Reviews

Guy Consolmagno

My Theology: Finding God In The Universe

London: Darton Longman and Todd 2021
87pp. pb £8.99 ISBN 978-1-913657-54-3

For any who only know the mythical story of Galileo's conflict with the Catholic Church in the early seventeenth century, it may come as a surprise to learn that there is a Vatican Observatory. Beautifully placed just south of Rome on the rim of the stunning ancient volcanic lake Lago Albano, now the summer residence of the Pope. On the warm days of the Italian summer it is a place worthy of any tourist itinerary. But, as with many observatories, the brightening sky due to city lights clouds the view even on clear nights making serious scientific observations difficult. And at a more popular level, while streetlights bring security, it robs people a glimpse of the glory of the heavens, causing them to forget to look up.

Looking up is something that Guy Consolmagno has been doing for much of his life, since spending the summer months by another lake – Lake Huron – 'learning the names of the brighter stars from my father' (19). This early experience set the path of Consolmagno life journey to a great extent and shapes the short book he has written in the "My Theology" series in which 'the world's leading Christian thinkers explain some of the principal tenets of their theological principles.' (Back Cover).

Guy Consolmagno is a research astronomer, Jesuit Priest and director of the Vatican Observatory, whose research telescopes are now situated in Texas in the USA. *Finding God in the Universe* is no exercise in apologetics, a feature of science-faith dialogue found in Protestant traditions. From the start, he states 'a fundamental truth about finding God in the universe is that if you already know God is present, then you can see God everywhere; but if you don't expect to find God, then you don't even think to look, and so God goes unseen. To find God, you have to have faith to be able to look for God' (5). One might ask where in the face of the wonders of the cosmos might such faith arise? Does not the rational engagement of science and faith perspectives play a part in providing a glimpse of the possibility of God? Yet, it is also not true, that the mystery of grace also plays a part, even though the exercise of imagination.

The book's three short chapters are shaped by visual themes – 'Learning to Look,' 'Learning to See' and 'Learning to Imagine.' Unsurprising coming from one whose life is shaped by looking at the heavens and whose exploration of faith is strongly shaped by the visual through the exercise of the imagination. In a visual age, this visual approach in exploring the dialogue of science and faith is to be valued, as explored in the recent paper "Icons of Science" (Gregory, *Faith and Thought*, April 2022, 72). In the first chapter, 'Learning to Look' Consolmagno speaks of the personal orientation that looking at the stars provided him at unsettling times in unfamiliar places. Yet, beyond this, he sees this as providing a deeper, fundamentally human orientation, shared across the boundaries of race, culture and riches: 'Why do we bother to look … Something about it stimulates our curiosity' – that human characteristic that drives research. But beyond this, 'It satisfies our souls. It brings us joy'(27). Something missing in an age where people do not look up?

Moving from looking to 'Learning to See,' he sees resonance in science as a communal activity and the importance

for being part of the church in shaping the experience and knowledge of faith. Both true science and true religion 'need a community of fellow seekers to have those conversations ... (with) ... other people ... (who) ... can teach us how to see and keep us honest in evaluating what we think we have found' (31). The goal of conversation in both fields is 'not to come up with a final answer ... but to make us think about something more deeply, makes us see things in a new perspective' (42). From a faith perspective shaped by revealed truth, is this a challenge that we welcome? How fixed is truth? Might dialogue with science enable more of God's truth to be found beyond conversations of earlier ages and earlier stages of our faith journey?

Finally, in 'Learning to Imagine' and in a short post-script Consolmagno shares his perspective that the activity of science and the life of faith are similarly shaped: 'I encounter God with the same tools that I use to encounter the Universe: my senses, my reason, and my imagination' (75). The place of imagination within sciences search for truth is increasingly recognised. While 'imagination is not truth ... it is what we use to integrate the truth. ... Creating a story in our imagination is a key to how we do science,' and from a Jesuit viewpoint the 'key to spirituality' (58, 59) . Similarly Polanyi and others stress the importance of imagination in science, yet its exercise is perhaps more constrained than Consolmagno suggests. While imagination allows the 'fusion of ... previously unconnected clues (these) will thereafter be quietly accepted as a fact' (Polanyi & Prosch (1977) Meaning, University of Chicago Press p.101). While science is open to new lines being added to its story, the scientific community can be resistant to fresh perspectives that re-draft the story, as can faith communities. Consolmango's view of the role of imagination in spiritual growth - 'The point of the imaginative exercise ... is ... to learn, to be changed ourselves as result. To know something afterwards that we now realise that we didn't know when we began' (61) - is perhaps more individualistic and at odds with his contention that individuality within science is to be resisted for truth to be known;

The overall theme of this series of books, *My Theology*, sets the tone for this slim, but rich book. No dry and deep theological discussion. More a personal theological and spiritual reflection on the authors own journey with science and faith. A testimony if you like, provoking those who have taken a similar journey to reflect and see connections, either along the themes Consolmagno offers, shaped much by his Jesuit spiritual training in imaginative exploration of stories (59), or ones that reflect their own spiritual tradition. And after doing so and putting the book down, readers will venture outside a look up with new eyes.

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Keith Ward

The Priority of Mind

Eugene, OR: Cascade Books, 2021, 82 to 2021, 82, pb. £11.00 ISBN 978-1-6667-3528-4

Professor Keith Ward retired some years ago from his post as Regius Professor of Divinity at the University of Oxford but has continued to write a series of challenging and important books on subjects at the interface of philosophy and theology. Much of what he has written has been particularly relevant to issues concerning religion and science, and this book is no exception. It is often taken as

received wisdom that most theologians and philosophers of the present day are highly sceptical of the possibility of mind existing apart from body, or of mental events being finally distinguishable from physical events. A philosophical dualism about mind and body is thought to have been conclusively rejected. Yet many distinguished philosophers and scientists continue to point out the grave difficulties of pretending that the products of consciousness can be fully explicable in physical terms. Mental events seem to be able to affect physical events as much as the body affects mind.

This book lives up to its title in asserting not just the reality of mind, but in claiming that mind is fundamental. A dualist will be happy to accept the mutual interaction of mind and matter, but an idealist will hold that ultimately mind is prior. An extreme version of this is that things do not exist unless they are perceived. This book quotes on its cover a dictum by the famous Princeton physicist John Wheeler, who was particularly concerned with quantum phenomena, that 'an event has not really happened until it is an observed phenomenon.' It is sometimes unclear in this little book just how far Keith Ward is putting forward a dualist position emphasising the equal reality of mind and matter, even if mind is more important, and how far he wants to say that ultimately mind is the only reality. He is reluctant to admit that there is no external reality but says (30) that 'it is not the same as what we perceive'. He claims, in an echo of Kant, that 'what you see is not what there really is'.

Ward argues trenchantly against the consistency of materialist views. The picture painted by some modern scientists is, as he says (32) one of a 'purely material world without purpose, value, or meaning, ruled by universal unconscious laws'. He suggests that itself is an abstract construction by mind. He thinks the world is endowed with purpose and value, rather than (48) 'an accident, blind and pitiless.' Yet he also strikingly adds that it is hard to see it as completely directed by an all-powerful being who always cares for the good of all things. Though Ward wants to argue for what he terms a 'cosmic Mind', the more he refers to it, the further it seems from the idea of a Christian God who created the world. He explicitly says that there are too many conflicts, failures and dead ends in the development of the world for it to be directed by a conscious all-powerful and all-directing God. Behind all this is the process philosophy of A.N. Whitehead, whose ideas of creativity and emergence convinced Ward (80) 'that the notion of divine omnipotence needed to be reformulated'. Two issues complicate the single vision of a Mind directing the evolution of the world towards a triumphant conclusion. They are the problem of evil and suffering , and the existence of diverse religions. The latter he says (76) are 'complementary means to an apprehension of Mind as I have described it'.

