CHAPTER FIFTEEN (15) CREATION

15:1 The Torah always speaks in the language of man. God worded the Torah so that it would be accessible to all people for all times.¹

15:2 Therefore, the account of creation and similar narratives are not written in modern scientific terminology. If God had written the Torah using current scientific terms, it would have been completely unintelligible to the shepherd thousands of years in the past, and primitive to the scientist thousands of years in the future. Furthermore, the account of creation was not written primarily as a scientific treatise, but to trace the history of Israel.²

15:3 Knowing that much new knowledge would be discovered with the passing of time, God worded the Torah so that each generation would be able to interpret it according to their available knowledge. Many subtle variations in text as well as Talmudic and Midrashic traditions were provided as an aid in discovering the true meaning of the Torah. In medieval times, the Torah was interpreted in terms of Aristotelian philosophy, while in modern times it can be understood in terms of recent findings in physics, chemistry, biology, and psychology.³

15:4 It is a foundation of our faith that God brought forth the universe from absolute nothingness, as the Torah states, “In the beginning God created heaven and earth” (Genesis 1:1).⁴

15:5 The initial act described in the Torah refers to the creation of all matter along with space and time.⁵ Though the Torah does not state when this took place,⁶ there is overwhelming evidence from astronomy,⁷ geology,⁸ radioactive dating,⁹ and fossils,¹⁰ that this initial creation took place billions of years ago.¹¹ There are some who would dismiss this scientific evidence, but it is inconceivable that God should mislead mankind by making His creation appear older than it truly is. Accordingly, the Torah states, “The deeds of the Mighty One are perfect, for all His ways are just. He is a faithful God, never unfair; righteous and moral is He” (Deuteronomy 32:4).¹²

15:6 There are several rules which must be remembered if we are to understand the account of creation. The Torah uses three different words in describing creation:¹³ בָּרָא, “to create,” indicating the creation of something that previously had no existence; יָצָר, “to form,” where something is formed from a previously existing material or concept;¹⁴ וַיָּשֶׁא, “to make,” indicating the completion of a concept.¹⁵ These three concepts are also alluded to when we speak of God’s thought, speech, and action respectively,¹⁶ as well as in the three parts of the soul.¹⁷

15:7 Therefore, whenever the Torah uses the expression “God said,”¹⁸ in the account of creation, it means that He impressed His will upon the matter He created, giving it some new property.¹⁹ Just as human speech modulates the air with sound waves, so does God’s speech modulate all creation. Such expressions are usually given in terms of the ultimately desired result of the command.
15:8 Whenever the Torah uses the expression, “It was so,” it means that all the prerequisites for God’s desired goal were complete, although the goal itself would not manifest itself until a much later time.  

15:9 Whenever the Torah states, “God saw that it was good,” it refers to the completion of something essential for the evolution of the universe. Accordingly, we are taught that this expression means that God created worlds and destroyed them. Since it is inconceivable that an omniscient God would create something only to destroy it, this destruction of worlds refers to their being the basis for the next higher stage of creation.  

15:10 Whenever the Torah states that God gave one of His creations a name, it indicates that the name was originally used allegorically and is borrowed from a more familiar term. In every case, the reference is to concepts that were completely unknown in ancient times.

15:11 The light created on the first day refers to the electromagnetic force in matter. It is this force that is responsible for all the chemical and gross physical properties of matter. Prior to its creation, therefore, matter is called “chaos and void” (Genesis 1:2). The Torah states that “Light came into existence,” (Genesis 1:3) rather than “It was so,” since the main effects of the electromagnetic force were immediately evident. Furthermore, since the electromagnetic properties of matter are the most important in implying the evolution of life, the Torah states, “God saw that the light was good” (Genesis 1:4). However, because there was no word for a pure electromagnetic field in ancient times, the Torah continues, “God named the light ‘Day’” (Genesis 1:5), indicating that the word light is actually used for a broader concept. The division of light and creation of darkness refers to the interaction between matter and electromagnetism, which implies the absorption of light.

15:12 On the second day, God set the matter that He had created in a four-dimensional Euclidian space-time matrix, defined by matter itself. Since this completed the space-time continuum, the Torah states “God made the sky” (Genesis 1:7). This caused a sharp demarcation between the physical world and the spiritual, and accordingly, it is written, “It separated the water below the sky from the water above the sky” (ibid.) — “water” referring to all matter. Since the geometric properties of the universe were to develop with the distribution of matter, the Torah now says, “It was so” (ibid.). Still, because the interaction between space and matter was not completed until the creation of the gravitational force, the expression “It was good” is omitted on the second day. The word rakiyah (“sky” or “firmament”) is used since there was no word for an abstract space-time continuum in ancient times. The Torah thus states that, “God named the sky ‘Heaven’” (Genesis 1:8).

15:13 On the third day, God created the gravitational force which would result in the condensation of matter, and accordingly it is referred to in the Torah as the gathering of waters. Thus, we are taught that this involved a warping of space-time in a non-Euclidian geometry necessary for gravity to exist. Since “water” as used in this and previous passages refers to all matter, which was then in a fluid state, rather than water alone, the Torah tells us that, “He named... the gatherings of water ‘Seas’” (Genesis 1:10).

15:14 Also completed on the third day, were the physio-chemical properties of matter necessary for the existence of plant life. Since the stars and planets had not yet been formed, plant life itself was not to come into existence until a much later period.

15:15 On the fourth day, God initiated the process by which matter
would condense into galaxies, stars and planets. Since this marks the completion\(^9\) of the inorganic universe, the Torah states, “God made... the stars” (Genesis 1:16).\(^{30}\)

15:1 On the fifth day, God initiated the process that would eventually result in animal life.\(^{51}\) Accordingly, we are taught that God made a “picture” in the water\(^{52}\) with the ability to reproduce itself.\(^{53}\) The Torah states, “God created the great sea monsters...” (Genesis 1:21).\(^{54}\) Since this was an entirely new concept, not necessarily implied by the readiness of inorganic matter to produce plant life. However, since this act was not completed until the sixth day, the expression “It was so” is omitted here.\(^{55}\)

15:1 On the sixth day, God refined the evolutionary potential so as to include higher mammals, and eventually primitive man.\(^{56}\) Since this completed the evolutionary potential, the Torah states, “God made particular species of beasts of the earth” (Genesis 1:25).\(^{57}\)

15:1 On the fifth and sixth days respectively, the Torah states, “God said, ‘The water shall teem with swarms of living creatures,’” (Genesis 1:20), and “God said, ‘The earth shall bring forth particular species of living creatures’” (Genesis 1:24).\(^{58}\) This indicates that God did not actually create life at this time, but merely imparted in matter the unique properties that would make the evolution of lower, and eventually higher, forms of animal life inevitable.\(^{59}\)

15:1 On the sixth day, God also created the principle in matter whereby when a degree of complexity such as is found in the human brain is reached, it should be able to act as a receptacle for the soul which makes man unique among all other creatures. Since this principle exists in all matter, we are taught that the creation of man filled the entire universe.\(^{60}\) Since such a synthesis of the material and spiritual\(^{61}\) was an entirely new concept, the Torah states, “God created man” (Genesis 1:27).\(^{62}\)

15:2 After the six days of creation, God allowed the universe to develop by itself, as the Torah states, “He ceased on the seventh day from all the work He had been doing” (Genesis 2:2). All the laws of nature and properties of matter were fixed for all times, as we find, “He has established them forever; He made a decree which shall not be transgressed” (Psalms 148:6).\(^{63}\) It is similarly written, “Whatever God decrees shall be forever; nothing shall be added to it, and nothing shall be taken away” (Ecclesiastes 3:14).\(^{64}\)

15:2 However, God created the initial matter of the universe with such properties that would assure its development according to His plans, as the Torah states, “God ceased from all the work which He had created — to complete” (Genesis 2:3).\(^{65}\) Accordingly, each thing came forth in its time as planned,\(^{66}\) and the universe developed, evolving stars and planets, geological formations,\(^{67}\) and eventually life itself. Just as the properties of matter cause a symmetric crystal to grow, so the laws of nature that God had implanted in His world made the evolution\(^{68}\) of lower animals,\(^{59}\) and eventually man\(^{70}\) inevitable in the course of time.

15:2 About twenty-five thousand years ago,\(^{71}\) man developed all the physical and mental capacities that we possess today. Man had been formed out of “the dust of the earth” (Genesis 2:7), but he still lacked the divine soul that would make him a spiritual being. God then created Adam, the first true human being, “and He blew into his nostrils a soul of life” (ibid.).\(^{72}\) This Adam was destined to be the father of all human civilization.
According to tradition, the creation of Adam took place almost six thousand years ago on Rosh HaShanah, September 9, 3761 B.C.E.

