

how do we separate one capacity from the other and prove one as the basis of modern symbolic capabilities? Dubreuil goes on to propose a new framework for investigating these issues that focuses upon comparative cognitive, developmental neuroscience and palaeo-neurological research, which can develop specific agendas for testing current cognitive models in archaeology. Lastly, Barrett (Chapter 11) closes the volume with a discussion that focuses upon the nature of meta-representation as a key for the development of *Homo symbolicus* and *Homo religiosus*. His perspective of these issues stems from the cognitive science of religion paradigm, in which he outlines current cultural and adaptational views for the emergence of religious practices. In developing an argument for the concurrent evolution of capacities for modern human behavior and religious beliefs and practices, Barrett proposes that the "lynch-pin" of symbolism lies in a *meta-representational theory-of-mind*, or the ability to think about another's thoughts, which opens new avenues for cognitive, linguistic and cultural expressions underlying religion.

The true strength of the volume is found in its interdisciplinary focus, which appeals to a common interest of researchers from different fields to gain perspective from the variety of theories and methods employed to examine the symbolic origins of language, imagination and spirituality. The intention of the volume is to discuss the wide-range of issues surrounding the emergence of symbolism from the multi-disciplinary viewpoint, which is well-developed within its chapters, and yet to maintain a common thread in focusing upon how symbolism has shaped the human condition. This goal is certainly achieved in „Homo Symbolicus“, that further focuses upon integrating biological, philosophical and psychological perspectives with archaeological research, which creates a critical review of the problems and advances for students of the evolutionary sciences who are interested in the issue of symbolism. However, the volume is not without its challenges, which might be expected of any book attempting to bring together such a wide range of disciplines to discuss a common topic (especially one as contested as symbolism). One significant issue that the volume neglects to discuss in earnest is how to define the concept of "symbolism" that might apply throughout the different disciplinary perspectives presented within its chapters. Issues such as the role of language and various cognitive capacities as either central or marginal to the capacity of symbolism make this task difficult, and as a result, each chapter seems to redefine the concepts of "symbolism" from the previous. This leaves the reader to interpret the caveats that each author emphasizes as the critical features for capacity for symbolism, which can range from very specific linguistic to cognitive to neurological structures. This also creates an unclear picture of how the primatological perspectives (which downplay the role of language

and cognition in modern human symbolism), archaeological perspectives (which primarily focus upon material culture issues) and interdisciplinary perspectives (which focus upon the linguistic and psychological uniqueness of modern humans) actually interrelate in discussing and bridging the theoretical disparities that exist between these frameworks. The last issue of the volume is its organizational structure, which presents no clear bounds between chapters written from different disciplinary viewpoints. Sections demarcating primatological, archaeological and interdisciplinary (biological, philosophical and psychological) chapters might bring about a more coherent outlook in preparing the reader for how these sections might conceptualize and define symbolism in terms of their field of study. Despite these challenges, „Homo Symbolicus“ presents a unique multi-disciplinary background for any scholar interested in the wealth of aspects surrounding the critical issue of how the capacity for symbolism has shaped humanity.

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Prehistoric minds: human origins as a cultural artefact, 1780-2010.

Matthew D. Eddy (ed.), *Notes & Records of the Royal Society* 65 (1), Special Issue, 2011, 98 pages.

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Ceci n'est pas une recension – this is not a book review. Instead, this review treats a collection of one editorial and five papers first delivered at a conference held under the auspices of the British Society for the History of Science at the Royal Society in London late in December 2009, the much-celebrated bicentennial of the birth of Charles Darwin and the publication of his *Origin*. The papers are published as a special issue of the Royal Society's very own journal dedicated to the history of science, the *Notes & Records of the Royal Society*. Not all the presentations given at that conference are represented in this special issue, but those that are – by Matthew Eddy, Paul Pettitt and Mark White, Clive Gamble and Theodora Moutsiou, Marianne Sommer, and Peter Kjærsgaard – make for

