Reviews

Making Sense: Embodying the Past

Thinking Through the Body: Archaeologies of Corporeality, edited by Yannis Hamilakis, Mark Pluciennik & Sarah Tarlow, 2002. New York (NY): Kluwer Academic/Plenum Publishers; ISBN 0-306-46648-1 hardback £56, US\$80 & 92Eur, xii + 262 pages, ills.

Bruno David

This is the first archaeology book to focus on, and in doing so to systematically challenge archaeologists to think about, the human body as a site of experience and social structuration. Others have, of course, broached such issues, but none have done so from the varied angles attempted here — undoubtedly a result of this volume's multiple authorship that brings to the fore varied approaches, case studies and dimensions of embodiment.

Thinking Through the Body begins with an editorial Introduction, followed by three major parts, each containing its own Introduction followed by four chapters. Part 1 (Bodies, Selves and Individuals) has chapters by Julian Thomas (the highlight of the book), Chris Fowler, Jos Bazelmans and Sarah Tarlow. Part 2 (Experience and Corporeality) has chapters by Christine Morris and Alan Peatfield, Yannis Hamilakis, Brian Boyd and John Robb; Part 3 (Bodies in/ as Material Culture) by Ing-Marie Back Danielsson, Elisabeth Arwill-Nordbladh, Mark Pluciennik, and Paul Rainbird. Each author 'thinks through the body' in various ways, examining particular regional archaeological case studies in the process, but all are united in the view that bodies are produced in social and sensual dwelling. Julian Thomas (p. 33) sets the tone from the onset in noting that 'Materialisation is the process by which the world reveals itself to us in an intelligible form'; in this sense the body is treated throughout the book as mediating personhood not only in a socially meaningful and power-laden social world, but also through the senses. In doing so, this volume broaches issues of perception, hegemony, emplacement, gender, sensuality, life/death, inten-

CAJ 12:2, 267-8 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302210148 Printed in the United Kingdom

tionality and agency via a discussion of 'the body' and its core entanglement with 'mind' (an entanglement perhaps best conceived in Martin Heidegger's notions of *dwelling* and *Being-in-the-world*, which are themselves unfortunately not explored in depth here). It is varied dimensions of this sociality and sensuality, and their archaeological usefulness, that are explored in this book.

Like any book, there are issues which could have warranted discussion — I am thinking here of notions of terror, emotions, memory and, indeed, a systematic discussion of how to define the 'senses'. Indeed, perhaps most surprising given the theme, is that this book cannot be said to be an explicit move towards a phenomenological archaeology, although phenomenological approaches are not excluded. Numerous questions remain — while the body is discussed in relation to its social construction, how does the body transcend the normative? What are the 'senses' - do or should they include memory, nostalgia, emotions or sensualities? And what of the usefulness of Durkheim's collective consciousness to archaeology (it sometimes seems that we should remind ourselves of sociological basics)? How can we get to an archaeology of identity, not so much identity as social habitus, but rather through what makes us feel at home as embodied beings, and an archaeology of *becoming* through the role that the senses play in transcending the socially normative. But perhaps I am being unfair, for the lack of detailed discussion of such topics is not really this book's limitations. Rather, it is through this book's approach that such questions can now confront our consciousness.

Of lesser concern given the overall stimulating intellectual nature of this book is its general poor production/presentation (including, in my copy at least, a lack of text flow on pages 162 and 163). This is unfortunate (especially given the book's price), but an issue beyond the Editors' control.

All in all, this volume has one major weakness and one major strength. The weakness is a lack of adequate theoretical/philosophical dialogue between, on the one hand, ontology, experience, the sensory, meaningfulness, memory and the senses (including emotions and the sentimental) and, on the other, the body (given the book's theme). Some of these notions are discussed, but for the most part they are not explicitly theorized, nor are the theoretical links approached with archaeological methodologies in mind. One example that readily comes to mind is Emmanuel Lévinas' (e.g. 1999) notion of transcendence, death and the Other — being and identity as predicated by an intrinsic movement towards alterity, and therefore by a movement towards the death of *habitus* — surely key notions of great promise for an archaeology of death and *habitus*, and for an archaeology of social forces that regulate stability and change.

The book's major strength is that it invites us to 'think through the body', as the title suggests from the beginning; it guides us towards what Hamilakis has called a 'sensuous scholarship'. In doing so, we are inspirationally steered towards a defamiliarization, a deprivileging of Western (and modernist) mindsets. But this is not an empty defamiliarization, for with it comes new ways of approaching the past. I recommend this book to students and professional archaeologists interested in approaches to the past and in archaeological theory and practice.

Bruno David Department of Geography & Environmental Science Monash University Clayton 3168 Australia Email: Bruno.David@arts.monash.edu.au

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Archaeology and Shamanism

The Archaeology of Shamanism, edited by Neil Price, 2001. London: Routledge; ISBN 0-415-252-555 paperback, £18.99 & US\$30.95; ISBN 0-415-25254-7 hardback, £65 & US\$100, xii + 239 pp., ills.

Michael Winkelman

This collection of articles is characterized by the editor as 'an essential study of ancient shamanism through its material remains', extending current recognitions of the role of shamanism in prehistoric cultures to further interpret the physical traces left

CAJ 12:2, 268–70 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302220144 Printed in the United Kingdom

in the archaeological record. The articles largely cover indigenous Russian, Siberian and Arctic groups, reflecting research by scholars in Britain and Scandinavian countries. Articles also cover South African shamanistic rock art; multiple genders and their relationships to shamanism; the Aurignacian art of Southwest Germany; and the British Neolithic, Anglo-Saxon England, and neo-shamanic engagements with archaeology.

Price's introductory chapter 'An Archaeology of altered states: Shamanism and material culture studies' outlines development of the concept of shamanism within Western culture. This outgrowth of Russian colonial activities in Siberia brought the Tungusic Evenki term '*šaman*' into Western discourse. Key issues raised from the inception of Western intellectual inquiry included whether shamanism is a religion, and whether the concept is usefully and appropriately applied outside of the specific cultures from which it was derived. The disputes notwithstanding, the concept became applied to activities found in cultures around the world and acquired an etic status within anthropology.

Price attempts to provide a framework for addressing whether the term shamanism should be applied beyond Siberia. He points out that even among these people there is no overall word referring to shamanism (as opposed to the shaman). His characterization of shamanism as 'an externally imposed construction', 'entirely an academic creation', and 'entirely a matter of consensus', however, seems to contradict his statement that shamanism 'is certainly a useful tool serving to describe a pattern of ritual behaviour and belief found in striking similar form across much of the arctic and sub-arctic region of the world' (p. 6). Price's efforts to define what constitutes shamanism confront a trend in which the term shaman is applied to virtually any kind of belief in spirit worlds and altered states of consciousness.

Price and the other contributors adopt an approach that shamanism can be differentiated from other forms of religious phenomena, but fail to tell us how. The often-used conceptual framework of contact with the spirit world, or even Eliade's conceptualization of the shaman as someone who enters ecstasy to communicate with the spirits on behalf of the community, can be found among practitioners in virtually every society. Their efforts to articulate an archaeology of shamanism suffer from an inability to determine just what constitutes a shaman and shamanism as distinct from other magicoreligious practices.

Price's rhetorical question 'how far is it reasonable to talk of shamanism in the prehistoric past?' is countered with an epistemologically and methodologically naïve response that the answer 'can only be sought in studies of material culture, and thus archaeology' (p. 6). Price and many contributors' efforts fall short in ignoring other fields that can inform about the nature of shamanism. Price looks for a way out of the dilemma of the many definitions of shamanism in acknowledging that shamanism is a dynamic practice that changes over time and across regions. This perspective ignores the systematic patterns of variation in shamanistic practices as a function of social complexity. While recognizing the potential fallacy of ethnographic analogy, they appear ignorant of the more powerful ethnological analogy of systematic cross-cultural research. Contributions from the ethnological (holocultural) sciences empirically establish the cross-cultural occurrence of shamanic practices and their universal elements (e.g. Winkelman 1986a; 1990; 1992; 1996). This provides an empirical basis for distinguishing the practices of shamanism found in specific types of societies from a broader concept of shamanistic healers found universally (Winkelman 1990).

Similarly, Price aspires to 'a true archaeology of altered states' and an 'archaeology of the mind'. Yet the neurobiology of altered states of consciousness (ASC) and shamanic ASC (e.g. Winkelman 1986b; 1992; 1997; 2000) that could provide a paradigm for archaeological reconstruction and interpretation is largely neglected. A notable exception is Lewis-Williams' article and research tradition that links entoptic phenomena (visual constants experienced in ASC) to design elements frequently found in rock art. His work among the San (Bushman) that directly links ethnography to rock-art motifs is among the most substantial evidence in the archaeology of shamanism. This shamanic interpretation of rock art is taken by several contributors to the volume (Delvert and Rozwadowski on Central Asian shamanism). The power of using neurological models of ASC is also illustrated in Dowson and Porr's analysis of Aurignacian art. Their detailed analysis of the features of Aurignacian figurines provides a basis for linking particular features to their hallucinatory origins and the depiction of experiences of ASC. Such analyses provide a framework for interpreting the social, political and ideological functions of these objects.

