

although it is necessary — will not be enough.

There is much interesting detail in this book. The opening chapter sets the stage well, discussing how the intertwined stories of cultural and genetic evolution are fundamental to the emergence and spread of infectious diseases. The book's narrative would have been enriched by a more explicit exploration of these unifying threads throughout. All too briefly, and therefore superficially, the final

several pages consider the high-risk path that we humans are now following. In a "crowded world" that is "out of order", more attention must be paid to how infectious disease may cut swaths through increasingly vulnerable populations in a world of rising microbial mobility.

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Unearthing religion

Inside the Neolithic Mind: Consciousness, Cosmos and the Realm of the Gods

by David Lewis-Williams & David Pearce
Thames & Hudson: 2005. 320 pp. £18.95

Nicholas J. Conard

David Lewis-Williams, professor emeritus at the University of the Witwatersrand in South Africa and member of its Rock Art Research Institute, shows no sign of losing the desire to confront his archaeological colleagues with new and controversial ideas.

If his earlier book *The Mind in the Cave* (Thames & Hudson, 2002) rocked the boat of mainstream archaeological science with its innovative and insightful analysis of the origins of art and the replacement of Neanderthals by modern humans, then his new one, *Inside the Neolithic Mind*, co-written with David Pearce, is nothing less than an attempt to capsize the vessel of mainstream archaeology altogether.

The Mind in the Cave contained a fair amount of marxist theory, and opened with a quotation from Karl Marx. The opening chapter of *Inside the Neolithic Mind* also states broad support for marxist approaches and the work to this end by V. G. Childe, but focuses instead on the nature of human consciousness. It presents Coleridge's opium-induced poem

Kubla Khan as an example of a form of consciousness analogous to that experienced by the makers of the earliest monumental architecture at sites including the religious centre of Göbekli Tepe in Turkey and the chamber tombs of Knowth and Newgrange in Ireland.

This discussion of Coleridge's poem is just the start of a literary and scientific tour de force that touches on the works of Dante, Jean-Jacques Rousseau, Aristotle, St Paul, Thomas Aquinas, Rudyard Kipling and other figures who are not the standard fare of scientific archaeology. Many academic and field archaeologists will retrench and find polemic arguments against the authors' unconventional ideas and methods. But I think Lewis-Williams and Pearce have done the scientific community a service by continuing to push the frontiers of archaeological knowledge.

Building on detailed discussions of the neurophysiology and cognitive science of altered and heightened states of consciousness, combined with diverse archaeological and ethnographic evidence, Lewis-Williams and Pearce lay the groundwork for their analysis. Given the multilayered complexity of the book, it is best to turn to the authors' words. Concerning their methods, they argue that their neurological approach "is thus in no way deterministic: all the stages and experiences of consciousness

that we distinguish are mediated by culture". They go on to state that "it is impossible to discuss ancient religions and cosmologies in anything but a superficial, periphrastic way without recognizing the input of the human nervous system as it daily produces varied states of consciousness".

The authors define religion broadly to include experience, belief and practice. Without rejecting a position based on Marxist theory, they argue that religion was the driving force behind what Childe referred to as the Neolithic revolution. According to Lewis-Williams and Pearce, "It was religious experience that gave people the power to command the construction of megalithic monuments and to sacrifice animals and very probably human beings in order to keep the cosmos in good order." In other words, animal and human sacrifices "kept the elite in power". The authors urge archaeologists to consider "new types of explanation that do not assume humankind's impotence in the face of environment".

Lewis-Williams and Pearce argue that researchers can use scientific knowledge about consciousness to solve questions in archaeology. They also suggest that mainstream studies of technology and ecological adaptations ignore key variables that drive cultural change, including religion.

Although I accept many of the authors' basic premises, I find it disconcerting that their explanations are not readily refutable. Or, if they are, the authors do not give us clear guidelines on how their hypotheses and interpretations can be tested. This issue also needs to be addressed, particularly with regard to Lewis-Williams' influential work on shamanism.

The authors go further, arguing that their work can be used as a framework in which to analyse current belief in supernatural beings, whether in the form of Christian, Islamic or other kinds of fundamentalism. In this sense they no doubt share my dismay at polls indicating that more than half the population of the United States, including the president, do not accept the validity of evolutionary theory. They comment: "If an American president announces that his decisions are guided by God, alarm bells start ringing." Clearly the authors see their study of Neolithic religion as relevant in the context of today's world.

Like *The Mind in the Cave*, this well produced and finely illustrated book will be of interest to all archaeologists who think that the events of the Stone Age cannot be understood solely by the study of technology, environmental change and calorie counting of the behavioural-ecological school. Most colleagues will not change their research strategies to emulate those presented in *Inside the Neolithic Mind*. But the smart ones will pause a little longer before dismissing the archaeology of religion. ■

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Can neurological studies shed light on the building of Neolithic religious centres such as Göbekli Tepe?