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David S. Whitley: *Cave Paintings and the Human Spirit. The Origin of Creativity and Belief*, Prometheus Books, New York, 2009. 322 pp., ISBN 978-1-59102-636-5

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There is little doubt in my mind that David S. Whitley is one of the brightest minds in contemporary archaeology. A director of a major contract archaeology firm in the United States, he may not rank among the best-known or most cited archaeologists of our time, but this is mainly because he has chosen to dedicate much of his energy to rock-art research, a field of study that remains secluded and still sometimes completely ignored by the mainstream. Within this sub-discipline, however, he is a star. Even though his research centres on the rock art of the American South-West, it is theoretically and methodologically ground-breaking and therefore indispensable reading for anyone working with rock art – regardless of the region.

It has become something of a tradition for eminent archaeologists to take a stand on Franco-Cantabrian cave art, often towards the end of their professional career. *The Mind in a Cave* by David Lewis Williams (2001), in which San Bushman ethnography and the so-called neuropsychological model were applied to cave art, is the most outstanding example and an obvious comparison to the present volume. The neuropsychological model, which has won widespread acceptance (but also invited loud criticism), views certain geometric and representational motifs present in cave art (as well as many other art forms) as indicative of a trance state and hence 'shamanism'. Ever since it was first presented by Lewis-Williams and Thomas Dowson in 1988, Whitley has been a firm supporter of the model and applied it to his own data. In view of this, I had a rather clear idea of what to anticipate from Whitley's take on cave art and, knowing his

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previous work, set my expectations high. They were met, I am happy to say, but Whitley's book turned out to be much more than a simple sequel to *The Mind in a Cave*. Indeed, it is quite different from any archaeological book I have read up to this point.

To begin with, *Cave Paintings and the Human Spirit* lacks the structure and cool detachedness of traditional academic writing; it is instead a very mixed bag of intellectual threads, fresh ideas and personal recollections as well as legal and academic controversies. It is an engaging narrative – an attempt to convey a personal account of the mental voyage that is science – but a narrative that is not a linear and, one could argue, does not even form a scientific monograph in the traditional sense. This is in a conscious break from the usual academic discourse, where depersonalized language is somehow thought to make intellectual results more factual. Whitley finds that he has 'spent too much time, for better or worse, learning from poets to accept that argument'.

In spite of its somewhat chaotic structure, the book is a joy to read. Clearly, Whitley has spent enough time learning from poets to be able to write good, captivating prose with a personal touch. There is something distinctly American in the good-natured directness and informality with which he tells us details of his personal life, sprinkles the text with pop-culture references or describes (invariably in a positive light) the qualities and outward appearances of his fellow researchers. Some accounts of field trips are quite memorable, such as when he describes a visit to the glittering calcite caves of Les Trois Frères together with Count Robert Bégouën and an unnamed Native American friend. While they were contemplating the carvings and paintings of the inner 'sanctuary', his friend – a religious traditionalist – started to sing and chant a long prayer, accompanied by playing of an eagle bone whistle, 'its high pitch filling the chamber and resonating through the connecting passageways, calling the spirits last seen by the Paleolithic shamans fourteen thousand years earlier'. Sometimes sheer poetry enters the prose. For example, the Panel of the Horses at the Chauvet Cave is described as being like 'that single, flawless woman's voice singing a simple melody that you hear inadvertently, through an open window, above the soft sounds of the birds and the crickets, accompanied only by a gentle spring day'. The Hall

of Bulls at Lascaux, by contrast, is 'a Beethoven symphony that wraps you up in its power and controls your emotions, moving you by its volume and force and majesty'.

