cannot be distinguished merely on the basis of relative material wealth. The evaluation of class presented by Richards suggests that, in the ancient Egyptian context, class (which she equates with "'socioeconomic grouping" or "level"' [p. 16]) was based on an individual's access to material wealth. But do we actually know that this is the case? I think this remains an unaddressed question. We may recognize, in ancient Egyptian society, features reminiscent of

an aristocracy, characterized by individuals holding honorific rather than functional titles but, as the Frost Report's characterization of 'class' indicates, social status cannot necessarily be assumed to be directly related to wealth.

Overall, Richards has presented us with a useful synopsis of work on the structure of ancient Egyptian society, including the results of her own study of the Middle Kingdom sites of Haraga, Riqqa and Abydos, with a particular focus on contextualizing the 1988 excavations at the latter site. The slow pace at which the material is presented makes it perhaps a book to dip into rather than one to read from cover to cover.

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Going to Ground

Stone Houses and Earth Lords: Maya Religion in Cave Context, edited by Keith M. Prufer & James E. Brady, 2005. Boulder (CO): University Press of Colorado; ISBN 0-87081-808-2 hardback £44.50 & US$55; xviii+392 pp., ills.

Stephen Houston

A cave in the Maya region is not for the faint of heart. The entrances are often narrow, the humidity high and creepy-crawlies abundant, or at least imagined to be so in the darkness beyond the entrance. Flash floods can and do drown the spelunker, sudden drops break their bones. The caves are neither intended for easy movement nor inviting in air quality. One of my most memorable experiences was to stumble, near the opening of a cave in Guatemala, over a jaguar carcass covered in fire ants. The ants soon shifted their interest — and injections of formic acid — to my legs; the appalling stench continued as before. Had I not been in acute pain I would have noticed that, like many caves, the Maya ones breathe: air flows in and out according to the micro-pressures of cool air inside meeting moist, warm air outside. Thus, Maya caves are dark, uninviting, almost greasy in their humidity, oozing with bat guano, smelly, dangerous, and weirdly animate.

With *Stone Houses and Earth Lords* and another collection of broader scope (Brady & Prufer 2005), Maya cave archaeology has become one of the two best-studied traditions of subterranean archaeology in the world. Other than parts of France and Spain, there is no other region with such intensity of research and comparable intensity of ancient use. In no small part, this break-through results from the tenacity of James Brady. Building on work by Henry Mercer, Edward Thompson and Sir Eric Thompson, he has managed to forge a new subfield of Maya archaeology. After decades of exemplary fieldwork in Honduras, Belize, Guatemala, and Mexico, Brady can claim to have created a speciality that can now rework prior Mayanist perception of the landscape and lead to publications in outlets once shy of such esoterica. This achievement has garnered scholarly respect and employment for its practitioners. The accomplishment is large and important. *Stone Houses and Earth Lords* catalogues how others have been influenced by Brady and includes a number of essays by the 'Earth Lord' himself.

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The essential point of the chapters is that Maya caves relate to ideas and ritual practice, not to habitation and extraction of resources. This means that, for present-day interpreters, caves serve as the near-exclusive province of beliefs and rituals concerning the nature of earth and humans, the 'geocentric' modality noted by Brady & Prufer in their conclusion. Caves are where we should 'dig' for such matters, as their deposits have been neglected, their recesses relatively undisturbed by looters and less-skilled archaeologists of the past. The pragmatic views of cave use, such as Arnold's (1971) belief that caves were exploited mostly for tempering material, is exploded by the authors in this book. The many burials, some doubtless sacrificial, are addressed by the final set of essays, each showing that some of the bodies belonged to the unwilling, including children.

In their paper on 'artificial' or constructed caves and waterways in the Maya Mountains of Belize, Prufer & Kindon do, however, indicate a subtle revision to 'geocentrism'. A fuller conception requires immersion in the ethno-hydrology of the ancient Maya, who saw rains and celestial phenomena, including rainbows, as parts of water cycles that pass only intermittently through caves. A geocentric approach should not loosen ties to the worlds above.

A second point, noted in other places by David Stuart, concerns the ways in which pyramids replicate natural features, in particular the 'hills' or *wits* that the ancient Maya would often depict as living beings, not with doorways, but with 'caves' in their summits. Ironically, the exemplification of this perception is among the earliest: the Preclassic 'cave' depicted in the paintings of San Bartolo, Guatemala, featured on the cover of this book obliges with eyes, mouth, and, in place of stalactites, an undulating tooth (terminology of such cave features comes with helpful explanation in the paper by Peterson *et al.*). Stone (1992) drew similar attention to this process of inclusion and 'domestication' of natural landscapes as a means of centralizing access to, and control over, sacred features.

In a sense, Maya cities concentrated the key sacred features of a dispersed landscape, but now under watchful royal eyes and liturgical supervision. From the small sites documented in Belize and elsewhere by Christina Halperin and Prufer, it is likely that these strategies affected other levels of society too: caves are not only elite phenomena, although some of them, such as Naj Tunich, contain clear textual evidence of royal attention to caves. Stone reports here and in her fine monograph on Naj Tunich (Stone 1995) that scribes in the employ of rulers came to caves, although whether, as she suggests, in acts of personal pilgrimage appears less likely to me — Classic Maya scribes seem always to form parts of royal entourages.

Another decipherment by Stuart, plausible but still unproved, reinterprets a glyph identified before as a sign linked to 'place' (Stuart & Houston 1994, fig. 9). In the Classic period texts, the probable reading is, according to Stuart, *ch'e'n*, 'cave, rocky outcrop, escarpment, cenote [well]'. At Dos Pilas, Brady has found that caves are, to an unexpected extent, central to site planning. This perspective is deepened with evidence from other scholars in the volume: Timothy Pugh on a cave that runs through the centre of Mayapan, Shankari Patel on caves and elevated roads over much of Cozumel, and Christopher Morehart on a cave linked by road to the Belizean site of Actun Chapat. Yet the fuller range of meanings needs to be taken into account. More recent linguistic sources, our fullest record, leave little doubt that the nuances of *ch'e'n* go well beyond what we would call a 'cave'. In the 1980s, Stuart remarked to me that a speleothem (piece of mineralized cave stone) from Yaxchilan was inscribed with a more specific term for 'cave', in a spelling we would now read as *ahktuun*, 'turtle-stone'. For some of the Maya at least some of the time, a cave might have seemed more akin to the gullet of an earth turtle, perceived in ancient belief as a world-model (Taube 1993, 77).