Ward's attacks on materialism, and his willingness to embrace the idea of a life beyond physical death, are insightful. The book is brief and written so that a wide audience might find its arguments accessible. When, however, he maintains (3) that the universe is 'conscious, compassionate and concerned for human well-being' it becomes very unclear what in fact is being claimed. Process thought can easily degenerate into a form of pantheism, even if given an idealist spin. Ward rejects the notion of an omnipotent and omniscient Creator, and a 'cosmic Mind' seems strangely impersonal, despite Ward's espousal of what he terms 'personal idealism'. The Christian belief that Jesus is God's Son, and a unique revelation, is ignored. The only reference to Jesus is an odd mention (49) of the 'mistaken' view of 'some Christians' that the universe culminated in some way in the 'existence of a Galilean prophet '. It is

perhaps little wonder that Ward's closing remark (80) is that 'to what extent contemporary religions can fully support my view is very unclear'.

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Peter Harrison and John Milbank (eds.)

After Science and Religion: Fresh Perspectives from Philosophy and Theology

Cambridge, Cambridge University Press, 2022. 330pp, hb, £90.00 ISBN 1-316-51792-6

Of the many metaphors used to describe the relationship between science and religion, 'conversation' is one of the better ones. 'Conversation' is transparently more accurate than 'conflict' and is also preferable to Stephen Jay Gould's famous idea that the two 'magisteria' do not interact at all. 'Conversation' may not be quite as *fertile* a metaphor as Peter Harrison's 'territories', but it does have a certain, appealing fireside warmth to it.

Not all conversations are equal, however. What you talk about and, just as importantly, who gets to dictate the topics, matters a great deal. In this particular instance, science has dictated most of the conversational agenda. You only need to look at the preponderance of books on evolution and religion, or cosmology and religion, or neuroscience and religion to see the pattern. Science discovers something new about the world, religion responds to it. Science acts, religion reacts.

This volume tries to redress that by bringing together a stellar cast of theologians, philosophers, and intellectual historians to change the conversational script. The justification for doing so draws on the now well-established idea that 'science' and 'religion' are relatively modern and 'historically contingent' (3) categories. There was a time *before* 'science' or 'religion', when the two had not yet been reduced to their 'propositional contents' (4) and attendant theological, metaphysical, and moral considerations bracketed away. *After Science and Religion* uses this insight to enrich and rebalance future conversations, 'attempting to think outside these categories and imagine fruitful alternatives.' (18)

The volume is divided into four sections. In the first, historians Peter Harrison and Bernard Lightman explore when and why the 'philosophical and theological questions about the foundation of the scientific enterprise [were] crowd[ed] out.' (20-21) In effect, and with an eerie parallel to what would soon happen in the colonial world, it was the way in which the lines were drawn in the intellectual sand of the late nineteenth century that would produce the science and religion conflicts that followed.

In the part two, David Bentley Hart, John Milbank, Janet Soskice, Michael Hanby, Catherine Pickstock, and Rowan Williams draw on the resources of philosophical theology to open up and redraw this landscape and its contingent boundaries. In part three, Simon Oliver reintroduces the idea of teleology (as distinct from design) into a conversation from which Bacon had imperiously banished it four centuries ago, while D.C. Schindler argues that it is precisely science's bracketing out of philosophy and theology that causes it so often to slide towards scientism, so often the villain of the play. He, like so many others, finds solace here in the mediaeval discipline of natural philosophy.

In the final section, Tom McLeish draws on the example of the polymathic Bishop Robert Grosseteste, and Pui Him Ip draws on that of the Alexandrian Church Father

Origen to help re-orient the conversation, while Spike Bucklow contends that 'the advent of any substantially new relationship between science and religion will require the return of science from a narrow *techne* to a broad *art*, an activity in which things are "put together or joined"'. (315) The volume it topped and tailed by a fine clear introduction from Paul Tyson and conclusion from Peter Harrison.

There is a great deal here, and more than can even be hinted at in a review. Highlights include Hart deploying 'Thomas Aquinas's distinction between theology and philosophy' (63) as a better model for the relationship between science and religion, mediaeval natural philosophy being far more attentive to its metaphysical foundations that modern science; Milbank arguing (provocatively) that 'a certain allowance of "natural magic" is the proper ground of mediation between religion and science' (142); Soskice dismantling scientific fears about 'supernaturalism' (154) by means of a (thoroughly orthodox) doctrine of God, and McLeish drawing on his knowledge of Grosseteste to construct a 'theology of science [for] our own times' (261), which is not allergic to ideas of teleology or the need for imagination.

It will be clear that the adjective 'stellar' for the cast list is not an exaggeration. I can't think of a single volume on this topic with so many impressive names to it. But that is both a strength and a weakness, because, while some of the contributions match erudition with lucidity, some do not, seemingly content to appear intelligent without always being intelligible.

This may seem a harsh criticism, and it is perfectly true that if authors are trying to hack their way into new intellectual territory, rather than simply stroll along the well-trodden paths of *terra cognita*, the reader will need to make an effort. The problem is if you are intent on shifting a conversation you do yourself no favours by excluding many (the majority?) of people who might be interested in it. (You also do yourself no favours by selling the book at £90, but I doubt whether the editors or authors had any say in that). The science and religion conversation is crying out for genuinely fresh perspectives, and this volume, which repays the effort it demands, provides them. But we must hope, as the conclusion indicates, that *After Science and Religion* is really just a beginning.

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Janet Kellogg Ray

Baby Dinosaurs on the Ark? The Bible and Modern Science and the Trouble of Making it All Fit

Grand Rapids, Michigan: William B Eerdmans Publishing Co., 2021, 213pp, pb, £13.99 ISBN 978-0802879448

This book, written by a science educator for the non-specialist, provides a useful, up-to-date summary of many strong arguments in favour of an ancient Earth (billions of years in age) and of evolutionary theory as the mechanism for the development of life on Earth as we see it today. These are set against the beliefs held by a number of different subgroups of creationists.

A major part of the book focuses on evidence from different branches of science to show why evolutionary theory is the best explanation for what is observed in the universe and on the Earth. Recent fascinating data from the exciting and fast-expanding field of genetics is shown to support more widely discussed observations and understanding from physics, astronomy, biology and geology (amongst others sciences).

The author mentions a number of high-

profile debates between opposing groups in the USA around the school curriculum and in theological institutes which I feel might reflect conflicts in the UK in the 20th century, but probably less so now. This probably makes the book less directly relevant to UK readers. The book does provide a logical approach to countering the polarised 'all or nothing' (science OR faith) positions apparently held by many creationists, but the author notes herself that it is often not the scientific evidence that is the problem but rather how the Bible account is being used.

There is little space given to the position held comfortably by much of the UK Christian community and churches that evidence from science tells us about the 'how' and 'what' of the Earth's history whilst the Genesis narrative is addressing the 'why' & 'who'. An exploration of the purpose of the Genesis narrative in its historical context (to introduce a single, all-powerful, loving creator God) might have broadened the usefulness of the book.

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Denis O. Lamoureux

The Bible & Ancient Science: Principles of Interpretation

Lynchburg, Tennessee: McGahan Publishing House, 2020. 218 pp. pb. £12.81. ISBN 978-1-951252-05-2

Denis Lamoureux will be familiar to many as a prominent voice in the science-and-religion field. A trained biologist and theologian, Lamoureux is Professor of Science and Religion at St. Joseph's College, University of Alberta. His previous books and articles have explored the compatibility of Christian faith and evolutionary biology. In his latest book, *The Bible & Ancient Science*, Lamoureux attempts to dismantle the widely held but misguided principle of *scientific concordism* – the idea that modern science and the Bible must be made to agree with each other. Though a classic understanding of science and Scripture as the Two Books of God posits that neither Book can ultimately contradict the other, many Christians have taken an overly simplistic approach to reconciliation by seeking modern scientific discoveries in ancient Scripture or denying scientific theories that contradict their own biblical interpretations. Scientific concordism is therefore a major tenet of young-earth creationism and other antiscientific movements. In opposition to this, Lamoureux invites us to consider the principle of *biblical accommodation* as a better lens through which to read the Bible. Rather than using twenty-first-century scientific theories that no ancient Israelite would have understood, the biblical authors were inspired to use language and concepts from their own times and cultures to portray eternal, universal truths about God. The Bible therefore contains *ancient science* which cannot be reconciled with our modern understanding of the universe, but the essential message of Scripture remains true for all generations.

