

Editorial

The following guest editorial has been contributed by Colin Russell, Professor of History of Science and Technology at the Open University, England, to mark his retirement from the position of President of *Christians in Science*.

'Without a memory'

From the viewpoint of an incumbent one of the considerable merits of *Christians in Science* is that there is no tradition of Presidential Addresses. As this departing President will have safely extricated himself before the tradition is changed (if it ever is) he is grateful for the much less formidable opportunity of a guest editorial.

The present issue of the journal contains an essay review on an important new book, *Science and Religion: some historical perspectives* by John Brooke.¹ This gives me the opportunity to repeat some of the remarks I made at a recent meeting of the British Society for the History of Science² convened specially to discuss that particular book. These concern the value of historical perspectives for contemporary discussions on science and religious belief. There are of course many scientists who have little time for history. If the aphorism is true that a culture without its history is like a man without his memory, science can ill afford such a cavalier attitude to the past. It is my conviction that the history of science has a crucial rôle to play in the current debate involving Christian theology. This is so whether or not the historical research is conducted by scholars with explicit Christian commitment, an outstanding example being Geoffrey Cantor's recent study of Michael Faraday.³

So what specific values are there in historical perspectives? First, and at the most trivial level, good history of science can correct common inaccuracies. These include the well-known myths of Bruno's 'martyrdom' for science and of Galileo's torture. Similarly are exposed the legends of clerical opposition to the use of chloroform anaesthesia and of the demolition of Bishop Wilberforce by Huxley at the British Association debate in 1860. There are many more.

Secondly, history of science can demythologise popular paradigms that

1 Brooke, J. H., *Science and Religion: some historical perspectives*, Cambridge University Press, 1991.

2 Held on May 27, 1992, at the Science Museum, London.

3 Cantor, G., *Michael Faraday: Sandemanian and Scientist*, Macmillan, Basingstoke, 1991.

are seriously deficient. Correction of errors like those just mentioned may seem to be simply a matter of putting the record straight. Sometimes it is, but, apart from a certain lurid media-appeal, their survival owes something to their conformity to popular paradigms as to what the 'science-and-religion' relationship should be. The classic case is the conflict model enshrined in those most notorious pieces of pseudo-history by J. Draper⁴ and A. D. White.⁵ My first encounter as a young scientist with White's book led to deep suspicion; the book did not describe any scientific attitude I had ever met and its thesis seemed inherently improbable. Only later was a measure of historical understanding able to suggest not only where White was wrong but also why he had been able to promote such a bizarre view of science and religion.

However history of science is not only, or chiefly, engaged in the demolition business. It can also, thirdly, suggest alternative perspectives for today. Thus a 'Darwinian perspective' that understood Darwinism in its genesis and historical context is highly relevant to the 'creationist' debate today and could take much heat out of the argument. Then again a sound understanding of the mechanical philosophy of the 17th and 18th centuries would show how such a world-view did not inevitably lead to an abrogation of moral responsibility for the environment. Such an insight would be an eye-opener to certain post-modernist writers who seem to think that the only route to such responsibility lies in a retreat to a pre-scientific and organismic view of the universe.

Fourthly historical insights can help to expose the limitations of science. I do not refer here to that perverse obsession with denigrating science on all possible occasions that once marked the effusions of a minority of historians (most of whom were blissfully ignorant of the actual practice of science). I refer rather to the more mature and responsible analysis of the nature of science that marks much modern historical study. In particular such analysis discloses the slow transformation of science into mere scientism, the latter, for the Christian, being the real enemy: an elevation of science to the status of universal panacea and of nature as an object of worship. Few, however, are aware of the distinction between science and scientism, as witness a recent Radio 4 discussion on the Nick Ross programme between Mary Midgley and Brian Appleyard.⁶ Historical insights can be enormously helpful here.⁷ Science per se can never claim to have had these extravagant values attributed to it.

However science is not value-free. Writing of those who restricted values to theology and facts to science John Brooke observes in a

4 Draper, J. W., *History of the Conflict between Religion and Science*, H. S. King, London, 1875.

5 White, A. D., *A History of the Warfare of Science with Theology*, Macmillan, London, 1896.

6 'Call Nick Ross' programme, Radio 4, 12 May 1992.

7 A good recent example is Hakfoort, C., 'Science deified: Wilhelm Ostwald's energeticist world-view and the history of scientism', *Annals of Science* (1992), 49, 525-544.

masterpiece of understatement, 'had they been more familiar with the history of science, the proponents of that neat division of labour might have found it difficult to sustain'.⁸

Fifthly, history can demonstrate that the relation between science and religion is not a static one. If Mrs Thatcher could observe that 'there is no such thing as society' John Brooke can aver 'there is no such thing as the relationship between science and religion'.⁹ That matters very much in an age when past stereotypes are often taken as normative for today. To ignore the changing relationship is to deny the possibilities of creative dialogue, a process to which this journal and Christians in Science remain totally committed.

In the sixth place, historical studies have surely demonstrated that science has a human face. Its practitioners are and always have been fallible, creative people who reflect the values and attitudes of their own cultures. To realise that simple fact is to turn your back on scientism, the mis-named scientific humanism of a past generation and the ghosts of logical positivism that seem to haunt theology even more than science. Incidentally, 'the humanisation' of science via its history has considerable educational value for those seeking at school or elsewhere to attract and hold potential students of science.

Finally I have to enter a caveat. Although it is commonly supposed that scientific research ought to be independent of the ideological position of the scientist, historians will often claim that this is not so, and manifestly not so in the more remote past. They are right. Unquestionably science has often been a manifestation of all kinds of 'non-scientific' ideas. However to assert that *it always must be so and that scientific activity can always be reduced to sociological categories* is to go beyond the facts and is a supposition incapable of proof. This kind of speculative reductionism is an open invitation to circular argument and can get history a deservedly bad name among scientists. Historians, like everyone else, do their cause no service by gross exaggeration.

What is now needed is a new generation of historians of science capable of following the truth as dispassionately as their scientific colleagues believe themselves to be doing, unafraid of where their inquiries may lead them. For the Christian the use of history for apologetic purposes is surely as legitimate as arguments based on anything else (nature, aesthetics, moral imperatives etc.). But such history must be marked by honesty, integrity, painstaking attention to detail and a scrupulous regard for alternative interpretations. Nothing else is worthy of the Lord of nature who is also Lord of history.

8 Brooke (1991), p. 337.

9 Brooke (1991), p. 321.