Some articles (e.g. Jordan on the Khanty and Walter on the Cheri of Nepal) are purely ethnographic rather than archaeological in their coverage. Such material provides important information for archaeological interpretation, yet these works suffer from the problem of cross-cultural reference. Jordan points to the presence of two types of shamanistic healer, whom he labels 'healers' versus 'true shamanic figures ' and Walter distinguishes the 'lineage mediums' from 'shamans'. Such distinctions are important in differentiating the diversity of magico-religious artefacts and identifying their functions. But these efforts also fail to link these particulars to broader patterns in the sociocultural evolution of magico-religious practitioners that would strengthen archaeological interpretation of religious practice and the associated social and political organization (e.g. see Winkelman 1986b; 1990; 1992). Implicit in these articles is an important guideline: one cannot simply use practices of contemporary shamanistic healers to interpret the significance of prehistoric artefacts.

The contributors often provide astute observations of evidence for the ideological and social change reflected in the elements of material culture and their shifts over time. As Fedorova points out in analysis of the bronze castings of Western Siberia, the evidence is not of shamanic practice, but of warrior cults. Nonetheless, those images were later absorbed by shamanistic practices. Similarly Gullov and Appelt's analysis of the Late Dorset groups of Greenland points to important communal functions of the activities carried out in the 'longhouses' they excavated. These interpretations, however, could have been strengthened by an ethnological model of shamanism and social processes.

This book provides important data for understanding shamanism and its interpretation in the archaeological record, but falls short of Price's stated purpose of providing an overview of the field. This shortcoming is not solely due to the Arctic and sub-Arctic focus, but to the conceptual and methodological lacuna arising from the lack of an empirical, etic and cross-culturally derived model of shamanism. The failure to use models derived from cross-cultural studies leaves the various authors floundering for a model from which they can assess their materials. Hollimon's Tylor-like haphazard selection of examples of multiple-gendered shamanisms ignores cross-cultural data that shamans (as opposed to mediums) are not generally cross-gendered peoples. Patricia Sutherland's otherwise cogent and useful consideration of shamanism is also limited in the scope of its analysis by not using the cross-cultural shamanic motif of the death-and-rebirth experiences as a framework for interpreting depictions of skeletons. Cross-cultural patterns provide a compelling

rationale for interpreting these skeletal depictions, and illustrate why an ethnological model of the 'shamanic paradigm' (Winkelman 2002) is so important for an archaeology of shamanism.

The 'archaeology of shamanism' Price espouses also finds a relevance in addressing contemporary concerns, particularly as described in Robert Wallis' article on the implications for archaeology of the neoshamanic developments that have recovered, reconstructed and engaged with the past as a contemporary spiritual and religious practice. Shamanism is one of those areas of anthropological inquiry in which the public is intensely engaged, making the management of these sites and the information derived a public relations issue of significant magnitude.

Price's collection makes two important points. One is that there is a substantial basis for an archaeology of shamanism; the second, that shamanic frameworks are essential for accurate interpretation of prehistory. Unfortunately, the conceptual frameworks used for this effort also show that an archaeology of shamanism is in its infancy, and has yet to employ a paradigm to effectively exploit the interpretive power of these insights.

> Michael Winkelman Arizona State University Main Campus PO Box 87402 Tempe, AZ 85287-2402 USA Email: michael.winkelman@asu.edu

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Maya Courts

Royal Courts of the Ancient Maya, vol. 1: Theory, Comparison, and Synthesis, edited by Takeshi Inomata & Stephen D. Houston. Colorado (CO): Westview Press, 2001; ISBN 0-8133-3640-6 paperback, £18.50 & US\$39, xix + 292 pp., 65 ills.

Elizabeth Graham

Royal Courts of the Ancient Maya is a two-volume publication that brings information together from a session of the 1996 annual meeting of the American Anthropological Association and a subsequent symposium held at Yale University in November 1998. Volume 1, reviewed here, presents comparative and theoretical approaches to royal courts. Volume 2 assembles information on royal courts from specific site centres and geographical areas.

In their introduction to Volume 1, Inomata and Houston make it clear that their book's focus is firmly on the court as a group of people and their activities and not on the court as an architectural compound. In fact, what first attracted me to the volume was my interest in gleaning information on court architecture, particularly owing to my present involvement in the excavation of a palace complex at the site of Lamanai, in Belize. Despite the many years of excavation in the Maya area, we know startlingly little about the functions of palace buildings from archaeological remains. Nonetheless, the editors' decision to focus on courtly life — on people and their activities — is clearly the right priority. Left to our own devices, we archaeologists tend to neglect envisioning the living because we become preoccupied with detail in describing the inert and the dead. I found that my perspective was substantially enriched from reading every chapter in this volume, even though I did not necessarily agree with every conclusion. By forcing me to put emphasis on 'seeing' or imagining people involved in activities within buildings buildings that the authors emphasize are not simply material residues of behaviour (p. 3) but draw meaning and significance from their social use in courtly

 $CAJ 12:2, 270-74 \quad @ 2002 \mbox{ McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302230140 \mbox{ Printed in the United Kingdom}$

life — the book has enhanced my repertoire of ideas for approaches to excavation. Although archaeological evidence confirming the functions of palace buildings is likely to remain elusive, the papers in this volume arm archaeologists with a range of possibilities drawn from imagery, glyphic evidence, ethnohistory, ethnography, and architectural inter-site comparisons. Such possibilities drive the creation of hypotheses that provide a greater chance of information recovery through archaeology than would have been the case had such information not been available, or had the priority been given instead to architectural stratigraphy and sequences.

No one would deny that understanding monumental architectural stratigraphy is essential to understanding the court as a group of functioning buildings and spaces. But at this juncture, the focus on people and their activities is critical to disciplinary growth. As Reents-Budet points out (p. 199), most pictorial narratives on polychromes depict palaces rather than other types of Maya buildings. Although some of the activities pictured may not have been meant for public viewing, the frequency of depiction attests that such activities were believed by those in power to be important to the maintenance of the body politic. Thus the dominance of the palace as a setting critical to social well-being is a concept worth exploring archaeologically. In my own work, for example, special attention will be given to the multi-roomed buildings that straddle both the private space of the palace courtyard and the public space of the main plaza. The hypothesis that rituals or ceremonies may have differed based on their private or public orientation could affect interpretation of features or artefacts associated with particular rooms and the directions in which they face. Another idea comes from the depiction on vases of the payment or offering of tribute in palace rooms, which suggests that there might be a connection worth exploring between the palace complex and the nearby lagoon that Lamanai borders, along which canoes must have travelled frequently on their way to and from the sea, bringing goods to and from the site.

The Introduction goes on to outline the historical background to the study of Maya courts. Perhaps, as Inomata and Houston explain, the most significant fact that would help non-Mayanists to understand why the question of the structure and composition of Maya courts is so late in being answered is that only 30 years have passed since Maya scholars came to the realization that it would even be possible to think in terms of the presence of rulers and courts in Classic Maya society. Although the concept of hieroglyphics as dynastic history began to be recognized in the 1960s through the work of Proskouriakoff, the editors point out that the research based on this breakthrough did not come to fruition until the late 1970s and 1980s. This has led to a focus in the last decade on the nature of kingship and the reconstruction of dynastic history, but the search for an understanding of the wider relationships that constituted Maya court life is first represented by the chapters in this book. In addition to a thorough discussion of the ways in which the elucidation of Maya royal courts can be approached, Inomata and Houston include a comprehensive set of questions that will serve to guide research well beyond the book's individual contributions.

How do the volume's contributors define the Maya court? The editors state in the first chapter that the studies of kingship, political organization, administrative systems and social stratification are important themes, but do not cover important dimensions of Maya courts. Therefore they have encouraged contributors to employ other approaches in their analyses. The first is the question of how courts should be defined. In this book, as the title makes clear, the focus is solely on the royal court and the organization centred around the sovereign. Such a focus entails examining the royal court's organizational principles: Who is excluded? Were the dead as well as the living a part of the royal court? What role did court members — men, women, children, royals, nobles, scribes, musicians, servants ---play?

Inomata's contribution examines non-royal members of the Maya court, and in the process demonstrates the importance of court administrative functions. The information drawn from Chinese, Japanese, African and West Asian examples provides a much needed comparative perspective. Other examples that might also prove useful in a comparative sense are the Mycenaean palace states, which share with the Maya a spatial focus on the palace as the functional, social, and economic centre of the community (e.g. Whitelaw 2001).

Houston and Stuart explore the varied composition of Maya courts, and they summarize information from glyphic decipherments to reveal what we now know about non-royal court members, queens, consorts and royal children. They deal with the important issue of the relationships between rulers and secondary lords; the power — and numbers — of the latter increased during the second half of the eighth century AD. In the process of examining these relationships they tackle a range of important yet difficult questions, such as our use of the term 'élite' to differentiate the higher ranks of Maya society. Archaeologically, we generally identify élites by the elaborate material goods with which they are interred. These material indicators may indeed have been used by the individual in life to distinguish himself or herself from non-élites, but the types of material indicators also reflect a group cohesiveness and power that must be explained on another level. What sorts of élites do we envisage by the term? Houston and Stuart explore the rich sociological literature for a range of possibilities. Mosca's view (1994 in Houston & Stuart, p. 58) is particularly interesting because it suggests, at least to me, that the basis of élite power lies more with the inertia of nonélites (élites act in concert; non-élites don't) than with any particular élite strategy for success. The authors' summary presents data that demonstrate an association between the increasing references to non-royal nobles and a massive increase in Late Classic populations in the lowlands. Most interesting in some senses is not so much the bearing this information has on the Maya collapse, but its relevance in helping to explain the birth of Postclassic society, which is characterized by the growing number of small-scale polities and the rise of numerous new lineages vying for power.

