



The big questions: The Universe

by Stuart Clark

Quercus Books, 2010. ISBN 978-1-84916-238-8. pp 208, £12.99 (hbk).

The first thing that struck me when I picked up Stuart Clark's new book *The Universe* is its style – it feels rather old-fashioned, in the very best sense of the word. It's a slim hardcover volume, with a matt black cover devoid of any astronomical imagery, and wrapped around with a black elastic book marker, which gives it the feel of a personal notebook, rather than a published volume.

Opening the book I found none of the usual full-colour glossy astronomical imagery that fills so many books these days – the content is black and white, with simple line drawings and the occasional photograph which, rather than detracting from the book, add to its charm.

The Universe forms part of *The Big Questions* series by Quercus Publishing, the other books in the series covering the topics of mathematics, physics and philosophy. The format is very simple: twenty 'big' questions, each of which gets around ten pages in which the author addresses the question in hand.

Questions range from the relatively straightforward ('What is a black hole?' and 'What are stars made from?') to those that stretch the very limits of our cosmological understanding ('Are there alternative Universes?' and 'What will be the fate of the

Universe?'), and it is Stuart Clark's great skill that he is able to provide clear and concise overviews (if not actual answers) to each of these questions.

The book can be read sequentially (and there is some logical progression from one chapter to the next) or better still can be dived into one section at a time. One particularly nice feature is the cross-referencing that appears within each chapter. For example in chapter 1 'What is the Universe?', you are directed in turn to 'Was Einstein right?', 'Why do the planets stay in orbit?', 'How old is the Universe?' and 'What are black holes?' so that I found myself jumping ahead or backwards in the book as a particular subject took my interest.

The author gives each topic very careful treatment, and there is no doubt that he is a skilled writer and communicator, but by the very nature of this book it provides an overview rather than a detailed discussion of each topic. That may be exactly what you are looking for (and indeed Stuart Clark writes perfectly for the interested lay-person), but those wanting a more in-depth understanding of the big questions might need to look beyond this book.

The one slightly disjointed chapter is the final one ('Is there cosmological evidence for God?') which would seem better suited to the volume on philosophy. I sus-

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Series Editor Simon Blackburn

pect that this was written at the request of the series editor, professor of philosophy Simon Blackburn, and Stuart Clark does his admirable best with it, introducing concepts from quantum mechanics (and Einstein's famous epigram 'God does not play dice') as well as the anthropic principle, while all the time skirting round

the fact that the answer to this question is relatively straightforward: no!

Steve Owens

Steve Owens is a professional science communicator, was the UK Coordinator for the International Year of Astronomy 2009, and is the BAA Outreach Coordinator.

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