

Is God an environmentalist?

A review for *Nature*
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Science, nonscience and nonsense: approaching environmental literacy by Michael Zimmerman. Johns Hopkins University Press 1995. Pp. 220. \$25.95 hbk.

Let us begin with a guessing game. Who said (a) “the account of origins in Genesis is a factual presentation of simple historical truths ... the great Flood described in Genesis ... was an historical event, worldwide in its extent and effect”? and (b) “God does show anger. When he appeared to Elijah there was earthquake wind and fire. ... God tries to coax and woo, but he also uses disasters”?

(a) comes from the credo of the Creation Research Society, and is offered by Zimmerman as an example of the sort of nonscientific nonsense proclaimed by creationists in their battle with Darwinian evolutionists. Zimmerman’s account of this battle is fascinating and at times frightening. Most readers of *Nature* will not have regular contact with “creationist scientists”, or the other pseudoscientists - homeopaths, graphologists, astrologers and phrenologists - whose beliefs and activities are examined in this book. It is easy to underestimate their influence. Zimmerman reminds us that the battle did not end with the Scopes “Monkey Trial” in Tennessee in 1925. As recently as March 1996 the Tennessee legislature narrowly voted down legislation that would have prohibited the teaching of evolution as fact. And Alabama biology texts will soon have to carry the health warning that evolution is “a controversial theory”.

Zimmerman’s two main enthusiasms - defending the environment and denouncing Creationists - are brought together in this book. Creationists, he argues, are harmful to the environment. He produces a few good examples: James Watt, Reagan’s Interior Secretary who explained that we do not need to worry about preserving natural resources because the Day of Judgment is fast approaching, after which we wont need them; and others who have denounced environmentalism as the “new satanism”. But overall the connection is strained. The influence of creationists and other pseudo scientists in debates about environmental issues is exaggerated, and the role of genuine scientific dispute is understated.

Zimmerman preaches environmental salvation through science rather than faith: “once our schools start to turn out scientifically literate individuals, they will be much more likely to be producing environmentalists at the same time, for it is difficult to be the former without being the latter.” Would that it were so straightforward.

Most of the environmental *causes celebres* of the past 25 years - from Alar to global warming - have not featured creationists as the principal participants. They have primarily been debates in which the scientific evidence was inconclusive and both

sides could field reputable scientists to argue their cases. Zimmerman's book makes an interesting companion to Wildavsky's *But is it true?* (reviewed in *Nature* 6 July 1995). On virtually every issue they disagree. One example from many: Zimmerman - "dieldrin was banned in the United States because it had been shown to cause, in humans, serious kidney damage, tremors, convulsions, respiratory failure, and central nervous system depression as well as cancerous tumours"; Wildavsky - "the concentrations to which the general public is exposed pose no risk to human health ... the WHO concludes 'All the available information on dieldrin, including studies on human beings, supports the view that for practical purposes [dieldrin] makes very little contribution, if any, to the incidence of cancer in humans'."

Both are passionate defenders of science. The root of their disagreement lies in their application of the precautionary principle in areas where science has yet to provide clear answers. Zimmerman complains that "instead of forcing companies to demonstrate that the chemicals they manufacture are safe, the government generally assumes that such substances are harmless." Wildavsky makes the opposite complaint; far too often he insists "what is not expressly permitted is forbidden; substances or processes must be demonstrated to be benign before they can be used." Zimmerman argues for precaution in the face of possible but unproven danger. Wildavsky argues that "the search for possibilities is endless" and diverts scarce resources from more beneficial purposes.

The largest issue addressed in the book is global warming. Zimmerman observes that "the scientific community has reached a greater degree of agreement on the issue of global warming than on virtually any other environmental concern. ... The scientists [of the Intergovernmental Panel on Climate Change (IPCC)] ... conclude that immediate action must be taken." Unfortunately the degree of agreement is not a satisfactory criterion for resolving scientific disagreements. Had the climatological consensus of the mid-1970s prevailed, and been attached to Zimmerman's version of the precautionary principle, governments around the world would have taken immediate action to warm the world up.

The IPCC example also conspicuously fails to support Zimmerman's attack on the believers in the literal truth of the Old Testament. The author of quotation (b) is Sir John Houghton - chairman of Britain's Royal Commission on Environmental Pollution and co-chairman of the Scientific Assessment Working Group of the IPCC. He was warning that God may persuade us to mend our ways with a disaster. He went on to say (Me and My God, *Sunday Telegraph*, 10.9.95) that "If we want a good environmental policy in the future we'll have to have a disaster. It's like safety on public transport. The only way humans will react is if there's an accident." Sir John's view of divine cause and environmental effect would undoubtedly meet Zimmerman's criterion of "superstitious drivel."

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