a sleek volume of just under 100 pages that ranges widely over conceptual and historical issues connected to early antiquarian Palaeolithic and palaeoanthropological research. As the volume's title indicates, it is the notion of the "prehistoric mind" that provides a common focus. So, is this a special issue on early cognitive archaeology? Not quite. The prehistoric mind is here treated as a cultural artefact, or in other words, what lends focus to the different papers is the important linkage of antiquarian, archaeological, and anthropological interpretations of material remains from the distant past with salient general and specific cultural factors at work during the 19th and early 20th centuries: metaphysics, race, gender, class, economics, and politics.

Matthew Eddy opens the volume with an introductory editorial. He sets the scene for the remaining papers by both linking the original conference and its resulting publication to ongoing debates of the human condition in, for instance, the British newspaper *The Guardian*. He also underlines the novelty of the research presented in the five papers to follow: They go beyond traditional historical research in considering both archival but at the same time also archaeological and anthropological material. This is important because the evidential shift from prioritising literary sources to also seriously including material remains in the form of artefacts and bones in an attempt at reconstructing ancient lives and minds was itself truly novel in the middle of the 19th century. Darwin and the new chronology based on geological timescales made such ideas possible and indeed pressing. However, as Eddy points out, there is a sort of terminological stratigraphy inherent in such historical discussions. The meaning of seemingly innocuous terms, such as "prehistoric" and "mind", change over time, along with their cultural loadings. Eddy thereby reminds the reader to be aware of the difficulties of reading not so much the prehistoric but rather the Victorian minds of the men (no women here) whose works are discussed in the special issue.

The first research article following the editorial is by Eddy himself. The central character of his paper is the Edinburgh professor of rhetoric and *belles lettres* Hugh Blair. Blair is not a character that will be familiar to many archaeologists, but he aptly represents the beginnings of the above-mentioned evidential shift from a focus on literacy and Classical sources to a more decidedly archaeological approach to prehistory. Blair's attempts at inferring prehistoric cognition were rooted in an analysis of linguistic structure that, from today's point of view, can easily be shown to be not only Eurocentric, but also strongly Anglocentric. Blair drew on the then emerging ethnographic reports from the British colonies to make arguments about natural progression of cognitive abilities, expressed by language. As Eddy points out, Blair only referred to actual artefacts in passing, but his linguistic model of cognitive evolution – argued by

Eddy to be representative of the time – provided a background against which later scholars would interpret the stratigraphically ordered material remains. Indeed, "primitive" tools acquired from far-away peoples were then used to support notions of Western superiority, closing the Victorian circle of reasoning (e.g. Owen 2006).

The next paper, by Pettitt and White, turns towards some of the "usual suspects" in the history of early (British) Palaeolithic archaeology. We meet Lubbock, Worthington Smith, Pengelly, and other antiquarians who excavated in British caves. Providing a richly and interestingly illustrated account of the intellectual and institutional scene of British Palaeolithic archaeology between 1830 and 1880, Pettitt and White reach the conclusion that prehistoric cognition was in fact not explicitly addressed in any of the works written at the time. These were primarily (perhaps understandably) concerned with issues of chronology, and with reconstructing prehistoric life from the artefacts they found. What Pettitt and White show clearly is that ethnographic information was used to illustrate these interpretations of past life, and that they were saturated with tacit, contemporaneous notions of cognition, intelligence and morality. Gamble and Moutsiou's paper reveals similar facets. Focussing on the events and individuals surrounding the significant discovery and documentation of an Acheulian hand-axe found in stratified Pleistocene river terrace deposits of the Somme Valley in 1859 (see also Gamble & Kruszynski 2009), they show how, after the notorious biblical "time barrier" was famously shattered, discussions rapidly moved on to the length of the new chronology and the absolute age of the celebrated hand-axe finds, and to considerations of prehistoric cognition. Gamble and Moutsiou succeed in demonstrating how particular contemporaneous events (the Indian mutiny of 1857 and the American Civil War, 1861-1865) impacted on the scientific agenda of the day. This very same scientific agenda was intertwined with prevalent moral, political, and economic opinions. Ethnography and archaeology alike were used as "hard" evidence justifying a racist and imperialist agenda. The human mind, they argue, was seen as stratified with children, women, workers and "savages" being caught in lower layers or stages. This view provided the establishment with a useful scientific rationale for heavy-handed governance, at home as in the colonies.

