

The Hebrew Cosmogony

This world came into existence out of a chaos of fluid driven by a divine blast: this is the epic beginning of the Book of Genesis: "The earth was chaotic and void; and darkness was upon the face of the deep; and God's wind moved upon the face of the fluid." From this primeval matter, in a process of subsequent creations, was born the home of the living.

Already before the birth of our Earth, worlds were shaped and brought into existence, only to be destroyed in the course of time: "Nor is this world inhabited by man the first of things earthly created by God. He made several worlds before ours, but he destroyed them all." The Earth underwent re-shaping: six consecutive remouldings. Heaven and Earth were changed in every catastrophe. Six times the Earth was rebuilt—without entire extirpation of life on it, but with major catastrophes. Six ages have passed into the great beyond; this is the seventh creation, the time in which we live.

According to another tradition, several heavens were created, seven in fact. Also seven earths were created: the most removed being the seventh Erez, followed by the sixth Adamah, the fifth Arka, the fourth Harabbah, the third Yabbashah, the second Tebel and our own land called Heled, and like the others, it is separated from the foregoing by abyss, chaos, and waters. (2)

The description permits an interpretation that all the seven earths exist simultaneously; but a deeper insight will allow us to recognize that the original idea did not admit seven concurrent but separate firmaments and worlds in space, but only consecutive in time, and built one out of another: "The seven heavens form a unity, the seven kinds of earth form a unity, and the heavens and the earth together also form a unity." The Hebrew cosmogony in its true sense is a conception of worlds built and reshaped with the purpose of bringing creation closer to perfection. The separation of one world from another by abyss and chaos evidently refers to the cataclyms that separated the ages. (4)

- 1. L. Ginzberg, *The Legends of the Jews*, (Philadelphia, 1925), vol. I, p. 4.
- 2. Ginzberg, Legends, I, 10f.
- 3. Ginzberg, Legends, I, 11.
- 4. [The notion of a succession of worlds created and destroyed is common to many nations of antiquity. Vicentius Sangermano (Cosmographia Burmana, quoted by F. Buchanan, "On the Religion and Literature of the Burmas," Asiatick Researches VI [1799], p. 174, 180) wrote: "The Universe is called by the Burmas Logha, which signifies successive destruction and reproduction.... The Burma writings do not conceive of one world, but of an infinite number, one constantly succeeding another; so that when one is destroyed, another of the same form and structure arises...."].



Planet Ages

The ages of the past, between the successive catastrophes, are called in many diverse sources "sun ages." I have tried to show why this designation is meaningful. (1) But the ancients also maintained that the successive ages were initiated by planets: Moon, Saturn, Mercury, Jupiter, Venus, Mars. Therefore the sun-ages could also have been called planet ages.

Hesiod ascribed the Golden age to the time when the planet Saturn was ruling, and the Silver and Iron ages to the time of the planet Jupiter. The same concept is found in Vergil, who says that "before Jove's day [i.e., in the Golden age when Saturn reigned] no tillers subdued the land—even to mark the field or divide it with bounds was unlawful."

The idea that the Earth was under the sway of different planets at different ages is also the teaching of the Pythagoreans, the Magi, Gnostic sects and other secret societies.

In numerous astrological texts the same concept is repeated, that seven millennia were dominated by seven planets, one after the other. (4)

The worshipers of the devil, the Syrian sect of the Yezidis, believed that seven thousand years had passed since the Deluge; at the end of every millennium one of the seven planet-gods descends on the earth, establishes a new order and new laws, and then retreats to his place. (5)

An identical tradition is found in the writings of Julius Africanus: the ages of the ancestors passed under the government of the planets, each in its turn. (6) Also according to the Ethiopian text of the *First Book of Enoch*, the seven world-ages were each dominated by one planet. (7)

The gnostic sect of the Mandaeans taught in its holy book *Sidra Rabba* that the history of mankind is composed of seven epochs, that these epochs were terminated by catastrophes, and that one of the planets ruled in each epoch. (8)

The length of the ages in the *Sidra Rabba* is made very long, but the concept is, nevertheless, common to many ancient creeds.

- 1. Worlds in Collision, sections "The World Ages," "The Sun Ages."
- 2. *Works and Days*, transl. by H. Evelyn-White (Loeb Classical Library: London, 1914), lines 109-201.
- 3. *Georgics* I. 125, transl. by H. R. Fairclough (Loeb Classical Library: London, 1920).
- 4. ["L'idée de sept periodes soumises aux sept planètes est commune a plusieurs religions." (Cumont, La Fin du monde selon les mages occidentaux," Revue de l'Histoire des Religions [1931], p. 48). See also W. Bousset, "Die Himmelreise der Seele," Archiv für Religionswissenschaft vol. IV (1901), pp. 240-244. Similarly writes F. Boll, Sternglaube und Sterndeutung, fourth ed. by W. Gundel (Berlin, 1931), p. 158: "Die übliche chaldäische Lehre unterscheidet

- sieben Weltalter; jeder Planet, darunter also auch Sonne und Mond, herrscht als Chronokrator über eine Periode von tausend Jahren."].
- 5. Cumont, "La Fin du monde selon les mages occidentaux," p. 49.
- 6. H. Gelzer, *Sextus Julius Africanus* (Leipzig, 1898), pp. ??; see also E. Hommel in *Journal of the Society of Oriental Research* (1927), p. 183.
- 7. R. H. Charles transl. and ed., *The Book of Enoch*, or *1 Enoch* (Oxford, 1912), LII 2-9 (pp. 102ff.); cf. Bousset, "Die Himmelreise der Seele," p. 244.
- 8. Ginza: Codex Nasareus, Liber Adami Apellatus, M. Norberg transl. and ed., vol. III (London, 1815), pp. 69-73; K. Kessler, "Mandäer," Realencyclopädie für protestantische Theologie, Herzog-Nauck, 3rd ed. (1903), vol. 12, pp. 170ff.





Sabbath

The idea of naming the days of the week in honor of the seven planets was, according to Eusebius, introduced by the Persians at the time of the war of Xerxes against Greece. Dio Cassius, the Roman author of the fourth century, wrote that the division of the week into seven days in honor of the seven planets originated with the Egyptians, and then spread to other peoples.

Even today the names of the days of the week in European languages can be traced to the names of the planets. Thus the Roman *dies Solis* (Sun), or Sunday, is *Sonntag* in German; *dies Lunae* (Moon), or Monday, is *lundi* in French and *Montag* in German; *dies Martis* (Mars), or Tuesday, is *mardi* in French and *martes* in Spanish; *dies Jovis* (Jupiter), or Thursday, is *jeudi* in French and *Donnerstag* in German; Friday is *dies Veneris* (Venus), or *vendredi* in French, while Saturday is *dies Saturnis*, the day of Saturn.

The naming of the seven days of the week in honor of the seven planets is not only an act of reverence apportioned to these gods, but also a memorial to the seven ages that were governed by each of the seven planets in succession. This idea can be traced in the establishment of the Jewish week with its Sabbath. Although the social significance of the Sabbath as the universal day of rest for man, his servant, and the domestic animal working for him is so apparent from many passages in the Scriptures and especially from the beneficent application of a weekly day of rest by all civilized nations that took this precept from the Hebrew Bible, the cosmological meaning of the Sabbath must not remain overlooked.