The volume contains real surprises. Brady's comparison of finds from caves, especially in the Petexbatun sites, and those from surface excavations will — and should — shock most Mayanists. The sheer quantity of cave finds is stunning, as, incidentally, is their extraordinary preservation. In future, it would be imprudent to ignore such finds or the possibility of them. Brady goes on to suggest that the removal of goods from circulation itself formed an important function of caves in Maya ritual economy. This may be, yet secondary consequences are not certain to have influenced primary motivation in placing valued goods within caves. The discovery by Brady and Pierre Colas of desecrated or sealed caves hints at a studied and violent corking of entrances with mud and stone. The argument is persuasive in the general, but not, to this epigraphic specialist, convincing in the particular. The suggestion from hieroglyphic evidence that fires affected *ch'e'n* would have less bearing on their argument if, in fact, the meaning were broader than 'cave'. Holley Moyes reports on the surprising find of a sweatbath in the cave of Chechem Ha, Belize. This accords with the discovery, by Mark Child and David Webster, of a similar sweatbath in an overhang on the periphery of Piedras Negras.

The editors extol Sir Eric Thompson, who did more than most to fold ethnographic observation into archaeological interpretation. That caves serve today as a marker of identity among Tzotzil Maya or that mountains among the Q'eq'chi' discharge similar

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functions is surely true; and maybe, probably, this holds among the users of the caves reported in *Stone Houses and Earth Lords*. The trouble is that the very esoteric, secretive, and enclosed nature of cave rituals means that precise interpretation will prove difficult to confirm. The risk is to activate what Floyd Lounsbury called 'Thompson's love of association': this-is-linked-to-that-which-is-linked-to-this, and so on. Lounsbury was not positive about this approach, which had disastrous consequences for Maya decipherment. Its effect is less deleterious here but still open to debate.

How does one prove specific intent behind a particular deposit or instance of cave use? How can a particular act, materially attested, be worked into a broader world-view of the ancient Maya without sounding like Thompson at his most incautious? The likely outcome is a confluence of multiple meanings and uses in caves. That they should have one use or set of meanings is improbable. The tendency in this book, except for some remarks by Pugh, is to see caves as powerful and useful. Another view is to draw on Maya traditions that assign evil to holes in the ground, even the possibility of malign witchcraft; in local belief, caves may have housed *way* or companion spirits that occupied the night or roamed through jungles beyond the domesticated world. The fact that these questions can be asked, alternatives explored, owes everything to this volume, to the work behind it, and to the legacy of James Brady.

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Misunderstanding Visual Culture

Visual Culture and Archaeology: Art and Social Life in Prehistoric South-east Italy, by Robin Skeates, 2005. London: Duckworth; ISBN 0-7156-3390-2 hardback £45; xii+244 pp., 43 figs., 2 tables, 22 photographs.

Douglass Bailey

Robin Skeates has written an ambitious text which aims to explore the contributions that the transdisciplinary approach of visual culture studies can offer archaeology, and to provide an up-to-date synthesis of art and society in southeast Italian prehistory. The author presents material though nine chapters, tracing artistic trends from the earlier Upper Palaeolithic through the Middle Bronze Age, and providing detailed descriptions of trends and sites with comprehensive bibliographic support. The book provides a detailed and welcome discussion of art and artworks over a long period from a region and a period with which the author is well acquainted. Though some may wish for a broader discussion of how these objects fit into the wider geographic context (how events and objects in Puglia fit into our knowledge of contemporary neighbouring regions of Italy and other parts of the Central Mediterranean), there is much for which students of the Italian past will be grateful. In this sense, the book is a complete success.

The problem, however, is that Duckworth promotes *Visual Culture and Archaeology* as an archaeological case study for the field of visual culture studies and as an investigation of the contribution that archaeologies of art can make to the study of visual culture. It is here that the project comes unstuck. Much of the difficulty flows from the restrictive ways in which Skeates defines his object of study and, more fatally, from his imprecise (though well-intentioned) employment of critical vocabularies from contemporary art. The definition of art as 'those made-objects intended to be visually expressive and stimulating' (p. 1) worries the reader from the outset. How do we get at the intentions of these 'made-objects'? Are not all objects potentially visually expressive and stimulating? By adding visual culture to the mix, Skeates productively extends the scope of the study by adding processes and activities such as performance. On the surface, this all looks well polished; in the introduction the author reminds us that there can be no final and definitive account of visual culture, that we must remain aware

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of the importance of individual perceptions, that material culture does not have any single specific meaning, that objects are meaningfully constituted, and that social relations are fluid and contested entities.

It is disappointing, therefore, that the chapters that follow these bold and welcome statements make little effort to take advantage of the potential that a visual culture approach can bring to the study of prehistoric people, objects, places, behaviours and beliefs. In organizing the book's core nine chapters, Skeates choses to marry individual periods of southeast Italian prehistory to selected 'characteristic features of visual culture' (p. 11). Thus, the early Upper Palaeolithic gets hitched to body art, the middle Upper Palaeolithic to performance art, the later Upper Palaeolithic to figurative art, the final Upper Palaeolithic to ritual art, the early Neolithic to community art, the late Neolithic to animate art, the final Neolithic to status art, the Copper Age to prestigious art, and the Middle Bronze Age to monumental art. These arranged marriages can have only one future: divorce. Why should any of these selected key 'characteristics' be limited to any particular period? In his own defence, Skeates claims that his intention is not to limit particular characteristics to single periods; the problem remains that this is precisely what the book does. Why should we think of performance art in the middle Upper Palaeolithic but not the Bronze Age? Why is status art more relevant to the end of the Neolithic than to the Copper Age? Certainly all of these important and well-selected concepts need thinking through for all periods. A better approach would be to ask why particular communities, in specific places, living under certain environmental, social and political circumstances, should engage with visuality in various ways with different intended (or unintended) consequences. Another concern is Skeates's inability (or is it unwillingness?) to escape the comforting though restrictive decision to reduce all visual behaviour to 'art'? Again, the author's introductory claims for a new and exciting discussion which benefits from visual culture studies disappear into the depths of a text that assigns all visually engaging activities and materials to traditional and complacent categories of art: for example, 'portable art-works' (p. 11), 'body art' (p. 21), 'figurative art' (p. 50), 'arts of the first farmers' (p. 79), 'traditional art' (p. 123), 'the art of display' (p. 139), 'static art-forms' (p. 156), 'the art of advertising' (p. 164), 'quantities of valued art-works' (p. 195), and 'distinctive local artistic traditions', 'local artists' or 'visually communicative art-works' (p. 196). Where is the critical and provocative potential of specific meanings, of the importance of individual viewers, or of the fluidity of meanings which featured in the introduction? Where is the visual culture of the volume's title that attracts purchasers, readers and reviewers?