McAnany and Plank return to the theme of the royal court as an expanded version of the Maya household, but also emphasize that buildings themselves in royal complexes acquired personalized histories and played special roles in the life of the court, and in ritual practice. They compare the royal court and the household by examining the evidence that exists — archaeological, epigraphic, and documentary — for positions of authority, administrative activities, and male- and female-gendered roles in both the royal court and the non-royal household. They return to the theme of buildings with personalized histories by focusing on the royal court at Yaxchilan, where there are five structures dedicated in the hieroglyphic inscriptions as the houses of particular personages. Indeed, two of the structures dedicated belong to royal women, and the authors' detailed discussion of particular texts in their architectural contexts emphasizes the influential role of women at the Yaxchilan royal court.

Because physical proximity to the ruler is considered by the editors to be critical, and although the emphasis is on people and activities rather than on architecture, the boundaries of the studies in the book are defined largely by the built environment. That is, the activities of interest are those associated with palaces and palace compounds and not, for example, temples or dance platforms or ball courts.

Palaces can be defined architecturally as one-storey, multi-chambered buildings, usually with multiple entrances and internal benches, and supported by long, relatively low terraced platforms. Although palace architecture itself is not a topic of discussion, Webster's and Martin's contributions deal with the 'mapping (of) court activities onto the built environments of the Classic Maya' (Webster, p. 130). Webster reviews the not inconsiderable problems in defining palaces as royal residences. Indeed it remains difficult archaeologically to document residential functions for palaces. With rare exceptions such as the Middle Classic Structure A-8 (Pendergast 1979, 100– 142) and the Late-Terminal Classic Structure E-7 (Pendergast 1990, 72–122) at Altun Ha, middens, not surprisingly, do not generally occur piled against palace walls, nor are kitchens a common interior feature. Concerning this apparent problem, Webster makes the excellent point that an insistence on domestic correlates overlooks a critical aspect of Maya royal households, which is that they were not spatially organized in the way lesser households were, mainly because they did not function only as domestic places (Webster, p. 134). He provides a needed discussion of the historical problems in identifying royal and élite palaces and suggests the term 'court complex' to refer to the combination of royal court facilities as well as the architectural features that are believed to encompass the functions of the larger institution of rulership and its dimensions. He then details what is known about the court complexes at Tikal and Copan both in terms of their architectural, spatial and organizational complexities, and the problems that remain in determining building function.

Perhaps the only jarring note in an otherwise highly informative chapter is Webster's reference to Maya urban centres as regal-ritual cities (see Sanders & Webster 1988). According to this model, Maya cities are merely gigantic royal households, and not administrative or mercantile centres. Although this idea is presented as a model, it keeps surfacing as an explanation. It would seem to me that on logical grounds alone we cannot approach with an open mind the question of how Maya royal courts functioned (or whether a range of specialized facilities existed as part of Maya centres) if we already assume, via the regal-ritual model, that Maya centres were not truly urban *because* they were composed entirely of hierarchies of households (Webster, p. 144). There are other ways to approach Maya urbanism that may be just as productive in envisioning the nature of Maya royal courts, such as the idea that the humid tropics generate complex, composite built environments - walled and roofed space;

roofed and unwalled space; unroofed and walled space; unroofed, unwalled, paved and/or landscaped spaces; stone spaces; green spaces; and spaces created by perishable materials. Such environments are veritably absent from archaeological consciousness, let alone studied for their functional properties (Graham 1999). But even if we accept the premise of the governing body locus as a supra-household (e.g. the White *House*) it doesn't follow that the governing body is limited to supra-household functions.

Martin, like Webster, focuses on architecture and court settings, but his emphasis is on court organization. He observes that court architecture and court space provide the setting for political functions and decision-making, and they can therefore be seen as signatures of how these activities are organized. He compares lowland court complexes at four sites, and in the discussion that follows, he considers data from architecture, pictorial representation, epigraphic references and ethnohistorical analogy to explore the evidence for court complexes as settings for craft production, state offices, the administration of tribute, and residences for foreign nobles. His comparison among sites suggests that it is worth exploring whether there is a causal relation between court sizes and political success.

Reents-Budet reviews pictorial imagery on Classic Maya polychrome vases and the representations of court scenes, settings, paraphernalia, and iconography. She points out that the visual narratives on Classic polychrome vases are rich sources of data on both the actual royal court and the Maya ideal of courtly life. As noted above, the most common building form depicted is that of the palace (also known as a range structure). The paintings are a source of information on the perishable materials that made up the Maya court, such as curtains, mats, textiles, baskets and wall hangings. But perhaps most interesting is the information on the dynamics of interaction among nobles and courtiers: the symbols and hierarchy of power, but especially the iconography that reinforces the sacred and cosmic foundations of rulership.

Reents-Budet's familiarity with a vast number of polychrome vases makes her well positioned to synthesize their pictorial range of data on courtly life. She is able to comment on palace interiors, and furniture, but especially on the narratives of power. Unfortunately for archaeologists, despite the existence of iconic signs adorning representations of structures, these signs seem to relate to the ceremonies carried out and not to any particular function associated with a particular structure. Court buildings clearly, and perhaps not surprisingly, were multifunctional. Nonetheless, the detailed discussion of the range of iconic signs adorning the structures provides a basis on which to build our knowledge of the meaning and significance of key ceremonies and rituals: some iconic and pictorial images are references to historical events or myth, others are representations of important rituals in the lives of rulers and associated élites, such as accession or divination or acceptance of tribute. None is devoid, however, of celestial or cosmic associations, and it is clear, as it is in depictions of European rulers and their personal and court paraphernalia, that one of the forces behind pictorial imagery is the representation of ruling élites — and indeed of the office of kingship itself as divinely or cosmically sanctioned.

Evans' chapter describes Aztec palace life based on the extensive native and Spanish accounts of palace layouts, court functions, personnel, and the customs and rituals of courtly life. For Mayanists, as Evans points out, these descriptions provide a critical basis for inference about Classic Maya courtly life. They help us to attune ourselves to activities that are not readily suggested by the silence of ruined buildings or even the idealized brushwork portraits of courtly scenes — activities such as gardening, landscaping, weaving and dyeing, feasting, sleeping, bathing, child-minding, praying, studying, planning military manoeuvres, keeping archival records, or storing and keeping track of foodstuffs, textiles, armaments, books, maps and other records.

Coe's concluding remarks measure the distance Mayanists have come in order to be able to 'speak confidently' of Classic Maya courtly life (Coe, p. 274). He suggests avenues for future research, such as the study of headdresses and body garments as codified uniforms. The criticism, however, that the authors of the volume ignore the importance of religion among the ancient and modern Maya is misplaced. That the sacred and the mundane are inseparable in Maya life is an awareness that is communicated unquestionably in the various contributions, and is a unique strength of the book. In fact, the old academic view that 'religion' is a sphere of activity somehow treatable as a phenomenon on its own may be anathema to an in-depth understanding of palace life.

> Elizabeth Graham Institute of Archaeology University College London 31–34 Gordon Square London WC1H OPY UK Email: e.graham@ucl.ac.uk

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Cognitive Compilation

In the Mind's Eye: Multidisciplinary Approaches to the Evolution of Human Cognition, edited by April Nowell, 2001. (Archaeological Series 13.) Ann Arbor (MI): International Monographs in Prehistory; ISBN 1-879621-30-4 paperback US\$40; ISBN 1-879621-31-2 hardback US\$75, 200 pp., ills.

Steven Mithen

This collection of thirteen articles derives from a symposium at the 1996 Society for American Archaeology meeting in New Orleans organized by April Nowell. It is not dissimilar in contents and structure to the volumes edited by Ingold & Gibson (1993) and Mellars & Gibson (1996) as it brings together archaeologists, anthropologists and a smattering of cognitive scientists writing about the evolution of the mind. It differs from other recent volumes on the same theme, such as Barkow *et al.* (1992) and Carruthers & Chamberlain (2000), by lacking contributions from philosophers of mind and evolutionary psychologists. Most of the authors in this new volume are already well-known contributors to debates about cognitive evolution — Wynn, d'Errico, Jerison, Chase, Potts, Lieberman, Noble and

CAJ 12:2, 274–7 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302240147 Printed in the United Kingdom

Davidson. Few provide anything that they haven't published in greater length and detail before. But that, of course, is often the nature of symposium volumes. This one provides a valuable collection of articles, especially for students and those new to the study of cognitive evolution. I found it both stimulating and enjoyable to read.