The Bible & Ancient Science is aimed primarily at evangelical Christians raised in communities where young-earth creationism is widespread and who may have had little or no exposure to other God-honouring perspectives. The book is structured as a primer, introducing its readers to key theological ideas step by step as if they were students in one of Lamoureux's classes. Rather than leaping straight into an advanced academic argument against scientific concordism, Lamoureux takes time to slowly introduce twenty-two *hermeneutical principles* that challenge assumptions and help his readers to better interpret Scripture. Each principle is explained in simple terms and then applied to the biblical accounts of Creation. The book

is therefore an excellent introductory resource for those seeking discussions on *literary genre*, *exegesis* and *eisegesis*, *phenomenological perspectives*, *authorial intent*, and other related concepts. This textbook-like structure helps readers to build their own interpretive frameworks for studying the Bible and relating it to modern science. Though the book is very Americentric in its focus, Lamoureux's hermeneutical principles will be helpful and challenging to all Christians across the globe.

Lamoureux's writing style is gentle and accessible, but there are a few instances where I would prefer more detail and careful explanation. For example, though the first chapter addresses the principle of *literalism*, Lamoureux never defines this term and seems to take for granted the common notion that *literal* means *precisely as written without figures of speech or metaphor*. Lamoureux rightly argues that large swathes of the Bible cannot reasonably be interpreted in such a wooden manner and that we should not impose such an interpretation on Genesis. However, he also claims that most Christians over the last two thousand years have indeed interpreted Genesis 'literally' in this way. In support of this, Lamoureux quotes Martin Luther, who argued that Genesis 1 should be read literally, but Luther was reacting against the allegorical interpretations favoured during the Middle Ages and could have understood the word *literal* in a more Augustinian sense, meaning *as intended by the author*. A similar criticism can be levied at the poorly designed survey by ABC News, referred to by Lamoureux, reporting in 2004 that 61% of Americans believed that the Creation story is 'literally true'. Without properly defining what the word *literal* means, and what others understand it to mean, we cannot make sweeping statements about the complex theological beliefs of Christians either now or in the past.

Lamoureux saves his most controversial material for the last few chapters of the book. Here, he presents his view that the early chapters of Genesis are essentially fiction, though truthful in their spiritual message, in a similar manner to the parables of Jesus and the books of Job and Jonah. Though not elaborated in depth here, detailed treatments can be found in his earlier publications (for example, in his contribution to *Four Views on the Historical Adam*). According to Lamoureux, the biblical authors composed stories of origins that made sense of the world according to their own ancient science. He concludes that we as modern interpreters of the Bible must separate the wheat of spiritual treasures from the chaff of ancient science.

This understanding of ancient science has major implications for the doctrine of biblical inerrancy. Facing this issue directly, Lamoureux argues that the Bible contains scientific errors, but its spiritual message remains inerrant. His argument here is well illustrated by his treatment of the living 'kinds' in Genesis 1. Lamoureux rightly argues that the biblical authors had a restricted *cognitive competence* – lacking our modern understanding of microbiology, heredity, and deep time – so might have assumed that living kinds cannot change and must have been created *de novo* pretty much as they now appear. Using his *message–incident principle*, Lamoureux then distinguishes this ancient science, which is incidental, from the spiritual message of Scripture, which remains inerrant regardless of the vessel in which it is carried. When reading Genesis 1, therefore, any references to living kinds or other outdated concepts are discarded as incidental and false, while spiritual truths are carefully discerned and lauded. Though the message–incident principle certainly has its strengths, helping us to better understand biblical passages in their ancient context, it is unlikely to persuade those who hold to a

stricter view of inerrancy wherein every statement in the Bible must be factually correct no matter how incidental. Indeed, because it is such an important doctrine among evangelical Christians, Lamoureux's restricted version of inerrancy might alienate the very people whom he is trying to persuade.

Overall, *The Bible & Ancient Science* is an excellent introductory resource for anyone interested in the challenges of biblical interpretation, especially as it relates to Creation and modern science. Lamoureux builds a persuasive case that the Bible is full of ancient science that must be understood on its own terms without forcing it to agree with modern scientific discoveries. Though I am cautious about precisely what this means for biblical inerrancy, I recommend the book for anyone wanting to wrestle with these challenging ideas.

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William Lane Craig

In Quest of the Historical Adam – a Biblical and Scientific Exploration

Grand Rapids: Eeerdmans, 2021 421pp. hb £30.99 ISBN 978-0-8028-7911-0

Twenty years ago there was a dearth of books considering the historicity of Adam and Eve in light of both science and of Biblical hermeneutics. Today there is a tsunami of books on the topic and this one adds yet new insights and perspectives.

The author starts out by telling us that 'this book is not a scholarly treatise', although at 421 pages and with hundreds of foot-notes, some of which are longer than a page of text, one might think otherwise.

The motivation for writing a book in defence of the idea that Adam and Eve were historical figures and, indeed, the 'source' of the whole human race is, for this author, not what might initially be assumed. Right at the beginning Craig states that it is 'dubious that the doctrine of original sin is essential to the Christian faith' (5). Rather the author is convinced that Jesus Himself 'as seems plausible… believed in the historicity of Adam and Eve (Matt. 19:4-6)'(7). Furthermore, that historicity underlies Paul's teaching in Romans 5 and 1 Corinthians 15. The author's concern therefore centres around the general historical reliability of Scripture, not because he thinks any essential doctrine might be threatened by ceasing to believe that Adam and Eve were real historical figures.

Craig therefore aims in this book to present a concordist case for the relationship between our current scientific understanding of human evolution and his conviction that certain Biblical passages appear to assume that Adam and Eve were historical figures. But he is careful to clarify the kind of concordism that frames his thesis – not concordism in the sense of aiming to extract scientific information from Biblical texts, but rather a form of 'hermeneutical concordism' involving the aim 'to formulate an integrative view of the world based on all our sources of knowledge' (16).

The first 200 pages of the book are therefore committed to expounding Genesis 1-11 as 'mytho-history', illustrating the various ways in which these chapters share with myths in general, and Ancient Near Eastern myths in particular, similar grand cosmic themes concerned with origins. These 200 pages then lead to ten helpful points (202) summarising the key theological conclusions that one can take from a study of Genesis 1-11, including the reality of spiritual death as the consequence of humankind disobeying God.

Given such a theological interpretation of these chapters, it is perhaps curious that the author does not simply refer to them as God-inspired 'theological essays' rather than as 'mytho-history', a term which can carry with it some unnecessary ideological baggage – at least for the general readership for whom this book is written.

There then follows a brief chapter on 'Adam in the New Testament'. The author's attempt to distinguish here between the contexts in which references are made to a 'literary Adam' rather than to a 'historical Adam', may not convince all readers, but the author takes several New Testament passages to be clearly referring to a historical Adam.

Who, then, might this be and when did he live? The remaining one-third of the book is committed to answering such questions. The author's conclusion is unusual: the lineage that defines humanity is identified with an Adam and Eve who were members of *Homo heidelbergensis* and existed between 1Ma and 750Ka years ago. This hominid species is generally thought to lie at the origin of the European and African lineages that led to Neanderthals and *Homo sapiens*. There, suggests the author, is located 'a founding pair of the human race'. The author is influenced in this suggestion by the ideas of computational biologist Joshua Swamidass, leading to an emphasis on genealogical rather than genetic ancestry, and on the putative original couple as being the pioneering source of 'modern cognitive capacities' (359). The author envisages that out of the *Homo heidelbergensis* population 'God selects two and furnishes them with intellects by renovating their brains and endowing them with rational souls. Only they are therefore truly human' (378), thereby in this way becoming morally responsible.

To assess the many technical arguments involved in this discussion lie well beyond this brief review. However, some general points quickly come to mind. First, the author somehow assumes that it is necessary for his putative 'Adam and Eve' to be the genealogical ancestors of the whole human race. Yet it is hard to derive such a claim from the biblical passages that the author cites, and even a 'mytho-historical' perspective on Genesis 3 cannot ignore the fact that it paints a picture of many other people with moral responsibility being around at the same time as Adam and Eve who are clearly not their descendants (Genesis 4). In any event, theologically why does a supposed genealogical ancestry matter anyway? There are other ways of interpreting Adam and Eve as historical figures that involve humanity in being neither their genetic nor their genealogical descendants.

