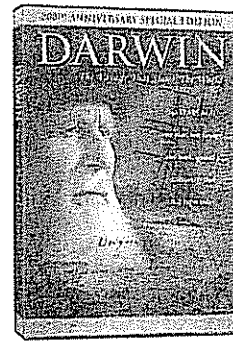


BOOKREVIEWS



THE VOYAGE THAT SHOOK THE WORLD

Con Dios Productions, 2009.
52 minutes

Reviewed by Jim Lippard and John M Lynch

This documentary is a 52-minute, professionally produced work, funded by Creation Ministries International (CMI), that promotes CMI's own creationist researchers as "correcting" Darwin's "mistakes and biases" with a view to setting science straight. This picture is drawn by studiously avoiding any explicit mention of creationism, but instead presenting vignettes from Darwin's life with reputable historians making legitimate points and creationists (with little or no historical training) offering alternative historical and scientific views. The film features excellent cinematography, high-quality graphics and effects, and re-enactments of scenes from Darwin's life by actors in period dress.

The documentary begins reasonably enough; the only initial hint that it might not be a mainstream production is the emphasis that is put on Darwin "making up stories" as a child. The first interviewees to appear are well-known professional historians — Peter Bowler, Sandra Herbert, Janet Browne. Several creationists appear quickly thereafter, though they are

Jim Lippard is a long-time student of creationism, currently enrolled in the Program in Human and Social Dimensions of Science and Technology at Arizona State University. John M Lynch is an evolutionary biologist and historian of science at Barrett, The Honors College and the School of Life Sciences at Arizona State University.

not identified as such. The film uses on-screen credentials that put recognized experts with well-established reputations on a par with relative unknowns who haven't established their reputations (additional details are posted on the CMI website). For example, Emil Silvestru is identified by his PhD and as a "geologist and speleologist," but not revealed is that he works full-time for CMI. Thus, it seems to legitimize his arguments for a young earth and the creation of geological features by "a flood." The film shies away from common creationist generalizations — Silvestru does not argue that the Grand Canyon was similarly formed, or that all cases of polystrate tree fossils are evidence of rapid deposition, though the viewer may make these incorrect inferences.

Many of the problems with the documentary are exhibited in the short segment dealing with the Galápagos. The film claims that in Darwin's time, science argued for gradual change, fixity of species, and an old earth, while religion argued for rapid catastrophic change, mutability of species, and a young earth. This portrayal of the many positions held at the time on these issues is both historically inaccurate and over-simplistic.

Many of the claims in this section are made by Rob Carter (identified as "[PhD, University of Miami] Marine Biologist and Geneticist" rather than as a CMI employee). Carter is filmed on location dressed in field gear — the viewer is clearly expected to believe that Carter is engaged in field work germane to the issue of speciation, when in fact his research was on fluorescent proteins in Cnidaria. Indeed, despite this biological training, Carter is not afraid to make historical claims. He states that Darwin's contemporary Edward Blyth had a "fully fledged theory of natural

selection" and that "Darwin got Blyth's first paper when Darwin was in South America, so when he came here to the Galápagos, he had Blyth's idea of natural selection and Lyell's idea of geology on his mind." The documentary goes on to claim that Darwin was misled by his reliance on Lyell's gradualism initially missing the evidence for natural selection in the Galápagos Islands, in particular with regards the avian specimens he collected. (It is perhaps worth noting here that implicit in the claim is that Darwin somehow plagiarized the idea of natural selection from Blyth, who saw selection as a purely negative force that maintained the type.)

The problems here are twofold. First, natural selection is in no way self-evident from the collections that Darwin — or indeed any other naturalist — could have made. What Darwin observed on his voyage was *variation* and in particular *patterns* of variation — the *processes* behind the patterns would only come to him when back in England. Second, while Blyth did indeed have a theory of selection, historians — despite the claim made by Loren Eiseley (1959) — have been unable to demonstrate that Darwin had read Blyth's paper of January 1835 before visiting the archipelago in September, or indeed for that matter had read Blyth's paper before 1837-'38. In short, Carter is being inaccurate — or disingenuous — in his presentations of historical "facts."

Voyage defends the view that species change can occur, even across genera, though it avoids addressing the possible implications for humans and other primates. Its version of the religious view is that the wide diversity and geographical dispersal of living things emerged in the last few thousand years since the flood of

Noah, with a rapidity of evolution that evolutionary scientists would reject as implausible. The film gives cases of rapid morphological changes in finch beak sizes, and hybridization between land and marine iguanas in the Galápagos. Carter asserts that the latter is evidence of a young age for the Galápagos, since otherwise the species would have mixed rather than remaining distinct.

At this point, more typical creationist views are made explicit, with arguments that there are "apparent limits" to biological change, "as any pigeon breeder knows," and that it is impossible for evolution to generate new information. Finnish creationist biochemist Matti Leisola asserts that random mutation cannot generate new information or novel structures, that introducing randomness "causes information to disappear," and that we only see new information arise from "intelligent" sources. He fails to provide evidence for his assertions and to specify what notion of information he is using. He goes on to say that genetic engineering originally promised the ability to make arbitrary changes to organisms, but now promises much less — while we can create bacteria that produce insulin, we can't change bacteria into anything but bacteria. We wonder what his view is of synthetic biology.