The book is divided into three parts, each of them consisting of two or three chapters, and each of them addressing sites and themes that are or have been surrounded by great controversy. The cave of Chauvet plays a prominent role in Part I. Found in 1994 by the French speleologist Jean-Marie Chauvet, the discovery caused an international sensation, because its artistically stunning paintings turned out to be far older (c. 35ka) than they were 'supposed to be' according to the then-existing stylistic schemes for the evolution of art. Here, as elsewhere in the book, the reader gets a rare opportunity to peek not only inside the cave (which is closed to public and most professionals as well), but also behind the depersonalized and seemingly serene surface of the scientific world. We get a glimpse of the reality of doing archaeology: the petty controversies, greed, accusations, personal grievances and even lawsuits that often surround new discoveries.

I can see why Chauvet, with its naturalistic paintings of horses, woolly rhinos and cave lions, provides a more attractive starting point for discussing the origins of creativity than a small chunk of haematite carved with a hatched motif, such as was found in Blombos Cave, South Africa (Henshilwood *et al.* 2002). But, while the Blombos stone may not be 'cave art', it *is* art and dates to 75ka, making it more than twice as old as Chauvet. New discoveries of carved ochre at Blombos may push the date even further, at 100ka (Balter 2009). And, if Blombos does not count as sufficient evidence for human creativity, the Bradshaw paintings of Australia show artistic accomplishment equal to that of the European painted caves, and have been suggested to date as much as 46–70ka back in time (Akerman & Willing 2009). The datings, based mainly on the depiction of extinct Ice Age animal species such as the marsupial lion (*Thylacoleo carnifex*) or the giant emu-like *Genyornis* bird, may be questioned, but, together with less spectacular evidence for Aurignacian art in places like Africa and India (Bednarik 2003), should have deserved more attention in a book that seeks to discuss the origin of 'the human spirit'. Such Eurocentrism is all the more surprising coming from an American scholar

who, in Part II of the book, expressly sets out to challenge certain Eurocentric dogma. There is probably a reason for excluding this material, but it would have been good to make it explicit.

Before Chauvet, specialists in Palaeolithic art felt comparably secure in dating prehistoric images simply based on their style. However, when the ^{14}C datings from Chauvet Cave were published, many were prepared to proclaim an end to the 'stylistic era' in rock art studies. This leads Whitley to discuss, in Part II, the great controversy that arose around a second recent discovery of Palaeolithic art: the open-air petroglyphs (rock carvings) of Foz Côa, Portugal. Found in the early 1990s, the carvings were in an imminent danger of being destroyed because the Côa valley was about to be flooded by a major hydroelectric project. This caused an international uproar, but the defenders of Foz Côa were faced with a problem. The Palaeolithic dating of the art, apparently the main impetus for safeguarding it, was open to question because it was based purely on stylistic classification, now increasingly understood to be unreliable. Whitley recounts with skill the complex twists and turns of the Côa controversy, in which natural-scientific methods were pitted against traditional stylistic/archaeological datings, with the latter eventually providing the conclusive result. All archaeologists would do well to learn about the Côa controversy, if only because it may well be, as Whitley points out, the first case in history where an archaeological concern has been a major reason behind a change of a national government as well as putting an end to a multi-million construction project.

From Côa, Whitley finds reason (also in Part II) to jump to a different continent and discuss the pioneering work on petroglyph dating that he and Ronald Dorn have pursued at the Coso Range in eastern California. The chronometric dating of petroglyphs presents a special challenge, because a carving is basically an empty space with no residue that could be sampled for dating. However, because carving exposes a fresh rock surface, which will then start to gradually erode and (in desert conditions) develop a varnish coating, establishing the time elapsed from the moment of carving is at least theoretically possible. Whitley explains the various dating methods developed by Dorn in a very lucid and approachable way. When applied to the carvings of the Coso Range, previously thought to be

at most 3500 years old, they gave surprising results. Some of the carvings turned out to be of pre-Clovis age – that is, they pre-dated the then generally accepted date for the first entry of humans into the Americas. Reading his account of this discovery, one gets a feeling of the excitement Whitley and Dorn must have felt as their results challenged the ruling establishment of the 'Clovis-first' school. But then suddenly 'the Coso crisis' set in and scientific progress was brought to a halt, as Ronald Dorn was accused of fabricating his results – on the pages of *Science* magazine, no less. Here the book assumes the drama and tension of a detective story, as the reader is presented with detailed evidence for and against Dorn, quotes from email correspondences and internal investigation memos, all archived in the basement of the Maricopa County Superior Court in Arizona.

I fully understand why Whitley has chosen to spend so much ink on the Coso crisis, as there is much more at stake here than simply vindicating a friend or salvaging Whitley's own research from obscurity. He shows convincingly that, contrary to the allegations, there was no fraud involved and Dorn's petroglyph dating methods (when slightly adjusted) do seem to work after all. They should be developed further and experimented with wherever petroglyphs are found in the world. But the whole excursion to the New World is still a digression, and a very lengthy one at that. Certainly, much of what Whitley writes in Part II only barely fits under what I feel is a somewhat misleading title for the book.

Fortunately, in the last and most interesting section of the book, Part III, the narrative returns to the caves of the Old World and Whitley offers a very original theory for the origin of cave art. Even though Whitley has been one of the main proponents of the neuropsychological model, it is not greatly emphasized in this book. The theory is explained in the opening chapters and offered as a fact, with little room given for dissent. This is understandable, because adding one more heated controversy to a book already bursting with controversies might have been too much. But it is worth pointing out that some writers are still contesting Lewis-Williams's model, as exemplified by a recent rock art book written by Paul Bahn (2010), which goes to great lengths in attempting to discredit it for good.

Instead of focusing on Lewis-Williams's theory, Whitley looks at what shamanism really is. According to him, the primary ethnographic accounts are unanimous in one thing: shamans were crazy. The classic Eliadean definition of shamanism paints a picture of the shaman as a master of various 'techniques of ecstasy', but in the primary sources he or she is more of a slave. Shamans are typically involuntarily dragged into shamanism: normal people struck by a tormenting sickness, which involves visions and mood swings, and to which the only cure aside from death is to become a practising shaman. The shaman's experiences, furthermore, have little to do with religious ecstasy. They are typically frightening, filled with anguish and physical pain, and are not essentially religious at all.

He then reviews some of the recent research done in evolutionary psychology by scholars such as Justin Barrett, Scott Atran and Ilkka Pyysiäinen. He discusses the evolutionary roots of religious thought and spirituality (belief in spirits), which are hard-wired in our brain and which we inherit from our prehistoric hominid and animal ancestors. They account for the notion of supernatural agency and the rise of spirituality in deep Prehistory, perhaps millions of years ago. But, Whitley argues, religion – 'a shared social practice involving spirit belief and religiosity, but not always transcendence' – and art developed first in Western Europe only about fifty to thirty-five thousand years ago:

This occurred when certain individuals, with (I believe) specific emotional characteristics, 'captured' the spirit world. By this act, they gained social mastery over what previously had been uncontrolled and unpredictable. Through this act they 'created minimally impossible worlds that solve existential problems' – an evolutionary psychologist's definition of religion. And with that creation, *Homo sapiens sapiens* achieved 'modernity' . . . in the archaeological sense of the term. (p. 207)

'Archaeological modernity', in Whitley's terms, is distinct from anatomical modernity, as in his view modern humans appeared only with the full development of our mental abilities. The first compelling evidence for this kind of modern behaviour is, in Whitley's opinion, to be found at Chauvet, where art and creativity burst forth – unexpectedly and in full bloom.

Who were these individuals with 'specific emotional characteristics', to whom Whitley attributes the first true expressions of the human spirit? Like Lewis-Williams, he argues that they were shamans, but he also argues that they were mostly people with a particular mental condition, known as bipolar illness (or manic-depression). This conclusion is based on a close reading of the ethnographic sources on shamans, especially of Native California and Siberia, in which he identifies all the diagnostic features of bipolar disease. Significantly, in spite of the severe symptoms, bipolar disease is not debilitating. A person can be bipolar and still function well in society – as a shaman, poet, scientist, politician and so forth. In fact, Whitley cites evidence that suggests a relationship between mood disorders and artistic creativity: 'It is the match between the expansive thought of mild mania and the introspection of and control provided by depression that appears to be a significant source of creative insight.'