Second, the author places great emphasis on brain size in his discussion of hominin evolution, but it is surely the organisational complexity of the brain that is more important. Third, there is a huge distance in time and culture from the author's first human couple at 750Ka years ago and the Ancient Near East civilisations that flourished from 10Ka years ago and in the midst of which the Genesis 1-11 texts were written. It took that long to enable key features that set us apart from non-human animals, not least of which include agriculture, complex economies and written languages. The author cites approvingly Richard Middleton's book on the image of God (*The Liberating Image*), but the functional interpretation of this key doctrine that Middleton espouses requires a humanity with the capacities to have a relationship with God, to care for the earth and to have moral responsibility. Despite the author's thesis, it seems unlikely that such capacities were in place prior to the evolution of *Homo sapiens*, but the relevant data are scarce.

On this last point, it should be noted

the many uncertainties in this discussion. Yet the author is unnecessarily fierce with those who disagree with his thesis. For those specialists who wish to keep up with the proliferation of ideas on this topic, the book is recommended, but for the general reader who requires a more eirenic and tolerant discussion of the many disputed claims, I suggest you go elsewhere.

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Loren Haarsma

When Did Sin Begin?

Baker Academic, 2021. 272 pp. pb. £19.99.
ISBN 978-1-5409-6368-0

I began reading *When Did Sin Begin?* with a degree of trepidation. The creation and evolution debate is frequently divisive and filled with a plethora of potential pitfalls. Positions become entrenched, hackles raised, and uncharitable inferences made about the beliefs and intentions of those defending a given position. Thankfully, my fears were ill-founded. Indeed, I was impressed both with the author's tone and the approach taken.

In this book, Loren Haarsma, a Christian and Associate Professor of Physics at Calvin University, explores the question of when sin began and the complex issues surrounding it. Haarsma states that he has written his book for three audiences: Christians who doubt evolution, Christians who doubt original sin, and anyone curious about how to harmonise the two.

It is often assumed that death and suffering entered the world when Adam and Eve committed the first sin, yet evolution implies that suffering and death permeated the earth long before the first humans arrived on the scene. This sets up an apparent tension which is of great theological importance given its implications for the gospel. The central premise of this book is that 'there are several possible ways to harmonize the doctrine of original sin and the science of human evolution' (2).

Haarsma sets about this project in a way that takes both Scripture and science seriously, recognising the Bible as inspired, authoritative and inerrant, while accepting biological evolution in light of the current scientific evidence. On this approach, science, archaeology, history and other disciplines should be used to inform our understanding of Scripture, while ultimately the interpretation of Scripture is a matter for theology.

The book surveys a range of answers to a set of key questions around the issue of when sin began and is structured around 4 possible scenarios: 1. 'Adam and Eve as particular historical individuals acting as representatives of humanity' (14); 2. 'Adam and Eve as particular historical individuals; sin spread through culture or genealogy' (14); 3. 'Adam and Eve as a highly compressed history referring to many individuals over a long period of time who received special revelation' (15); and 4. 'Adam and Eve as symbolic figures referring to many individuals over a long period of time, all who became ready to be held accountable and chose sin' (15).

The questions considered include: Did Adam and Eve exist or are they symbolic? If they did exist, when did they live and are all humans alive today descended from them? What does it mean to be in the image of God and when was this image conferred upon humans in relation to the fall? What is the nature of the fall, when did it occur, what was the state of humans before the fall and what were its effects? What is the nature of sin and when did it begin? How did sin (and perhaps guilt) spread from the first sinners to other individuals? Was the fall avoid-

able or inevitable and how does this affect theodicy?

Haarsma explores a number of arguments and counterarguments for and against a range of answers to these questions. While (intentionally) not an exhaustive account of every possible question, answer, argument and counter-argument, the discussion is wide-ranging, scholarly and thorough. Haarsma strikes a good balance between acknowledging and accurately representing the contours of various intersecting theological issues (e.g. divine providence, the image of God, anthropological monism/dualism and models of the atonement) without getting unnecessarily bogged down in the details or oversimplifying/generalising. Further, he does not try to push any particular view amongst those discussed, but rather provides a balanced account, respectfully describing each view in its best light and explicitly aiming to 'assume the best about what motivates those with whom we disagree' (14).

Bringing together so many intersecting issues, arguments and counterarguments is no mean feat and Haarsma has done a wonderful job in organising and integrating these into a cohesive and lucid whole. The serious engagement with Scripture, Biblical scholarship, theology and science is relatively unusual in books that seek to relate science and theology, where the tendency to major on one at the expense of the others is all too frequent.

The above comments notwithstanding, the book could be improved in a few minor ways in any future editions. The distinction between Scenarios 3 and 4 (described above) is, in my view, not made sufficiently clear, especially upon first statement, though the difference does become more apparent as the book unfolds. The book can be a bit repetitive at times as various arguments/counter arguments are restated since they apply to multiple positions. While some repetition is helpful in reminding the reader of various issues, there is some room for streamlining. One way to do this and to further increase clarity would be to include some diagrams, flow charts or tables laying out questions, answers and their relationship to the four Scenarios, and summarising the various arguments and counterarguments. Lastly, while Scripture and ancient writings are indexed at the end of the book, it lacks a bibliography, forcing the reader to search through the footnotes for references. Since this book aims to bring together a number of views from a range of sources, an annotated bibliography would be of great help in directing the reader where to explore these issues in more depth.

While a number of viable models have been suggested for harmonising evolution and the doctrine of original sin it remains unclear which among them is to be preferred. Nonetheless, we can join Haarsma in affirming that 'Whatever we might learn about how and when sin began, and whatever mysteries might remain, we know what God is doing about the problem. We know that God's victory is assured. Christ is God's ultimate answer' (261).

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Simon R. Watson

Christ, Creation, and the Fall: Discerning Human Purpose from an Evolving Nature

Lanham, Maryland: Lexington Books / Fortress Academic, 2021. 190pp. hb. £73.00. ISBN 978-1978710924

One of the greatest obstacles to belief in a good and loving God is the problem

of evil and suffering – both natural and moral. While moral evil can be attributed to the human abuse of free will, the severity of natural evil presents a much more acute challenge to the whole notion of a benevolent designer God. The traditional theological answer to the problem has been the doctrine of the historical Fall: God's world was originally created good, and the corruption, pain and suffering we see is a direct consequence of the sin of our first parents, Adam and Eve. This act of primal disobedience explains why there is a discrepancy between the world as it is and the world as originally given by God.

This account remained persuasive until the advent of Darwin's theory of evolution by natural selection, which argued that the 'evils' attributed to the historical Fall had in fact existed for millions of years prior to human evolution. The ruthless competition, conflict and struggle for survival which characterise natural selection are an intrinsic part of the way the world works, and human beings evolved as a result of that process. The apparent untenability of the historical Fall led some theologians to respond to this crisis in Christian belief by attempting to develop theories which eschewed the historicity of the Fall altogether.

However, while such a move may seem consistent with what contemporary science tells us about how the world works, it raises considerable theological problems. In his new book, *Christ, Creation, and the Fall: Discerning Human Purpose from an Evolving Nature*, Simon R. Watson, whose background is in both Christian ethics and biology, is acutely aware of these problems. He examines the work of modern theologians – including Philip Hefner, Elizabeth A. Johnson and Christopher Southgate – who argue that, far from being signs of the 'brokenness' of creation, violence and suffering are part of God's creative plan. In order for God's system to work, most organisms must die out because nature does not regard them as favoured. While predation, disease and death – and the resultant elimination of the weak and unfit – involve great cost, they are necessary in order for fecundity and progress to occur and for God's plan for creation to be fulfilled.