The film correctly points out that a role for catastrophes has been found in geology, but not to the exclusion of mostly uniformitarian processes over very long periods of time, such as may be found in the Grand Canyon. Likewise, it is correct in pointing out that there have been bursts of rapid biological change (but again, not to the exclusion of gradual changes), and that biology has turned out to be more complex than originally suspected. But these discoveries — made by evolutionary scientists — have not generated support for the creationist worldview, which is remarkable for its *lack* of scientific fruitfulness. The biggest failing of the film is its omission of a complete picture, including any indication of the overwhelming evidence in support of common ancestry, the great age of the earth, and human evolution.

At one point, the film touches on

HISTORIANS MISREPRESENTED BY CREATIONISTS

Three historians of science are unhappy about their treatment in a creationist movie about Darwin, as they explain in a note in the July 2009 *Newsletter of the History of Science Society* (available at http://www.hssonline.org/publications/Newsletter2009/July_Perils_Publicity.html) Peter Bowler, Janet Browne, and Sandra Herbert write:

We have recently been featured in a documentary film, "The Voyage that Shook the World," produced by Fathom Media of Australia and directed by Stephen Murray of Synergy Films, New Zealand. We were led to believe that the movie was being made to be shown as an educational film on Australian broadcast television and possibly elsewhere. Fathom Media was revealed to be a subsidiary of Creation Ministries International when publicity for the movie began to appear on the internet.

Previously, on June 21, 2009, William Crawley, a blogger for the BBC, reported (at http://www.bbc.co.uk/blogs/ni/2009/06/creationists_defend_darwin_fil.html) that Bowler was "unhappy to be appearing in what he regards as an 'anti-Darwinian' film which offers an historically distorted portrait of Darwin" and that he along with Browne and Herbert "only discovered that they had inadvertently contributed to a creationist film a month before the film's release." Phil Bell, the CEO of Creation Ministries UK, acknowledged that Fathom Media was established as a front company, explaining, "At the end of the day [when] people see 'creationist', instantly the shutters go up and that would have shut us off from talking to the sort of experts, such as Professor Bowler, that we wanted to get to."

Crawley added, "I asked Phil Bell if this method of securing an interview was 'deceptive' He said: 'Well, it could be called deceptive. But I think, at the end of the day, I would say that more people are concerned about how we've made a documentary, that's a world-class documentary, clearly with wonderful footage, with excellent interviews, and balanced open discussion.'" A subsequent statement, posted on CMI's website (<http://creation.com/the-voyage-darwin-film-defended>) on June 27, 2009, amplified: "We were and are under an obligation to speak the truth, but not to provide exhaustive information where it was not sought," adding, "Further, and perhaps most impor-

Darwin's racism, and suggests that this was a result of his evolutionary views, as opposed to religion which teaches the common origins of all human beings from Adam and Eve

But both views teach the common ancestry of all human beings, and there was no scarcity of racist religious believers in the mid-19th century. Darwin's views on race were a

tantly, we were determined to deal fairly with the material that the interviewees provided."

The interviewees themselves, however, were not satisfied with the fairness of the movie, writing:

Janet Browne's remarks about his childhood delight in making up stories to impress people is used to imply that the same motive may have driven his scientific thinking. Peter Bowler's description of Darwin's later views on racial inequality is used in the film, but not Bowler's account of Adrian Desmond and James Moore's thesis [in *Darwin's Sacred Cause*] that Darwin was inspired by his opposition to racism and slavery. Sandra Herbert's comment that Darwin's theory required explanation of many aspects of life was edited down to imply that his theory required explanation of all aspects of life.

Bowler, Browne, and Herbert ended their article by musing, "Academics perhaps do need to be more aware of the fact that the media organizations are not always open about their underlying agendas" (The similar case of *Expelled* springs to mind; see *RNCSE* 2008 Sep-Dec; 28 [5-6] or <http://www.expelledexposed.com>) "Had we known the true origins of Fathom Media," they continued, "we probably would not have contributed, but the producers do have a point: if academic historians refuse to participate when movements they don't approve of seek historical information, these historians can hardly complain if less reputable sources are used instead." They accordingly recommended a few websites for information on the history of Darwin and evolution, including NCSE's.

So far, *The Voyage that Shook the World* seems to have attracted little attention independently of the controversy over its misleading the historians: no reviews of it appear at Rotten Tomatoes or Metacritic. The sole positive review cited at CMI's website is from Ted Baehr on Movieguide, which, despite its neutral name, describes itself as a ministry "dedicated to redeeming the values of the mass media according to biblical principles, by influencing entertainment industry executives and helping families make wise media choices"; Baehr also gave four stars to *Expelled*. The movie is available on DVD, but did not have a theatrical release in the United States.

product of his social and cultural context, not his views on evolution. The film's suggested dichotomy of evolution-supporting racists versus religious creationist non-racists is false particularly given recent books by Adrian Desmond and James Moore (2009) and David Livingstone (2008).