The final two papers are again authored by historians of science rather than practicing archaeologists. Sommer presents an interesting discussion of the eolith debate in the Anglo-American context. These allegedly humanly made tools – what we today would refer to as geofacts – were subject of heated discussions and used as proxies for ancient hominid species yet to be discovered. More importantly (and in line with the sentiments of the previous papers) eoliths symbolised to many the nationalistic desire to

find local roots for a given population in very remote periods indeed. Such efforts are certainly still ongoing, often at the interface between amateur and professional archaeology (e.g. Baales et al. 2000). Kjærgaard's paper finally takes us away again from artefact-centred perspectives to a discussion of the perennial issue of the missing link. Derided by scientists but loved by journalists and the public, conceptions of this supposedly crucial piece of evidence have plagued evolutionary theory from Darwin until today. In a nuanced analysis of the narrative quality of both evolutionary scenarios and the recent and contemporaneous treatments of the history of these scenarios, Kjærgaard shows that although Darwin (and for that matter the other well-known protagonists of 19th-century evolutionary and Palaeolithic research) serve as useful way-markers in navigating historical analyses, they too were embedded in long intellectual and cultural lineages that often guided if not determined the trajectories of their ideas and their use of language.

So what do these half dozen papers have in common, and how do they differ? First or foremost, they demonstrate how reflective Palaeolithic archaeology has become. Disciplinary histories, especially when written by practitioners rather than historians, are easily exploited in the service of particular scientific agendas. Thorough awareness of the history of one's own discipline is the only remedy, and here also lies an interesting difference in the reviewed papers. Those written by archaeologists (Pettitt and White, Gamble and Moutsiou) differ markedly in style and focus from the remaining papers, which are written by historians of science. The latter papers seem less concerned with material culture such as artefacts, but also pictorial sources, and they include a cast of characters, and a bandwidth of ideas somewhat wider than the more "down-to-earth", more chronicle-like papers by the archaeologists. That said, to a readership of archaeologists, it is perhaps those more straightforward papers that appeal. The common lesson that can be extracted from them all certainly is that science is not conducted in a cultural vacuum, and that "data"

and "facts" are both produced, interpreted and reinterpreted in complex cultural contexts, each with its own historical baggage. It is this reviewer's opinion that students of any subject, including archaeology, should be taught a healthy dose of disciplinary history, and this special issue makes a useful contribution to the reading list for such a curriculum. However, it should also be noted that the papers reviewed here are given global relevance more or less only by the fact that British colonial activity and the modern scientific enterprise associated with it have had such a significant influence on Palaeolithic archaeology elsewhere. Nearly all the protagonists and networks discussed in this special issue are situated within the Anglo-American sphere with the result that its overall interest is somewhat diminished for readers in other parts of the world. This is perhaps not too surprising given that the conference was hosted by the British Society for the History of Science, and funded by the UK's Royal Society. Yet, the inclusion of more international perspectives would have improved the overall volume markedly, and would have broadened not only its dialogue but also its target readership. This final gripe should not distract too much, however, from an otherwise positive and interesting reading experience. The current trend that the proceedings of conferences are subsequently and often swiftly published as themed issues of peer-reviewed journals with active online platforms can only be encouraged. The papers are of high quality throughout, and reflect the fruitful, interdisciplinary dialogue of archaeologists with historians of science. The entire issue is freely available online since March 2012.

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