Watson expresses deep alarm over the implications of such an approach. How can the compassionate God revealed in Jesus be squared with a God who consciously creates a world in which it is necessary for the weak and vulnerable to suffer and die? Do not the Gospels show us a God of mercy and love? Why would such a God deliberately design a system in which those he apparently cares for are its necessary casualties? Does this not reveal a utilitarian God, who uses creatures as means to an end?

The author hits the mark when he argues that such attempts to develop a theology without the Fall pay little attention to the subjective reality and experience of suffering. If anything, however, Watson underestimates the severity of the problem. While he speaks of the problem of non-human animal pain, he does not emphasise sufficiently the fact that human beings suffer and die for exactly the same reasons as other species. For if natural selection only works by eliminating the weak, then the weakest and most vulnerable human beings are also its necessary casualties. The death of human children is necessary if evolutionary development is to occur.

It is difficult to see how a loving God could be the author of such a cruel system. Moreover, if it was God in Christ who originally *created* such a system, how can we claim that it is this same God in Christ who *redeems* us from it? This would place us in the illogical position of arguing that it is God in Christ on the cross who is 'saving' the world from the negative consequences of God's own system. Such thinking betrays a disturbing lack of

theological coherence.

Watson's solution is to say that, while we can no longer accept a historical Fall, the language of the Fall still has utility in that it helps us to acknowledge the reality of the suffering of innocent creatures in the evolutionary process. Accordingly, he argues that we should instead speak of an 'existential' Fall. Even though the Fall is only to be understood in symbolic or figurative terms and not as an objective historical event, the concept of an existential Fall can nonetheless help to articulate and express our profound concerns over the 'intractable mystery' of suffering: why there is such a clear mismatch between the reality of violence and suffering in the natural world, on the one hand, and the claims Christians wish to make about a God of love and compassion, on the other.

So, does Watson's 'existential' Fall help us to resolve the problem? Unfortunately it does not. If the theological value of the doctrine of the historical Fall lies in the fact that it helps us to affirm that something has 'gone wrong' with our world, which needs to be reconciled (by Christ) with God's originally good and loving purposes, then in order for this to have any meaning it must refer to an actual event in time. To speak of an 'existential' Fall which has no basis in historicity or fact is thus meaningless. If there was never any objective alteration in the state of the world, then the problem of natural evil remains unresolved.

We can be encouraged that Watson stresses the need for a frank acknowledgement of the problems that evolution raises for Christian theology. It is also good that he concedes that the notion of a Fall is theologically necessary if Christian belief is to remain coherent. We do indeed need to retain some concept of the Fall in order to stress a distinction between a 'broken' world in need of redemption in Christ and the originally good world created by God. However, Watson's insistence that we can only speak of the Fall in a 'figurative', rather than historical, sense does not even begin to address the problem of natural evil.

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Michael Trainor

Acts: About Earth's Children: An Ecological Listening to the Acts of the Apostles

London: T&T Clark, 2021. 208 pp. pb. £39.95. ISBN 978-0-567-70377-4

'Global warming is a reality,' writes Michael Trainor in the introduction of his commentary on *Acts: About Earth's Children: An Ecological Listening to the Acts of the Apostles*. With the myriad environmental issues facing Earth and all life on it, Trainor believes it necessary that Christian theology and biblical interpretation grapple with this intimidating reality. *About Earth's Children* is the second commentary of his ecological engagements with Luke-Acts. His first, *About Earth's Child: An Ecological Listening to the Gospel of Luke*, lays out his methodology and the context and agenda of the author of Luke-Acts, and serves as the foundation upon which Trainor continues his ecological interpretation.

My understanding of Trainor's project would be amiss without cross-referencing the copy of *About Earth's Child* on the opposite side of my desk. Trainor offers an abbreviated version of his ecological hermeneutic in the introduction to *About Earth's Children*, but readers seeking a fuller grasp of his approach and the basis of his argument will want to acquire his Luke commentary. The head-swivelling required to trace back references from the Acts commentary to its prequel does, at times, grow tiresome. Yet this is a small price to pay for the pair of thought-

provoking and imaginative Luke-Acts volumes.

The thirteen chapters of this book are divided into four parts, plus an introduction and conclusion. Part One starts by orienting readers to the ecological world of Acts, moving from its beginning verses to Acts 8:1a. Part Two stretches from Acts 8:1b to the end of the twenty-sixth chapter. Part Three closes with the last two chapters of the Acts narrative. Trainor's conclusion makes up Part Four, which includes a convenient thirteen-point briefing on Acts and six theses for deepening one's 'ecological conversion,' or attunement to the needs of the planet. Readers ought to be aware of what kind of commentary this is and what it is not. By Trainor's own admission, this is not a comprehensive commentary on Acts nor was that his intent (2). He provides a footnoted list of recommended commentaries for readers seeking a more exhaustive resource. Instead, this commentary is an engaging interpretive work in an ecological register that emphasizes the presence of the other-than-human world in the biblical text.

The clearly distinctive feature of this commentary is Trainor's ecological hermeneutic. Like the other volumes of the *Earth Bible Commentary* series, Trainor's quest for an ecological hermeneutic is guided by the six key eco-justice principles set out by the Earth Bible Project: intrinsic worth, interconnectedness, voice, purpose, mutual custodianship, and resistance. To explore the meaning of these principles the reader must turn to *About Earth's Child* for Trainor's summary or other texts from the Earth Bible Project for fuller elaboration. Again, more cross-referencing is required. One can't realistically expect an author to repeat in every new book all the key concepts that had previously been written. Still, something as central as a hermeneutical approach ought to have been given more attention in this book, especially as not all readers will have access to the other volumes that contain the necessary background information.

Trainor's ecological hermeneutic includes what he describes as an intertextual approach (6ff). This intertextuality is composed of three texts in dialogue: the ancient text of the biblical authors and their contexts; the contemporary text of the interpreter and their lifeworld; and the ecological text of the present-day natural world and the environmental issues it faces. Through this dialogical interface, argues Trainor, will emerge fresh meanings for the reader today.

Keen listeners might hear the subtle influences upon Trainor's thinking from theologians Denis Edwards and Karl Rahner, with the latter's work providing Trainor the language of Earth child and Earth's children. Similar to Edwards' provocative work on deep incarnation, which broadens the scope of redemption to encompass all of creation, Trainor identifies Earth as a prominent actor in the unfolding drama of Acts.

On this end of the twenty-first century, the unfortunate truth is that too many churches still trip over sermons on the topics of climate change and environmental matters, or to avoid these altogether. Even the most well-meaning preacher might not feel ready to incorporate these subjects into expositions of biblical texts. Trainor has produced a fine resource for such a time as this. Any preacher who seeks a way of drawing out ecological textures in the text, even if only to aid their congregation in thinking more consistently about earthy matters, will find value in *About Earth's Children*. Seminarians will benefit from this commentary, too, as would the curious lay person. In all, Trainor has produced an attentive commentary on Acts that is attuned to Earth as an active participant in the early mission of the church. Recog-

nizing that the cries of the Earth and the lives on it too often go unheeded, I heartily welcome a book such as this which exhorts us to become better listeners.

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Raymond R. Hausoul

God's Future for Animals: From Creation to New Creation

Eugene, Oregon: Wipf & Stock, 2021. 266 pp. pb £25.00 ISBN 978-1-6667-0340-5

The subject of animals in this creation and in the new one to come has been the topic of several recent books (for example, by David Clough, Bethany Sollereder, Christopher Southgate among others) often from the perspective of evil and the suffering of animals in the present creation. So, I was interested in reading this book to see whether Hausoul provided any new insights into this challenging topic.

While Hausoul makes some good points in his book, overall, I thought that his treatment of the subject left much to be desired. He starts with the right questions: How does God treat animals? Do animals have a place in Christ's work of salvation? Will there be animals on the new earth? (1), but by the end of the book I wasn't sure that they had been convincingly and, perhaps more importantly, clearly answered here.

His treatment of Genesis chapters 1 and 2 treads familiar ground, such as the well-known parallelism between days 1-3 and days 4-6 of the creation account (chapter 2). Likewise, his treatment of 'rule and subdue' and of humans as representing (being the image of) the king (God) offers little new that has not been said elsewhere (chapter 3).