In six ages the world and mankind went through the pangs of genesis or creation with its metamorphoses. It is not by mistake that the ages which were brought to their end in the catastrophes of the Deluge, of the Confusion of Languages or of the Overturning of the Plain, are described in the book of Genesis: the time of Genesis or creation was not over until the Sabbath of the Universe arrived. With the end of the world age simultaneous with the end of the Middle Kingdom and the Exodus, the Sabbath of the Universe should have begun.

The destruction of the world in the days of the Exodus closed, in the conception of the Hebrews, the age of creation. It was to signify the end of the time when the Earth and men were to be shaped and reshaped. The traditional and very old Hebrew prayer at the beginning of the Sabbath opens with these words: "The sixth day. And the heavens and the earth were established. And the Lord finished in the seventh day the entire work that He did and rested from all the work that He did."

The meaning of this passage is that in six world ages the heavens and the earth were finally established, and that now, in the seventh age, no further changes in the cosmic order should be expected. The Lord is actually implored to refrain from further reshaping the Earth.

The idea that God's day is a millennium is often met in Talmudic literature; the apostle Peter also says: "One day is with the Lord as a thousand years."

(5) Thus the seven days of the week represent seven world ages; and the day of the Sabbath represents the seventh world age, which is our age. According to the rabbis of the Tractate Shabbat of the *Babylonian Talmud*, "Sabbath" is to be interpreted as *sabbatu* - cessation of the divine wrath.

This fits exactly our idea of the Sabbath as the age of rest when the heavens and the earth are established and are not to be disturbed again.

Many exegetes have wondered as to why the prayer of benediction to the Sabbath starts with the words: "The sixth day," expecting to find there the words "The seventh day." The words "the sixth day" are not necessarily wrong here: the meaning may be that with the expiration of the sixth age the heaven and the earth become unchangeable. But it may be that the prayer originated in pre-Exodus days when only six ages were counted. The prayer next refers to the Sabbath as "the day of rest, the memorial to the act of genesis, because this day is the beginning of the reckoning of days, memory of the Exodus from Egypt." The assembling of three different causes for the establishment of the Sabbath would appear confusing were it not for the fact that the three occurrences were simultaneous: the last act of creation, the new flow of time, the Exodus from Egypt.

Although after the beginning of the seventh age new world catastrophes disrupted the established order—in the eighth and seventh centuries before the present era—the idea of the Sabbath of the Universe was already so deeply rooted that the new world catastrophes were not counted, so as not to discredit the establishment of the Sabbath. But the return of the sun's shadow ten degrees in the days of Hezekiah and Isaiah was registered as "the seventh world wonder," (7) and thus actually the eighth world age started. The difference in the magnitude of the catastrophes caused also some nations of antiquity to count six, seven (as most nations), or eight, or nine, or even ten ages; one and the same people, like the Mayas, had traditions of five and seven ages in diverse books of theirs. Also, catastrophes recurring at short intervals, as those which took place in the eighth and beginning of the seventh century before the present era, could be regarded as the closing of one age, or a few short additional ages could be conceived. Catastrophes, variable as they were in their magnitude and consequences, could have had a subjective appraisal. Even the encounter of the earth with a lesser comet, which appeared very bright, in the days when Octavian Augustus observed the mortuary activities in honor of Julius Caesar, and which dispersed its gases in the atmosphere of the Earth, was regarded by one contemporary author as the end of a world age and the beginning of a new one, although no perceptible changes in the motion of the earth and no greater calamity than a year-long gloom were observed. (9)

The Sabbath being a day of rest in the social order, its cosmic meaning in the great fear of the end of the world can be suspected also in view of the rigor with which it was observed; at the beginning of the Christian era, members of some sects among the Jews would not even move, and would remain in the place and position in which the beginning of the Sabbath found them. (10) Social institutions are generally not observed with such an awe and with such rigor. It was actually not the Deity, having worked during six ages and reposed in the seventh who gives example to man; it is man, by abstaining from work on the seventh day, the symbol of the seventh world age, who invites the Supreme Being to keep the established order of the heaven and earth, and not to submit them to new revolutions.

The same idea is found in the prayer of the Chinese Emperor Shun, who lived shortly after the Emperor Yahu. This prayer, declaimed by him, reads: "The sun and moon are constant; the stars and other heavenly bodies have their motions; the four seasons observe their rule." (11) A number of centuries thereafter, in the days of the Emperor Kwei, the order of the celestial sphere was again disrupted: "the planets went out of their courses." (12)

Also Hebrew psalmists and prophets tried to suggest to nature to abstain from revolt; but at the same time they expressed their fear of changes in the future comparable to those in the past. After more than two thousand five hundred years, one of the two original ideas of the Sabbath, its cosmic meaning, was lost to mankind, leaving the social idea conscious and triumphant the world over.

- 1. Praeparatio Evangelica IV.
- 2. Dio Cassius 37. 186; cf. Aulus Gellius, *Noctes Atticae* III. 10; Petronius, *Satyricon*, 30: "lunae cursum stellarumque septem imagines."
- 3. [Donnar, or Thor was the name for Jupiter among the Nordic peoples.]
- 4. Cf. H. Gunkel, *Schoepfung und Chaos in Urzeit und Endzeit* (1895). [The same system was in use in Babylonia and is still current in India and Tibet. See Tsepon W. D. Shakabpa, *Tibet, A Political History* (Yale University Press, 1967), p. 16: "The seven days of the week are named, as in the Western system, for the sun, moon, and the five visible planets. . . ." The people of Burma "also use a week of seven days, named after the planets." F. Buchanan, "On the Religion and Literature of the Burmas," *Asiatick Researches* VI (1799), p. 169.].
- 5. The Second Epistle of Peter 3:8.
- 6. Tractate Shabbat 13B. S. Reinach, *Cults, Myths, Religion* (1912), pp. 168ff.
- 7. Ginzberg, Legends, VI. 367.
- 8. See *Worlds in Collision*, Chapter 2, section "The World Ages," and "The Sun Ages."
- 9. [This comet of -44 was also observed in China. See De Cambre, *Histoire de l'astronomie chinoise* (Paris, 1817), p. 358.]
- 10. Josephus, The Jewish War
- 11. J. Legge, *The Chinese Classics* (Hong Kong, 1865), Vol. III, p. 1.
- 12. Ibid., p. 125.