The volume starts with something called a 'forward' by Philip Tobias — an enjoyable essay that reminds us that issues about language and intelligence have been discussed since the first discovery of hominid fossils. It could have been a very nice foreword.

Following her brief introductory essay, Nowell has structured the volume into five sections. Part I is entitled 'Archaeology and Cognitive Science' and contains articles by Wynn and Nowell. That by Wynn has the grand title of 'The role of archaeology in the cognitive sciences'. He makes a number of uncontroversial points about the need for cognitive scientists, evolutionary psychologists and archaeologists to take more notice of each others work. Wynn summarizes some of his own previous studies to explain how spatial cognition evolved in a gradual fashion rather than as a complete package. He uses this to critique the simplistic arguments of those cognitive scientists who claim that the evolutionary causes of gender differences in spatial cognition arise from mens' brains having evolved to hunt, and those of women to gather plants. By so doing, Wynn seeks to illustrate how archaeology can actually contribute to cognitive science rather than being no more than a borrower of ideas and data. It is an effective illustration, but Wynn's title had led me to expect a more substantial exposition of how archaeology and cognitive science might engage with each other in a more effective fashion than at present.

I was also left wanting more from Nowell's article that follows — 'The re-emergence of cognitive archaeology'. She attempts to illustrate how there has been a long tradition of archaeologists studying the human mind but doesn't cite anyone prior to Christopher Hawkes (1954). She concentrates on processual archaeology, focusing on Binford (via a reliance on Trigger's history of archaeological thought) and neglecting the contributions of Renfrew and Clarke. Nowell then comments upon structuralism, post-processual archaeology and Renfrew's self-styled 'cognitive-processual archaeology'. A far more effective argument would have been to return to the dawn of archaeology itself as a concern with prehistoric cognition pervades John Lubbock's Prehistoric Times (1865) while early twentieth-century debates about the humanity or otherwise of the Neanderthals by Marcel Boule, William King and

Arthur Keith was centred on their intellectual abilities. I was a little disconcerted to find Nowell explaining why 'cognitive archaeology of the last decade has developed such a poor reputation'. Has it? I think not, at least not amongst those who have anything interesting to think or say about the past. Or perhaps this is a US rather than UK perspective. Cognitive archaeology has no need for a further justification of its existence on theoretical or historical grounds — it simply needs to be judged by its results.

Part II is concerned with the interpretation of material artefacts and is the least interesting of the volume. Francesco d'Errico has already published widely on 'Artificial Memory Systems', as he calls items of material culture that are used to store information. In his article he repeats his critique of Marshack's approaches to such artefacts, summarizes a few ethnographic examples and outlines his own methodology involving a microscopic analysis of incised artefacts. Although rather tedious to read yet again, at least d'Errico's arguments are easy to follow in contrast to those from Martin Byers in the following article. This is entitled 'A pragmatic view of the emergence of Palaeolithic symbol-using'. I spent a long time struggling with this article, just as I have with his other publications. I always get horribly lost because of the number of terms that Byers has to invent and introduce into his texts. Within the first few pages of this article one has to handle Byers' own terms of: the 'invisibility thesis', the 'visibility thesis', the 'warranting imperative', the 'warranting model', the 'reflexivity model' the 'style1/style 2 rupture', 'effortless reflexivity', the 'tool-using/symbol using duality' and the 'how to/know how duality'. It all sounds terribly clever but I was left utterly confused.

The third and final article in Part II is by Shirley Strum and Deborah Forester and has the intriguing title of 'Nonmaterial artefacts'. This is the only contribution that primarily concerns non-human primates, which is surprising in light of the strong emphasis on primate sociality as the selective context for hominid intelligence that otherwise pervades the literature on cognitive evolution. I found the emphasis by Strum and Forester on our primate inheritance and their characterization of society as a distributed cognitive system which cannot be reduced to actions of individuals alone very appealing. Less attractive was their notion that baboon social relationships should be conceived of as 'artefacts' as they are skilfully made and merely contrast with our traditional notion of an artefact by failing to leave any material trace. I remain unconvinced that this is a useful idea, feeling that the types of skills needed for interacting with material objects are fundamentally different to those for social interaction.

The third part of *In the Mind's Eye* is devoted to palaeoneurology. Harry Jerison devotes most of his article to summarizing ideas about encephalization that will already be familiar to most readers. His speculations about the evolution of language are interesting — language evolved in the place of olfaction for the construction of a mental map of a hominid's territory and only later became a tool for communication. The image he creates of hominids vocalizing as objects came into view while they were moving around their territory is intriguing. But quite how such vocalizations may have aided visual memory requires further explanation.

Sean Hogan and Gordon Gallup Jr follow this with an equally intriguing argument — that humans have evolved particularly large brains to compensate for the frequency of brain trauma during birth. Humans have, they claim, surplus brain capacity that becomes used for activities that are unnecessary for day to day adaptation and survival, such as mathematical reasoning and building spacecraft. How can this be? They provide a rather harrowing description of the problem of human birth — which they appropriately call the 'big squeeze'. A high frequency of hominid infants would, they suggest, have suffered traumas and so the human brain has evolved a particular shape and size to compensate against impairments caused by contusions and lacerations. They themselves appear unconvinced. In their final paragraph they suggest an alternative and, to them, more parsimonious account of intellectual surplus - we are able to excel at intellectual tasks today because modern medicine and practices has severely reduced the frequency of trauma at birth. It is unfortunate that the editor let Hogan and Gallup get away with using the word 'primitive' when describing the tools and behaviour of our hominid ancestors.

The final article on palaeoneurology comes from Katerina Semendeferi. She summarizes what we know about variation in the brain structure between humans and other primates — which is not a great deal. What we do know suggests that very little variation is present. She explains how the oft-claimed contrasts between human and ape brains simply do not exist, such as humans having a higher degree of asymmetry and relatively larger frontal lobes. Some microscopic areas of the human brain do, however, appear to be significantly different to those found in apes, with Semendeferi pinpointing area 10 of the prefrontal cortex which relates to planning and 'the undertaking of initiatives'. I am sure that ever more detailed comparative studies of human and primate brains will help us understand how humans are so

different from our closest living relatives. But I cannot understand Semendeferi's claim that tracing the evolution of cognition in the hominid line *after* the split from African apes can be facilitated by comparative neuroanatomy. Studies of human, chimpanzee, gibbon and gorilla brains will never tell us why *Homo sapiens, Homo neanderthalensis, Homo ergaster* and *Homo habilis* are all so different from each other as well as from all living non-human primates.

Part IV is entitled 'Information Processing in Human Evolution' and begins with a lengthy paper on 'multilevel information processing' by Philip Chase. This does little more than elaborate on how humans process and transmit information at a variety of levels — by genetic inheritance, by individual learning, by social learning and by symbolism although quite how symbolism is a new level of information processing remained unclear to me. Chase chose not to discuss how or why changes in information-processing levels came about, apparently believing that topics such as the emergence of symbolic language are for linguists, psychologists and neuroscientists, rather than archaeologists (I suggest he reads Wynn's contribution to the volume). Richard Potts provides the next article, summarizing his arguments about how adaptation to variable Pleistocene landscapes provided the selective pressure for cognitive evolution. It was, he suggests, the spatial and temporal variability in landscape types that created the selective pressures for information processing and behavioural flexibility, rather than one specific type of environment that an ancestral hominid might have inhabited. This argument seems to be increasingly difficult to defend as evidence for an extremely rapid hominid dispersal from Africa soon after 2 million years ago continues to mount the relatively small-brained *Homo ergaster* appears to have been astonishingly adept at living in and passing through a great variety of landscape types. Potts acknowledges that his thesis is at odds with much of evolutionary psychology, as that frequently envisages complex sociality rather than complex landscapes as providing the selective pressures for intelligence. There is, however, a strong link: complex sociality is only required as a means to survive in habitats of high predator risk and challenging food distributions. Ultimately, all current theories of cognitive evolution return to the character of Pleistocene environments.

Ann Weaver and her colleagues complete this section by summarizing the fossil evidence for encephalization. They begin with a multiple intelligences model for the hominid mind (object-oriented, conceptual, social and linguistic), explaining that such domain-specific approaches should be preferred to the unitary models for human intelligence. There isn't a great deal of linkage between this part of their article and its bulk which deals with issues of body size, brain size, costs of encephalization, vertebral canal size and post cranial asymmetry. They simply conclude that the marked increase in encephalization during the Middle and Late Pleistocene probably reflects the mosaic development of a number of independent modern human cognitive functions.

The final part of the volume has two articles that deal with language, both being summaries of previous publications by their authors. Philip Lieberman entitles his article 'On the neural bases of spoken language' stressing that language is a distributed system rather than being entirely localized in Broca's and Wernicke's areas. Having reviewed what we currently know about the FLS — the Functional Language System — he turns to the fossil evidence and the 'Neanderthal enigma'. Lieberman once (in)famously argued that the Neanderthals were inhibited in their range of sounds by having a larynx positioned more like that of an ape than a modern human. This prevented them, he claimed, from making the vowel sounds that are so critical to humans' spoken languages. His evidence came from the La-Chapelle-aux Saints Neanderthal skull and has been strongly criticized. In this article Lieberman summarizes his responses to his critics, claiming that they have all made fatal errors themselves. But he now places greater emphasis on the length of the Neanderthal oral cavity rather than the position of the larynx as a constraint on their range of possible sounds. Yet Lieberman concludes that Neanderthal spoken language need have been no more different to that of modern humans than one modern dialect is to another.

The volume concludes with Iain Davidson and William Noble providing another exposition of their views about how language might have evolved. This hinges on how signs become transformed into symbols. For them this must involve the discovery of a physical trace of a sign that has become displaced from its referent. I like their arguments and respect how rigorously they have been developed. But there are things I fail to understand. Animal footprints seem to fulfil the criteria of displaced signs that Noble and Davidson present and would, surely, have been utilized by Plio-Pleistocene hominids. Why, therefore, didn't symbolic thought evolve several million years before the appearance of the modern humans to whom Noble and Davidson believe it is restricted?

I was disappointed by the absence of a concluding chapter from the editor. She has done an excellent job in bringing these articles together and I am sure than many readers would have valued her views on how the study of cognitive evolution might further develop, on the recurring issues that arise in the articles, and to have had her remarks on current topics in cognitive evolution that are not covered within this volume. There is, for instance, a marked absence of any contribution from philosophy and very little from evolutionary psychology — notable gaps in a volume entitled 'multidisciplinary approaches'. The volume contains very little about human consciousness and theory of mind; there is nothing about the evolution of human emotions and music. This volume's focus on information processing, language and symbolic thought provides a narrow view of the evolved human mind.

As regards recurring issues I found three to be particularly prominent. The first is the relationship between human language and intelligence — these being equated in some articles, such as those by Lieberman, and Davidson and Noble, but explicitly disassociated in others, such as that by Weaver et al. The second concerns whether brain size or brain structure is the key to human intelligence. Hogan and Gallup, and Lieberman, suggest that size alone is the key. Semendeferi seems to want structure to be significant but her evidence suggests otherwise. Third is whether the selective pressures for cognitive evolution came from interaction with the physical or the social environment. Almost all authors in this volume veer to the former, while the latter appears more generally preferred in the literature as a whole.

In summary, this is a volume with an impressive list of contributors most of whom provide succinct summaries of longer and more detailed studies they have previously published as books or as journal articles. It is useful to have these gathered together in a volume that integrates studies of the fossil and archaeological records very effectively. It is not as multidisciplinary as one might wish and lacks reference to several key features of human cognition. But most readers will be aware of the difficulties of compiling and editing multi-authored volumes and will recognize that *In the Mind's Eye* is of considerable worth. They will be grateful to April Nowell for having organized the original symposium and seen it through to publication.

> Steven Mithen School of Human & Environmental Sciences University of Reading Whiteknights Reading RG6 6AA UK Email: s.j.mithen@reading.ac.uk

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Long-term Changes Revisited

Cultural Evolution: Contemporary Viewpoints, edited by Gary M. Feinman & Linda Manzanilla, 2000. New York (NY): Kluwer Academic/Plenum Publishers; ISBN 0-306-46240-0 hardback, £47, US\$67.50 & EUR71, xv + 269 pp., ills.

Olga F. Linares

This edited volume has two clear goals in mind: honouring Kent Flannery for his distinguished contributions to archaeology through the years, and demonstrating the diversity and richness of contemporary approaches to cultural evolutionary studies. In the first objective the book amply succeeds. The authors illustrate time and again how Flannery's seminal ideas on agricultural origins, the role of households in domestic production, the origins of centralized authority, and the importance of ideology, have shaped and guided current evolutionary thinking and practice. With the second objective the results are more mixed. A few of the essays are so narrow in focus that it is hard to see how they tie in with broader evolutionary problems. One or two contributions are a bit dense in their rationale, or cluttered in detail, making them hard to follow. Enough excellent essays remain, however, to make this a worthwhile endeavour. I will begin discussion with the best and most innovative of them.

Arguably, the most original and thought-provoking piece is by R.McC. Adams on punctuated or discontinuous technological change. Adams begins by reminding us that the concept of technology includes socioeconomic aspects as well as cultural

CAJ 12:2, 277-9 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302250143 Printed in the United Kingdom

meanings. To understand technological change, he admonishes, we must shift attention away from products and material objects, towards an emphasis on organizational processes and human agents. He then demonstrates how clusters of major innovative changes in technology, including writing, underscores the beginning of urbanization and state power in Mesopotamia; and how the replacement of bronze by iron caused major changes in organization in the larger Near East. He concludes by emphasizing neglected fields in archaeology: the focus on rural and urban differences in wealth, and in subsistence and access to trade; secular changes in the social composition of ancient societies; continuities and disruptions in everyday life; and the emphasis on technology as a way of revealing structural diversity, conflicts of interest, and centres of innovation. Adams' synthetic vision of how episodes of accelerated innovation underpin important technological changes does much to clarify the role of human capabilities in the dynamics of long-term cultural evolutionary transformations.

In another excellent essay H.T. Wright reassesses the role that tributary economies play in the development of hierarchical political relations. He models systems in which goods are given as tribute to rulers in regional centres and compares them with systems in which labour constitutes the primary tribute. He then explores the conditions under which one or the other tributary mode is in operation. Wright advocates the use of 'agent-based' models whereby political leaders choose the strategies to employ in extracting produce or labour. He shows how formal models of tributary economies, based on simple algebraic functions, combined with agent-centred calculations, can help clarify relations between local and regional centres. In conclusion, he cleverly demonstrates how modelling the activities of local rulers can predict the presence of tributary arrangements based on goods, or labour, or a viable combination of both.

In a particularly intriguing essay Heinemann and Nicholas demonstrate how large-scale specialized craft production for trade and exchange did not take place, as often assumed, in specialized workshops and factories in ancient Oaxaca but in domestic contexts. Block excavations at the site of Ejutla in southern Oaxaca yielded shell ornaments, together with the tools used to manufacture them, and the leftover craft debris, that the inhabitants made at home. In addition, they made ceramic figurines and other pottery objects, which they fired in domestic 'pit-kilns'. Found mixed together with domestic trash in household structures, these objects were manufactured in such quantities as to leave little doubt that they were traded or exchanged. Moreover, household specialists did not focus on a single craft but produced objects out of various raw materials. The authors thus conclude that in order to understand Mesoamerican economic production it is imperative to reconstruct how households used their labour and how they tied into larger economic and political networks. This can only be done through larger horizontal exposure and excavation of house structures and meaningful activity loci.

With the essay by C.S. Spencer and E.A. Redmond on ancestor veneration in a small Middle/ Late Formative (600–200 BC) village located in the Cañada de Cuicatlán, between Oaxaca and Tehuacán, we note a shift in interest towards the ideological dimensions of politics and power. Funerary remains and iconographic motifs depicting the Lightning deity, and also thunder and rain, are associated with public ceremonies commemorating the highest-ranking lineage and its leader, the village cacique. The ideological linkage that existed between the tombs and funerary rites of deceased leaders, the households of living rulers, and ordinary villagers was reinforced through ritual offerings and communal feasting. With the subjugation of the Cañada by the Monte Alban state after 200 BC what had been native rule through sanctified chiefs became transformed into an imperial ideology centred on the jaguar overlord emanating directly from Monte Albán. It also marked the introduction of elaborate irrigation works for an expanded agricultural production aimed at satisfying the demand for tribute by the Zapotec state. Thus, the authors masterfully demonstrate the importance of placing ceremonial features in their proper cultural context. The ability to place ideology in relation to other social phenomena, not only politics and power, but also subsistence and economic wealth, shows how an approach fusing the mental with the material world can produce rich insights into the course of evolutionary change.

With the essay by Drennan on the ways that recent theories attempt to explain the shift from egalitarian social organizations to hereditary social ranking we enter the uneasy realm of contradictory ideas and decontextualized discussions. Whether Spencer is correct in treating the ability to take risk as the central quality in the emergence of chiefs, or whether Clark and Blake are closer to the truth in making the presence of rich resources the determinant force in the ascendancy of hereditary leaders, is really up for grabs. We may never know; and in any case empirical confirmation of either model is not easy to come by. Making the urge towards self-aggrandizement the proximate motor behind the emergence of unequal relations is not very enlightening either. And even though attempts to unite micro and macro levels of analysis are always laudable, just how one goes about doing this successfully is not very clear. The general conclusion, namely that focusing on individual actors does not further understanding of comparative social change, may be correct, but it leaves us right where we began; nowhere close to unravelling the dynamics behind long-term organizational changes.

The book under review begins with two narrowly focused but well-documented essays that I consider last. The piece by B.D. Smith on the Guilá Naquitz botanical remains sets out to prove, through an exhaustive and detailed examination of the site's stratigraphy, and of the morphological characteristics of the Cucurbita squash peduncle fragments and seeds recovered, that Whitaker and Cutler were correct in concluding that C. pepo was present in the preceramic levels of the cave by 7800 BC. Thus he confirms, beyond reasonable doubt, that Flannery was (as usual) fully justified in arguing that the Guilá Naquitz remains documented the transition from hunting gathering to the beginnings of agriculture in Oaxaca. Almost as an aside, B.D. Smith compares developments here in the 2000 years after domestication with those that occurred in the two millennia after another C. pepo lineage was domesticated thousands of years later in eastern North America. This is his only attempt to place discussions in a broader evolutionary framework.

