



Astronomy and Astrophysics

Biblical Supplement

Dr. Sarah Salviander

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ASTRONOMY AND ASTROPHYSICS: Biblical Supplement by Dr. Sarah Salviander

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The cover photo shows the Helix Nebula taken by the Hubble Space Telescope. Credit: NASA, NOAO, ESA, the Hubble Helix Nebula Team, M. Meixner (STScI), and T.A. Rector (NRAO).

1 Biblical Book List

Confluence of Biblical Wisdom and Modern Science:

The Science of God by Gerald L. Schroeder

Dr. Schroeder, an MIT-trained physicist and applied theologian, presents an argument for the confluence of biblical wisdom and modern science.

The Hidden Face of God by Gerald L. Schroeder

Modern science explained from the viewpoint of the metaphysical and spiritual.

Christianity and Science:

Isaac Newton by Mitch Stokes

A biography of Sir Isaac Newton, who is widely regarded as the greatest scientist who ever lived. Newton was also a devoted Christian who wrote more about theology than all of his other works combined.

What's So Great About Christianity by Dinesh D'Souza

D'Souza confronts atheist arguments against Christianity, including the charge that Christianity is anti-science and the mythology surrounding the Galileo case.

Fine-Tuning Argument:

Why the Universe is the Way It Is by Hugh Ross

A detailed account of how the universe appears to be fine-tuned for life as we know it. Dr. Ross presents this fine-tuning as evidence for the God of the Bible.

The Creator and the Cosmos: How the Latest Scientific Discoveries Reveal God by Hugh Ross

A highly-scientific and rather technical account of the compatibility of the biblical account of creation and modern science.

Genesis Commentary:

The Guide for the Perplexed by Moses Maimonides

Written in the 12th century, this book is a presentation of Maimonides' philosophical views on the Torah. Contains some prescient insights about Genesis that relate to modern science.

Commentary on the Torah by Ramban (Nahmanides)

Nahmanides' 13th century commentary on and interpretation of the Torah. Contains some prescient insights about Genesis that relate to modern science.

2 Introduction: The Big Bang and the Bible

The opening passage of the Bible gives us biblical cosmology in a nutshell: the universe was created. Speculate as to what that would've looked like if you'd been there. According to modern science, a sudden, immense, unimaginably powerful explosion-like event occurred, in which the entire universe suddenly appeared from nothing. Are these two views mutually incompatible or do they confirm each other in the most extraordinary way?

In 1961, more than thirty years after Edwin Hubble made his remarkable announcement regarding the expansion of the universe, the debate still raged over whether the universe was static/eternal or dynamic/finite in time. While very compelling, Hubble's evidence by itself was not strong enough to overthrow the steady-state theory of the universe. In February of that year, the Royal Astronomical Society held a meeting in which radio astronomer, Martin Ryle, presented what was supposed to be overwhelming evidence in favor of the Big Bang model¹. The RAS had granted interviews to the London media prior to the event only on the understanding that they would wait to reveal this information. However, so earth-shattering was this information that newspapers broke the media embargo and made the announcement to the world that evening. The *London Evening News* printed a headline that read "THE BIBLE WAS RIGHT." The *London Evening Standard's* headline read, "'HOW IT ALL BEGAN' FITS IN WITH BIBLE STORY."

The significance of this cannot be overstated. In the 1960s, before anyone was locked in squabbles over radiometric dating, the speed of light, or whether man coexisted with dinosaurs, this is how the popular world interpreted the ultimate meaning of the Big Bang. For two thousand years prior, the overwhelming scientific belief was that the universe was eternal. As the great biblical scholar, Nahmanides, observed in his commentary on Genesis, the question of the creation of the universe is essentially the entire Torah (the first five books of the Old Testament). He said if you believe in an eternal universe, you have no Torah. In other words, if you do not believe the universe was created, you must reject the Bible. The greatest Christian philosophers in the world struggled to reconcile an eternal universe with the first three words of the Bible, and atheists rested comfortably that science was on their side. But, finally, science came to confirm what the Bible had been saying all along: the universe was not eternal, it was *created*. Renowned astrophysicist and atheist, Geoffrey Burbidge, probably summed up the personal feelings of every atheist at the time, when he made a remark about physicists rushing off to join "the First Church of Christ of the Big Bang." He was a staunch supporter of the steady-state theory until the day he died, no doubt because of his personal beliefs. People at that time understood the philosophical implications of the Big Bang—"THE BIBLE WAS RIGHT." Now, just a few decades later, this implication has been turned on its head.

Fifty years after the English media made their remarkable announcements, American Congressman Paul Broun (who is also an MD) made a statement in which he claimed the crowning achievement of modern science—Big Bang theory—is "straight from the pit of hell." This comment represents one of the two fronts of a new battle that has emerged over the implications of Big Bang theory. The first is between those who believe in a young universe—one that is 6,000–10,000 years old—and those who believe in an old universe—one that is 10–15 billion years old. The second is between those who believe in a purposeful creation—that the universe was created and put into motion by a conscious creative force (God)—and those who believe in a purposeless creation—that the universe was created and put into motion by an unconscious creative force (e.g. the multiverse). The first front can be fought and won scientifically and scripturally; the second transcends physical science, but can still be fought (and largely won) in terms of likelihoods. The following essays address these topics.

The purpose of this section of the curriculum is to have you read these essays at key points in the curriculum, so that you are encouraged to think about some of the topics in the course in terms of scripture.

Notes and References

- Gregory, Jane. *Fred Hoyle's Universe*. Oxford: Oxford UP, 2005. Print.
- Horowitz, Alana. "Paul Broun: Evolution, Big Bang 'Lies Straight From The Pit Of Hell'" *The Huffington Post*. TheHuffingtonPost.com, 06 Oct. 2012. Web. 24 Mar. 2014.

¹It turns out Ryle had unknowingly overstated his case at the time, but he would be vindicated years later.