Deification of the Planets

The Sun and the Moon are two great luminaries, and it is easily understandable that the imagination of the peoples should be preoccupied with them and should ascribe to them mythological deeds. Yet the ancient mythologies of the Chaldeans, the Greeks, the Romans, the Hindus, the Mayans, preoccupy themselves not with the Sun or the Moon, but prima facie with the planets. Marduk, the great god of the Babylonians, was the planet Jupiter; so was Amon of the Egyptians, Zeus of the Greeks and Jupiter of the Romans. It was much superior to Shamash-Helios, the Sun. Why was it revered by all peoples? Why was the planet Mars chosen to be the personification of the god of war? Why did Kronos of the Greeks, Saturn of the Romans, play a part in hundreds of myths and legends? Thoth of the Egyptians, Nebo and Nergal of the Babylonians, Mithra and Mazda of the Persians, Vishnu and Shiva of the Hindus, Huitzilopochtli and Quetzalcoatl of the Mexicans, were personifications of planets; innumerable hymns were dedicated to them and adventures and exploits ascribed to them.

"The life of our planet has its real source in the Sun," wrote E. Renan. "All force is a transformation of the Sun. Before religion had gone so far as to proclaim that God must be placed in the absolute and the ideal, that is to say, outside of the world, one cult only was reasonable and scientific, and that was the cult of the Sun." (2) But the Sun was subordinate to the planets, even though they are not conspicuous, poor sources of light, and no sources of warmth.

The night sky illuminated by stars is majestic. The geometrical figures of the constellations, such as the Pleiades, Orion, or the Great Bear, rolling from the east in the evening to the west before morning, are favorite motifs in poetry, no less than the Sun and the Moon. But the discrepancy in the choice of motifs by the ancients becomes still more obvious. The constellations of the sky took only a minor and incidental part in the mythology of the ancient peoples. The *planets* were the major gods, and they rule the universe. (3)

"It is not easy to understand the idea which was the basis for the identification of the Babylonian gods with the planets," writes an author; (4) but the same process of identification of major gods with the planets can be found in the religions of the peoples in all parts of the world. The planets were not affiliated to the gods, or symbols of the gods—they were the gods. In prayers and liturgies they were invoked as gods. "The greater gods, even when addressed by name in prayer, were regarded as astral powers." (5) This or that planet is selected, according to the text of the prayer, from "the multitude of the stars of heaven" to receive a gift.

"The planetary gods are much the most powerful of all. Their positions in the sky, their reciprocal relations . . . have a decisive influence on all physical and moral phenomena of the world." (6)

The great majority of us moderns pay no attention to these points in the night sky, and probably not one in ten or even in a hundred is able to point to Jupiter or Mars in the firmament. The planets change their places, but not conspicuously. Were they indebted for their deification to this slow movement, by which they differ from the fixed stars? Did Zeus-Jupiter-Marduk-Amon become the supreme deity, the thunderer and dreadful lord

of the universe, only because of his slow movement—he passes in twelve years the circle of the zodiac, traversed by the Sun in twenty-four hours, and by the Moon even quicker? When seen with the naked eye the planet Jupiter distinguishes itself from the fixed stars of first magnitude only by this slow change of position.

Augustine, confused by the problem of the deification of the planets, wrote in the fourth century:

But possibly these stars which have been called by their names are these gods. They call a certain star Mercury, and likewise a certain other star Mars. But among those stars which are called by the name of gods, is that one which they call Jupiter, and yet with them Jupiter is the world. There also is that one they call Saturn, and yet they give him no small property beside, namely all seeds. (7)

Mercury, the closest to the Sun, is barely visible, being hidden in the Sun's rays. But the ancients made the planet Mercury into a great god—Hermes or Nebo. Why was it feared and worshiped? What is there generally in the planets to inspire awe, so as to influence people to build temples for them, to sing liturgies, to bring sacrifices, to narrate legends, and to dedicate to them the domain of science, of war, of agriculture?

The ancients were sufficiently enlightened to know that the planets are large rocks like the Earth that circle on orbits. (8) And this makes the modern scholars wonder: knowing that the planets are rocks, why did the ancients believe that they are gods? (9)

The key to this problem, which is the major problem of all classical mythology, is already in our hands. The planet Venus was deified because of its dramatic appearance and because of the havoc it brought to the world, as described in *Worlds in Collision*. I illuminated also the events which made Mars a feared god. Divine qualities were ascribed to the other planets because of the catastrophes they wrought in earlier ages.

In the Persian holy books it is said that "on the planets depends the existence or non-existence of the world—wherefore are they especially to be venerated." (10) "The seven planets rule the universe," says a Nabatean inscription. (11) The Greeks and Romans believed that "everything is, in fact, subject to the changes brought about by the revolutions of the stars." (12)

"The celestial orbs by their combined movements are the authors of all that was, and is, and is to come." According to ancient Hebrew traditions, "there are seven archangels, each of whom is associated with a planet." (13) "The seven archangels were believed to play an important part in the universal order through their associations with the planets. . . ." (14)

The reason for the deification of the planets lay in the fact that the planets only a short time ago were not faultlessly circling celestial bodies, nor were they harmless. This is also expressed in a Mandaean text: "How cruel are the planets that stay there and conspire evil in their rage . . . the planets conspire in rage against us." (15)

References

1. [These identifications are discussed below, Part IV: "Jupiter of the Thunderbolt."]

- 2. Dialogues et fragments philosophiques (Paris, 1876), p. 168. [Cf. Macrobius]
- 3. [For ancient planetary worship among the **Babylonians**, see Bartel L. van der Waerden, *Science Awakening*, Vol. II (Leyden, 1974), p. 59; among the **Egyptians**, see H. Brugsch, *Astronomische und astrologische Inschriften altaegyptischer Denkmaeler* (Leipzig, 1883); E. Naville, "La Destruction des hommes par les dieux," *Transactions of the Society for Biblical Archaeology* IV (1875), pp. 1-18; O. Neugebauer and R. Parker, *Egyptian Astronomical Texts* (London, 1969); among the **Hebrews**, see M. Seligsohn, "Star Worship" in *The Jewish Encyclopaedia* (New York, 1905); cf. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 1925), vol. III, p. 371; vol. VI, pp. 66f.; among the **Persians**, see *The Dabistan*, transl. by D. Shea and A. Troyer (Washington, 1901); among the **Finns**, see J. M. Crawford's preface to *The Kalevala*, (Cincinnati, 1904), p. xiv.].
- 4. P. Jensen, Die Kosmologie der Babylonier (Strassburg, 1890), p. 134.
- 5. L. W. King, *Babylonian Magic and Sorcery*, (London, 1896), Section V.; cf. Plutarch, *De Iside et Osiride*, 48.
- 6. F. Cumont, Astrology and Religion among the Greeks and Romans, (1912), p. 120; cf. idem, "Le mysticisme astral," Bull. Acad. de Belgique (1909); also idem, "Les noms des planetes et l'astrolatrie chez les Grecs," Antiquite Classique IV (1935), pp. 6ff.
- 7. The City of God, transl. by M. Dods (1907), Book VII, ch. 15.
- 8. This was the teaching of Anaxagoras as reported by Diogenes Laertius, *Lives of the Famous Philosophers*, II. 8.
- 9. E. Pfeiffer, *Gestirne und Wetter im griechischen Volksglauben* (Leipzig, 1914), pp. 24f. [The deification of the planets is advocated in the Platonic *Epinomis* 471; cf. also Cicero, *De Natura Deorum* II. 21. 54-55.]
- 10. Yasnav I. 307. See J. Scheftelowitz, Die Zeit als Schicksalgottheit in der indischen und iranischen Religion (Stuttgart, 1929), p. 2.
- 11. D. Chwolson, *Die Ssabier und der Ssabismus* (St. Petersburg, 1856), vol. II, pp. 604f.
- 12. Cumont, Astrology and Religion among the Greeks and Romans, pp. 113-114; [cf. M. P. Nilsson, "The Origin of Belief among the Greeks in the Divinity of the Heavenly Bodies," Harvard Tr. Rel. 33 (1940), pp. 1ff. and idem, "Symbolisme astronomique et mystique dans certains cultes publics grees," Homages Bidez-Cumont (1949), pp. 217ff. Cf. also P. Boyance, "La religion astrale de Platon a Ciceron," Revue des Etudes Greeques LXV (1952), pp. 312-350.]
- 13. J. Trachtenberg, *Jewish Magic and Superstition* (New York, 1939), p. 98.
- 14. Ibid., p. 250.
- 15. M. Lidzbarski, "Ein mandaeischer Amulett," Florilegium, pp. 350f.