R.L. Carneiro's piece on the evolution of the tipití, an extendable basketry tube used by Amazonian Indians to squeeze manioc pulp in the process of extracting the poisonous from the bitter variety, is of questionable merit. His detailed reconstruction of the stages through which this clever device came into existence borders on conjectural history. His conclusion, namely that inventions occur by gradual advances, is unassailable if uninspiring. This piece disappoints; we have come to expect more exciting and consequent ideas from this creative scholar.

The book begins with a short but competent introductory discussion of cultural evolutionary approaches, and ends with a brief concluding assessment of Kent V. Flannery's theoretical contributions, both by Feinman. It is difficult to exaggerate the impact of Flannery's thinking on the field of archaeology. If there was ever a brilliant, creative and productive mind, it is his. The postscript by L. Manzanilla documents how his ideas have also crucially shaped the thinking of colleagues outside the United States. And the reassuring fact is that Kent continues to be as innovative and hard working as ever; a wonderful example of what a truly great scholar ought to be!

Olga F. Linares Smithsonian Tropical Research Institute Unit 0948 APO AA 34002–0948 USA Email: LINARES0@tivoli.si.edu

Social Perspectives of Language Evolution

The Evolutionary Emergence of Language: Social Function and the Origins of Linguistic Form, edited by Chris Knight, Michael Studdert-Kennedy & James R. Hurford.Cambridge: Cambridge University Press, 2000; ISBN 0-521-78696-7 paperback, £16.95 & US\$27.95 & ISBN 0-521-78157-4 hardback, £45 & US\$74.95, xi + 426 pp., ills.

Carina Buckley & James Steele

The evolution of language could not have occurred without the co-option of highly complex anatomical and neurological systems to a degree not seen elsewhere in the animal kingdom. Much recent work has been carried out on nonhuman primate vocal communication systems, on human brain evolution, and on the evolutionary anatomy of human speech. But language, more than that, is also a social tool, and this context must be considered to be at least as important when determining the selection pressures for its emergence. This book is a very useful compendium of new approaches to that social context.

The first of three sections focuses on the evolution of co-operative communication. Comprehension, not production, for Burling dictates that the progress of language development as a symbolic signal can only be successful if the target party understands it, giving rise to an 'iconic' syntax. Using game theory and computer simulations, Noble rejects the evolution of communication outside the cooperative sphere. Moreover, cheap signals will only be used when both parties stand to gain a high payoff from effective communication. Knight's contribution states that in representational or conceptual thinking, signals can be exchanged with no cost involved through 'play' vocalizations. Such a social-bonding mechanism may allow for the creation of capacities for detecting and producing signal variations, and so

CAJ 12:2, 279–81 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S095977430226014X Printed in the United Kingdom

generate a setting where signals could be intentionally manipulated at little social cost.

The benefits of strategic communication are expanded by Jean-Louis Dessalles, for whom 'relevance' assumes a political role: individuals use language to advertise their competence in producing relevant information, the most competent being the ones best able to contribute to coalitionary success in political competition. This theme is continued by Power, for whom it is the ritual status of a piece of information that dictates relevance, rather than the specific nature of the information itself. Trust and reliability in gossip is established through costly signalling displays that strengthen and demarcate social boundaries.

The second section focuses on the evolution of the phonetic elements that enable trans-generational linguistic transmission. Vihman and Depaolis build on Merlin Donald's concept of mimesis, which accounts for a preverbal stage of symbolic culture. A child's phonetic capacity and 'phonological loop' allows him or her to produce identifiable words before being able to reflect on a situation, to compare or choose between competing vocal choices or to generalise words on the basis of semantic categorisation. This gradually familiarizes the child with particular segmental patterns in human speech. MacNeilage and Davis look at increasing complexity in speech production through the frame/content theory of language acquisition. This suggests that the initial rhythmic babbling stage of infant speech, with its emphasis on cyclic motor regularity, is how speech started to evolve. The subsequent frame/ content stage marks the point at which sound inventories and serial complexity are increased in frequency and so differentiates human speech from the signalling systems of other primates.

Our communicative separateness from the rest of the animal kingdom is highlighted by Studdert-Kennedy through the study of the particulate principle, in which 'discrete units from a finite set of meaningless elements are repeatedly sampled, permuted and combined to yield larger units that are higher in a hierarchy and both different and more diverse in structure and function than their constituents' (p. 161). He proposes that articulatory gestures are the basic units of spoken language from which phonetic segments and syllables are formed. Phonetic form is hence removed and dissociated from semantic function through imitation. Hominid vocal imitation may at first have been holistic.

Simulations run by de Boer on vowel systems indicate that it is possible for coherent and realistic sound systems to emerge as a result of local interactions in a population of imitators. His finding effec-

tively rules out the need to determine an evolutionbased explanation for the universal tendencies of vowel systems, as the characteristics become manifest through self-organization under constraints of perception, production and learning. Livingstone and Fyfe have simulated communities of agents of varying abilities negotiating and using language successfully, with kin selection favouring individuals who are more language-capable. The Baldwin effect states that learning can influence evolution, as individuals most capable of successfully adapting to their environments will be more likely to contribute to future generations. Vocalizations and speech provided a selective advantage that led to the exaptation and adaptation of aspects of human physiology to support an improved language capacity.

The third section focuses on syntax, and the role (if any) of adaptation in its emergence. David Lightfoot presents a tight linguistic analysis of the conditions under which subjects may be extracted from sentences. He demonstrates that elements of Universal Grammar are spandrels, and that there is no reason to assume that they are adaptive. Newmeyer claims that the earliest human language had a rigid Subject-Object-Verb word order, which invalidates the idea that the constraints of Universal Grammar arose via the genetic assimilation of processing principles.

Those two papers are concerned with narrower aspects of linguistic competence, but other papers in this final section relate to the 'big picture' of the use, history and evolution of language (as well as to the specifics of the Language Acquisition Device). Carstairs-McCarthy believes that the structure as well as the use of language evolved under the pressure of cheap signals and mistrust. Analysis of this could show whether it could have been different and more efficient. The evolution of syntax is believed by Bickerton to have occurred fully by around 200,000 years ago. Until that point our hominin ancestors were using a structureless protolanguage, which could not develop into a true (syntactical) language because the brain could not reach an adequate level of signal coherence. As soon as this was overcome, the Baldwinian effect incorporated these changes into the human genome.

Our evolutionary background of primate social intelligence is responsible for the fact that many language features arise not from the restrictions of an innate language apparatus of the brain but from the evolution of word feature structures (memes) under the selection pressures of use, according to Worden. The holistic nature of human language has not fully disappeared, according to Wray, and serves to manipulate the hearer in favour of the speaker. As holistic language is present in chimpanzees, it suggests it was a feature of protolanguage.

Kirby uses computer simulations to show the emergence from randomness of simple yet languagelike syntax in a population that is not constrained to learn only a compositional language — an example of true linguistic rather than biological evolution. Hurford continues this: his model shows that the mechanism of social transmission of language adds an extra filter, or selection principle, to the processes giving rise to generalization that are characteristic of natural languages.

Overall, this book serves as a useful introduction to the social conditions of language evolution. The field is clearly no longer the exclusive domain of Chomskyan linguists. There is, however, very little reference to the archaeological record of the evolution both of social systems, and of language capabilities. This is a weakness. Recent models of language-social system co-evolution make very contrasting predictions, and these can surely be tested using anthropological and archaeological data. Our own recent review of social models of language evolution (Buckley & Steele 2002) has suggested that three extreme variants can be proposed, which focus (respectively) on the social correlates of hominin life-history strategy, of intensified mate competition, and of increased group sizes. Our review of the anatomical and archaeological markers of social evolution suggests that neither intense mate competition nor the management of affiliative ties in very large co-residential social groups were the drivers of language evolution. We are left with the hypothesis of life-history strategy as the prime mover, and co-operative foraging and provisioning as the selective context for spoken language abilities. A future synthesis of such a perspective with those contained in this book would give the theories it develops a firmer empirical basis.

> Carina Buckley & James Steele Department of Archaeology University of Southampton Highfield Southampton SO17 1BJ UK Email: tjms@soton.ac.uk

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Up-to-date Archaeology

Archaeology at the Millennium: a Sourcebook, edited by Gary M. Feinman & T. Douglas Price, 2001. New York (NY): Kluwer Academic/Plenum Publishers; ISBN 0-306-46452-7 hardback, £59 & US\$85, xix + 508 pp., ills.

Brian Fagan

Source books, if properly compiled, provide an invaluable service to any academic discipline, especially in an eclectic field like archaeology, where the progress of research is more measured than in many other areas of inquiry. Archaeology at the Millennium is such a volume, an attempt to provide an assessment of the current state of archaeological method and theory and of research into major developments in world prehistory. Feinman and Price have edited their sourcebook to coincide with the passing of the millennium, which they admit is an arbitrary milestone, but one which offers a useful point in time to assess our current state of knowledge and to offer predictions for the future. Their assessment, put together with the aid of twelve experienced contributors, is timely in another respect. We are emerging from a long period of theoretical furore, of clashes between processualists and postprocessualists, to the point where the middle ground in these debates is discernible. It is time for a dispassionate assessment of where we stand in the theoretical give-and-take.