The answer lies in Skeates's failure to understand visual culture studies. A visual culture approach seeks to tease out sets of relationships among objects, spectators, acts of viewing and of being seen, of rhetorical powers of various representational methods and conceits, and of socio-political contexts of particular engagements of people and objects. Most importantly, visual culture is not, as Skeates assumes it to be, a physical object or a set of materials that can be traced though time and across regions as if it were a style of pottery decoration or artefact form. One can neither write in terms of the visual culture of a region, period or settlement, nor suggest that a community established a distinctive visual culture or employed a visual culture for a particular purpose. Visual culture is not a thing. It refers to the interactions of objects, objects' qualities, and the historical particularities of human engagements with those objects, but only where object is taken to mean an unrestricted range of permanent (but also ephemeral) manifestations of human activity: pots, figurines, wall paintings, mosaics, but also sand drawings, dances, arguments, *haute-couture*, repeated everyday activities, doodlings, ticket-stubs, cartoons and graffiti. None of these manifestations of human activity need to have been generated through artistic intention; nor are they part of a pretence to express a tangible concept or tradition. Visual culture is an approach that urges scholarship to rupture the foundations of existing debates and to provoke new and often unsettling juxtapostionings of thought and action within past behaviour as well as within modern interpretation and representation of the past.

Furthermore, to employ a visual culture approach is not to pick and choose concepts from the world of contemporary art and then simply lay them down on top of an otherwise unreconceptualized set of objects, people, or places. To do so is to do nothing more than adhere a thin and cheap veneer of critical thinking over the more mundane (though sturdy) plywood of traditional and unprovocative description. In thinking in terms of performance art, installation art or body art, Skeates teases the reader with what might play out as challenging and provocative analysis. The author's failure to provide adequately detailed discussion about any of these movements or concepts (as they have developed historically within and, more importantly, as reactions against traditional art and art history) makes it difficult for him, let alone for the reader, to work through the potential of these ideas.

A good example of this problem is Skeates's use of the concept, installation art. In the artistic vocabu-

lary and actions of the past fifty years, installation art marks a departure from traditional artistic production, especially in the relationships among spectator, exhibition space, and object. An important aim of installation art is to engage the spectator physically and emotionally in a multi-sensory experience. The viewer is forced out of passivity and pushed into contact with a set of materials, sights, sounds and smells that go beyond normal expectation. Installation art complicates the relationships among objects, creator/artists, spectators, time and space, creates new and unexpected worlds, and undermines the spectator's static, reasoned appreciation of an ideal form or concrete entity (a painting on a wall, a statue on a plinth, an artefact in its stylistic classification). In this sense, to think about the prehistoric past in terms of installation art has (at least) two potential benefits: it could urge us to investigate how particular prehistoric people transformed and disrupted particular places and objects (installation as practice and a way of thinking in the past); and it could urge us to engage in the (re)presentation of the prehistoric past (and its objects, places and people) in a more subjective and confrontational way.

Skeates has something different in mind. For him, 'installation' is in inverted commas (as if he is not certain of the term's proper usage or is embarrassed to be found using it at all). For Skeates, installation is little more than a synonym for deposition. He proposes that installation art expresses 'the dynamic act or process of installing visual material in a specific place' (p. 11). Grave-goods are offered as an example of installation art in action: the body and its ornaments are installed in a burial and a burial is installed in a cave. Missing from this approach are the sensually engaged spectators and the attempts to create new understandings of the world that should accompany thinking about installation. More promising is Skeates's suggestion that deposition into ditches of objects (tools or human remains, mainly in the later and final Neolithic) and the construction of walls were intended as material acts that forced into action those watching and demanded subjective responses. Interesting ideas all of these are, though again, Skeates stops short of playing them out to their full potential. Instead, he reverts to rather mundane interpretation, citing prehistoric needs to maintain control over local resources or attempts to re-enforce individual status and social hierarchies. Given its head, the idea of installation (in its artistic sense) in caves is an exciting provocation to thought: prehistoric people manipulating place and objects in order to challenge prehistoric understandings and uses of caves, the essences of caves, the expectations that people had of cave-space, and their conceptions of what appropriate behaviour and activity within them might be. To take forward this particular proposal requires a (much needed) digression on individual caves in their particular social and geographic landscapes; clearly that is another book project, eagerly awaited. Also exciting is the proposal that ditch-fillings are confrontational attempts to transform ditches and their prehistoric meanings; this line of reasoning could move debate past traditional interpretations of ditch-filling events (i.e. as claims for group membership or as proposals for links to past events and groups). In any event, installation art is a concept of great potential for thinking about the past, though in *Archaeology and Visual Culture* the opportunity is missed. Hopefully, it will stimulate future work.

Similar detailed discussions could focus on Skeates's use of performance and landscape art. The result would be a similar set of concerns as those already raised about Skeates's employment of installation. All are vibrant critical concepts which have their own historical and philosophical contexts, and all are pregnant with potential for reworking our understanding of the prehistory of southeastern Italy and beyond. Playing out these interpretive conceits in full and in association with detailed, (pre)historically specific case studies that weave their ways in and out of traditional culture-historical cul-de-sacs will enrich our knowledge of the prehistory of the central Mediterranean. Robin Skeates is the person best positioned to take up this challenge, and we will be much the wiser once he has done so.

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Shamanism and the Neolithic

Inside the Neolithic Mind: Consciousness, Cosmos and the Realm of the Gods, by David Lewis-Williams & David Pearce, 2005. London: Thames & Hudson; ISBN 0-500-05138-0 hardback £18.95; 320 pp., 104 ills.

Nick Thorpe

In this interesting and enjoyable tour of Neolithic consciousness, the authors seek to develop the model of a shamanic origin for Palaeolithic art, as presented in Professor Lewis-Williams's earlier work (2002). This time, the focus is on two main themes: the origins of agriculture and the meaning of passage graves and (briefly) henges and stone circles. The volume is well illustrated, with a range of black & white line drawings and photographs and a selection of colour photographs, although some of the photographs are rather too dark to make out the details required to support the argument.

