Resiting the goal-posts: a new direction in science-faith dialogue.

Tom McLeish is Professor of Physics and Pro-Vice-Chancellor for Research at Durham University. His main research area is on the molecular theory of complex fluid flow. He is also an accomplished science communicator at schools and other lay gatherings (more of that later). Being involved in University research he has encountered studies way beyond his narrow specialty and the breadth of his experience shows in this wonderfully ambitious book on science and faith.

The book is ambitious on a number of fronts. First it seeks to make science much less nerdy and much more accessible to the ordinary lay person in the street. In doing so he suggests that we replace the ‘hard’ concept of science with the ‘softer’ older concept of natural philosophy – a love of the wisdom of nature. And he communicates that love through the enthusiasm with which he presents so many different aspects of physics and beyond. I learn a bit more about the order of creation through quantum mechanics and the like but I learnt a lot more about the physics of complex systems – like the double pendulum and beyond, leading to ‘wicked’ problems of chaotic conditions like weather forecasting and the even more fraught ‘science’ of earthquake prediction.

The twin themes of order and chaos (can you count the clouds?) find echoes in the many expressions of the wonder of creation throughout the Bible, especially the First Testament. This is McLeish’s second big ambition – to expound a theology of creation from the whole Bible rather than from just the first few chapters of Genesis. A theology of creation is much broader, wider and deeper than those rather fraught chapters, but maybe in his attempt to broaden the canvas, McLeish has underplayed the richness of the theology of the first few chapters of the Bible. But that is a minor quibble. The high point of McLeish’s passion is the book of Job, where McLeish wonderfully explores God’s invitation to Job to understand the wisdom of creation in its magnificent balance between order and chaos – and the divine invitation to search the unknown and to discover the hidden wisdom that can be found there.

The third big ambition is to embed natural philosophy within the context of a much wider pursuit of wisdom with all the tools at humankind’s disposal. McLeish seeks to break down the artificial boundaries between the sciences and between the sciences and the arts into one grand unified pursuit of a rich understanding of the deep wisdom of world. Science and the arts, and science and theology are not at enmity, nor are they mutually indifferent. On the contrary each has its own contribution to make towards the love of the wisdom of creation. McLeish seeks to develop a theology of science in which we all humbly contribute our gifts, skills and discoveries for the furtherance of wisdom.

The fourth big ambition is his exposition of the history of scientific inquiry. Starting with his own studies on complex fluids (jellies) he goes back in time not to the usual high points of Einstein, Newton, Kepler, Galileo, but via a less well-worn path of Brownian motion, Robert Grosseteste (end of the 12th Century), the venerable Bede (AD 800, what would you expect from an academic from Durham?), to Gregory of Nyssa (AD 500). In doing so he skips over the artificial epochs of enlightenment, reformation and renaissance and presents a convincing case that natural philosophy is much older than science (the word came to its current use in the Victorian era), and that natural
philosophy arose naturally out of theological reflection about the created order. This historical demonstration in the second chapter of his book lends itself then naturally into the third chapter which expounds natural philosophy in the Bible.

The fifth big ambition is to embed the struggle of Job with a reflection on natural philosophy at the end of the book of Job. Job cries, “Where is wisdom found?” and finds it not by himself. Nor does Job find justice in his suffering. But when God invites Job to reflect on the creation from the divine standpoint, Job does not find his answers but does find peace. McLeish sees us modern humans and standing in the tradition of continuing to seek to find the depth of divine wisdom in formulating wise questions about how we understand the universe.

The sixth big ambition is to challenge the notion of one simple scientific method which expounds the sciences as a simple application of the right formula to have all the answers. We are on a search and the start of that search is to formulate questions that will unlock our understanding of the natural order in a richer deeper way. In doing so McLeish, from his position as an active academic developing a research strategies for the whole university, recognises the incredible competition for the limited research dollar and the pressure to publish quickly and often. The research results have to have immediate utility for our insatiable political masters. How do we bring the love of wisdom to bear in a fraught environment like that?

This leads us to the last (seventh!) ambition. Why is it that researcher’s bright ideas are met with such scepticism by a cynical public? What stories do the public live out of which leads them to question the bright ideas of science? Whether it is scepticism about genetically modified organisms, stem cell research, geoengineering, nanotechnology, or the older atomic and hydrogen bomb research, the public quite rightly want to make sure that scientific research occurs within sound ethical boundaries. McLeish’s colleagues have done some interesting social research to address these issues.

Does McLeish succeed in his ambitions? I would give an overall resounding yes to them all. This is a imaginative refreshing book which forges a new path for the dialogue between science and especially Christianity, although McLeish invites people from other faiths, who over the centuries have contributed their wisdom to the task of understanding nature, to join him in this fresh quest. I have finished the book. I am not sure this review has done it justice. It will need to be re-read. It is a book worth disseminating widely and discussing deeply. It is very suitable for people at all levels of scientific inquiry, including the intelligent lay person, for McLeish very movingly describes demonstrating his goos and jellies to a West Yorkshire women’s institute, and how a woman in the audience at last felt free to express her curiosity with a heap of questions. The love of the wisdom of nature is for all humankind and those of us privileged to be trained in the modern sciences can act as humble priests sharing our understanding, our love and our wonder at the created order for the nourishment of all.