God gave Adam and his descendants the gifts of great wisdom and inventiveness. Accordingly, historians find an almost miraculous flowering following the creation of Adam, with the conditions of human existence changing more radically then they had over the preceding quarter of a million years. During Adam's lifetime, we find one of the most creative periods in history, marking the invention of weaving, metalurgy, draft animals and the plow, the wheel, both for transportation and pottery, bricks, sail craft, as well as the concept of private property. These initial developments may have been rudimentary, but they were the foundation stones upon which the structure of civilization would rise.
NOTES TO CHAPTER 15

1. See Volume 1, 7:77, notes 186 and 187.
2. Bereshith Rabbah 1:3; Yalkut Shimoni 2:809; Zohar 2:39b; Rashi, Ramban, on Genesis 1:1.
4. Ramban ad. loc.; Thirteen Principles of Faith 1; Yad, Teshuvah 3:7; Raavad ad. loc.; Emden, "VeDeyoth 1:1 (28b), 5:8 (74a); Kuzari 1:67 (41a). Cf Bereshith Rabbah 1:12.
5. Bereshith Rabbah 1:19, 12:10; Yalkut Shimoni 1:3; Rashi on Genesis 1:14, 1:24, 2:4; Moreh Nevukhim 2:30; Ramban on Genesis 1:1, 1:8, 1:24.
6. See Volume 1, 2:17.
7. The traditional date of creation as 3761 b.c.e. refers to the creation of Adam rather than that of the universe (see below 15:23). Since it is usually assumed that the creation of man on the sixth day is identical to that of Adam in Genesis 2:7 (cf Thirty Two Middoth of R. Eliezer ben R. Yosi HaGelili no. 13; Rashi on Genesis 1:27), this date is also accepted as the birth of all creation. However, in Berakhot 61b; Eruvin 18a, we find that R. Avahu counts the creation of Adam on the sixth day as a creation in thought alone. As a result, Tosafoth, Rosh HaShanah 27a s.v. KeMan, writes that there was an entire creation in thought (see below...). Since this refers to the establishment of the properties of matter (see below...), we can interpret the entire six days of creation accordingly. This may also be the opinion of R. Shimoni, Bereshith Rabbah 12:14, that creation in thought was by day and night, with the actual deed taking place much later. According to this we can also understand Rashi on Genesis 1:1, that God thought to create the universe with the attribute of justice, although the name Elokim is used throughout the seven days of creation. Similarly, we find in Bereshith Rabbah 12:2; Shemot Rabbah 30:2, that all events prior to Genesis 2:4 are considered chaos and void. See also Pirkey Rabbi Eliezer 5 (12b), that God prepared a table for His creatures before the world was created; cf Radal ad. loc. 5:23. See also Moreh Nevukhim 2:25; Kuzari 1:67 (42a), that the interpretation regarding the time of creation is not essential to our faith, but see Kuzari 1:61 (38a).
8. Which we observe billions of light years away.
9. See below....
10. And since we believe that nature does not change (see below...), we must accept this as a reliable method.
11. Although fossils have been traditionally ascribed to the flood; cf Radal (on Pirkey Rabbi Eliezer) 23:10 (note 5), 23:26; Zohar 1:62a; Rash, "Zevachim 113a s.v. Retsoni Lomar. In Bereshith Rabbah 28:3, we find that no remains were left of those killed in the flood. Furthermore, radioactive dating proves many fossils to be millions of years old.
12. In Sanhedrin 97a we find a tradition that the world will last for 6000 years. From Psalms 90:4 we see that each of God's days is 1000 years. From Isaiah 63:4 we see that we can count years made out of God's days; cf Rashi, Sanhedrin 99a s.v. Rabbi. Accordingly, each of God's years is 365,242 of ours, and the 6000 year period, counted from the beginning of life, is 2,191,440,000 of our years, in remarkable agreement with the scientifically accepted figure. Of course, a simpler explanation would be to count these 6000 years from the creation of Adam.
13. Tana DeBei Elahu Zuta 3 (6a); Yalkut Shimoni 1:942; Moreh Nevukhim 2:28 (end).
17. Tikuney Zohar (22) 67b, quoted in Rishit Chokhmah 133c.
18. Ibid.; Nešeh HaChaim 1:14. See below....
19. This is repeated ten times in the account of creation; cf Avoth 6:1; Avoth DeRabbi Nathan 31:2; Rosh HaShanah 32a; Megillah 21b; Pirkey Rabbi Eliezer 3 (8b); Radal ad. loc. 3:73; Bereshith Rabbah 17:1; Zohar 3:11a.