According to Whitley shamans were the first humans to master our evolutionary tendency to experience and believe in spirits, thus becoming – in effect – masters of the human mind. Shamans harnessed their mood disorders to channel their creative impulse into what we see as the cave art of France and Spain. And so, cave art, as the first evidence for cognitively modern behaviour, was in fact an early expression of the shamans' disease. Citing Foucault, Whitley maintains that it is partly our irrationality – our madness – that defines us as modern humans. He is, however, careful to underline that a mood disorder is not required for remarkable talent nor does it guarantee this gift.

How can an archaeologist, with no psychological or psychiatric training, claim to offer a credible diagnosis of mental health? As with the accounts on cave art and various rock art controversies, Whitley's viewpoint is that of an insider: he writes that he has lived with early-onset major depression since he was 16, spending most of his adulthood demonstrating that someone with a serious mental illness can lead a productive career (in this case in archaeology). In a scientific treatise, this level of honesty and openness takes exceptional courage.

But, whereas I find the main argument of the book very inspiring, though-provoking and at times even compelling, some strands are less well supported. In particular, I was not persuaded by

his argument (in Part II) that ‘classic’ Siberian shamanism is derived from its New World counterpart. It is not that the idea itself would be implausible, but for the purposes of this kind of a comparative argument, the various shamanisms (Palaeolithic, ‘Siberian’ and ‘New World’) discussed in the book should have been better defined (see Tolley 2009 for an exemplary discussion on North Eurasian shamanism). More importantly, the evidence offered for the late (Bronze Age) appearance of Siberian shamanism is weak, based as it is on two papers only.

What Whitley appears to have missed is that Soviet ethnography and archaeology were bound by a set of dogma that required scholars to view human cultural evolution as a unilinear trajectory in a purely 19th-century fashion. Insofar as ‘primitive religion’ was concerned, the scheme proposed by Lewis Henry Morgan (1967[1877]) – in which shamanism was assigned to a relatively late stage – was adopted by Friedrich Engels and thus became a part of the Soviet canon (Shimkin 1949). As a result, Soviet scholars were *expected* to find evidence in favour of this trajectory, which translates to a need to situate any archaeological evidence for shamanism late in prehistory. With rock art, this was obviously very easy, as no chronometric methods were available for dating rock art until the late 20th century. And, while the intellectual climate has changed since the collapse of the Soviet Union, so far there has been no serious attempt to challenge the established (i.e. Soviet) chronology for North Russian or Siberian rock art. For what it is worth, it may be pointed out that the Soviet/Russian research tradition does place some Siberian rock art, such as the oldest parts of Shishkino on the Upper Lena, in the Palaeolithic (Devlet & Devlet 2005:71), although this dating is of course just as speculative as all the others proposed. With its boats, horned anthropomorphs and wild reindeer depicted in an x-ray style, some of the art of Shishkino could easily be interpreted as an expression of ‘classic’ Siberian shamanism and thus in direct conflict with Whitley’s ideas.

Such criticisms aside, *Cave Paintings and the Human Spirit* is a remarkable book. The cognitive approach to cave art is fresh, and the suggested link between mental illness, cave art and cognitive modernity is provocative but forceful and well researched, and therefore likely to raise a lively discussion – at least, I certainly hope it will.

Above all, it is an enjoyable read, and therefore hopefully will reach a readership outside the narrow confines of rock art research and archaeology. At once entertaining and thought-provoking, accessible and demanding, controversial and persuasive, it succeeds in creating what its author aimed for – ‘an interpretive fabric that provides a...three-dimensional sense of antiquity’.

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