Feinman and Price use Chapter 1 to explore the core theoretical issues and debates which have defined archaeology over the past century, and introduce the essays which lie ahead. Jeremy Sabloff and Wendy Ashmore survey the development of twentieth-century archaeology and argue that the development of settlement archaeology from its roots in Gordon Willey's Virú Valley research in Peru is the most important recent advance in archaeological methodology. They also make a case for this type of research, with its increasing concern for cultural landscapes, as one vehicle that will bridge the gap between processual and postprocessual approaches.

From settlement archaeology, we begin a journey through the major issues of world history. Cathy Schick and Nicholas Toth provide a thorough discussion of the major palaeoanthropological issues confronting students of human origins and the archaic world. As with the other chapters, much of the material is familiar to readers who follow the gen-

CAJ 12:2, 281–3 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302270146 Printed in the United Kingdom

eral literature, but the editors have wisely asked each author to offer prognostications as to the future. Schick and Toth believe that Australopithecines will prove to be more widespread than currently assumed, that the beginnings of toolmaking will extend back to about 3 million years. A major direction for future palaeoanthropological inquiry will be actualistic studies and isotopic research, rich potential sources of information on early human behaviour. Richard Klein discusses the origins of modern humans and assesses the archaeological and fossil evidence for the out-of-Africa hypothesis. He believes that the spread occurred about 50,000 years ago, coinciding with the seeming explosion in human culture of about that date, but admits that the evidence is still sparse. He attributes this change to an 'advantageous neural change'.

Robert Bettinger contributes an essay on Holocene hunter-gatherers that is remarkable for its thoughtful analysis of the implications of short-term climatic change and environmental productivity, both of which profoundly affected human populations. He theorizes convincingly that the new hunter-gatherer technologies of the Holocene were foreshadowed earlier during the late Ice Age and that climate change had a more profound effect on hunter-gatherers than technological innovation. Bettinger believes that we should interpret Holocene huntergatherer societies in terms of maximizing energy rather than minimizing time spent seeking food. He urges more settlement studies, more quantitative data to enable us to track this all-important changeover.

Two chapters, by Bruce Smith and Brian Hayden, examine the classic issue of the origins of food production. Smith surveys what is known about plant domestication in Old World and New, coming down firmly on the side of careful scientific detective work. Hayden 'fights with food', arguing that the first domesticated grains were prestige foods, brought under cultivation as a result of competition between different groups within society. In other words, plant domestication was a social and political matter. Both Smith's and Hayden's approaches offer rich potential for the next generation of research and represent a fascinating contrast between archaeology as science, and archaeology as an intellectual exercise. Cathy Costin approaches the problem from a craft production perspective, articulating some of the gaps in our knowledge of artisans and means of production, organizing principles, and distribution. She points out that most theory revolves around describing production systems rather than explaining them. Finally, Jonathan Haas contributes an essay on warfare, the focus of intensive research in many disciplines. He does not offer many fresh insights, but provides an up-to-date survey of recent research, which explores the long history of intermittent conflict.

Four important chapters comprise Part IV, which surveys the rise of archaic states. Gil Stein seeks an understanding of early Old World civilizations, emphasizing the thorough critique of evolutionary explanations and the shift in recent research toward dynamics of early states. He rightly draws attention to new fieldwork on Predynastic Egyptian kingdoms, which is providing a wealth of fresh insights into the dynamics of state formation. Stein calls for more flexibility in analytical categories, for a reorientation in method and theory, which takes full account of individuals and groups, of people in the state-formation equation. In a welcome touch, he includes some discussion of African and east Asian states. Linda Manzanilla contributes an equivalent essay on American states, with succinct descriptions of the rise of states and city-states in both Mesoamerica and the Andean region. Her synthesis emphasizes the diversity of Pre-Columbian states. Like Daniel stepping in to the Biblical den of lions, Classical archaeologist Jack Davis assesses the present (sorry) state of American Classical archaeology, which has never espoused the growing anthropological bent of European scholars in this field. Few Classical archaeologists in North America receive adequate archaeological training, let alone a background in anthropology. He looks in vain for a 'revolution', which will change the status quo, but holds out little hope that it will arise, urging more collaboration between anthropological archaeologists and their Classicist colleagues. Carla Sinapoli writes on empires, an oft-neglected aspect of research into early states. She draws attention to the increased level of collaboration between archaeologists and historians, to the much broader perspectives of anthropological archaeologists, who now work all over the world, and to new research into sources of power within complex societies. The perspective has shifted from top-downward exploration of empires, to a much greater concern with their internal dynamics and diversity, to the roles of different social players in the ebb and flow of the whole. The new research acknowledges factionalism and internal differences, varying social agendas, and tensions within seemingly monolithic imperial entities.

Finally, in Part V, Feinman and Price evaluate 'The Archaeology of the Future'. They begin with a summary of past developments, assess the current situation from the perspectives of the academy, then turn their attention to new perspectives and methods — the increasing importance of biology in the study of the past, a bewildering array of new and esoteric scientific methods, and the likelihood that a new generation of social science theory will impact the study of the past. They anticipate an increasing emphasis on individuals and groups as agents of cultural change in future research and theoretical discussion — perhaps a form of soft processualism, which is what it sounds like. Feinman and Price are optimistic about the future of the past, but end with a brief cry for the recording of the archaeological record before it vanishes forever under the onslaught of industrial expansion. For the most part, this summary essay focuses on the academic and intellectual, with only brief mention of cultural resource management, the destruction of sites and looting, mass tourism, and all the other contemporary and future problems which today's archaeology faces. Since this is predominantly an academic volume, this is hardly surprising.

Archaeology at the Millennium provides us with a portrait of a thriving archaeology, built on the work not only of today's practitioners, but on the researches of earlier generations. There is a nice continuity here, combined with insightful glances at the future, by authors who know what they are talking about and are on top of their fields. Their chapters depict an archaeology with a strong multidisciplinary focus, still true to its anthropological roots, reaching out far beyond the sciences into history and other fields in ways that would have been unimaginable a generation ago. They give a sense of archaeological theory in flux, awaiting a new direction, with much research still drawing, consciously or unconsciously, on processual thinking. But, at the same time, the contributors bear witness to tremendous advances in our understanding of human diversity in the past, of problems solved, and more sophisticated questions awaiting solution. If the archaeologists of fifty years' time write a new sourcebook, they will hopefully marvel at the progress made since the primitive days of the late twentieth century. That is how it should be, for this important and well-compiled source book, is, as its authors readily admit, merely an assessment, a stepping stone to the future — which is what all sourcebooks should be. With its comprehensive and up-to-date bibliographies, many technical terms, and sophisticated intellectual explorations, Archaeology at the Millennium is no popular volume. Rather, it is an invaluable source for all archaeologists (including Classicists), and is a graduate student's treasure. This volume will become a staple of graduate seminars for years to come, and, to use the oft-used cliché, really does

belong on every archaeologist's bookshelf. Please Plenum, give us a paperback edition soon!

> Brian Fagan Department of Anthropology University of California, Santa Barbara Santa Barbara, CA 93106 USA Email: brian@brianfagan.com

I and Thou on the Ancient Nile

The Search for God in Ancient Egypt, by Jan Assmann, 2001. Ithaca (NY): Cornell University Press; ISBN 0-8014-3786-5, hardback, £30.01 &US\$47.50; ISBN 0-8014-8729-3 paperback, £15.99 & US\$19.95, xii + 275 pp., ills.

Tom Hare

Since the late sixties, Jan Assmann has produced a remarkable body of scholarship on ancient Egypt and its philosophical legacy, beginning with a detailed study of hymns to the sun¹ and ranging across the high intellectual topography of the ancient Nile with books about time, society, truth and justice and the spectrum of religious beliefs of the Egyptians. Until a scant seven years ago, though, little of this work was available to readers of English. There were a couple of articles in *Yale Egyptological Studies*² and for readers of French, his lectures at Collège de France,³ but only in 1995, with Egyptian Solar Reli*gion in the New Kingdom*⁴ did his major books begin to find English translators. In the past two years, two more have found their way into English; The Mind of *Egypt: History and Meaning in the Time of the Pharaohs* just appeared in Spring 2002, following upon the 2001 publication of the book under review, a translation of his 1984 work, Ägypten: Theologie und Frömmigkeit einer frühen Hochkultur.⁵

What has made Assman not only an eminent Egyptologist, but, in Germany, a public intellectual as well, is his sympathetic operation from within Egyptian texts coupled with a deep and detailed knowledge of Western intellectual history. No Egyptologist is more fluent within the monumental intellectual structures of pharaonic thought. One might almost consider this a failing, suspecting that Assmann had 'gone native', but his comprehensive-

CAJ 12:2, 283–5 © 2002 McDonald Institute for Archaeological Research DOI: 10.1017/S0959774302280142 Printed in the United Kingdom

ness, his linguistic precision, his utter seriousness and lack of sentimentality, and his cultural fluency in the post-Egyptian West give him a nearly unassailable immunity from any such charge.

