



Deluge

The scriptural deluge is regarded by historians and critical exegetes as a legendary product. “The legend of a universal deluge is in itself a myth and cannot be anything else.” ⁽¹⁾ It is “most nakedly and unreservedly mythological.”

The tradition of a universal deluge is told by all ancient civilizations, and also by races that never reached the ability to express themselves in the written symbols of a language. It is found all over the world, on all continents, on the islands of the Pacific and Atlantic, everywhere. Usually it is explained as a local experience carried from race to race by word of mouth. The work of collating such material has repeatedly been done, and it would only fatigue the reader were I to repeat these stories as told in all parts of the world, even in places never visited by missionaries. ⁽²⁾

The rest of the collected traditions are also not identical in detail, and are sometimes very different in their setting from the Noah story, but all agree that the earth was covered to the mountain tops by the water of the deluge coming from above, and that only a few human beings escaped death in the flood. The stories are often accompanied by details about a simultaneous cleavage of the earth. ⁽³⁾

In pre-Columbian America the story of a universal flood was very persistent; the first world-age was called Atonatiuh, or the age that was brought to its end by a universal deluge. This is written and illustrated in the ancient codices of the Mexicans and was narrated to the Spaniards who came to the New Continent. ⁽⁴⁾ The natives of Australia, Polynesia, and Tasmania, discovered in the seventeenth century, related almost identical traditions. ⁽⁵⁾

Clay tablets with inscriptions concerning the early ages and the deluge were found in Mesopotamia. Their similarity to the biblical account, and to the story of the Chaldean priest Berosus ⁽⁶⁾ who lived in the Hellenistic age, caused a great sensation at the end of the last century and the beginning of the current one. On this sensational discovery was based the sensational pamphlet *Babel und Bibel* by Friedrich Delitsch (1902) who tried to show in it that the Hebrews had simply borrowed this story, along with many others, from the Babylonian store of legends.

But if here and there the story of the flood could be said to have been borrowed by the scriptural writer from the Babylonians, and by some natives from the missionaries, in other cases no such explanation could be offered. The indigenous character of the stories in many regions of the world makes the borrowing theory seem very fragile.

Geologists see vestiges of diluvial rains all over the world; folklorists hear the story of a universal flood wherever folklore is collected; historians read of a universal flood in American manuscripts, in Babylonian clay tablets and in the annals of practically all cultured peoples. But the climatologists make it very clear that even should the entire water content of the atmosphere pour down as rain, the resulting flood could not have covered even the lowland slopes, far less the peaks of the mountains, as all accounts insist that this deluge did.

References

1. A. Loisy, *Les mythes babyloniens et les premiers chapitres de la genese* (Paris, 1901).
2. R. Andree, *Die Flutsagen* (1891); Sir J.G. Frazer, *Folk-lore in the Old Testament* (London, 1918); M. Winternitz, *Die Flutsagen des Alterthums und des Natuervoelker*
3. E.g., the Malaya story in Andree, *Die Flutsagen*, p. 29. s
4. [Cf. the Vatican Codex, first published by Humboldt, and the accounts of Ixtlilxochitl and Veytia among others.]
5. [Cf. A. C. Caillot, *Mythes, legendes, et traditions des Polynesiens* (Paris, 1914); H. H. Howorth, *The Mammoth and the Flood* (London, 1887), pp. 455ff.]
6. Berosus' story of the Deluge is quoted in Eusebius' *Praeparatio Evangelica* Bk. IX, ch. 12, and in Cyril's *Contra Julianum*, Bk. I.





William Whiston and the Deluge

The years 1680 and 1682 were years of unusually bright comets. Many pamphlets were printed, especially in Germany, on the imminent end of the world; at the very least, great catastrophes were expected. There was nothing new in such prognostications. In earlier centuries and also earlier in the seventeenth century, comets were regarded with awe and every possible evil effect was ascribed to them. Thus a scholarly author, David Herlicius, published in 1619 a discourse on a comet that had appeared shortly before, in 1618, and enumerated the calamities that this comet, and comets in general, bring with them or presage:

Desiccation of the crops and barrenness, pestilence, great stormy winds, great inundations, shipwrecks, defeat of armies or destruction of kingdoms . . . decease of great potentates and scholars, schisms and rifts in religion, etc. The portents of comets are threefold—in part natural, in part political, and in part theological.⁽¹⁾

David Herlicius also quoted Cicero: “From the remotest remembrance of antiquity it is known that comets have always presaged disasters.”⁽²⁾

The fear and even horror caused by the comet of 1680 was just beginning to calm down when in 1682 another great comet appeared.