Near the end of the film, it is stated that in Darwin's time, science was only beginning to emerge from philosophy, and that Darwin's project was philosophical and anti-religious as much as it was scientific (a position probably inspired by Cornelius Hunter, who appears in the documentary identified as a "Molecular Biophysicist & Author" rather than as the Fellow of the Discovery Institute that he is) The film concludes by stating that there are opposing views of evolution and creation, and that "some suggest that they can coexist, but Darwin himself resisted this position." This appears to be a case where the filmmakers want the viewer to side with Darwin, in opposition to accommodationism between evolution and religion. The final statement of the film is that questions about how we came to be here and why we are here refuse to go away.

In all, the film is somewhat better than we expected it would be, and the film can be described as trying to downplay or even hide its own creationism, probably in hopes of functioning as a Trojan horse. As such, it omits key evidence for evolution, and suggests that the viewer infer the reasonability of creationism from the selective evidence that is presented. In its favor, it does depict scientific research and discovery in a largely positive light, which may encourage young viewers to become interested in scientific questions. If so, perhaps some of them will come to discover a more complete picture, with the assistance of online sites such as the NCSE's and the TalkOrigins Archive.

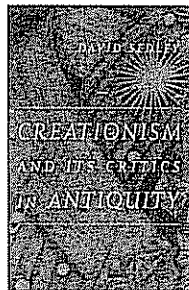
REFERENCES

- Desmond A. Moore J 2009 *Darwin's Sacred Cause* New York: Houghton Mifflin Harcourt
- Eiseley L. 1959 Charles Darwin, Edward Blyth and the theory of natural selection. *Proceedings of the American Philosophical Society* 103: 94-158

Livingstone DN 2008 *Adam's Ancestors* Baltimore (MD): The Johns Hopkins University Press

CORRESPONDING AUTHOR'S ADDRESS

Jim Lippard
Program in Human and Social Dimensions
of Science and Technology
Arizona State University
PO Box 875603
Tempe AZ 85287-5603



CREATIONISM AND ITS CRITICS IN ANTIQUITY

by David Sedley
Berkeley (CA): University of California Press, 2007. 269 pages

Reviewed by James G Lennox

In 1900, Jane K Sather endowed a Visiting Professorship in Classics at the University of California, Berkeley, which, beginning in 1920, included an obligation to deliver a series of lectures, to be published as a book, that would make an original contribution to our understanding of the classical world. The series of monographs that has resulted from that endowment contains many of the most important contributions to classical studies of the past century, such masterpieces as Paul Shorey's *Platonism, Ancient and Modern*, ER Dodds's *The Greeks and the Irrational*, and Bernard Williams's *Shame and Necessity*. David Sedley's *Creationism and its Critics in Antiquity* deservedly takes its place in this noble lineage.

As with many of its predecessors, Sedley's is a controversial book that reaches well beyond the world of

James G Lennox is Professor of History and Philosophy of Science at the University of Pittsburgh and the author of Aristotle's Philosophy of Biology: Studies in the Origins of Life Science (Cambridge: Cambridge University Press, 2001)

classical scholarship. It is a study of defenders and critics of the idea that the cosmos, the orderly world around us, is the product of a divine, extra-natural designer. Sedley leaves no doubt that it is appropriately reviewed in this journal. As Laurence Professor of Ancient Philosophy at Cambridge, he reminds us in the preface that his college, Christ's, was also the college of both the Reverend William Paley, famous for his "watch on the heath" defense of the argument from design, and Charles Darwin, famous for arguing that apparent design in nature is due to natural selection. Sedley also reminds us that his Sather Lectures were delivered in America, where "it would have been a mistake to consign the debate [over intelligent design] to history" (p xv). His aim, he tells us, is to use history to shed new light on the debate (p xvi). Though infused throughout with Sedley's mastery of the Greek and Latin sources, *Creationism and its Critics in Antiquity* achieves its goal of wide accessibility by keeping the scholarly details in footnotes and appendices. For a work of such immense scholarship, the integrity of the narrative is remarkable.

The chapters have a conventional layout in two respects: they examine the key figures chronologically, and they are organized around the narrative's chief protagonists. The first two chapters target two Presocratics, Anaxagoras and Empedocles, chapter 3 the pivotal figure of Socrates, and chapter 4, his disciple Plato. The chief critics of "intelligent design" in the ancient world, the Atomists, are taken up in chapter 5. Sedley apologizes for placing the discussion of that entire tradition, from Leucippus and Democritus to Epicurus and his Roman spokesman Lucretius, before his chapter on Aristotle — justified, since the early Atomists predate Aristotle; yet problematic, because the later Atomists were clearly reacting to Aristotle. Sedley then turns to the Stoics and concludes with a Galenic epilogue, viewing Galen's teleology through the traditions he inherits.

While the layout is conventional, the interpretations are iconoclastic. Some examples: