## The Age of the Universe: Thoughts on Parashat Bereishith

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Ву

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The Torah begins with a majestic description of God's creation of the universe. The powerful language is remarkable for its poetic beauty, evocative imagery, and profound spirituality. When we read these paragraphs thoughtfully, we feel that we are in the presence of God at the very moment of creation.

The language of the creation story is religious/poetic, not scientific. The Torah, in its infinite wisdom, wants us to sense the wonder and grandeur of God's creation. It does not present a cold scientific treatise, but a lofty, emotionally compelling account.

Regrettably, the notion has arisen in some religious circles that the creation story in Genesis is to be taken literally--that God created the world in six 24-hour days. Proponents of this view have then made calculations based on biblical narratives and have concluded that the universe is 5776 years old plus almost six days. They have declared this to be a non-negotiable religious "truth". One right-wing Orthodox Jewish group requires that would-be converts answer a question on "the Torah view on the age of the universe". One elderly "sage" in Israel was quoted as invalidating religious rites performed by Orthodox rabbis who believe the universe is older than 5769 years. A number of rabbis and teachers insist that dinosaurs never existed, since scientists claim that dinosaurs lived millions of years ago--an evident impossibility if the universe is only 5769 years old.

The "fundamentalist" view is not only scientifically incorrect, but is intellectually flawed on its own terms. Since the sun was not created until the fourth day, how could there have been sunset and sunrise on the first three days? What could the Torah have meant by the words "evening" and "morning" in a universe that had no sun, moon or stars? Moreover, why do "fundamentalists" feel compelled to defend a

position which is clearly at odds with the unequivocal findings of scientific research.? Maimonides taught, quite correctly, that the Torah and Nature (governed by scientifically verifiable laws) were created by the same Author--and cannot be in basic conflict with each other. Scientists have dated the universe at approximately 15 billion years. They have discovered and dated dinosaur fossils going back many millions of years. If these are indeed established facts (and they are), then why would "fundamentalists" demand that religionists deny clear scientific evidence--especially when there is no theological reason to do so? Why should religious people be asked to become unthinking, unscientific, unreasonable beings?

The "days" in the creation story surely do not refer to 24 hour periods. Rather, they might better be understood as periods of time of undetermined length. They might each have been billions of years long. The universe was created in stages, with each stage involving an evening (erev=a period of mixture) and a morning (boker=a period of clarity, when the mixed state of things solidified into identifiable things). The Torah does not indicate how long these "days" were, and it makes no attempt to frame the story in scientific terms. Since these first six "days" might have been billions of years long, there was ample time for dinosaurs to live and become extinct before the creation of Adam in the "afternoon" of the sixth "day".

Rabbi Aryeh Kaplan cited classic rabbinic texts asserting that the world is far older than the 5769 years implied by our current dating system. The Sefer ha-Temunah, attributed to the Tanna Rabbi Nuhunya ben ha-Kanah, suggestes that there were other worlds before Adam was created. The Talmud (Hagigah 13b) records the view that there were 974 gnerations before Adam. Most interesting is the view of Rabbi Yitzhak of Akko, a student and colleague of Ramban, and one of the foremost kabbalists of his time. Rabbi Kaplan made calculations based on Rabbi Yitzhak's writings, indicating that Rabbi Yitzhak thought the universe was 15.3 billion years old! This is incredibly close to the "big bang" theory posited by modern day scientists. (For more information on this and related topics, please see my article, "Reflections on Torah Education and Mis-Education," in the Min haMuvhar section of our Institute's website, jewishideas.org)

Rabbi Yitzhak of Akko and the other sages who posited a universe far older than 5769 years had no theological problem suggesting these views. These opinions were not seen as heretical in any way. It was not felt by these sages, nor by the many others who read their views without raising objections, that it was a vital principle of Judaism to believe the universe is only a few thousand years old.

The creation story that opens the Torah should inspire us to come closer to God, to appreciate His grandeur and unfathomable wisdom. It should excite our minds to want to learn more about God's ways as manifested in the laws of nature. It should help foster a spirit of scientific inquiry, intellectual curiosity, and a profound love and reverence for God.

**Angel for Shabbat**