Uranus

The seven planets of the ancients comprised the Sun, the Moon, Mercury, Venus, Mars, Jupiter, and Saturn. However, the ancients' religions and mythology speak for their knowledge of Uranus; the dynasty of gods had Uranus followed by Saturn, and the latter by Jupiter. In the clear sky of Babylonia the planet Uranus could have been observed by an unaided eye; but since it was known as a deposed deity, it would seem that at some later time the planet lost much of its brightness. (1)

It is quite possible that the planet Uranus is the very planet known by this name to the ancients. The age of Uranus preceded the age of Saturn; it came to an end with the "removal" of Uranus by Saturn. Saturn is said to have emasculated his father Uranus. (2)

Behind this story there might have been a scene in the sky. In one theory of the origin of the solar system a sideswiping star tears out from the sun a long filament of gaseous material. Similarly Saturn may at one time have "emasculated" Uranus—Saturn was represented by the Romans with a sickle in his hands.

Circumcision may have originated as an emulation of the acts displayed in the sky—when it appeared that Saturn with a sickle emasculated Uranus, the Egyptians, and so also the Hebrews, introduced circumcision, the removal of the foreskin being *pars per toto*, or instead of castration. (3)

It is not unthinkable that sometime before the age the record of ancient civilizations reaches, Uranus, together with Neptune, Saturn and Jupiter, formed a quadruple system that was captured by the sun and from which the planets of the solar system had their origin—but here nothing but imagination takes over where tradition based on witnessing does not reach.

[According to Hesiod, the catastrophe described as the removal of Uranus by Saturn gave birth to Aphrodite. In *Worlds in Collision* Aphrodite was identified with the Moon.]⁽⁴⁾

- 1. Uranus was discovered in 1781 by William Herschel. Its planetary character was not immediately apparent to him—Herschel actually announced the discovery of a comet.
- 2. Hesiod, *Theogony* 133-187; cf. lines 616-623. [Cf. also the Hittite myth of "Kingship in Heaven" in J. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), pp. 120-121.] The similar story of Jupiter emasculating his father Saturn [Apollonius Rhodius, *Argonautica* IV. 984 with scholium; scholium to Lycophron's *Cassandra* 76; Proclus, *In Timaeo*, transl. by A. J. Festugière, (Paris, 1967), Vol. III, p. 255] may be "transfer" or borrowing, but may be a reflection in mythology of similar events.
- 3. Circumcision has a hygienic value; it could have been found out and sanctified by the astral events. Having been "commanded" in the days of the patriarch Abraham (Genesis 17:10ff.) it may reflect the latter event, i.e., Jupiter's emasculation of Saturn. Cf. Sanchuniathon's *Phoenician History* in Eusebius, *Praeparatio*

Evangelica I. ix: "Cronos was circumcis'd in his privities and forced his followers to do the same" (transl. by R. Cumberland [London, 1720], p. 38).

4. [Velikovsky's identification of Aphrodite with the Moon has been disputed by several writers; but in the fourth century A.D. Macrobius was able to refer to ancient authorities who affirmed that Aphrodite was the Moon. *Saturnalia* VIII. 1-3.].





The Earth Without the Moon

The period when the Earth was Moonless is probably the most remote recollection of mankind. Democritus and Anaxagoras taught that there was a time when the Earth was without the Moon. Aristotle wrote that Arcadia in Greece, before being inhabited by the Hellenes, had a population of Pelasgians, and that these aborigines occupied the land already before there was a moon in the sky above the Earth; for this reason they were called Proselenes.

Apollonius of Rhodes mentioned the time "when not all the orbs were yet in the heavens, before the Danai and Deukalion races came into existence, and only the Arcadians lived, of whom it is said that they dwelt on mountains and fed on acorns, before there was a moon." (3)

Plutarch wrote in *The Roman Questions*: "There were Arcadians of Evander's following, the so-called pre-Lunar people." Similarly wrote Ovid: "The Arcadians are said to have possessed their land before the birth of Jove, and the folk is older than the Moon." Hippolytus refers to a legend that "Arcadia brought forth Pelasgus, of greater antiquity than the moon." Lucian in his *Astrology* says that "the Arcadians affirm in their folly that they are older than the moon."

Censorinus also alludes to the time in the past when there was no moon in the sky. (8)

Some allusions to the time before there was a Moon may be found also in the Scriptures. In Job 25:5 the grandeur of the Lord who "Makes peace in the heights" is praised and the time is mentioned "before [there was] a moon and it did not shine." Also in Psalm 72:5 it is said: "Thou wast feared since [the time of] the sun and before [the time of] the moon, a generation of generations." A "generation of generations" means a very long time. Of course, it is of no use to counter this psalm with the myth of the first chapter of Genesis, a tale brought down from exotic and later sources.

The memory of a world without a moon lives in oral tradition among the Indians. The Indians of the Bogota highlands in the eastern Cordilleras of Colombia relate some of their tribal reminiscences to the time before there was a moon. "In the earliest times, when the moon was not yet in the heavens," say the tribesmen of Chibchas. (9)

There are currently three theories of the origin of the moon:

- 1) The Moon originated at the same time as the Earth, being formed substantially from the same material, aggregating and solidifying.
- 2) The Moon was formed not in the vicinity of the Earth, but in a different part of the solar system, and was later captured by the Earth.
- 3) The Moon was originally a portion of the terrestrial crust and was torn out, leaving behind the bed of the Pacific.

All three theories claim the presence of the Moon on an orbit around the Earth for billions of years. Mythology may supply each of these views with some support (Genesis I for the first view; the birth of Aphrodite from the

sea for the third view; Aphrodite's origin in the disruption of Uranus, and also the violence of Sin—the Babylonian Moon—seems to support the second view).

Since mankind on both sides of the Atlantic preserved the memory of a time when the Earth was without the Moon, the first hypothesis, namely, of the Moon originating simultaneously with the Earth and in its vicinity, is to be excluded, leaving the other two hypotheses to compete between themselves.

