

Parallel Thinking Part 11: The Age of the Universe III

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In the last two articles we examined the scientific calculation of the age of the Universe, in contrast to the Bereishit story. Cosmologists estimate that the Universe is 13.8 billion years old, while the Earth is 4.5 billion years

old. A literal interpretation of the Bereishit account implies that the Universe is approximately 5,777 years old.

There are three main approaches to this conflict. One could (a) accept the Torah as literally true and question the science; (b) accept that the Torah is literally true and that scientific evidence is also accurate and attempt to reconcile the two or (c) view the Torah as authentic, but reconcile its messages with science by understanding the text of the Torah in a non-literal way.

The last article discussed the first of these approaches. The second approach involves the fact that our count of 5,777 years in the Jewish calendar begins on the **sixth** day of creation, with the formation of Adam. A Torah 'literalist' would assume that the first days prior to man's formation were 24 hour periods. Yet the Midrash implies that before the sixth day of creation, a different system of time existed (Bereishit Rabbah 9:14).

MIT professor Gerald Schroeder uses this idea, together with Einstein's general theory of relativity, to argue that the 'days' mentioned in the Torah were not 24 hour periods, but epochs of time stretching over billions of years. While the technical details are beyond the scope of this article, this resolution, known as the 'day-age approach' is persuasive.

However, this approach inevitably means that the chronology of Bereishit should concur with the accepted scientific chronology of the evolution of life. Rabbi Natan Slifkin notes a number of discrepancies which cast doubt on the day-age

approach. For example, the Torah states that the plants and trees were created on the third day, before the fish and sea creatures. Yet according to the fossil record, the sea creatures existed 62 million years before plants and trees. A similar problem occurs with the Torah's chronology of the creation of the birds and animals. Birds were created on the fifth day, while the land animals were created on the sixth day. However, the fossil record indicates that the land animals came first, preceding birds by around 50 million years.

Nevertheless, it appears that our own commentators knew that the description of Creation in Bereishit does not necessarily describe the sequential formation of the Universe. Long before the advent of modern science, Rabbi Shlomo Yitzchaki (known as Rashi d. 1105) noted that the description of Creation in Bereishit cannot be considered chronologically accurate (Rashi to Bereishit 1:1).

However, this does not in any way mean that the Torah is a nonsensical fabrication. Rather than trying to understand Bereishit as a scientific description of the formation of the Universe, the next article will view it through the prism of the timeless spiritual messages God actually needed to convey to the fledgling Israelite nation. These messages are still true and relevant today.

