Lynch's fine introduction (http://www.thoemmes.com/science/creationism_intro.htm) continues the rejection of work of Rupke, Marston and Rudwick in the 1980s. He has challenged any polarised historiography by implicitly classifying any conservative writer on geology as a Creationist and a Scriptural Geologist. He is correct to do so, but we await a detailed study of these writers. Space did not allow Lynch to discuss the evangelical geologists like Sedgwick, Lewis, Fleming, Townshend, possibly Buckland and Conybeare, or Hitchcock and Silliman in America. There seems to have been less correlation of evangelical fervour and anti–geology from 1817 to 1857 than there is today.

These books repay close study, but fortunately Miller's *Testimony of the Rocks* is available as a cheap reprint (reviewed in *S&CB* 15.2).

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T. A. Shannon & J. J. Walter
The New Genetic Medicine
Oxford: Rowman & Littlefield, 2003, 183 pp, pb, £14.95. ISBN 0-7425-3171-6

This book consists of a series of essays that have appeared over the past few years by two leading American Roman Catholic bioethicists. While this format has the disadvantage of some overlap between the essays and no attempt has been made to bring all of them completely up to date, they succeed in providing a fascinating and exceedingly important glimpse into aspects of the Roman Catholic moral tradition. The conclusions the authors reach on the status of the blastocyst (early embryo), stem cell research, cloning, and germ line gene therapy will come as a major (perhaps startling) surprise to many accustomed to reading the writings of conservative Protestant bioethicists. However, the value of this book lies not so much in its conclusions, as in the calibre of the theological debate.

Shannon and Walter have at their disposal a very large body of literature, including that of Protestant theologians like Ted Peters and Ronald Cole-Turner, while they are extremely well versed in the relevant science. They pay considerable attention to all aspects of the topics under discussion, from the human genome, to the moral status of the pre-implantation embryo. The dominant impression left with the reader is of a serious and honest attempt to grapple with all the data available, from the science to the theology. Moreover, they are prepared to adopt what are undoubtedly unpalatable viewpoints within their theological constituency.

The writings are exemplary for their willingness to wrestle with new scientific findings and directions, and with the possible implications of these for traditional formulae, including magisterial teachings of the Roman Catholic Church. While the authors are deeply imbued with these teachings, they demonstrate a healthy willingness to question them, and overturn them when necessary.

Using various avenues the authors arrive at the conclusion that an individual is not present until about two to three weeks after the beginning of fertilisation. Prior to this the embryo is regarded as having value, based on the possession of the human genetic code and genetic uniqueness (they describe this as a pre-moral value). Nevertheless, they are resolute that it cannot claim absolute protection based on claims to personhood grounded in ontological individuality. Interestingly, they call on the writings of the medieval philosopher, Duns Scotus, to argue that one cannot claim the moral relevance of individuality until after the process of restriction has occurred. Prior to that it is more appropriate to refer to its 'common nature', when its genetic status is associated with what is common to all, not what is unique to a person.

This is no theoretical discussion since, in the light of these underlying concepts, the authors are prepared to sketch in some detail what they consider may or may not be allowable regarding embryo research, embryonic stem cell research and therapy, and therapeutic cloning. Throughout they attempt to ground their conclusions in their underlying theological vistas, as they attempt to attain coherence between moral theology and modern embryology. Neither do they ignore the broader social and resource issues surrounding expensive high technology medicine. In this their approach is coloured by the dimensions of the health care system in the United States.

There are also helpful discussions on theological themes, such as humans as stewards of creation and as created co-creators, models of God as creator, and the significance of the incarnation and redemption for genetics. It is good to be given a feel for the diversity of theological interpretations since these have a major bearing on how we view fundamental biomedical questions within a Christian framework.

Anyone interested in theological perspectives on issues at the beginning of human life will benefit enormously by grappling with the discussions in this book. One does not have to arrive at the authors' conclusion that individual human life commences at two weeks or so, but it is essential that their arguments be taken seriously. This book is highly recommended as a theologically informed, and wonderfully provocative, read. It is dialogue at its best, since it makes you critique your own thinking alongside theirs. But those who want simple resolutions and politically correct stances had better steer clear of it.

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Eric Middleton

The New Flatlanders

Godalming: Highland Books, 2002. 175 pp. pb. £6.99. ISBN 1-897913-65-6

In the nineteenth century E.A. Abbott wrote *Flatland: a romance of many dimensions* which explored the idea of introducing two dimensional beings to the notion of a third dimension. This approach is developed in *The New Flatlanders*, which uses the concept of additional dimensions to provide an analogy for the existence of a spiritual realm in addition to the physical realm.

The book is written in the style of a conversation, as a series of sessions between the author and several students, who raise questions about science and its relationship to religious beliefs, which are answered by the author. This permits him to present his views in a very accessible way (he is a retired science teacher who was head of a comprehensive school and a sixth form college).

Before Flatland is introduced the book has short chapters dealing with cosmology and the origin of the universe, quantum theory and its implications, 'Quarks, superstrings and M-branes', and reality (including Plato's metaphor of the cave). Subsequently it deals with the anthropic principle, evolution, consciousness, miracles, the diversity of religions, chaos theory and evil. It concludes with a personal account of how the author has found the Christian faith answers a wide range of intellectual and individual questions.

Inevitably the brief treatment of the various themes addressed has to be simplified, but the author largely avoids the danger of over-simplification, and covers the wide range of scientific and theological ideas effectively. He gives numerous relevant references, and his science is quite up to date. Theologically he adopts an orthodox Christian position, taking the biblical revelation very seriously, but insisting that literalistic interpretations are often quite inappropriate. He sees no difficulty in accepting both conventional