Edmund Halley was twenty-six years old when this comet of 1682 appeared. He had experience in astronomical observations and calculations, having spent time on the island of St. Helena, cataloguing there 341 southern stars; he had observed the transit of Mercury, and made pendulum observations. Now he calculated the orbit of the comet of 1682, and predicted its return in 1759. Actually, the periodicity of comets was not first discovered by Halley. The ancient authors knew that comets have their time of revolution. Seneca wrote in his treatise *De Cometis*—in some respects still the most advanced discussion of this subject—that the Chaldeans counted the comets among the planets.⁽³⁾ A comet with a periodicity of about 70 years was known to the rabbis.⁽⁴⁾

Nevertheless, only little aware of the works of the ancients, the modern world acclaimed Halley to be the discoverer of the periodicity of comets; however, this acclaim came only after his prognostication realized itself. The comet of 1682, or Halley’s comet, returned in 1759. It came somewhat retarded on account of its passage near the planets Jupiter and Saturn. This delay had been calculated, though not quite accurately, by Halley. On the grave of Halley these words are engraved: “Under this marble peacefully rests . . . Edmundus Halleius, LL.D., unquestionably the greatest astronomer of his age.”

But when Halley offered his theory of the periodicity of comets, and of the return of the observed comet after seventy-five years, this theory was not received immediately with enthusiasm. Yet in the mind of a contemporary mathematician the idea of a periodic return of comets was the beginning of a broadly-developed theory of the origin of the world and of the nature of the deluge.

William Whiston, born in 1667, published in 1696 his *New Theory of the Earth*. In this book he claimed that the comet of 1682 was of a 575&half

year periodicity; that the same comet had appeared in February of 1106, in +531 in the consulate of Lampadius and Orestes, and in September of -44, the year of Caesar's assassination.⁽⁵⁾ Whiston further asserted that this comet had met the earth in -2346, and caused the Deluge.⁽⁶⁾

Whiston found in classical literature references to the change in inclination of the terrestrial axis and, ascribing it to a displacement of the poles by the comet of the Deluge, concluded that before this catastrophe the planes of daily rotation and yearly revolution coincided and that, therefore, there had been no seasons. He also found references to a year consisting of 360 days only, and although the Greek authors referred the change to the time of Atreus and Thyestes, and the Romans to the time of Numa, ca. -700, Whiston ascribed these changes to the effect of the Earth's encounter with the comet of the Deluge. Whiston thought that the Earth itself was once a comet.

Whiston was chosen by Isaac Newton to take over his chair of mathematics at Trinity College in Cambridge when Newton, after many years, retired in order to dedicate himself to the duties of the president of the Royal Society. Whiston, like Newton, was a Unitarian. He was also close to being a fundamentalist. He was certain that only one global catastrophe was described in the Scripture—that of the Deluge. Of the phenomenon described in the book of Joshua, he wrote: "The Scripture did not intend to teach men philosophy, or accomodate itself to the true and Pythagoric system of the world."

It is difficult to say what caused Newton, who selected Whiston as his successor, to oppose Whiston's election to the membership of the Royal Society. We have another similar instance a century later, when Sir Humphry Davy, the mentor of Michael Faraday, conducted a strenuous campaign to keep Faraday from being admitted to the Royal Society, of which Davy was president.

But the very idea of a periodicity of comets, gleaned by Whiston from Halley, was not yet accepted. In 1744 a German author wrote: "It is well known that Whiston and others like him who wish to predict the comings and goings of comets, deceive themselves, and have become an object of ridicule by the entire world."⁽⁷⁾

Still later Whiston was ridiculed by Georges Cuvier, himself a proponent of a catastrophist theory:

Whiston fancied that the earth was created from the atmosphere of one comet, and that it was deluged by the tail of another. The heat which remained from its first origin, in his opinion, excited the whole antediluvian population, men and animals, to sin, for which they were all drowned in the deluge, excepting the fish, whose passions were apparently less violent."

