



Knowledge and Civilization. Barry Allen. Denver, CO: Westview Press. 2004. 342 pp. ISBN 0813341353

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As someone whose last formal exposure to philosophy was in an undergraduate course that focused on Peirce, Hume, and Wittgenstein (I remember their names but please do not ask me to summarize their perspectives), I must admit that reading and reviewing Barry Allen's *Knowledge and Civilization* was a daunting task. Speaking only as a reader not steeped in the grammar and syntax of modern philosophical discourse, *Knowledge and Civilization* is a tough, though, to be sure, worthwhile slog.

Allen begins by criticizing classical philosophy's assumption that knowledge is contemplative. Allen's view is more practical, applied, and Promethean, viewing the fundamental unit of human knowledge, not as the thought, but as the artifact. Allen goes on to maintain that the human ability to produce knowledge--in other words, artifacts--was not an *adaptation* in the strictest sense of that term nor the result of natural selection, but a *discovery* made by our hominid ancestors who then chose to pursue a knowledge-intensive approach to existence.

Allen uses Stephen Jay Gould's metaphor of the "spandrel" to describe the development of the human reliance on knowledge. *Spandrel* is an architectural term for the roughly triangular space between the tops of adjacent arches constructed either at right angles or at 180 degrees to one another. This triangular architectural element is not produced intentionally by the architect; it is entirely unintentional, an inevitable outcome when constructing adjacent arches. Architects, designers, and artists exploit the spandrel as an opportunity, a blank canvas for painted and sculptural elaboration, but there is no intentionality to the spandrel in the first place. Spandrels just happen. The human reliance on knowledge, our survival by inventing stuff that works well, to Allen, is a spandrel, an accidental result of evolutionary processes, a contingency that made cultural elaboration possible, although in no way inevitable.

For Allen, "the human capacity for knowledge, while certainly an effect of evolution, is not an adaptive outcome of natural selection but rather a side effect and potential, probably of little significance to human survival until well after evolution made it biologically possible" (p. 173). Allen argues that the paleoanthropological and archaeological records support this notion by the apparent latency of our species' application of its unique capacity for knowledge.



The fossil record has produced remains of anatomically modern *Homo sapiens* dating to more than 100,000 years ago, yet the appearance of elements of what is perceived to be modern human culture is not evidenced in the archaeological record until at least 50,000 years later. In other words, our biological evolution was essentially complete by 100,000 years ago, but it took our species more than 50,000 years to figure out how to use the big brains that evolution afforded us to produce a way of life reliant on its ability to produce knowledge.

It is an interesting interpretation, but the apparent 50,000 year period of latency (Allen suggests it may be more like 80,000 or even 90,000 years) may turn out to be an artifact of a different kind. As paleoanthropologists Sally McBrearty and Alison Brooks suggest, this gap may be the result of a geographical and chronological bias, a fixation by prehistorians on the European Upper Paleolithic (see “The revolution that wasn’t: A new interpretation of the origin of modern human behavior,” *Journal of Human Evolution*, 39:453–563.). As they point out, many of the markers used by paleoanthropologists and archaeologists to denote a great intellectual leap forward after 50,000 years ago in Europe, actually turn up in Middle Stone Age sites in Africa that are close to twice as old, much nearer in age, in fact, to the first appearance of anatomically modern human beings. The bone tools of Katanda in Zaire, the stone blades of Klasies River Mouth in South Africa, and the remarkable, polished bone tools and the intentionally incised bits of ochre recovered at Blombos Cave in South Africa, are important examples. Allen recognizes this argument (e.g., he mentions the Katanda bone tools), but responds that these traditions do not contradict his argument because they neither spread nor lasted.

Does the modern human discovery of the utility of knowledge begin 50,000 years ago? Certainly, it is reasonable to be greatly impressed by the accomplishments of the Upper Paleolithic and it is sensible to see the work of a modern human mind (not just a modern human brain) behind the art of Chauvet and Lascaux, but are the painterly arts to be so privileged that they represent the threshold of knowledge? It seems a bit over the top to declare, as Allen does, that “Upper-Paleolithic culture was the first great accomplishment of knowledge, and their cave paintings are among the best evidence of their achievement” (p. 265). Upper Paleolithic cave paintings are marvelous, but I would maintain that in *Homo habilis*, envisioning a sharp-edged scraper in a river-smoothed quartz cobble and then producing such scraping tools regularly and consistently, resides a pretty significant “accomplishment of knowledge,” as well.

Ultimately, one does not have to agree with the premises of a book--or even to completely understand them--to appreciate that book. For me, *Knowledge and Civilization* is just such a work. It is not light reading, but is interesting and dense. More important, it should inspire debate among anthropologists, and that alone is a worthwhile accomplishment.