20. See previous paragraph that speech corresponds to forming something from a previously existing concept. For other interpretations, see Ibn Ezra, Ramban, on Genesis 1:3; Moreh Nevukhim 1:66; Kuzari 4:25 (44a).
22. Ramban on Genesis 1:3. This may be related to the discussion between R. Yehudah and Re'Nehemiah in Yalkut Shimoni 1:6 (end).
24. Bereshith Rabbah 4:8; Rashi on Genesis 1:7.
25. See below....
27. Zohar 1:24b.
29. Genesis 1:5, 1:8, 1:10.
31. Cf Ramban ad. loc.; Isaiah 34:11; Chagigah 12a.
32. Ramban ad. loc.
33. Ramban ad. loc.
34. Genesis 1:4; Rashi ad. loc.
35. Cf Isaiah 45:7; Radak ad. loc.; Bereshith Rabbah 1:12; Chagigah 12a; Maharatz Cha'as ad. loc.; Moreh Nevukhim 2:30; Ramban, Abarbanel, on Genesis 1:2.
36. Cf Bereshith Rabbah 4:1; Ramban on Genesis 1:8, that the “water” spread, forming the sky.
38. Cf Pirke Rabbi Eliezer 4 (9a), from Ezekiel 1:22; Ramban loc. cit., that the rakiyuah-sky demarcates the spiritual world.
39. See below....
40. See above, note 24.
41. Cf Rashi ad. loc.; Chagigah 12a; Bereshith Rabbah 4:9. Also see Moreh Nevukhim 2:30.
42. Genesis 1:9.
43. Where a small space can hold much; Bereshith Rabbah 5:6; Vayikra Rabbah 10:9; Yalkut Shimon 1:7; Cf Pirke Rabbi Eliezer 5 (11b).
44. According to general relativity.
45. Cf Bereshith Rabbah 4:1, 5:2; Shemoth Rabbah 15:22; Midrash Tehillim 104:7, from Psalms 104:3; Terushimbi, Chagigah 2:1 (8b); Mekhilta to Exodus 15:11 (41b).
46. Terushimbi, Chagigah 2:1 (10b); Bereshith Rabbah 10:5, 12:4.
47. Ibn Ezra on Genesis 1:11.
48. Chullin 60b; Bereshith Rabbah 13:1; Rashi, Ramban, on Genesis 2:5. Cf Sifta to Leviticus 26:4 (110d).
49. See note 46.
50. Cf Rashi, Ramban, on Genesis 1:14, from Chagigah 12a. According to our interpretation, the statement in Pirke Rabbi Eliezer 5 (12a) that the luminaries were created before the separation of waters on earth becomes intelligible, and we do not need the correction of Radak ad. loc. 5:14.
51. Ibn Ezra loc. cit.
52. Bereshith Rabbah 7:1; Mekhilta to Exodus 15:11 (42a); Yalkut Shimon 2:835.
53. Midrash Tehillim 86:3; Yalkut Shimon loc. cit.
54. Cf Ramban, Sforo, Or HaChaim ad. loc.
55. Cf Ramban loc. cit.
56. Cf Bereshith Rabbah 7:7; Tanchuma, Tazria 1; Midrash Tehillim 139:5.
57. Cf Or HaChaim ad. loc. However, Rashi ad. loc. interprets this to mean that animals were created in their adult state; cf Rosh HaShanah 11a. See below....
58. Cf Rashi ad. loc.
59. See Volume 1, 1:4.
60. Bereshith Rabbah 8:1; Vayikra Rabbah 14:1; Midrash Tehillim 139:5; Yalkut Shimon 2:887, from Psalms 139:5; cf Chagigah 12a; Sefer Hasidim 500. From the Midrash, it appears that those who follow this opinion disagree with that of R. Yeremiyyahu, Berakhoth 61a, Erusin 18a, that Adam was created as a Siamese twin with Eve; cf Rashi on Genesis 1:27; Moreh Nevukhim 2:30. See Plato, Symposium 189, that this was known to the ancient Greeks. R. Avahu, who also disputes R. Yeremiyyahu ibid., maintains that this creation was in thought, and furthermore, that man was first created with a tail; cf Bereshith Rabbah 14:12, which might indicate that he had a tradition regarding man’s evolution from primates. See also Bereshith Rabbah 8:3, that God took counsel with all creation before creating man.
61. Cf Bereshith Rabbah 8:11; Rashi on Genesis 2:7.
62. And is therefore called creation in thought; see above 15:6, note 17.
63. Moreh Nevukhim 2:28. Cf Midrash Ne’elam, Zohar 1:138b; Avodah Zarah 54b; Berakhoth 60a.
65. Or, “which He had created so that it would continue, to function”; cf Ramban, Living Torah, ad. loc. The word LaAsoth, usually translated “to make,” refers to the completion of creation that was now to take place; see above 15:6.
66. Cf Bereshith Rabbah 12:3; Moreh Nevukhim 2:30. See also Bereshith Rabbah 12:7.
67. Cf Yerushabni, Niddah 3:2 (10a), that mountains were not included in the initial creation; Maharatz Chajas, Niddah 23a. Although we find mountains included in the first day's creation in Bereshith Rabbah 3:11, they are omitted in Chagigah 12a; Pirkey Rabbi Eliezer 3 (7a); Bereshith Rabbah 11:10. See Radal (on Pirkey Rabbi Eliezer) 5:1.