Lewis-Williams & Pearce provide a welcome emphasis on the role of religion as a counter-weight to other archaeological schools which over-emphasize the importance of technology and ecological adaptation in prehistoric societies. However, the fundamental doubt most readers will have about the religious argument put forward here is its universal character — the suggestion that there is such a thing as 'the Neolithic mind'. The basis of this claim lies in neurophysiology and the argument that altered and heightened states of consciousness result in religious experiences which are codified in systems of belief and practices. The authors do recognize a role for culture in variations of religious activity but they are far more concerned to seek out common patterns between the Near East and the Atlantic.

The major areas for which Lewis-Williams & Pearce propose a new interpretation are the beginnings of agriculture and western European Neolithic monuments. They begin with agriculture and a brief outline of dubious claims that DNA analysis has pinpointed the origins of domesticated cereals in the Karacadag Mountains of Turkey and can be associated with the remarkable site of Göbekli Tepe and its pillars carved with the figures of animals. This is followed by short sections on the 'Ain Ghazal statuettes and plastered heads from Near Eastern Neolithic sites, which are reasonably believed to show the importance of 'seeing', and architecture at Çayonü and 'Ain Ghazal which is less convincingly presented as an argument for the existence here of a notion of a three-tiered cosmos — implied, although not clearly stated, to be a universal feature of pre-modern religious belief, despite some of the observations reported by the authors themselves of a variety of cosmologies. This assumption of a universal belief in a three-tiered cosmos underlies the lack of interest in pursuing any alternative interpretation of architectural and burial practices.

For the remainder of the first half of the book, they focus on Çatalhöyük. Following an outline of the architecture and burials, they consider the role of the aurochs. Here they draw on Stephen Hugh-Jones's distinction between horizontal and vertical shamanism. Vertical shamanism depends on the control of esoteric knowledge, thus leading to the possibility of competition over access to knowledge both within the elite and those outside. This competition therefore provides the motor for change in their analysis. After a consideration of buildings and burials in the light of the three-tiered cosmos model, Lewis-Williams & Pearce concentrate on the aurochs and its domestication. They attribute this to shamans, or 'seers', seeking prestige through possession of cattle to be used for the display of wealth, sacrifice and feasting. This is not very different from other 'social' models of domestication, mentioned only very briefly by the authors; the crucial difference is that these do not confine political competition in gatherer-hunter or early agricultural societies to seers. Indeed, there is little attempt by the authors to argue, rather than assume, that political power was inevitably in the hands of the religious, even though, in many of the ethnographic case studies cited throughout the book, it is clear that shamans had no monopoly on power.

In the specific case of Çatalhöyük and the aurochs, the lack of context makes the argument difficult for the reader to assess. Although the original domestication of cereals is mentioned briefly several chapters earlier on, that sheep and goat were herded, and a range of cereals and legumes cultivated at Çatalhöyük long before the local domestication of cattle is not made at all clear. Can this really be ignored in any discussion of domestication? Indeed, the role of Natufian societies and sites in the Levant in the origins of agriculture is glossed over almost entirely. Had they been discussed, it would have become clear that cattle domestication is a relatively late phenomenon, which may have had little to do with the earlier domestication events and processes. To generalize from Çatalhöyük is thus a highly dubious undertaking.

The second half of the book considers the chambered tombs of the western Atlantic, with brief asides on the Rollright stone circle in Oxfordshire and henges.

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One of the mysteries they seek to probe is why henges 'retain the circular plan of many (but not all) megalithic passage tomb mounds?' (p. 196), the importance of the circular form being demonstrated by its persistence for some 1500 years at Stonehenge. There is, of course, a perfectly good reason in the view of most British archaeologists for the circular form of henges — they follow the circular form of many earlier causewayed enclosures — and, indeed, Stonehenge itself, probably the earliest henge monument, is perhaps best seen as a hybrid form between causewayed enclosures and henges. Yet, bizarrely, causewayed enclosures receive not a single mention in the book. Also, no room is found among the 75 line drawings for distribution maps of either passage tombs or henges, which might have demonstrated the lack of over-lap between the two both along the Atlantic (henges only appearing in Britain and Ireland) and within Britain (most henges are in eastern England and lowland Scotland).

The rest of the analyses focus on passage graves, especially those of the Boyne Valley, with attention paid to the architecture, once again interpreted in terms of a three-tiered vision of the cosmos, and the decoration on the stones, not surprisingly seen as reflecting altered and heightened states of consciousness. The general notion of religious belief underlying the art is widely accepted, although specific interpretations, such as the view that horizontal lines at Knowth represent tiers of the cosmos, required further detail. Breton chambered tomb art also features in this discussion, although not the earliest of the art — the standing stones, decorated with a 'Neolithic toolkit' of axes, domesticated animals and ploughs, which were broken up and reused as capstones at several major tombs. It would have been interesting to see how Lewis-Williams & Pearce would have coped with this rather different artistic product.

This is, as the blurbs on the book jacket suggest, an exciting read, but it would have been far more convincing if a sustained attempt had been made to grapple with the complexity of the evidence. Stressing the importance of local cultural sequences does not sit well with ignoring whole monument groups. Next time, we need less pictures and more research.

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Hearing Secret Harmonies

Archaeoacoustics, edited by Chris Scarre & Graeme Lawson, 2006. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research; ISBN 1-902937-35-X hardback £25 & US$50; ix + 126 pp., 63 ills., 5 tables.

Richard Bradley

What was life like in the distant past? How did the experience of ancient people differ from our own? One of the challenges of contemporary archaeology is to find ways of answering these questions. To a large extent, recent investigations have been concerned with visual phenomena. Much has been written about the appearance of places in the past, their settings in the wider terrain and the views that could be seen from them. The obvious analogy is with a landscape painting. Discussion of such work usually takes two forms. On one level, there are disagreements about the orientations of particular sites and their relationship to distant landforms. Were megalithic tombs aligned on mountains or rock outcrops? Were they placed so as to have a view of the sea? A more fundamental problem concerns the environments in which they were built. Were these as clear of vegetation as they are today, or would the structures have been located in woodland? Such discussions are often inconclusive, and a more important point has been overlooked. In a closed environment, other senses come into play. This is evident from some of the ethnographic examples quoted in this book. The less it is appropriate to think in terms of visual effects, the greater the importance of sound.

That is an issue on which all the contributors to this collection would agree but, in other respects, their attitudes to acoustic archaeology are very diverse. It is not surprising when the contributors extend from an advocate of alternative archaeology to specialists on ancient music, architecture and hunter-gatherers. What links many of these papers is a concern with intention. How can we tell which kinds of sounds were important in the past? Were they experienced

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passively or were they deliberately contrived? How would they have been interpreted? Here any consensus ends. The book contains several strands.

Some of the contributors are concerned with ancient musical instruments and their performance. Their methods extend from the reconstruction of specific instruments, like Bronze Age lurs or early medieval lyres, to their use in a variety of settings. Lawson, for instance, argues that the boat-shaped halls of Late Iron Age Scandinavia would have possessed the right acoustic qualities for vocal performances, accompanied by a lyre; a practice for which there is documentary evidence. Laboratory analysis is important too, and allows D'Errico & Lawson to distinguish between the earliest bone flutes and a spurious example from Slovenia where the 'finger holes' were made by bears. In other cases, ancient instruments have been postulated on the basis of ethnographic evidence. Morley considers the music created by modern hunter-gatherers, and Zubrow & Blake describe the operation of a specially constructed 'lithophone' based on the acoustic properties of flint blades. If this seems an unlikely claim, they argue that the use of these artefacts to make music produces distinctive wear traces which can be recognized on Upper Palaeolithic artefacts.

Other papers place more emphasis on Classical and medieval acoustics as they are reflected in architectural texts and surviving buildings. Rocconi discusses the writings of Vitruvius and the acoustic devices incorporated in ancient theatres; Reznikoff considers the use of sound in medieval churches; and Lawson extends the same approach to the acoustic ports built into Wells Cathedral. Here there is much less ambiguity, and the 'trumpet ports' he identifies on the West Front at Wells were actually accompanied by sculptures of people playing musical instruments.

Another strand concerns prehistoric material, although Reznikoff's chapter provides a link by showing that there are Upper Palaeolithic paintings at particularly resonant points in some French caves. Waller makes a similar observation in the case of open air rock art in Utah and Arizona. His study shows that these designs were placed where sounds would echo from the rock face.

Such studies raise a fundamental problem which is addressed in the papers by Scarre, Watson, Cross and Devereux. Whereas Vitruvius understood how sound behaves, there are societies in which it remains a mystery. It seems to be amplified or distorted for no apparent reason, or appears to issue spontaneously from rivers, cliffs and caves. Such phenomena are widely appreciated, as ethnographic accounts make clear, but, if they could not be understood, how could they have been exploited? That raises the question of intention which underlies nearly all the contributions. Watson discusses the acoustic effects experienced inside chambered tombs and stone circles. I have no doubt that they exist and have experienced some of them myself, but were they deliberately contrived? As he says, that is the kind of question addressed by Western science but people in prehistory may not have shared the same concern. A better procedure would be to accept that certain monuments had acoustic properties which were not envisaged when they were constructed. In that case it is worth asking if there is any structural evidence that they had been enhanced once those effects had been recognized. Were later monuments of the same type built with those phenomena in mind? That may be hard to answer, but a still more difficult question is how such phenomena would have been interpreted in the past. One way forward might be to investigate the physical effects of infrasound. They are mentioned in passing, but again the authors disagree.

This is an attractively produced volume, clearly written, well illustrated and carefully edited. If it appears inconclusive, that is because any conclusions would be premature, but it does set the terms for a discussion which is becoming increasingly topical. It is more than most books do, and that is why *Archaeoacoustics* is well worth reading.

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Ethnoastronomy in Cultural Context

Songs from the Sky, Indigenous Astronomical and Cosmological Traditions of the World: Selected Proceedings of the 'First International Conference on Ethnoastronomy: Indigenous Astronomical and Cosmological Traditions of the World' held at the Smithsonian Institution, Washington, DC, 5–9 September 1983 (*Archaeoastronomy: the Journal of the Center for Archaeoastronomy* XII–XIII), edited by Von Del Chamberlain, John B. Carlson & M. Jane Young, 2005. Bognor Regis: Ocarina;
ISBN 0-9540867-2-4 paperback £34.95 & US$64.97;
xiv+379 pp., 182 figs., 19 tables.

Susan Milbrath

This long-awaited publication focuses on non-Western astronomy, incorporating research on contemporary cultures and ethnohistorical sources. A compendium of thirty-two articles, it provides insight into a great variety of indigenous beliefs and practices related to astronomy. Many articles link heaven and earth through the perspective of landscape or seasonal changes in the landscape, and shared constructs can be traced across the globe, especially in relation to the Sun, Moon, planets and seasonally changing skies. A number of articles were updated in the 1990s to provide added information, and few seem dated because they offer data not readily accessible in other sources.

A preface by Clive Ruggles provides background on the volume, including its long delay in publication, and a foreword by Carlson describes the conference itself. Then Chamberlain & Young introduce three underlying themes linking astronomy to humankind throughout history: people seek to explain what they observe because they cannot separate their concept of self from their concept of the universe; people observe the heavens to pace the events in their lives, most notably food-related activities, but also events related to the human life cycle; and they participate in the celestial cycles by conducting rituals founded on the belief that human activities can ensure that the natural cycles will repeat in proper sequence. Chamberlain & Young also discuss terminology, noting there is a chronological distinction between archaeoastronomy and ethnoastronomy but the two are so closely linked that the term cultural astronomy is gaining currency in reference to the integrated fields.

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Three articles incorporate methodological or cross-cultural analysis. Astronomer Chamberlain lists questions related to astronomy that would aid our understanding of ethnoastronomy. Some concepts have not been previously considered, such as observations of the earth's shadow, which is visible in the sky to the east just after sunset. Edwin Krupp focuses on the association of colours and directions in a broad survey that includes North America, Mesoamerica and areas sharing the Buddhist and Hindu traditions. He points out that the colours vary but the concept of quadripartite space is universal. Cardinal directions are sometimes linked to individual stars or star groups, and intercardinal directions are often associated with the solstice extremes. Young's article in this section warns about the dangers of ethnographic analogy, citing a case where scholarly analysis of an ancient petroglyph influenced Zuni interpretations recorded at a later date.

D.M. Varisco describes medieval Muslim almanacs that blend the lunar zodiac, prevalent in China, India, and Sassanian Iran, with Yemeni star calendars. In this model, 28 asterisms marked the sidereal journey of the Moon, and the cosmical rising of each asterism was said to occur at 13-day intervals. Observations of the zenith position of the Sun on July 16 over the well at Mecca provided a solar coordinate.

The largest number of articles appear in a section on the New World with ten on North America, four on Mesoamerica, four on South America, and two on the Caribbean. Many of these articles relate astronomy to the landscape or seasonal cycles. Scott Momaday recounts a Kiowa story about seven sisters who rose up to the sky to become the Big Dipper at a sacred site in the Black Hills of Wyoming. Plains Indian lore makes a compelling connection between their people, sacred landscape and the heavens.

David Vogt's article on the Northwest Coast focuses on concepts of night and day, spirit and reality. Darkness is a place of magic and the world of the dead, relating to night itself but also to the seasons. A desire to draw back the light is an important part of the winter ceremonials in the Raven cycle, which dramatizes the theft of daylight and the retrieval of light from a dark box. Vogt concludes that Raven, who appears before Sunlight is brought to the world, may embody the planet Venus bringing the light of dawn.

Young's account of astronomy among the Pueblo and Navajo compares features inherent in the cosmological systems of the Pueblos, farmers living in clustered settlements who emphasize the Sun and Moon as the paramount celestial beings, in contrast to the Navajos, who see Father Sky and Mother Earth as

most important. The Navajo also place great emphasis on observation of the stars, which Young links to their residential patterns, as ranchers in isolated houses, and their origins in a more nomadic tradition.

Three additional articles treat Navajo astronomy. Navajo medicine men worked with M.B. Peterson to record the most important constellations using the Gates Planetarium in Denver, a method not previously used to document traditional Navajo astronomy. The article is marred only by some inconsistencies between the text and figures 4–11 and table 1. Trudy Griffin-Pierce gives a poetic account of the Black God sand painting ceremony in the Nightway chant, a winter ceremony that lasts for nine nights. She provides information even more detailed than Peterson's. Chamberlain & Polly Schafsma document the star ceilings in Canyon de Chelly, noting that the Navajo were influenced by the Tewa Pueblos and suggesting that Navajo star ceilings developed from Pueblo IV star ceilings. They conclude that all may date to the eighteenth century. No constellations are represented and the purpose of the paintings is not to map the cosmos but rather to provide protection and beneficial effects at sacred sites.

Claire Farrer traces the imagery of the lunar month among the Mescalero Apache: commensuration between the solar and lunar calendars is not a problem because they keep separate counts, coordinating them by starting the lunar year at the first crescent after the summer solstice. This form of adjustment may be the way many indigenous cultures handled the disjunction between the two cycles.

Alice Kehoe documents the fascinating complexity in painted designs on Plains tipis and altars, relating specific designs to Blackfoot astronomical concepts. The sky itself is an all-encompassing tipi among the more nomadic Plain tribes. The circular earth lodge plays a similar role in the agricultural societies, such as the Mandan and Hidasta. The illustrations are wonderful but images of the winter tipi and Hailstone tipi are reversed in figures 5 and 6. Ronald Goodman's article on Lakota stars provides a fascinating link between the terrestrial realm and the heavens, again echoing the concepts in Momaday's article (these two articles should have been published in sequence). The bright winter stars of the Race Track reflect the pattern of the Black Hills. Traditionally, an annual ceremonial journey through the Black Hills mirrored the path of the Sun through these important constellations.

B.H. Johnston documents sky stories from the Anishnaubaeg (Anishinabe, also known as Ojibway or Chippewa). After the great flood, Sky-Woman gave birth to the Anishnaubaeg and they reached land when an island emerged on the back of a turtle. The Sun is the father of the Anishinaubaeg and the Moon was put in the sky to remind people of their genesis and to honour women. The cosmos records their past, present and future, and their moral course in life is derived from the skies.

Given the broad scope of John Carlson's article, spanning an area from the Great Plains to Panama, it is not surprising that not all the data on turtle imagery can be neatly packaged. In a number of cases, citations are missing. For example, he cites no source for his identification of the Twin War gods in the Southwest as the Sun and Venus, which contradicts Young's identification of the Zuni Twin War Gods as the Morning and Evening stars. He makes interesting cross-cultural connections between the turtle and symbols of quincunx designs, which are in turn connected with symbols of warfare and the four-pointed Great Star. He also links the great Mother Turtle of North America with images of the earth in Panama and Mesoamerica. His attempt to make broad connections, however, sometimes conflicts with the evidence, especially in relation to Mesoamerican concepts.

Stanislaw Iwaniszewski provides a truly global perspective of concepts related to Venus. He explores the dichotomy between the principles of light and dark, and the realms of Venus in the east and west. Lucifer seems linked with the Morning Star but the Morning Star is also connected with the Virgin Mary or Christ. (Christ is more directly linked with the Sun in the Christian tradition.) The article also documents gender variations in imagery of Venus, as well as data about the names for other planets in a number of different traditions.

Weldon Lamb studies the range of astronomical beliefs in a single Tzotzil Maya community, including data about celestial direction, stars, constellations and planets, as well as images of the earth and underworld. Lamb compiles data from a number of different Tzotzil villages, providing a very useful comparative perspective. Frank Lipp's article on the Mixe should be read by all who are interested in the Mesoamerican calendar and astronomy. He includes data on stars, the Sun, the Moon, and Venus, as well as various calendars. A Sacred Round of 260 days and numbered year-bearers, reminiscent of Aztec and Mixtec calendars, integrates with an agricultural calendar of 365 days. This calendar has a short 'month' at the end of a cycle of paired 20-day months. There is no formal intercalation, but every four years one day is 'lowered' into the five-day month. Lipp also records a number of little known cycles, such as a 845-day cycle involving two different

almanacs in the Sacred Round and a ritual count that completes its cycle in 3380 days (13 × 260 days), as well as a 3180-day cycle that may relate to Venus.

Gary Urton's article on Quechua astronomy notes that similar stars and constellations are recognized from one community to the next, including star-to-star and dark cloud constellations. He discusses the calendar as a social construct, integrating agricultural tasks with religious festivals, and the appropriation of elements of one into representations of the other. He explores celestial representations in calendrical constructs, noting that only observations of the Pleiades (the 'storehouse') and Orion (the 'plough') are directly associated with points in the agricultural cycle.

In the longest article, Peter Roe discusses shared cosmological concepts as part of a meta-cosmology that spread from the lowlands to highland Peru prior to 1000 BC. He explores the pattern of mythic substitution in South America, comparing lowland Shipibo and highland Quechua ethnoastronomy. He uses Levi-Straussian models of opposition, transformation and substitution, introducing his own notions of Dual Triadic Dualism and adding some post-structuralist perspectives. He documents more than 25 Shipibo asterisms, including the Milky Way, the Sun, Moon, planets, and constellations. The canoe voyages of the Sun and Moon refer to an east–west path related to the equinoxes, following the course of a celestial river, while Cayman's Canoe (identified as the Pleiades, Hyades and Orion), travelling across the current of the river, is linked with the solstices. The celestial river, in turn, relates to seasonal cycles, for the annual flooding disperses the fish and concentrates the animals. The dry season confines the fish to the river, making them easier to catch, while the animals are dispersed and harder to hunt.

Joseph Woodside explores Amahuaca astronomy from the rain forest on the eastern Andes. He details how data on ethnoastronomy are gathered in the field. A number of celestial observations resonate in other articles, such as the notion that when the Moon's 'horns' point up the weather is dry and sunny. He discusses a series of 14 asterisms with numbers 13 and 14 representing Magellanic Clouds. Asterisms 1–7 bring Sunny weather and the season of gardening, whereas numbers 8–12 bring the rainy season. He also documents a few names for planets, including Jupiter, which is known as 'large star, wife of the Moon' (p. 234).

Marci D'Olne Campos focuses on the astronomy of a small island off the coast of Brazil, near São Paulo, with only 220 inhabitants. He analyzes the Cariçara perspective of natural phenomena of time, space, and place, and their concepts of earth–sky relations. Meteorites and 'special stones' found on the island are related to their notion that falling stones create thunder. The solstice extremes are marked on the horizon by the position of neighbouring islands. They relate changing positions of the Sun and Moon to the tides. They explain that the earth oscillating horizontally around the local vertical axis (zenith-nadir) results in the changing solar positions and the solstice extremes.

Edmundo Magaña analyzes Carib sources, using the structuralist framework of Levi-Strauss. He notes that the principles of Carib astronomy are found in mythology rather than in informant's accounts. He deduces that all the stars used for navigation have declinations that fall within the solstice extremes. The opposition of Pleiades and Scorpius is incorporated in the agricultural cycle and observations of the solstices, but the Caribs also linked a triad formed by the Pleiades, Orion and Canis Major to the solstices. He discusses the internal logic of the system and summarizes how the Carib system fits into the framework of tropical astronomy.

Fabiola Jara surveys constellations of the Arawak speakers, one of the most widely distributed South American language groups. Jara catalogues Arawak beliefs about stars, constellations, and the Milky Way. Orion's dawn rise heralds the dry season, the preferred season for fishing, and the dawn rise of the Pleiades announces the new year and the beginning of the agricultural season. In areas north of the Amazon, Scorpius is a water boa that rises at dawn to announce the December rains, and Antares is variously referred to as the eye of the snake or prey in its belly. To the south, the celestial snake is an anaconda, but there are different interpretations about which stars form the snake. He notes that the ordering of the night sky conveys zoological information and that the asterisms are used as mnemonics for alerting people to the time for planting maize and to cycles in the annual round of animal behaviour.

Allen Roberts describes Tabwa cosmology, in southeastern Zaire. Astronomy and religion help to account for life's 'surprises'. Meteors and comets are especially important in explaining human misfortune. The seasonal changes in positioning of the Milky Way are coordinated with solar positions, with the north–south direction referring to the dry season and the equinoxes, and the east–west position representing the rainy season and the solstices (an opposite concept is expressed in Roe's Shipibo data). The Tabwa hero is lunar, whereas the Sun is a dangerous being. Dominique Zahan, discussing the Moon in Africa, introduces the concept of cosmic metonymy, which

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links events observed in the heavens to those seen on earth. Moon and Sun symbolize a broad opposition in terms of seasonal duality of wet and dry and gender divisions of female and male. Clive Ruggles & David Turton focus on the Mursi of Ethiopia, who have a 13-month calendar that requires adjustment to keep in synchrony with the season. Studying an 'uncontaminated system' still in operation, they recorded differences in the name of the current month but the system seems to work because people agree to disagree and because there is a general agreement on which month corresponds to the beginning of the rains. The seasonal cycle and subsistence activities are well documented in their table 1, which shows the approximate months overlapping with five different seasons, some much longer than others. The onset of the rains, the lunar count, solar horizon positions and stellar events are all linked to the cycle of the annual Omo flood. Their table 2 shows the month begins when the new Moon is sighted, but surely the authors mean the first crescent?

McKim Malville & R.N. Swaminathan discuss the Hindu Sun temples in the Tanjore district of southern India. These temples are a model of the cosmos with the earth-womb in the centre. An astronomical hierophany has been documented that involves a beam of light entering the temple. The ceremony symbolizes the Sun worshiping Shiva by visiting his temple once a year and bathing his image in light. The orientation of the temples is not uniform, so the event occurs at different times of year in different temples. Nor is the image illuminated the same, but many represent Shiva. The researchers conclude that the cult developed during the eleventh century, when heightened sunspot activity led to efforts to ritually cleanse the Sun's surface. Indo-Malay cosmology is central to Gene Ammarell's interpretations of the star calendars of Java. Using the planetarium revealed that key stellar events did not generally occur at the meridian or at the horizon. The changing position of Orion, representing the 'Plough', is in accord with the seasonal activities, the constellation upright while ploughs are in use, and tipped over at the end of the season, like a plough in storage.

Navigating the Pacific is the subject of Ben Finney's article, focusing on the Central Caroline Islands, one of the few places where non-instrumental navigation is preserved. A 32-point star compass is learned by memory and navigators have to allow for current and wind direction. They have to know a succession of stars with similar declinations to their key stars. By day, they observe the Sun when it is low on the horizon. In overcast skies, they steer by ocean swells. Polynesians are now relearning the ancient methods of navigation. Their indigenous system focused on zenith stars and stars observed on the horizon, but their observations were keyed to a wind rose. An experimental voyage from the Hawaiian Islands to Tahiti and back allowed the researchers to better understand how these navigation techniques work.