The Search for God in Ancient Egypt finds its primary impetus in a longstanding problem of Egyptian religion which has been grappled with previously in such classics as Breasted's Development of Religion and Thought in Ancient Egypt⁶ and Erik Hornung's Conceptions of God in Ancient Egypt: the One and the Many.⁷ The problem lies in the putative existence of monotheism in the seemingly conspicuously polytheistic religion of Egypt. Assmann pursues his investigation of this problem along a differential between theory and practice, or, in his terms, between explicit theological speculation and the implicit theology of cult and ritual. He characterizes the implicit theology of the Egyptians as operating within three dimensions of divine presence: the local/cultic, the cosmic, and the verbal/mythic, presenting a detailed, persuasive, and clearly written account of the interaction of cultic performance and cosmological views, motivated linguistically through puns and word associations, giving form to static mythical constellations. This is the discernible basis for Egyptian religion in the Old and Middle Kingdom; it is polytheistic and in Assmann's view, vastly more concerned with action than with thought.

The exceptional insight animating this part of The Search for God is Assmann's assertion that in the Egyptian case, ritual is the precursor of myth. It has generally been assumed that a lost body of mythical narrative, if only we could fully recover it, would give us access to the rationale behind the practice of cult and ritual in ancient Egypt. In Assmann's intriguing argument, though, it is not that the myth of Osiris, say, is passed on to us in only fragmentary form (in Plutarch) from an original Egyptian whole, but rather that Plutarch's version is the first 'single, comprehensive context of a "myth of Osiris",' which in its earlier Egyptian context consisted of 'four or five . . . basic constellations of texts that exist in highly diverse contexts: mortuary texts, magical texts, royal texts, and so forth' (p. 124). This bold assertion begs for comparative evaluation elsewhere in the ancient world, and could offer fascinating new insights on the birth of narrative, if adequately corroborated.

Assmann shows that the break with a threedimensional old religion in Egypt began not in religious literature, *per se*, but rather in wisdom literature, extant in its earliest forms from the Middle Kingdom. He attributes the origins of this fourth dimension of Egyptian belief to the ethical, religious and political crisis of the First Intermediate Period: 'The vanished evidence for the meaningfulness of human existence is shifted to the transcendence of the inscrutable will of a hidden god' (p. 174). The collapse of the Old Kingdom raised difficult questions about divine justice, but they apparently caused relatively few reverberations in Middle Kingdom religious thought itself compared with the revolution they provoked in the New Kingdom, where they laid the groundwork for dramatic new ways of thinking and writing.

Assmann's fourth dimension entails a hidden and transcendent form of belief wherein a single god is responsible for and responsive to the entirety of the cosmos. It produces the religious revolution of Amarna, but it also reveals a shift in belief, both before and after Amarna, whereby the focus of religion takes on a personal character rarely evidenced earlier in Egyptian history: how is the individual to relate to 'god'?

The unifying impetus of the fourth dimension comes to an exclusive focus in Akhenaten's religious revolution and results in the systematic persecution of the many gods of the old religion. Because of Akhenaten's view that light is god and that only he and his queen Nefertiti have a personal understanding of being within that light, any broader personal religiosity is monopolized by the royal family. 'In the religion of Amarna, piety was a relationship between the god and the king . . . on the one hand, and between the king and the people, on the other hand. Direct human piety toward the god was excluded' (p. 216).

The old starry-eyed view of Akhenaten as goodly and peaceful prophet, religiously awakened many centuries ahead of Judeo-Christian revelation has, of course, changed significantly in the past two or three decades, and the possibility that Amarna may well have been a despotic rather than a wise and prescient age in Egyptian history is now widely acknowledged. What Assmann brings to this reconsideration, however, is a startling insight about the broader currents of New Kingdom religion and the ways in which it rethought and rewrought the gods of the old religion. According to this reconsideration, Akhenaten is less revolutionary than reactionary, trying to maintain an old-fashioned royal monopoly over religious experience when the currents of Egyptian belief had drawn that experience out of the exclusive control of the king and into the hands of the people:

Amun had confronted the individual with a claim to a decision and to conscious devotion, for he himself was a god of conscious devotion, the divine concept of a new, individualized stage of consciousness, will, and decision. In this respect, Amarna represented an attempt to reverse this thrust at individuation and to confine humanity, vis-à-vis the god, to the undifferentiated collective identity of creatureliness. (p. 221)

This puts Amarna religion into the broader context of New Kingdom solar religion, and demonstrates the extraordinary religious change which takes place in the *longue durée* of Egyptian culture. After the Amarna period, it is innovation, not competition, which characterizes the devotions of the personal piety religion, and the 'restoration' of the old polytheism, under such a consideration, is actually less a return to pre-Amarna beliefs than a more dramatic transformation which, in an ironic sense, the Amarna revolution had tried to forestall. The inscription of a wab-priest of Amun, to which Assmann draws our attention, gives a touching sense of the tragedy Akhenaten's revolution brought down upon 'traditional' believers in the late eighteenth dynasty (pp. 223-4).

Assmann's painstaking delineation of the longer-term changes that occur in New Kingdom religion show an important Egyptian antecedent to the 'I-Thou' theologies of the Abrahamic religions, but I am, for myself, still left with some questions about the broader religious ramifications of these changes. It is easy to read Assmann as a theological progressivist. That is to say: the transformation of New Kingdom religion as he details it, with its extraordinary hymns and its remarkable valorization of the individual's personal relation to 'god', gives one the sense that Old and Middle Kingdom were as yet rather primitive or immature. And yet, is there another way to think about, in particular, the Osirian religion of the Middle Kingdom? To take a case in point, we might compare Assmann's universal deity, first evident in the Ramesside period as one who 'makes himself into millions' — the ancestor of the Hermetic hen to pan apparently --- with a line in the Coffin Texts, utterance 1145, in which the deceased proclaims himself to be 'one man in a million,' able to withstand the attack of (apparently) 'Apep, just as if he were the sun god himself.

Or again, given the demotization of Osirian religion, also most evident in the Middle Kingdom,

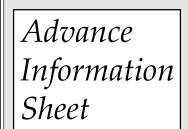
mightn't we want to consider the possibility that the I/Thou religion of Assmann's New Kingdom Egypt had overcome (or come to coexist with) an I-am-Thou religion, comparable to certain religious traditions of South and East Asia in which the practitioner achieves an apotheosis, either temporarily in, for example, tantric Buddhism, or eternally, through the long process of attaining Buddhahood or entering into varieties of Hindu divinity?

These questions intend no slight against Assmann's remarkable book, but are rather inspired by it, to further contextualize Egyptian religious experience not only within the history of Western religious thought, but in the even broader anthropology of world religion. We are very fortunate to see his extraordinary scholarship appearing at last in English, and owe our thanks to the Cornell University Press and David Lorton, as well as, of course, to Assmann himself, for this excellent new opportunity.

> Tom Hare Department of Comparative Literature Princeton University Princeton, NJ 08544 USA Email: thare@Princeton.edu

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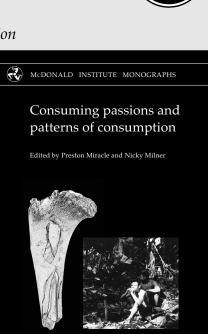
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- Lectures delivered on the Morse Foundation at Union Theological Seminary. New York: C. Scribner's Sons, 1912,
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McDonald Institute for Archaeological Research University of Cambridge Downing Street, Cambridge CB2 3ER, UK. Tel: +44 1223 333538/339336 Fax: +44 1223 333536

Title: Consuming passions and patterns of consumption Editors: Preston Miracle and Nicky Milner **Series:** McDonald Institute Monographs **Classifications:** Archaeology; Food consumption; Anthropology **Binding:** Cloth **Size:** 286 × 220 mm Pages: vi+136 pp.; 48 illustrations, 16 tables **ISBN:** 0-9519420-8-5 hardback **ISSN:** 1363-1349 **Price:** £20; US\$35 Publication date: February 20, 2002 Distributor: Oxbow Books, Park End Place, Oxford, OX1 1HN, UK. Tel: (01865) 241249 **Description:** This volume outlines and illustrates the importance of considering social contexts of food consumption in interpretations of past and present human societies, giving a new twist to the old adage

'you are what you eat'.



What we eat, and how we eat, are and always have been fundamental to the structuring of social life, both in the past and in the present. The remains of food are also among the most common archaeological finds. The papers in this volume explore and develop ways of using food to write social history; they move beyond taphonomic and economic properties of 'subsistence resources' to examine the social background and cultural contexts of food preparation and consumption. Contributions break new ground in method and interpretation in case studies spanning the Palaeolithic to the Present, and from the Amazon to the Arctic. This volume will thus be essential reading for all archaeologists, anthropologists and social historians interested in the prehistory and history of food consumption.

ABOUT THE EDITORS:

Preston Miracle is a University Lecturer at the Department of Archaeology, University of Cambridge.

Nicky Milner is a Lecturer at the Department of Archaeology, University of Newcastle, Newcastleupon-Tyne.