68. On the basis of the statement that all creatures were created fully developed (Rosh HaShanah 11a; Chullin 60a; Moreh Nevukhim 2:30), many reject the concept of evolution. However, this clearly disagrees with the opinion of Rashi, Chullin 60b (see above 15:14), that the plants did not grow immediately; cf Iyun Yaakov (Yn Yaakov) 26 ad. loc. Therefore, in his commentary to Genesis 1:25, Rashi utilizes this concept only for animals, deriving it from a different passage than the Talmud. However, see note 57 that this is not a universal opinion.

69. Some reject this concept, asserting that all species created by God cannot be changed. However, we find numerous opinions that environment can change species (cf Shabbath 31a; Zohar 3:10a; Radal on Pirkey Rabbi Eliezer 23:10), and according to traditional interpretations, such a concept is necessary if we are to explain the different races of man; see below.

70. This may be the source of the traditions that man originally had a tail; cf Berakhoth 61b; Eruvin 18a; Bereshith Rabbah 14:12.

71. These are the 974 generations before Adam which were worthy of having human souls; cf Chagigah 13b (end), from Job 22:16; Psalms 105:8; Tosefta ad. loc. Tordan; Maharsha ad. loc. Also see Bereshith Rabbah 28:4; Kohelet Rabbah 1:37, 4:4; Tanchuma, Lekh Lekha 11, Yitro 9; Midrash Tehillim 105:3; Tana DeBei Ekahu Rabbah 13 (70a), 72a, 26 (103a); Tana DeBei Ekahu Zuta 10 (15a); Yakut Shimon 2:863; Sefer Chasidim 1137.

Counting approximately twenty years for a generation, we find this happening approximately 20,000 years before Adam, or 25,000 years ago.

72. Cf Berakhoth 61a; Bereshith Rabbah 14:3, 4, 10; Ramban on Genesis 1:20. See below.

73. Moreh Nevukhim 3:50; Kuzari 1:43 (32a).

74. Pesikta 23 (150b); Yakut Shimon 1:782; Rosh HaShanah 10b; Maharsha, Rashash, ad. loc.; Yerushabmi, Avodah Zarah 1:23 (3a); YaYikra Rabbah 29:1; Pirkey Rabbi Eliezer 8 (18a); Tosefta, Rosh HaShanah 8a s.v. LeTekufah; Ramban, Rosh HaShanah (Rif 3a) s.v. BeRosh; Tosefta Yom Tov, Rosh HaShanah 1:2 s.v. BeRosh; Rokeach 200.

75. Cf Rashi, Sanhedrin 97a s.v. BeAlephim; Yad, Kiddush HaChodesh 11:16; Avodah Zarah 8a.

76. Bereshith Rabbah 24:7; Kuzari 1:95 (59b).

77. Cf Genesis 3:7.

78. Cf Genesis 4:22.