Frederick H. Damon focuses on the Woodlark (Muyuw) group. As part of the Kula ring, they are linked to other islands, including Trobriand Island, which has a similar calendar keyed to the equinoxes and summer solstice, and a year is based on the cycle of yam agriculture. The new Moon (actually first crescent?) begins the Muyuw month, but those in the eastern area have twelve lunar months, while those in the central area have 13. His table 1 correlates the Eastern Muyuw agricultural cycle with the tides and dominant winds, month names, and the two main seasons and their dividing points, as well as a sequence of rising star groups. One wishes we had such a table for other cultures. Nonetheless, one oddity must be noted, the rise of Orions's Belt before the Pleiades (which would seem to be the reverse of what actually happens in the sky).

Norman Tindale's article on Australian aboriginal astronomy is unique for incorporating the author's extensive data collected in the 1930s, long before anthropologists generally recorded such detailed information on astronomy. Some aspects of the article may seem controversial, such as the notion that the myths themselves are a sort of culture history, and that the myths encode a 4000-year old 'racial memory' (p. 363). Interesting is the belief that the Sun, Moon and other heavenly beings originally lived on earth, and that they can return by travelling though the earth. The female gender of the Sun is explained by the fact that women tend fires and keep the fire sticks burning during travel. There is a connection between the Moon and boomerangs in myth, noteworthy considering the similar shape of the crescent Moon. The planets are wanderers still having adventures: Jupiter is linked with a specific rock outcrop, and the planet's position near the horizon is associated with drought; Venus controls the water of the Milky Way and rain in general, and specific ceremonies entreat Venus to replenish the well with rains. Artworks (figs. 8–9) representing the stars are made during an annual Increase Ceremony when enactments of star myths are performed to increase the number of dingos.

It would not be possible to neatly summarize this wonderful volume, so I have resorted to highlighting points in each article. With the dome of heaven as a space we all share, it is not surprising that many concepts appear repeatedly in our records of eth-

noastronomy. The volume can inspire us to look for such patterns in cultures in the past, for they certainly must exist. I found myself repeatedly seeing overlaps with ethnoastronomy and archaeoastronomy in Mesoamerica, not because of contact between cultures but due to the shared environment of heaven and earth and the internal logic of keying seasonal events to changes in the skies.

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Guilty or Not Guilty?

Neanderthals and Modern Humans: an Ecological and Evolutionary Perspective, by Clive Finlayson, 2004. Cambridge: Cambridge University Press; ISBN 0-521-82087-1 hardback £60 & US$85; 255 pp., 38 figs., 6 tables.

Mark J. White

The central theme of this book is extinction. In a world beset by climate change, devastating environmental destruction and grave concerns over declining biodiversity and endangered species, this is an emotionally charged topic. Finlayson turns his gaze to perhaps the 'hottest' extinction outside the dinosaurs and their infamous asteroid: the demise of the Neanderthals, the most recently deceased archaic Europeans.

The central message of Finlayson's 'ecological and evolutionary' approach is that the extinction of the Neanderthals and the arrival of anatomically modern *Homo sapiens* (AMHS) in Europe are temporally coincident but essentially independent events. Viewing Neanderthals as subject to the same evolutionary forces as any other mammalian species — one that just happened to use culture as an extended phenotypical adaptation — Finlayson builds the case that their extinction can be adequately explained by the impact of climatic and environmental factors on their distribution and demography, without any AMHS involvement. This is a minority but valid view.

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The book is well laid out and the argument develops logically over the eight chapters. Chapter 1 introduces the cast and outlines the two dominant models for the emergence of AMHS — the so-called Out of Africa and Multiregional Hypotheses. These differ not only in their expectations of how and where AMHS evolved, but also in the fate of the Neanderthals. Finlayson cleaves towards the former, with AMHS emerging from Africa and the Neanderthals going extinct without issue. Chapter 2 primes the ecological canvas, outlining the major vegetation zones of the Pleistocene and the herbivore groups that occupied them. Chapter 3 outlines the ecological parameters for expansion and extinction, before outlining what we think we know of the settlement history of the Pleistocene Old World. Europe then becomes the focus, with four major periods of colonization and (subsequent) extinction being defined; these are mapped onto climatic variability and habitat-tracking, the basic premise being that warm or stable conditions favour expansion, cold or unstable ones contraction and extinction.

In Chapter 4, we are re-introduced to the two main protagonists and the evolutionary principles at stake. Amongst other issues, the controversial topics of hybridisation, genetics and ecomorphology are discussed. On the latter, Finlayson argues that the standard view that the Neanderthal morphology arose from, and conferred a great advantage in, cold climates (see also Aiello & Wheeler 2003) has been over-stated and that life-style has a strong role to play. It is here that he also identifies a complex pattern of population ebb and flow, citing some 16 events of colonization gene glow and contraction during the Pleistocene in Europe. Chapter 5 then picks up on the well-rehearsed behavioural contrasts between AMHS and Neanderthals. These are portrayed as 'two alternative ways of being human' (p. 132) reflecting the different social and adaptive strategies each species developed to cope in different habitats, rather than reflections of major cognitive differences. This is a view that is gaining much ground (e.g. d'Errico 2003).

In Chapter 6 the specific climatic background to Oxygen Isotope Stage (OIS) 3, the time period of Neanderthal extinction, is presented. Herein lies the crux. Given that glacials caused the contraction and fragmentation of Neanderthal populations into southern refugia, where they would have been susceptible to a number of factors that could easily lead them to the brink of extinction, it was the frequency and duration of 'bad events' during OIS3 that meant they failed to recover as they had in previous similar events. While climate drove the process, the proximate cause probably varied — a very clever caveat. What

Finlayson is clear on, however, is that modern humans were not the villains of the piece. As he makes clear in Chapter 7, active competition between the two groups is not a strong argument because neither was living near carrying capacity and they probably exploited different habitats.

Ultimately, whether one agrees with Finlayson or not, this is a very erudite and worthwhile book that lays out a plausible set of testable conclusions. The difficulty is that it is not always particularly well delivered. It is highly assertive in tone. Primary data, where included, are not always fully explained and, once unravelled, not always as compelling as one would expect. There are also some contradictions and, on a couple of points, one is not really clear which position Finlayson is taking.

None of these problems are damaging to the central hypothesis. For many, however, the biggest sticking point will be that it was not only the Neanderthals that went extinct at about this time: arguably, so too did all other archaic hominin species, even those in tropical latitudes and exploiting very different environments (Flores possibly excepted). Can this truly be a coincidence or was the emergence of AMHS from Africa, about 50,000 years ago, the first in a long line of ecological tragedies we have bestowed upon the planet, directly or indirectly?

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