The most helpful chapters are those that stress God's covenant relationship with animals, and indeed with the whole earth (chapter 6 – though some aspects of this chapter are unhelpful – see below), and the chapter that lays out God's care for animals (chapter 7). Perhaps the least helpful chapter is the final one entitled 'Vegetarian Meals at the Eschaton' (chapter 13). This seems a strange topic to end on, as the previous chapter, 'Animals in the New Creation,' would seem to be a better endpoint given the questions posed at the beginning of the book and its title. The discussion of pros and cons of vegetarianism – past, present and future – in the light of history and the bible does not really add anything to the overall theme of the book.

One aspect of the book that is frustrating is that it makes some statements that are not quite correct or even odd / unhelpful. For example, 'there is no biblical text that motivates a responsible treatment of animals because God is their Creator' (22). While strictly true there are texts that call for a responsible treatment of animals if we are seeking to be righteous (for example, Proverbs 12:10; later quoted on p.37). Or why refer to a rabbi who seemed to think that Adam had sexual relationships with animals but only found satisfaction with Eve? (41) There are also unattributed statements such as 'how a person deals with creation is often understood as a reflection and measure of the relationship humans have it their Creator' (40), an observation originally due to Christopher Wright (I believe).

Another frustrating aspect of the book is that it is unclear what the author's view of evolution is. There is mention of an Intelligent Designer (64). Then in chapter 6 a discussion of the Flood states that there are many fossils from that time (91) which seems to verge on young earth creationism, as does the calculation of the dimensions of the ark and the number of animals it could accommodate

(93-96). This is also implicit in the suggestion that humans and animals were all vegetarian at some earlier point in time (66).

An area that is largely neglected is that of animal suffering – the so-called problem of 'nature red in tooth and claw'. Such treatment as there is (in Chapter 4) seems confused. Hausoul asks the right question: 'When and why did animal suffering arise?' (56) but does not provide a coherent answer. This topic has been extensively treated by others but only passing reference is made to their writings. Likewise, there is no real reference to or discussion of the substantial scientific work that has been done on the welfare of animals, which would seem relevant to some of the issues discussed in the book.

A small but slightly annoying point is that while there are extensive author and ancient document indices, there is only a one-page subject index making it difficult to find specific information without searching through the whole book.

To conclude, as noted above, Hausoul makes some good points in his book but there are much better treatments of many aspects of this subject available elsewhere. Perhaps the advantage of this book is that it provides a single volume where these many aspects are gathered together and therefore possibly a place to start if you have not read anything on this subject previously.

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Graeme Finlay

Evolution and Eschatology: *Genetic Science and the Goodness of God*

Eugene, Oregon, USA. Cascade Books 2021 pp xx + 198 pb £20.00 ISBN 978-1-1666704571

'Nothing in Biology makes sense except in the light of evolution' wrote Theodosius Dobzhansky 50 years ago. The sentence is widely quoted, often with approval but many of those who do quote these words do not realise that the article was written from a specifically theistic viewpoint, although that viewpoint cannot be readily pinned down to any particular tradition. This approach has led one commentator, Stephen Dilley (https://doi.org/10.1016/j.shpsc.2013.06.006), to contend that ' … all of Dobzhansky's arguments hinge upon sectarian claims about God's nature, actions, purposes, or duties. Moreover, Dobzhansky's theology manifests several tensions, both in the epistemic justification of his theological claims and in their collective coherence'.

The tensions alluded to above form part of the background to *Evolution and Eschatology*. One such tension – and one that I have discussed with Graeme Finlay himself, concerns the generation of (human) suffering in the way that evolution works. Evolution working via natural selection requires genetic diversity but a significant proportion of genetic change causes 'genetic disease' or developmental malfunction. Many authors and commentators have asked how this can be reconciled with the goodness of God, for example, Christopher Southgate in *The Groaning of Creation: God, Evolution and the Problem of Evil* (Westminster John Knox Press, 2008). In Evolution and Eschatology this problem runs as a thread through the text, as implied by the book's subtitle and is dealt with in detail in the last chapter.

Another tension concerns the generation of diverse and complex functioning

organisms and the apparent progressive element within evolution. How can an overall process that depends at heart on randomly occurring genetic events produce what appears to be a directional order so that the same function or organ appears several or even multiple times in evolutionary history. Thus, Zachery Ardern, winner of the 2022 Christians in Science Oliver Barclay Prize asks *Why does evolution work?* We can take this further and ask whether there is a purpose in evolution and whether it can serve the purposes of God, as discussed by amongst others, Denis Alexander (*Is There Purpose in Biology? The Cost of Existence and the God of Love.* Monarch, 2018). This theme features strongly throughout *Evolution and Eschatology* and like the problem of suffering, is also discussed in the final chapter. Overall, the theology of creation presented here is that God created an open universe, full of potential, in which outcomes of the functioning of God-created mechanisms were/are not fixed but which in the end will be redeemed. Thus, since God does not determine the genetic changes that lead to novel diversity, it cannot be said that God causes genetic disease or cancer.

Thinking in more detail about the 'structure' of *Evolution and Eschatology*, the book starts with a Preface which embodies firstly a personal statement by the author giving a brief history of the development of his thinking about evolution in relation to his faith in Jesus. Secondly there is a crash course in genetics which, although a worthy inclusion, would not be needed by many of its readers while on the other hand, would probably not be enough to really help anyone whose knowledge of genetics is minimal. Following the Preface, the main text consists of five chapters (see next paragraph). Each of these is written and presented like a scholarly review or discussion article, complete with an abstract and list of key words. These chapters are followed by two appendices and then a 20-page Bibliography and an Index.

Each of the chapters deals with some aspect of genetic science followed by a theological/philosophical/sociological discussion. In Chapter One, the main scientific thrust concerns the genetic changes that are necessary to generate the diversity that is subject to natural selection. Finlay focuses mainly on two types of change which, for many people, do not spring immediately to mind when thinking about genetic diversity, namely the insertion of virus DNA into genomes and the generation of different types of repetitive DNA sequences (a topic that I have actually worked on), many of which are initiated by transposition events. He shows how viral insertions and particular transposition events can be used as markers in the study of evolutionary history, with a strong focus on the relationship between humans and other primates. The discussion in the second half of the chapter deals with the way, in the light of our understanding of hominid evolution, we read the early chapters of Genesis and indeed, on the futility of trying to fit one to the other.

Chapters Two, Three and Four show how genetic changes brought about by insertion of viral DNA and by transposition and duplication events have been involved in three different aspects of mammalian (and especially human) development. These are the placenta (with brief mention of the mammary gland), the brain and the immune system. All three of these are interesting and informative; they also made me see different aspects of topics to which I have already given a lot of thought, for example in the author's discussion of the 'ethics of prenatal parenting'. However, out of these three chapters, it was Chapter Three (Developing Brains) that I liked best- especially the extensive discussion that follows the 'pure' science.

Chapter Five is the chapter most closely related to the title of the book. It is entitled Created Histories and sub-titled *Eschatogeny recapitulates phylogeny*. It is a long and complex chapter. It re-iterates and expands, in a wider context, some of the topics of earlier chapters. It discusses the process of evolution that led to a great ape that can carry the image of God. It discusses the imperfections of creation and the role of Jesus the Messiah in redeeming at the eschaton, not only humankind but also Creation itself.

This is a scholarly and very well researched book (as is evident form the length of the Bibliography). The writing style is clear, thoughtful and quite academic. This is not a book to be taken in your bag to read on the beach or to be 'skim-read'. Readers need to engage properly with the text to appreciate fully what it says. You may not agree with all the author's conclusions, but this book will certainly make you think.

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Ethan J Brue, Derek C Schuurman and Steven H Vanderleest

A Christian Field Guide to Technology for Engineers and Designers

Downers Grove, Illinois: IVP, 2022. 226 pp. rrp. £23.99. ISBN 9781514001004

This book is a welcome injection of philosophical and theological thinking into what is usually considered to be a rather abstract area. Often Christian engineers, technologists and applied scientists will regard what they do in their professional careers, if they think about it at all, as having nothing to do with their spiritual life. This book seeks to 'provide a guide for Christian engineers... to responsibly navigate todays technological terrain.' (vii) In many respects it does just that, although with some shortcomings.

This was a collaborative effort between the three authors, with each chapter the responsibility of one of them, resulting in noticeably different styles from one chapter to the next, some being easier to read than others.

The first chapter, a joint production by all three authors, gives a thought-provoking philosophical introduction characterising technology as the outworking of our hopes and dreams for the material world and makes a connection with our ultimate hope in our sovereign God. They describe the Wright brothers' dream of flying, President Kennedy's dream of going to the moon, dreams of communication, electric light and more. But they make the point that 'there is more to the story of technology than simply dreaming' (15) .

This links neatly to the next chapter which surveys technology and the bible story. Ethan Brue explores creation and the process of *ex nihilo* design and links this to God's original command to humanity to rule over and care for the earth. He compares the Fall with bad design, and redemption with re-design. This is all good basic stuff, if not particularly original, but I did appreciate his final paragraph. He points out 'The Scriptures have much more to say about how we should live, including within our work related to technology. It should be a lifelong study for each of us to hear what God has to teach us about our culture making. Lest we think that our choices... somehow have no religious dimensions, the next chapter addresses the myth that technology is neutral, laying out the reasons that our designing and working with technology must be informed by the biblical story' (37).

This myth, which Steven Vanderleest analyses in Chapter three, is a common view. Tools can be used for things other than their intended use: we make a hammer that is good for knocking nails into

wood, but surely the designer is not to blame if it is used to bludgeon someone to death. Vanderleest agrees: 'we cannot hold aircraft designers responsible for the unanticipated September 11 hijacking attacks, and in general, we cannot hold designers at fault for unexpected evil uses of their technology. At least not the first time' (44). Technology designers must act once a harmful use is identified, to minimise the risk, perhaps by redesign or maybe by legislation.

Chapters four and five are complementary. They thoughtfully discuss design guides and what ethical constraints designers should impose on themselves. They outline 'norms' that designers should consider so as to avoid such tragedies as the Tacoma Narrows Bridge collapse in 1940, and lead into a discussion in Chapter six of the ways sin can impact on engineering and technology, such as when pride led to the building of the tower of Babel (108). Chapters seven and eight look backwards to learn from the past and forwards to predict something of the future, the latter dealing with such issues as transhumanism and the dangers of making modern day idols as technology advances.

Now there is nothing actually wrong with these chapters. In fact, they are a good introduction to the ethical and responsible use of technology, and I would recommend any engineer or technologist to read them and work out what they mean for them. But I don't think there is much in them that is uniquely Christian. People of other faiths and none would get just as much out of them as would Christians. That isn't intended so much as a criticism as an observation of the universality of much of the argument.

The part of the book that I found most disappointing was Chapter 10, 'Letters to a Young Engineer,' which purports to be correspondence between a professor of engineering and one of his former students. The writer doesn't pretend that it is a record of genuine letters back and forth, being entirely made up, but I'm afraid it simply doesn't work. Such a device is very hard to pull off; C.S. Lewis only just manages it in The Screwtape Letters and he was a great writer. Here it is just embarrassing.

However, immediately after this comes possibly the most successful part of the book, a well-constructed list of questions for reflection or discussion, grouped with relevance to each of the main chapters. These would open up some deep questions and would make the book suitable for use by study groups of all ages.

Overall this book would be a useful contribution to the formation of a responsible approach to engineering and technology, particularly but not just for young engineers as part of their training and professional development. What could be more important than to have ethically trained men and women developing technologies which increasingly have immense power to impact our world for good or evil?

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Joshua K. Smith

Robot Theology: Old Questions Through New Media

Eugene, OR: Resource Publications, 2022. 146 pp. pb. £16.00. ISBN 9781666710717

Christian scholars are not paying enough attention to our future with robots, argues Smith, particularly when it comes to the sociological goods that might accompany them. This book is intended to address the 'lacuna of work on future robotics from a theological or Christian framework' that he identifies. As the subtitle suggests, Smith engages these new robotic technologies alongside much

older questions surrounding power and moral responsibility.

The scope of the book is wide-ranging, covering philosophical and theological reflections on personhood to some of the more specific ethical concerns involving topics such as privacy or racial discrimination. Smith brings aspects of the historical Christian tradition to bear on these anthropological questions, although the brevity of the book means that the historical perspectives are generally not so detailed.

There is more detail when it comes to the contemporary ethical debates, particularly around moral and legal responsibility and privacy. In terms of the theological reflections, Smith's more nuanced perspective is a refreshing change from the more reactionary, negative attitudes toward robots and AI often found in the evangelical context he is primarily addressing. He contends that robots can 'aid humans and lead to flourishing' (20), even as he explores many of the ethical concerns associated with the technology.

Smith argues that expectations and attitudes towards AI are 'a litmus test for finding someone's theology, philosophy, and anthropology' (16). Thus, Smith's own cautiously optimistic hopes for the robot future correlates with his own view of humans as capable of following a Christian imperative of love, yet also vulnerable to corruption. He affirms the moral neutrality of technology (perhaps too hastily), yet ultimately recognises the moral valence of robotic technologies as an extension of the intentions and assumptions of their human creators.

Shifting his attention to those human creators, Smith avoids the tendency to press the doctrine of the *imago Dei* into greater service than it can perform in the theological rationale for personhood as a uniquely human attribute. This shift in focus also centres moral patiency over moral agency, his discussion of robot rights and responsibilities. Whereas most AI ethics discussions revolve around whether robots can have moral agency, our anthropomorphising tendency makes our treatment of robots morally significant regardless of whether they are ontological persons or not.

While Smith criticises the superimposition of human nature onto robots, the ontological personhood of robots is not crucial to Smith's own understanding of the moral significance of robots either. Though there is much to be commended, there nevertheless appears to be a subtle undercurrent of human exceptionalism persisting in Smith's work (despite his criticism of such a stance in the introduction). He suggests that personhood may be expanded to include the creation of humans (i.e. robots), but then describes this as a 'lower form' of personhood (51). Robots deserve considerate treatment and legal protections, he contends, not because of their intrinsic worth, but because they often serve as a proxy for humans, and because our behaviour toward them reveals our own morality. This is consistent with his anthropology, which focuses on models of human dominion and stewardship rather than more inclusive alternatives such as a community of creation approach. While Smith appears more sensitive to the insights of critical race theory in the development of robotic technology than many evangelical theologians, his suggestion that the term 'whiteness' simply equates to power suggests that he is not entirely familiar with the theory.

Smith is clearly writing for an evangelical readership, often grounding his own positions in relation to what he considers the evangelical consensus. The descriptor 'biblical' is frequently employed. Yet he also hints at the hope that his work will find an audience among wider discussions on the ethics of AI and robots,

contributing the distinctly Christian perspective he identifies as lacking.

Though the theological implications of robotic technology could furnish a much lengthier volume, Smith has achieved a good balance between detail and comprehensiveness. The tone becomes a little too homiletic at times, with an excess of 'oughts' and 'musts'. There is also an inconsistent approach to biblical languages – they are usually transliterated but occasionally the Hebrew or Greek characters are used instead.

Robot Theology is an accessible and informative treatment of a timely issue, and would be a suitable primer for classes on technology and ethics in a Christian seminary context. The educated lay Christian may also find it a helpful resource as they navigate the many theological, philosophical, and ethical questions prompted by advances in AI and robotics research.

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Douglas Groothuis

Christian Apologetics

Downers Grove, IVP, 2nd Edn, 2022 848 pp. hb. £50.99 ISBN 978-1-5140-0275-9

The author is professor of philosophy at Denver seminary and identifies with those in the Intelligent Design school of thinking.

The essence of a Christian worldview is seen as creation by a transcendent, personal, triune God, the fall of humanity and the process of redemption and final consummation.

Throughout, there is a vigorous defence of objective truth, and the usefulness and appropriateness of Christian apologetics. If Christianity is true, then faith is all important for eternal wellbeing, so finding out about it is important.

Chapter 10 begins with classic philosophical arguments for a creator-God. The ontological argument of St Anselm is that if someone has in mind the existence of a being for which nothing greater can exist, then such a being must also exist in reality, because if it existed only in the mind, then an even greater being must be possible—one who exists both in mind and in reality. This argument was rejected eg by Aquinas and also by Kant because existence is not a predicate. Groothuis tries to counter this on grounds that existence functions grammatically as a predicate but in spite of the efforts by modern figures such as Plantinga some of us still find the whole argument unconvincing. Here is a parallel argument: if I have in mind the image of a perfect woman, then she must exist because otherwise one that existed would be even more perfect. Convinced?

Chapter 11 explores the cosmological argument: if the physical universe is contingent (ie does not necessarily exist), then it must have a cause. Groothuis seems to accept that it is at least *coherent* if unconvincing to believe (with eg Russell) that the universe just *is*, and has no meaning or explanation. He then looks at the Kalam argument, which is that if something began it must have a cause. There are then two lines of argument. One is that infinity is mathematically impossible, so that physical reality must have had a start – but this depends on whether we find the mathematical set theory arguments coherent. The second is that the big bang indicates a start in (or more properly of) time.

Intelligent Design (ID) Creationists (eg Michael Behe and William Dembski) generally accept geological time scales but deny that a purely naturalistic version of evolution can explain some exist-

ing animal structures. Evolutionary (EC) Creationists (eg Denis Alexander and Francis Collins) believe God designed and created the universe (and sustains it in existence) but intended organisms to develop through evolution by natural selection. Evolutionary creationists sometimes suggest that ID is a 'god of the gaps' theology, but Groothuis applies the design principles of Dembski here to the basic physics of the universe, not to gaps. The charge is misguided.

In chapters 14-15 he lays out his case for ID. As generally in American treatments this is skewed by the necessity of showing that ID is 'scientific' because otherwise it could not be taught in state schools.

The descriptions given in the book of the origins and nature of 'Darwinism' are not without flaw and can refer to unreliable sources. When he first developed his ideas in the 1840's Darwin was a theist and it is well documented that amongst his closest early supporters were scientists of all shades of belief – evangelical Presbyterian, evangelical Methodist, liberal churchman, agnostic, etc. Of course there have always been those like Dawkins who see Darwinism as anti-Christian, but this is far from the general picture.

Coming on to the evidence for ID, the intelligent approach of Michael Behe and 'irreducible complexity' is well presented. Behe's cautious argument is sensible enough that, whilst not a demonstration, irreducible complexity which is hard to explain does point towards some intelligent design. We may also accept that currently there is no real naturalistic explanation for abiogenesis. But there are elements that may puzzle us. Apparently 'ID is not advocating the direct intervention of intelligent causes in the orderly operations of chemistry or biology or physics' (301). So what would the process have looked like when God first gave a bacterium a flagellum? Presumably DNA replication normally operated within the laws of biology for one bacterium to produce another. So how did God cause the DNA of a particular bacterium to mutate in a highly improbable way to produce a new bacterium with a flagellum unless it was by some direct intervention in the orderly operation of biology? Did God do it with just one bacterium and then let natural selection spread it? Or was the mutation induced in large numbers of bacteria simultaneously? ID Creationists seem coy about what the actual process looked like. Another issue they seem to ignore is the question as to why, if the whole process of organic development was so 'hands on', the animal world shows such a lot of pain and cruelty. The flagellum is harmless enough, but many highly complex organic systems involve predation in which victims are eg slowly dissolved alive. Groothuis also advocates 'age-day creationism' (275), but makes no attempt to explain the obvious deviation between geological history and the 'six days' if taken as chronological.

The arguments in later chapters from morality and religious experience, historical evidences, and treatment of the atonement and the church are fairly mainstream. Pluralism and Islam are addressed.

The section on the problem of evil is thoughtful, but of course none of us can give a definitive answer to this issue, and pre-fall animal suffering is a particular problem.

The Appendix 2 on the nature of hell raises similar moral issues. Why would God cause people based on a brief life to suffer intolerably for time without end without hope or respite? Sadly, the author just briefly dismisses the fact that consistently throughout the New Testament the final end of the unrepentant is 'destruction' – a term which in general use means ceases to exist in spite of various best efforts to suggest an unusual

meaning.

This is a massive book and I am not sure quite at whom it is aimed. The style is good, though the philosophical logic-chopping formal deductive inference streams may not appeal to all, and some of the inferences are questionable. It may appeal most to those doing formal philosophy/theology courses, especially if they are sympathetic to the ID approach.

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Rebecca Mclaughlin

Confronting Christianity: 12 Hard Questions for the World's Largest Religion

Wheaton: Crossway, 2019. 240 pp. hb. £22.99. ISBN 978-1-4335-64238-9

The author has a Cambridge PhD in Renaissance Literature, and a theology degree from Oak Hill College.

This is a book of apologetics, not in the sense of presenting natural and historical evidences for the truth about God and Christianity, but a defence of the faith against various current criticisms. It addresses 12 of the most common current issues and criticisms made of Christian faith - mostly social/moral issues but with one chapter on science and faith.

As one would expect from the author's background, the style is fluent, and it uses both literary references and illustrations of philosophical/theological points in life cameos of people who found faith. This is, however, in a context of skilfully exploring some of the most common criticisms made by militant secularists and the new atheist movement.

The first 5 chapters look at ethical criticisms and illustrate how real faith improves human wellbeing, fosters diversity of race and class, and is a force for good. The author looks at the way in which various atheists have tried to construct some kind of morality without God, and fail to do so. She also looks at alternative religions and belief systems, and addresses the suggestion that Christianity is Western and associated with imperialism. This is persuasive but without trying to say that wrong things have never been done in the name of Christianity.

In chapters 6-7 she deals with the obvious point that language can be both literal and metaphorical, and then moves on to the basic science-faith arguments. The author briefly explodes the false idea that areas like cosmology and evolution were characterised by science versus faith, and shows how many key figures in the development of science had strong theistic/Christian beliefs. She does not offer exegesis of the creation accounts, and endorses neither the Intelligent Design nor the Evolutionary Creationist approach to evolution – though mentions both Francis Collins and Simon Conway-Morris. Her concern is to demolish the Dawkins-type notion that science/evolution has disproven Christianity.

Chapters 8-10 defend biblical Christianity against accusations that it is misogynistic, homophobic and condones slavery. This is both exegetical and autobiographical, citing her experiences as a wife and as someone with bisexual orientation.

Chapter 11 attempts to explore the thorny issue of what C S Lewis called the problem of pain. There are really no definitive answers to this, but the author offers us a personalised account of her own dealings with the issue.

After 11 chapters of carefully, fluently, and sensibly argued apologetics, we

come to the final chapter 'How could a loving God send people to hell?' which she identifies as by far the hardest question asked. Her response moves through various instinctive feelings about judgement, but seems stymied by a basic rejection of 'libertarian' freewill. She asserts:

'Multiple biblical texts suggest that our wills are in a state of bondage in some ways similar to that described by Harris: we are free to do what we want to do, but we cannot determine the wanting itself' (219).

She concludes that atheist Sam Harris is right in denying any libertarian freewill to humans – it belongs only to God. But if 'our wills are contingent on his will' then why ever does a loving God not use his freewill to determine that everyone should believe? The author does not even address this question, nor indicate that many Christian philosophers reject her merely compatibilist freewill and many biblical theologians deny that the Bible teaches it. For me personally all this confirmed that any apologetic on hell should include what was universally held in the first 400 years of the church about libertarian freewill, and maybe also consider that the consistent New Testament teaching about the ultimate end of the finally unrepentant is 'destruction' and not unending suffering.

This is not a book for philosophy departments, but is in general a well written and sensible book which could help both Christians and sceptics to see the flaws in many of the most common criticisms made today of Christian faith. The style is smooth and easy to read, and contains essential apologetic ideas in a literary and biographical context.

Dr Paul Marston is a (now part time) Senior Lecturer in a science faculty at the University of Central Lancashire, has an M.A. in theology, and has authored various apologetic and theological works.