

LITERATURE REVIEWS

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SPREADING OUT THE HEAVENS

The Origin of the Universe. Emerson Cooper. 2003. Box 428, Enumclaw, WA: Pleasant Word (Winepress Publishing). 191 p. Paper, \$16.00.

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Emerson Cooper is a retired professor of chemistry from Oakwood College in Huntsville, Alabama. In *The Origin of the Universe*, Dr. Cooper goes beyond time considerations to treatment of specifications in the Bible that relate to Big Bang cosmology.

The front cover describes the book as “A combined Biblical and scientific perspective”; and illustrates expansion of the universe from an “infinitely small point of space...packed with matter squeezed to infinitely high density” (p 105) at primordial creation, past Creation Week at about 4000 BC, to the present size beyond the range of the best telescopes. Readers of this book will appreciate its collection of Bible references that may be intended to have cosmological intent. Chapter 6 gives a history of perception concerning the nature and history of the universe from Greek philosophy around AD 150 to physicist Albert Einstein and astronomer Edwin Hubble in the 20th century.

Pivotal to Cooper’s treatment is the interpretation of Genesis 1:1 as referring to the origin of the universe. However, using the definitions of heaven and earth in the body of the following text (Genesis 1:8-10), this verse may, instead, be viewed as merely an introduction to the text which concludes with the summary statement in Genesis 2:1-3. Either interpretation allows the Big Bang hypothesis. In its present form this hypothesis places the creation of the universe around 15 billion years ago. I expect that most readers of Chapter 2 will be surprised at the number of statements in the Bible that may be related to the origin of the universe. Bible writers after Moses evidently expanded the term

heaven(s) to often include what may be seen looking upward through the atmosphere of Earth.

According to Cooper's model of cosmology, "At the moment of creation all of the cosmic matter (the ninety-two chemical elements) that would become the components of galaxies, stars, and planets came into existence by fiat creation...ex nihilo..." (p 78). What about the elementary matter used in Jesus' miracles, such as feeding 5000 men besides the accompanying women and children? Did He "scrape up" necessary elementary matter, or create it as needed? Might the creation of the universe have been an ongoing process in which elementary matter was created as needed?

On each of p 12-13, 104, and 170, seven Bible texts are quoted which in the KJV portray God as *stretching out* or *spreading* the heavens (Job 9:8; Psa 104:2; Isa 40:22; 42:5; 45:12; Jer 10:12; 51:15). Four of these texts are also quoted on p 39. In the Preface, Cooper affirms that according to these texts "The unequivocal testimony of the Bible...supports the idea of an expanding universe" (p 12). However, allowance must be made for the likelihood of these texts using literary style to convey the expanse of the atmosphere created on Day 2 of Creation Week (Gen 1:6-8). The New English Translation uses *heavens* in three of these texts and *sky/skies* in the other four, as also in Isaiah 48:13. In two of these texts the stretching is described "as a curtain" or "like a curtain."

The Big Bang hypothesis is currently the most widely accepted scientific explanation for the origin and continuing development of the universe. Whether additional observations or more advanced theorizing will bring a substitute hypothesis is uncertain, but possible. In 1929 Fritz Zwicky proposed the "tired light" hypothesis. According to this concept light photons gradually lose energy with age. Light photons from more distant stars will have lost more energy than photons which have had less distance to travel, and accordingly will have a greater red-shift. This red-shift will not represent a Doppler effect from increased recession speed, as required by the expanding universe model. A note in *Astronomy* 14:64, August 1986, claims that in four different observational tests the tired light hypothesis provides a better explanation than does the expanding universe model.

Without dispute as to whether the universe is, or is not, expanding, I contend that universal gravitation does not require either one or the

other, as stated on p 12 and 169. Objects held in orbit by gravitation remain so indefinitely, unless there is an additional force which changes their relative energy of motion (e.g., satellites around planets, planets around stars, stars around galaxy centers).

For the benefit of readers, two changes on p 97 would be helpful. A dark-line spectrum is produced when any light with a continuous range of color is passed through a gas. Reference to electrons moving “up and down” in producing a light photon describes a graphic representation of the process, which is a transition between two energy states of an electron about the center of an atom.

The reader of p 171 who is unfamiliar with statistical terminology should understand that the probability of a bacterium being produced by uniform random process is the same at the end of 15 billion years as it is at the beginning. Expressing the reciprocal of this probability in units of time makes no specification of actual time, but is an aid in conceptualizing the relative degree of improbability.

Genesis 1:14 specifies *seasons* as a feature of planet Earth from Creation Week onward. We can expect that in Creation Week God arranged for the maximum portion of planet Earth’s surface to be suitable for support of organic life. That would require direct radiation from the Sun to sweep back and forth over the surface of Earth, as well as ocean and air currents to aid in distributing heat. This is accomplished optimally by the present tilt of the earth’s axis. Therefore I must take exception to treatment of the tilt of Earth’s axis of rotation with respect to its plane of orbit as a “major [result] of the flood,” as is done on p 128-130.

In conclusion, *The Origin of the Universe* provides challenging reading from which significant and valuable insights may be obtained.