We have seen that the traditions of diverse peoples offer corroborative testimony to the effect that in a very early age, but still in the memory of mankind, no moon accompanied the Earth. Since human beings already peopled the Earth, it is improbable that the Moon sprang from it: there must have existed a solid lithosphere, not a liquid earth. Thus while I do not claim to know the origin of the Moon, I find it more probable that the Moon was captured by the Earth. Such an event would have occurred as a catastrophe. If the Moon's formation took place away from the Earth, (12) its composition may be quite different.

There is no evidence to suggest whether the Moon was a planet, a satellite of another planet, or a comet at the time of its capture by the Earth. Whatever atmosphere it may have had (13) was pulled away by the Earth, by other contacting bodies, or dissipated in some other way.

Since the time the Moon began to accompany the Earth, it underwent the influence of contacts with comets and planets that passed near the Earth in subsequent ages. The mass of the Moon being less than that of the Earth, the Moon must have suffered greater disturbances in cosmic contacts. During these contacts the Moon was not carried away: this is due to the fact that no body more powerful than the Earth came sufficiently close to the Moon to take it away from the Earth for good; but in the contacts that took place the Moon was removed repeatedly from one orbit to another.

The variations in the position of the Moon can be read in the variations in the length of the month. The length of the month repeatedly changed in subsequent catastrophic events—and for this there exists a large amount of supporting evidence. In these later occurrences the Moon played a passive role, and Zeus in the *Iliad* advised it (Aphrodite) to stay out of the battle in which Athene and Ares (Venus and Mars) were the main contestants.

- 1. Hippolytus, Refutatio Omnium Haeresium V. ii.
- 2. Aristotle, fr. 591 (ed. V. Rose [Teubner:Tuebingen, 1886]). Cf. *Pauly's Realencyclopaedie der classischen Altertumswissenschaft*, article "Mond"; H. Roscher, *Lexicon d. griech. und roemisch. Mythologie*, article "Proselenes."
- 3. Argonautica IV.264.
- 4. Plutarch, *Moralia*, transl. by F. C. Babbit, sect. 76.
- 5. Fasti, transl. by Sir J. Frazer, II. 290.
- 6. Refutatio Omnium Haeresium V. ii.
- 7. Lucian, *Astrology*, transl. by A. M. Harmon (1936), p. 367, par. 26.
- 8. *Liber de die natali* 19; also scholium on Aristophanes' *Clouds*, line 398.

- 9. A. von Humboldt, *Vues des Cordillères* (1816), English transl.: *Researches Concerning the Institutions and Monuments of the Ancient Inhabitants of America*, (1814), vol. I, p. 87; cf. H. Fischer, *In mondener Welt* (1930), p. 145.
- 10. [In addition to the sources cited above, cf. *The Nihongi Chronicles of Japan* (I.ii, in *Transactions and Proceedings of the Japanese Society*, vol. I [1896]) which recount how "Heaven and Earth . . . produced the Moon-god." The *Kalevala* of the Finns recalls a time "when the Moon was placed in orbit." (Rune III.35)]
- 11. [Cf. the effects of such an event on the Earth's rotation calculated by H. Gerstenkorn in *Zeitschrift fuer Astrophysik*, 36 (1955), p. 245; cf. idem, in *Mantles of the Earth and the Terrestrial Planets*, S. K. Runcorn ed., (New York, 1967); also idem in *Icarus* 9 (1968), p. 394.]
- 12. [Cf. H. Alfven and G. Arrhenius, "Two Alternatives for the History of the Moon," *Science* 165 (1969), 11ff.; S. F. Singer and L. W. Banderman, "Where was the Moon Formed?" *Science* 170 (1970), 438-439: "... The moon was formed independently of the earth and later captured, presumably by a three-body interaction, and these events were followed by the dissipation of the excess energy through tidal friction in a close encounter." More recently, a study of lunar paleotides has shown that "the Moon could not have been formed in orbit around the Earth" (A. J. Anderson, "Lunar Paleotides and the Origin of the Earth-Moon System," *The Moon and the Planets*, 19 [1978], 409-417). Because of a certain degree of instability in the Sun-Earth-Moon system, "the planetary origin and capture of the Moon by the Earth becomes a strong dynamic possibility." (V. Szebehely and R. McKenzie, "Stability of the Sun-Earth-Moon System," *The Astronomical Journal* 82 (1977), 303ff.].
- 13. [Cf. Yu. B. Chernyak, "On Recent Lunar Atmosphere," *Nature*, 273 (15 June, 1978), pp. 497ff. The author found "strong theoretical evidence of a considerable atmosphere on the Moon during the greater part of its history."]





A Brighter Moon

Many traditions persist that at some time in the past the Moon was much brighter than it is now, and larger in appearance than the Sun. In many rabbinical sources it is stated that the Sun and the Moon were equally bright at first. The same statement was made to de Sahagun by the aborigines of the New World: "the Sun and the moon had equal light in the past." At the other end of the world the Japanese asserted the same: the Nihongi Chronicle says that in the past "the radiance of the moon was next to that of the sun in splendor."

Traditions of many peoples maintain that the Moon lost a large part of its light and became much dimmer than it had been in earlier ages. (4)

In order that the Sun and the Moon should give off comparable light, the Moon must have had an atmosphere with a high albedo (refracting power) (5) or it must have been much closer to the earth. In the latter case the Moon would have appeared larger than the Sun. In fact, the Babylonian astronomers computed the visible diameter of the Sun as only two-thirds of the visible diameter of the Moon, which makes a relation of four to nine for the illuminating surfaces. This measure surprised modern scholars, who are aware of the exactness of the measurements made by the Babylonian astronomers and who reason that during the eclipses one can easily observe the approximate equality of the visible disks. (6)

- 1. Targum Yerushalmi, Genesis 1:16 and Numbers 28:15; Hullin 60b; Midrash Breishith Rabba. Other sources in Ginzberg, *Legends* V. 34ff.
- 2. [B. de Sahagun, *Historia general de las cosas de la Nueva Espana* [Cf. the Peruvian tradition recorded by Pedro Sarmiento de Gamboa in the sixteenth century, according to which Viracocha created the Moon brighter than the Sun: *Historia de los Incas*, ch. 7.]
- 3. Nihongi, *Chronicles of Japan from the Earliest Times*, transl. by W. G. Aston (1896), Book I, pt. 1.
- 4. Cf. S. Thompson, *Motif-index of Folk Literature* (1932); cf. Ginzberg, *Legends* VI. 35; *Handbook of South American Indians* (American Bureau of Ethnology [Washington, 1948], Vol. II, p. 515).
- 5. See above, section "The Earth Without the Moon," n. 13.
- 6. E. F. Weidner, *Beitraege zur Assyriologie* VII, Heft 4 (1911), p. 99; cf. idem, *Handbuch der Babylonischer Astronomie* (1915), p. 131. Cf. "Gewichte" by Lehmann-Haupt in Pauly-Wissowa *Supplements*.





The Worship of the Moon

Because of its size and also because of the events which accompanied the first appearance of the Moon, many ancient peoples regarded the Moon as the chief of the two luminaries. "The sun was of smaller importance than the moon in the eyes of the Babylonian astrologers."

The Assyrians and the Chaldeans referred to the time of the Moon-god as the oldest period in the memory of the people: before other planetary gods came to dominate the world ages, the Moon was the supreme deity. Such references are found in the inscriptions of Sargon II (ca. -720)⁽²⁾ and Nabonidus (ca. -550).⁽³⁾ The Babylonian Sin—the Moon—was a very ancient deity: Mount Sinai owes its name to Sin.

The Moon, appearing as a body larger than the Sun, was endowed by the imagination of the peoples with a masculine role, while the Sun was assigned a feminine role. Many languages reserved a masculine name for the Moon. (4) It was probably when the Moon was removed to a greater distance from the earth and became smaller to observers on the earth, that another name, usually feminine, came to designate the Moon in most languages. (5)

- 1. C. Bezold in Boll, Sternglaube und Sterndeutung, p. 4. [In Babylonian cosmology the Moon-god Sin (Nanna) was considered to be the father of the Sun-god Shamash (Utu) and was commonly addressed as "father Sin" (S. Langdon, Sumerian and Babylonian Psalms [1909), p. 193. F. Cumont noted the prominence of Sin in the earliest historical period in Babylonia and found it "remarkable that at first the primacy was assigned to the Moon." (Astrology and Religion among the Greeks and Romans, p. 124; cf. Lewy, "The Late Assyro-Babylonian Cult of the Moon"). According to the Dabistan (ch. 29), a Persian work of early Islamic times, the Ka'abah of Mecca was originally dedicated to the worship of the Moon. On Moon worship among the ancient Arabs, cf. also Tuch, "Sinaitische Inschriften," Zeitschrift des Deutsches Morgenlaendisches Gesellschaft III (1849), p. 202, and Osiander, "Vorislamische Religion der Araber," ibid., VII (1853), p. 483. Cf. I. Goldziger, Mythology among the Hebrews and its Historical Development (1877), p. 72ff. The Greeks regarded the Moon as of greater importance than the Sun: "The sun's subordination to the moon . . . is a remarkable feature of early Greek myth. Helius was not even an Olympian, but a mere Titan's [Hyperion's] son." (R. Graves, The Greek Myths [London, 1955] vol. I, sec. 42.1). Christoval de Molina (An Account of the Fables and Rites of the Yncas, transl. by C. R. Markham [London, 1873], p. 56) described sacrifices to the Moon by the natives of Peru in the sixteenth century. Also the Indians of Vancouver Island assigned greater importance to the Moon than to the Sun (E. B. Tylor, *Primitive Culture* [New York, 1929], p. 299), as did several tribes in Brazil (ibid., loc. cit.)].
- 2. See Sargon II's "Display Inscription," lines 110 and 146: "since the distant days of the age of Nannaru." Cf. H. Winckler, *Himmels und Weltenbild der Babylonier* (Leipzig, 1901), p. 31: "Die aeltere Zeit bezeichnet Sargon II als die Zeit der Nannar—eine

Erscheinungsform des Mondgottes." [A cuneiform text describes the first appearance of the Moon: "When the gods . . . fixed the crescent of the moon, to cause the new moon to shine forth, to create the month. . . . The new moon, which was created in heaven with majesty, in the midst of heaven arose." R. W. Rogers, *Cuneiform Parallels to the Old Testament* (New York, 1912), p. 46.].

- 3. D. D. Luckenbill, *Ancient Records of Assyria* (1926-27), II. 870; cf. J. Lewy, "The Late Assyro-Babylonian Cult of the Moon and its Culmination in the Time of Nabonidus," *Hebrew Union College Annual* (19xx), pp. 443, 461ff., 486.
- 4. *Yoreach* in Hebrew, *Sin* in Assyrian, *der Mond* in German, *Mesiatz* in Russian, and so on.
- 5. Levana in Hebrew, Luna in Latin and several of the Romance languages, as well as Russian, and so on. [Macrobius (Saturnalia VIII. 3) quotes Philochorus as having said that "men offer sacrifices to the moon dressed as women and women dressed as men, because the moon is thought to be both male and female." (Transl. by P. Davies)].





The Pre-Adamite Age

An ancient tradition ascribed the establishment of Moon worship to Adam, the first man. The medieval Arab scholar Abubacer wrote:

They [the Sabaeans] say that Adam was born from male and female, just like the rest of mankind, but they honored him greatly, and said that he had come from the Moon, that he was the prophet and apostle of the Moon, and that he had exhorted the nations that they should serve the Moon. . . . They also related about Adam that when he had left the Moon and proceeded from the area of India towards Babylonia, that he brought many wonders with him. (1)

The Adamites, the ante-diluvial men, were most probably not the first human beings on the planet. Even admitting that by "expulsion from the Garden of Eden" is allegorized a catastrophe which quite destroyed mankind prior to the Deluge, it is impossible to declare that it was the first catastrophe. It depends on the memory of the peoples which catastrophe they consider as the act of creation. Human beings, rising from some catastrophe, bereft of memory of what had happened, regarded themselves as created from the dust of the earth. All knowledge about the ancestors, who they were and in what interstellar space they lived, was wiped away from the memory of the few survivors. The talmudic-rabbinical tradition believes that before Adam was created, the world was more than once inhabited and more than once destroyed.

It was at the end of the first age, symbolized by the expulsion of man from the blessed Garden of Eden, that the moon lost its brightness. It was not just a single human pair—the tradition ascribes to Adam the invention of seventy languages.

Hebrew mythology assigns to the period preceding Adam's expulsion different geophysical and biological conditions. The sun shone permanently on the Earth, and the Garden of Eden, placed in the East, was, it must be conceived, under perpetual rays of the Dawn. The earth was not watered by rain, but mist ascending from the ground condensed as dew upon the leaves. "The plants looked only to the earth for nourishment." Man was of exceedingly great stature: "The dimensions of man's body were gigantic." His appearance was unlike that of later men: "His body was overlaid with a horny skin." But a day came and the celestial illumination ceased: "The sun

The flames of the ever-turning sword terrified Adam (Genesis 3:24). In another legend it is told that the celestial light shone a little in the darkness. And then "the celestial light ceased, to the consternation of Adam." The illumination of the first period never returned. The sky that man was used to see never appeared before him again: "The firmament is not the same as the heavens of the first day." The "day" of Genesis, as I have already noted, is said to be equal to a thousand years.

It was after the fall of man, according to Hebrew tradition, that the sun set for the first time: "The first time Adam witnessed the sinking of the sun, he was seized with anxious fears. All the night he spent in tears. When day began to dawn, he understood that what he had deplored was but the course of nature." It was also then that the seasons began. This is told in the following story: "Adam noticed that the days were growing shorter and

feared lest the world be darkened . . . but after the winter solstice he saw that the days grew longer again."

The earth also underwent changes: "Independent before, she was hereafter to wait to be watered by the rain from above." (4) The variety of species diminished. Man, according to Hebrew legends, decreased in size; there was a "vast difference between his later and his former state—between his supernatural size then, and his shrunken size now." (5) He also lost his horny skin. The whole of nature altered its ways.

- 1. Quoted in Athanasius Kircher, *Turris Babel sive Archonotologia* (Amsterdam, 1679), p. 134.
- 2. "The very angels and the celestial beings were grieved by the transgression of Adam. The moon alone laughed wherefore God . . . obscured her light." Ginzberg, *Legends*, I, 80.
- 3. Ginzberg, Legends, I, 79.
- 4. Ginzberg, Legends, I, 79.
- 5. Ginzberg, Legends I, 76.





Giants

The traditions of peoples all over the world are quite unanimous in asserting that an an earlier time a race of giants lived on the earth, that most of the race were destroyed in great catastrophes; that they were of cruel nature and were furiously fighting among themselves; that the last of them were exterminated when after a cataclysm a migration of peoples brought the forebears of the peoples of today to their new homelands.

The Japanese narrate that when their forefathers after a great catastrophe about two and a half or three thousand years ago, came from the continent and invaded the isles, they found there long-legged, furry giants. These giants were called Ainu. The forefathers of the Japanese were defeated in the first encounter, but in the second encounter they were victorious.

Ixtlilxochitl described the wandering of peoples of the western hemisphere in the four ages of the world. The first age came to its end in the Flood. In the second age, called "the sun of the earthquake," there lived the generation of the giants, which was destroyed in the cataclysm that terminated this age. The third peiord was "the sun of the wind," called so because at the end of this period terrible hurricanes annihilated everything. The new inhabitants of the new world were Ulme and Xicalauca who came from the east to find a foothold at Potouchan: here they met a number of giants, the last survivors of the second catastrophe. The fourth age was called "the fire sun," because of the great fire that put an end to this epoch. At that time the Toltecs arrived in the land of Anahuac, put to flight by the catastrophe: they wandered for 104 years before they settled in their new home.

Also F. L. Gomara in his *Conquista de Mexico*, in the chapter about "cinco soles que son edades," wrote:

The second sun perished when the sky fell upon the earth; the collapse killed all the people and every living thing; and they say that giants lived in those days, and that to them belong the bones that our Spaniards have found while digging mines and tombs. From their measure and proportion it seems that those men were twenty hands tall—a very great stature, but quite certain. (1)

The Hebrew scriptures as preserved in the Old Testament and in the Talmud and Midrashim, narrate that among the races of the world in a previous age were races of giants, "men of great size and tremendous strength and ferocity," who were destroying other races, but also were turning upon each other and destroying themselves.

The Book of Genesis (6: 4) narrates that in the antediluvial time "there were giants in the earth in those days." The Greek Book of Baruch narrates that over four hundred thousand of the race of giants were destroyed by the Flood. After the Flood there were only a few districts where some of them remained alive.

When after a number of centuries another catastrophe ruined the world and the Israelites left Egypt and sent a few men to explore Palestine, those reported that the people of the land were generally of tall stature, and that besides "there we saw the giants, the sons of Anak, which came of the giants, and we were in our own sight as grasshoppers, and so were we in their sight."

This description clearly differentiates between the people of a tall stature and the giants, and the supposition that the Israelites found in Palestine a normal race only taller than themselves, and thought them to be giants, is not supported by the text.

A similar distinction is made in Deuteronomy (1: 28): "The people is greater and taller than we . . . and moreover we have seen the sons of the Anakim [giants] there." they—a few families—lived in Hebron (Numbers 13: 22).

At the time when the Israelites approached the fields of Bashan in the Transjordan, "only Og king of Bashan" remained of the remnant of the giants (Joshua 13:12 and Deut. 3:11). The other individuals of monstrous size had been annihilated in the meantime. "Behold, his bedstead was a bedstead of iron; is it not in Rabbath of the children of Ammon? nine cubits is the length thereof, and four cubits the breadth of it, after the cubit of a man." The text implies that at the time the book of Deuteronomy was written the bedstead of Og was still in existence and was a wonder for the onlookers.

The giants were the remnant of a race close to extinction. Og was "of the remnant of the giants that dwelt in Ashtaroth and Edrel" (Joshua 12: 4). They were also called Emim, or the furious ones. "The Emim dwelt therein [in Moab of the Transjordan] in times past, a people great and many, and tall as the Anakim, which also were accounted giants, as the Anakim; but Moab calls them Emim" (). This branch of the giants was already extinct; but two cosmic ages earlier, in the days of Amraphel, king of Shinar, and Abraham the Patriarch, Eimim flourished in the Transjordan (Genesis 14: 5).

References

1. *Historia de la conquista de Mexico*, (Mexico City, 1943), Vol. II, p. 261.





Nefilim

The present state of the Moon and of Mars and other celestial bodies does not imply that in the past they were equally desolate. Concerning Mars and Moon we have the testimony of our ancestors, supported by modern observations, that these bodies were engaged in near-collisions only a few thousand years ago. It is not excluded that under conditions prevailing on their surfaces prior to these events, life could have developed there or elsewhere in the solar system to an advanced stage.

Working in the early 1940's on *Worlds in Collision*, which in its original form covered also the cataclysmic events preceding the Exodus, I wondered at a certain description that sounded like a visit from space. (1)

The sixth chapter of the book of Genesis starts this way:

And it came to pass, when men began to multiply on the face of the earth, and daughters were born unto them, that the sons of God [bnei Elim] saw the daughters of men that they were fair; and they took them wives of all which they chose. (2)

The story told in Genesis VI about the sons of God (bnei Elim) coming to the daughters of men is usually explained as referring to an advanced priesthood that mingled with backward tribesmen. When Columbus discovered America, the natives, according to the diary of his first voyage, regarded him and his crew as having arrived from the sky. A similar occurrence could have taken place in prediluvial times, when some invaders from a remote part of the world came and were regarded as "sons of God."

But if we are today on the eve of interplanetary travel, we must not declare as absolutely impossible the thought that this Earth was visited, ages ago, by some people from another planet. Or was this earth alone populated by intelligent beings? In my understanding this passage from the book of Genesis is a literary relic dealing with a visit of intelligent beings from another planet.

It appears that the extraterrestrial visitors made their landing as if in advance knowledge of the impending catastrophe of the Deluge. (5) It could be that Jupiter and Saturn were approaching each other ever closer on their orbits and that a disruption of one of them was expected. (6)

Possibly many centuries, or even millennia, passed between the landing and the Deluge. The mission could have been undertaken to ascertain the conditions on Earth. If it was an escape it could also have been from another catastrophe in the solar system, one of those that preceded the Deluge, like the one described as the dethronement and emasculation of Uranus by Kronos. If the ancient legends of a battle between the gods and titans, so persistent in the Greek world, but also in the mythologies of other civilizations, have any historical value, we may try to find what may have been the substratum of this fantasy. It seems that following great convulsions of nature observable in the celestial sphere, giant bodies were hurled on the earth. They arrived burned and were crushed by impact. But at least one group of escapees suceeded in safely reaching the earth. They descended on Mount Hermon or Anti-Lebanon.

biblical traditions dealing with the subject some reach hoary antiquity, antecedent to the composition of the Biblical texts. The Book of Enoch narrates that the group was composed of males only, two hundred in number, under the leadership of one by the name of Shemhazai. (10) The Aggadic literature says that the "sons of God" tried to return to heaven from where they had come, but could not. (11)

The new arrivals were probably of gigantic stature—their progeny with women of the earth were giants:

The Nephilim were on earth in those days, and also afterward, when the sons of God came in to the daughters of men, and they bore children to them. These were the mighty men that were of old, the men of renown. (12)

Having fathered giants, they themselves must have been not of human size. (13)

The planet from which they came I would not know to determine. El would refer to Saturn. (14) The great size of the visitors would suggest a smaller body where the gravitational influence would be less. (15)

Ten thousand years is only an instant in the life of the cosmos; ten thousand years ago man was only in a rude stone age; today he contemplates to visit other planets. If such progress is made in a time as short as this, who knows what secrets are concealed in the past or in the future?

- 1. Because the story seemed so fantastic, I made up my mind at that time not to publish anything on the subject when discussing the Deluge and still earlier events. I came to this idea in 1940-41. In the 1950's many people reported sighting UFO's, which were claimed to be vehicles of visitors from other planets (a view which does not find any credence with me). In 1957 the space age began, and by the late 1960's, when the proposal that there were ancient visitors to Earth from other star systems found its way into print, the idea provoked little ridicule.
- 2. Genesis 6:1-2
- 3. Cf. S. R. Driver, *The Book of Genesis*, 6th ed. (New York, 1907), pp. 82f. [J. Morgenstern, however, considered them to be heavenly beings ("The Mythological Background of Psalm 82," *Hebrew Union College Annual* XIV, 1939, p. 95.)]
- 4. The Journal of Christopher Columbus, tr. by C. R. Markham (London, 1893)—October 14th, 1892: "They asked us if we had come from heaven. One old man came into the boat . . . to come and see the men who had come from heaven.
- 5. Their story in fact precedes that the of Deluge in the Scriptures.
- 6. [Later in this book Velikovsky traces the cause of the Deluge to a disruption of Saturn by Jupiter. See below, Part II: Saturn and the Flood.]
- 7. [Velikovsky seems to be referring to the passage in Ovid's *Metamorphoses* describing the crushed bodies of the defeated giants: "The terrible bodies of the giants lay crushed beneath their own massive structures." Transl. by M. Innes (London, 1955)]

- 8. [Analogous accounts are reported from the New World. Cf. the Inca account recorded by Pedro Cieza de Leon in the fifty-second chapter of his *La Cronica del Peru*.]
- 9. In 1960 a Russian physicist and mathematician, M. Agrest, came to the conclusion that the Baalbek stone was a platform for ascent by ancient space travelers, and that Sodom and Gomorrah were destroyed by atomic weapons. (*Literarnaya Gazeta*, February 9th, 1960). At the time I saw some alluring points in this thesis—but I would strongly question the implication that extraterrestrial visitors came to Earth as late as the Old Kingdom in Egypt, because this is the time to which the Patriarch Abraham, a contemporary of the destruction of Sodom and Gomorrah, belongs.
- 10. The Book of Enoch VI. 6-7, transl. by R. H. Charles (Oxford, 1912).
- 11. Ginzberg, Legends V. 172; Aggadat Bereshit.
- 12. Genesis 6:4
- 13. Previously several correspondents engaged me on the subject; one correctly observed that in order to procreate the visitors must have been of the same species as man.
- 14. [Eusebius, *Praeparatio Evangelica* IV. xvi; *bnei Elim* would more correctly be rendered as "Sons of the Gods" and may possibly be taken in the sense of "Sons of the Planets," or "Those who Came from the Planets."]
- 15. [Several sources, including *The Book of Enoch* and Clement of Alexandria (*Eclog. Proph.* iii. 474, Dindorf ed.) maintain that the Nefilim brought with them much astronomical and technical knowledge which they imparted to mankind.]





Astronomical Knowledge Before the Deluge

In the Deluge a civilization was destroyed the real value of which is incalculable. Hebrew tradition estimates that the population of the ante-diluvian world "amounted to millions." Adam is said to have invented seventy languages; Cain, his son, built cities and monuments and ruled over kings. They were representatives of generations. According to Hebrew legends the Deluge and its time had already been predicted by Enoch, and even more ancient generations were said to have erected tablets with calendric and astronomical calculations predicting the catastrophe. This might have been the knowledge of months, of years, and of the periods of comets that the remote generations had acquired.

It was in the celestial harmony and disharmony that the secrets of the upheavals were conceived to lie. The science about the times in which calamity could return and fall on our Earth was cultivated among populations that had a vivid remembrance of days of misfortune or of lucky escape.

It is told about the children of Seth, the son of Adam, that

they were the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies and their order.

And that their inventions might not be lost before they were sufficiently known, they made two pillars upon Adam's prediction that the world was to be destroyed at one time by the force of fire and at another time by the violence and quantity of water.

The one was of brick, the other of stone, and they inscribed their discoveries on both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit these discoveries to mankind and also inform them that there was another pillar, of brick, erected by them. (2)

This means that stelae with calendric and astronomical calculations were made public knowledge in that early age. According to the Aggada it was the pious Enoch (the seventh generation) who achieved the deepest knowledge of the celestial secret. He was the man who "walked with God: and he was not; for God took him." (3) In this ascension to heaven was taken away the man who more than any other knew the plan of the world and of its creation. Enoch was a great man of his generation.

Kings and princes, not less than one hundred and thirty in number, assembled about him, and submitted themselves to his dominion, to be taught and guided by him. Peace reigned thus over the whole world for all the two hundred and forty three years during which the influence of Enoch prevailed.

In the story of Enoch's ascension it is said that he predicted the disaster.

Enoch was carried into the heavens in a fiery chariot drawn by fiery chargers. The day thereafter the kings who had turned back in good time sent messengers to inquire into the fate of the men who had refused to separate themselves from Enoch, for they had noted the number of them. They found snow and great hailstones upon the spot whence Enoch had risen, and, when they searched beneath, they discovered the bodies of all who had remained behind with Enoch; he alone was not among them: he was high in heaven.

What the Aggada means to tell is that a human being—and one gifted with the greatest "wisdom concerning the heavenly bodies and their order," was brought away in a fiery storm which killed many, brought snow and meteorites, and which had been predicted by the one who disappeared.

Some exact knowledge of the revolution of the bodies in the sky is ascribed here to the antediluvian generations.

- 1. It is said that the real period of grace endured not for seven days, but for 120 years. During this time the flood was over mankind as a threat. (Sanhedrin 108b)
- 2. Josephus, *Antiquities of the Jews* II. 8, borrowed by Yashar Bereshit 10a.
- 3. Genesis 5. 24.

