

interconnectedness" (p. 230). Quantum entanglement, in the greater context of human experience, is shining a new and bright light on past conundrums.

Radin has the distinction of having started his career with impetus right at the time that the quest for scientific understanding of psychic experience was "ripe". *Entangled Minds* is a compendium of sorts, a clear synopsis of where this science has been, is, and is courageously going. The genuineness of Radin's inquisitive spirit provides a personal touch of his sense of deep wisdom and courage. The general impasse for psi, as he notes (p. 280), is that it is yet a phenomenon ahead of its time.

Of particular note, Chapter 13 not only categorizes the theories of psi in a very readable and concise manner but also provides the context of their historical evolution. I found this particularly refreshing as I did not feel the need to have to labor through a great many physics tomes. Here they are in neat, bite-size, smart pills ready and easy to be assimilated.

There are ample and copious endnotes to satisfy the most inquiring reader's desire to delve deeper into these scientific explorations. The acknowledgment section indicates the impressive list of colleagues that have supported Radin's work, that deserving kudos in itself. The index is thorough enough that if one forgets where they read about a certain topic, one should easily be able to navigate back to the topic in question with a few keywords.

If I were to recommend one good book for someone interested in the evolution of psi research and descriptions of its main components, this would be the book. Radin's survey of this field is thorough enough to be used as a college textbook for inquisitive minds both young and old (we can only hope that these subjects will soon begin to be mainstream in university curricula!). For science veterans who have been around the block a few times, studying and engaging in the exploration of psi phenomena, Radin offers an opportunity for contemplative reflection within this community. Oftentimes, this is just what might be needed to spur on and fuel enlightenment on the many paths to discovery.

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Inside the Neolithic Mind: Consciousness, Cosmos and the Realm of the Gods by David Lewis Williams and David Pearce. Thames and Hudson, New York, 2005. 320 pp. \$34.95; £18.95 (hardcover) ISBN 10: 0-500-05138-0.

In the opinion of this reviewer, *Inside the Neolithic Mind* is a "yes, but" book. It is packed full of interesting information, but the conclusions and interpretations of the authors often call forth a "yes, but . . ." response. Readers

of this journal are likely to be either pleased or annoyed by its premise, which seems to be that religion is entirely the result of neurological activities in the brain interacting with lifestyle survival requirements. In other words, there is nothing "out there" responsible for religious beliefs. Religious beliefs include all ways of explaining what happens "in there", that is, in the brain.

Probably the most important chapter is the second, "The Consciousness Contract" that sets out the main premises of the book. The authors give detailed descriptions of "entoptic" phenomena, that is, phenomena "generated anywhere in the optic system" (p. 48) that appear during altered states of consciousness. They point out that altered states of consciousness may occur normally during the transition between sleeping and waking, or may be induced by psychotropic substances; by rhythmic drumming, singing, dancing, and clapping; by near death experiences; by sensory deprivation, extreme pain, fatigue, hunger, meditation; and by various pathological conditions, such as migraines, epilepsy, and schizophrenia, among others. They point out that all the altered states have universal similarities under whatever conditions they occur. Three stages are identified from the lightest to the deepest altered states. The stages do not necessarily occur in order, nor does everyone experience them all, or in sequence. The authors also categorize the vision into seven categories. Cultural expectations modify, ignore, or interpret the visions. Religious belief results from attempts to explain and integrate the experiences into the existing lifestyle experiences.

A key element in their explanation is that altered states can happen any time, without any attempt at inducing them, "We all do it in dreaming . . . In addition we may all pass through the three stages inadvertently if we happen to experience sensory deprivation, prolonged hunger, certain pathological conditions or any of the other triggering factors. Another realm of experience is, so to speak, always just around the corner." (p. 56-57) It is interesting that the universality of the entoptic experiences is attributed to universal biological attributes of the brain. The possibility that altered states of consciousness might allow people to perceive some things universally "out there" (which is accepted by people in many cultures), the authors seem to dismiss entirely.

This consistent materialistic approach leads the authors into some odd logic. They insist that results cannot be used as a cause for changes in human behavior (p. 22). Teleology may be a faulty explanation when applied to evolutionary change in physical characteristics, but not to behavioral changes in humans. One of the significant characteristics of the human brain is its ability to reason, to think of the future, and to plan ahead. A desired result may consequently be the cause of a change in human behavior. It certainly is today. Why assume that the human brain, which coincided with the fluorescence of art, could not plan ahead and recognize advantages of producing, not collecting, food? Not having to walk so far (p. 22) was probably not nearly so important in the development of agriculture as not having to risk moving into already occupied territory. It is hardly a coincidence that agriculture first arose in places where the surrounding

territory suitable for the existing hunting-gathering lifestyle was already occupied—look at any map showing the centers of the start of agriculture.

On page 22, the authors state, "The sensations of religious exaltation, calm and AUB [explained earlier on the page as "Absolute Unitary Being", "the sense of being one with the universe"] is wired into the brain." So is the perception of the color red. That does not mean there are no red objects. The fact that so many religions posit a three-tiered cosmos does not even need to be "wired into the brain," because simple observation tells everyone that there is space above us, with all sorts of things in it (clouds, water, which falls as rain, and birds, to name only a few), an earth we walk on where other beings live, and an underground, where things live and substances (such as water, steam, and melted rock) come out of. These are apparent to everyone with normal senses, so why talk of it being wired into the brain—as if it were not really there at all?

In the rest of the book the authors "examine the ways in which consciousness generates cosmology and how both are always situated in a specific cultural milieu. "This is a rich seam that is well worth . . . mining. It is fundamental to a comprehensive coordinated understanding of the Neolithic." (p. 59) No argument there. Water falling out of the sky needs explanation. Today we have elaborate explanations about evaporation to get the water up there first, and more elaborate atmospheric explanations as to why it falls when and where it does. Most of us simply accept these authoritative explanations without testing them. Folklore is full of similar explanations, also accepted without testing. Humans are always trying to explain things, and the objective world has enough curiosities that need explaining (try explaining tides to people who know no science—would you believe the moon?) One doesn't have to resort to entoptic phenomena to come up with invisible beings.

In the first chapter of the book, the authors give several definitions of "religion", by anthropologists, poets and theologians and their own: They state that "all religions entail some belief in supernatural entities . . . or even less personal 'forces'" (p. 26). This definition raises another problem. A definition I have used effectively is "religion refers to the beliefs and attitudes people have toward *what the western world calls the supernatural*". The italicized words are significant. Western Science has labeled many beliefs as "supernatural". The anthropologist Murray Wax has gone so far as to call religion itself a cultural belief of the West. The authors of the book under review recognize that many cultures do not include a belief in the distinction between natural and supernatural that the West uses. Instead, such people in such cultures recognize that everything in their environment from humans to rocks have visible and obvious characteristics as well as invisible and less obvious ones. These beliefs are not all false. Some rocks, for example, contain metals that do not appear until the rocks are subjected to certain transformative experiences—chemicals or heat. Why dismiss other beliefs by labeling them "supernatural" because WE don't happen to believe them. For a long time, western medical practitioners dismissed the "superstitions" of South American natives that the bark of a tree could cure malaria. It does, if the bark contains quinine. But the native explanation that the

cure was caused by spirits was not acceptable to us, so we ignored the fact that it worked. Acupuncture (now largely accepted) was also ignored because we didn't (and still don't) accept the explanation of why it works. It works anyway.

In all the chapters, the authors provide a wealth of descriptions based on archeological discoveries, and explain them by way of the phenomena they describe from altered states of consciousness. The built environment, they say, reflects and embodies explanations of the entoptic experiences. The authors do not seem to realize that by accepting the concept "supernatural" as a genuine part of reality, they are falling into the same trap they are trying to avoid. Many things now accepted as part of the natural world (radio waves, gamma radiation, microbes and viruses) were unknown or dismissed as fantasy not many generations ago. In the future we may regard the concept of the supernatural as an idea the equivalent of phlogiston as an explanation of combustion.

In sum, in this reviewer's opinion, the authors' infatuation with a materialistic neurological explanation has led them into occasional tortured reasoning to make the archeological evidence fit their hypotheses about the "Neolithic mind". It does not do justice to artistic imagination or theological attempts to impress initiates that the people of that time were capable of having and doing.

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Columbus Was Last: From 200,000 B.C. to 1492, a Heretical History of Who Was First by Patrick Huyghe. 1992. Anomalist Books, San Antonio, TX, and Jefferson Valley, NY, 2005 (reprinting of a book originally published by Hyperion, New York), x + 262 pp. \$14.95 (paper). ISBN: 1-93366-501-7.¹

Although a book originally issued in connection with the 1992 Columbian quincentenary, this 2005 reprinting of Patrick Huyghe's *Columbus Was Last* is worth reviewing because the volume received too little notice after its first appearance and because it covers an unusually wide range of suggested pre-Columbian transoceanic contacts.

Except in the case of the Norse, the notion of pre-1492 "discoveries" of America has been, to say the least, controversial. In fact, that idea—and especially the contention that such contacts go far back in time and had significant cultural impacts—has been widely ridiculed or ignored in the scholarly literature, especially that of anthropology, sometimes being compared to belief in UFOs, space aliens, and bigfoot (e.g., Cole, 1980; Williams, 1991).

Huyghe is a science writer and former science producer for PBS stations. His coverage in *Columbus Was Last* is remarkably comprehensive, although a few