

## The Counter-Creationism Handbook

Reviewed by Richard Forrest

By Mark Isaak  
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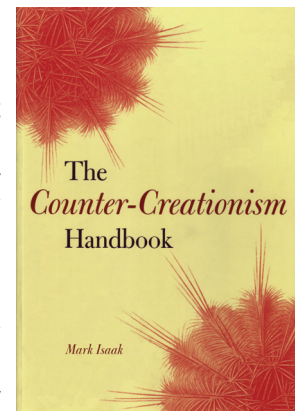
Not long ago, creationism was almost unknown in Europe. The idea that anyone in the 21st century can believe that the world was created a few thousand years ago seems utterly preposterous, and the fact that some people apparently still hold to this belief merely another peculiar aberration of those weird Americans. However, regular reports in the media of the latest doings of the creationists, most recently the opening of Ken Ham's new "museum" show that such beliefs are not only widespread, but apparently spreading.

Creationism is a well-funded and aggressively proselytizing movement which represents a very real threat to education not only in evolutionary science but to science in general. The movement encompasses a wide range of beliefs, from that of an earth created 6,000 years ago to the view that the scientific account is about right, but that God—or an unspecified but possibly supernatural "intelligent designer"—occasionally intervenes to tweak things a bit. The only factor common to all the adherents of the movement is a belief that evolutionary theory is false, and a rejection of naturalism—the basic assumption of all science. It has made an impact in the UK to the extent that a mild version of creationism is taught in at least one publicly funded school.

The motivation of creationists is varied. Some are no doubt sincere and honest in their beliefs, and prefer their rigid and limited world-view to the massive uncertainties of science. Some Christian sects, especially but not exclusively in the USA, demand such beliefs from their followers and con-

demn those who question the absolute certainties they offer. To a population generally not well educated in the fundamentals of science—and this refers not only the USA—the strong appeal to emotion and the sense of belonging to a group overrides any critical analysis of the assertions made by their preachers.

This has become a big issue in the USA because overt attempts have been made to have "scientific" creationism taught as science in schools. Whenever the issue has come to law, the ruling has been very firmly against the creationists in whatever guise they present themselves. The most recent has been the pretence that "Intelligent Design" offers a scientific alternative to "Darwinism". Creationists have succeeded rather better than these few legal rulings suggest, as the publicity surrounding the trials has led to a widespread impression that there is some doubt as to the validity of evolutionary theory, and that scientific alternatives exist. The Discovery Institute, set up with the express purpose of formulating an intelligent design "theory" spends a large proportion of its considerable income on publicity. Through their efforts the phrase "teach the controversy" has become common in the media. In many US States



the teaching of evolutionary theory is scant or non-existent. Teachers prefer to avoid the issue rather than confront the rigid beliefs of parents, and the idea that evolutionary theory is controversial provides an easy excuse.

Creationists are fond of holding “debates” whose overt purpose is the discuss the relative merits of the Bible and “Darwinism”. These are in general little more than extended prayer meetings, attended mainly by the faithful. A typical tactic in these “debates” has become known as the “Gish gallop”, in which the audience is bombarded with numerous apparent falsifiers of evolutionary theory. This tactic is designed to give the impression that evolutionary theory is in deep crisis. The fact that none of these falsifiers stands up to any scrutiny is irrelevant. It a game of smoke and mirrors. Many assertions are made about matters outside the expertise of the scientist involved. Creationists typically include as “evolution” the origin of the Universe in the Big Bang, stellar evolution and other aspects of cosmology outside the experience of most evolutionary biologists.

This is the context in which this book is perhaps most valuable. Even though creationist arguments are numerous, they are rarely if ever new. To a scientist it is astonishing that arguments thoroughly refuted decades or even centuries ago are repeated as if they present a problem to science. Yet this is normal practice. Mark Isaak has collected a large number of creationist claims, and listed the counter-arguments and the evidence which supports them in a well-structured and clearly presented form. The claims are indexed under a series of general headings, such as Biology, Paleontology and Geology. Within each section similar claims are listed together, and variations on a claim listed as sub-sections. For example, the claim CB360: Vestigial organs may have functions is followed by CB360.1: The human appendix is functional, not vestigial and CB361: Vestigial organs are evidence of decay, not evolution. Next is CB370: Endorphins release at death indicate a beneficent creator, not evolution. And in case anyone was wondering: yes, these are real claims made by creationists in 2007, and offered as arguments against evolution.

This coherent organisation, backed up by a good index means that any claim presented by a creationist can be looked up quickly, and countered with evidence. The speaking style of creationist preachers may not give much time to respond to each claim at the time – their style of delivery is designed to prevent this happening - but some of

the scientists involved in such events have reported a genuine interest from at least some of the audience in hearing more about the scientific case.

Simply browsing through the book is enlightening for anyone unfamiliar with creationist literature. The downright stupidity or blatant dishonesty of many of the arguments shows the extent to which creationism relies on appeal to emotion and group psychology rather than evidence and reason. It is also clear that creationism is as much anti-religious as anti-science. The assertion that the existence of God can be proved by science undermines the basic tenet of all religions, which is faith.

It's easy to make fun of such arguments. In fact, it's hard not to make fun of these arguments because they are in many cases so utterly ridiculous. The sad truth is that in this battle, science is losing. To an extent this is because the discipline of science enforces a honesty on the scientist. If a scientist repeats utterly discredited arguments, the sternest criticism will come from other scientists. Creationists rarely criticise each other, no matter how blatantly dishonest their arguments.

I would recommend that anyone who thinks that they may encounter creationists at least skims through this book to get a flavour of the creationist mind-set. Bearing in mind that most creationists claim to be Christian, it would seem reasonable to expect honesty from them. You won't get it. The movement relies on the systematic use of misrepresentation, distortion and outright falsehood to promote its message. Individual creationists may be honest and sincere, but they have been fed falsehoods. Richard Dawkins once said that all creationists were either ignorant, insane or liars. This may seem a harsh judgment, but the more encounters you have with creationists, the more likely you are to think that he was right.

One can question the value of a printed book in this day and age. The internet is a huge source of information about creationism, especially such web sites as talkorigins.org, and can report new developments far more quickly than any print medium. For example, the Dover trial (Kitzmiller v. Dover Area School District), in which the “Intelligent Design” movement was shown conclusively to be no more than “Scientific” creationism in disguise occurred in December 2005, but is not reported in this book. However, as there are few new creationist arguments, this is not necessarily much of a problem.

It can also be questioned if the best way to counter creationism is by rational argument. Rationality plays little part in holding the movement together. Shared convictions, ignorance, emotion and fear of the unknown are far more significant. The publicity machine of some creationist organisations is very well-funded, and few scientific

organisations, let alone individual scientists, can match their propoganda efforts.

However, the very real threat posed by creationism to science is something we cannot afford to ignore. This book provides a useful resource when dealing with the systematic dishonesty of the movement.