References

1. "Ausduerrung des Erdbodens und unfruchtbarkeit, Pestilenz, grosse mechtige Sturmwinde, Erdleiden, grosse Wasserfluthen, Schiffbruch, verenderung der Regimenten, oder verstoerung der Koenigreich . . . abgang grosser Potentaten und gelaerter Leute, Rotten und Secten in Religion, etc. Sind also die significationes oder Bedeutungen der Cometen dreyerley, etliche sind Naturales oder natuerlich, etliche Political oder weltlich, etliche Theological oder gestlich."
2. Cicero, *De Natura Deorum*: "Ab ultima antiquitatis memoria notatum cometas semper calamitatum praenuntios fuisse." The

Pythagoreans believed that great comets appear at great intervals of time. Posidonius, Fg. 131b, L. Edelstein and I. G. Kidd eds., (Cambridge, 1972), p. 123.

3. *Quaestiones Naturales* IV.1. The same opinion was ascribed to Hippocrates.
4. In the second century of this era, Rabbi Joshua said “There is a star which appears every 70 years and misleads the captains of boats.” It has been suggested that this statement is a reference to Halley’s comet. (W. M. Feldman, *Rabbinical Mathematics and Astronomy* (New York, 1931), pp. 11, 216.
5. [The 575&half year periodicity of the comet of 1682, and its previous returns beginning in -44, were first proposed by Halley and accepted by Newton (*Philosophiae Naturalis Principia Mathematica* third ed., 1726, Book III, Proposition XLI, Problem XXI).]
6. “The Cause of the Deluge Demonstrated, being an Appendix to the 2nd edition of the *New Theory of the Earth*” (London, 1708). Whiston changed the date calculated by the earlier cometographers so as to have a multiple of 575½ years. David Rockenbach, Seth Calvisius, and Christopher Helvicus had fixed the date at -2292, and Henricus Eckstormius and David Herlicius at -2312.
7. S. Suschken, *Unvorgreifliche Kometen-Gedanke* (1744), p. 8. “Gewiss ist es, dass Whiston und andere, welche den Auf- und Untergang der Cometen vorher sagen wollen, sich selbst betrogen, und vor aller Welt zu Spott gemacht haben.”





Deluge and Comet

The idea that a comet heralded the Deluge was not new with William Whiston: it is found in several earlier authors, the so-called cometographers and chronologists of the seventeenth century. But they only described the appearance of the comet at the time of the Deluge as a matter of fact, and did not deduce any theory from it. No causal relation was seen: it was more in the nature of a coincidence. New in Whiston was the identification of the comet of 1680 as the comet of the Deluge, and the perturbatory effects on the position and motion of our planet, ascribed by him to the activities of the comet; finally, his general theory that the Earth itself was once a comet.

The author whom Whiston names as his source was J. Hevelius, whose *Cometographia* was published in 1668. Apparently Whiston did not go further back to the sources of Hevelius: to Abraham Rockenbach (15 -16), Seth Calvisius (1556-1615), Henricus Ecstormius, Christopher Helvicus (1581-1617) and David Herlicius (1557-1636).⁽¹⁾ Abraham Rockenbach was a scholar of the late Renaissance, a man of broad interests, already evident from that fact that he occupied both, the chair of Greek and of Mathematics at the University of Frankfurt, and later taught law and became Dean of the Philosophical College at that University. In 1602 he published a short treatise in Latin, *De cometis tractatus novus methodicus*, and in it he had the following entry concerning the Deluge:

In the year of the creation of the world 1656, after Noah had attained the age of 600 years, three days before the death of Methusalem, a comet appeared in the constellation Pisces, was seen by the entire world as it traversed the twelve signs of the zodiac in the space of a month; on the sixteenth of April it again disappeared. After this the Deluge immediately followed, in which all creatures which live on earth and creep on the ground were drowned, with the exception of Noah and the rest of the creatures that had gone with him into the ark.

About these things is written in Genesis, chapter 7.⁽²⁾

Rockenbach lived and wrote nearly a hundred years before Whiston. What were Rockenbach's sources? He did not let us know. He referred to them at the beginning of his treatise, claiming that it was based on information *ex probatissimis & antiquissimis veterum scriptoribus*—"from the most trustworthy and the most ancient of the early writers." We have already had occasion to quote from Rockenbach in connection with the comet that shone during the Exodus.⁽³⁾ There he refers only to Pliny, although he probably used other sources besides: Lydus, Servius, Hephaestion, and Junctinus wrote about comets, and Servius mentions also the writings of Campester and Petosiris.

Although we may never be certain of the sources on which Abraham Rockenbach and other cometographers drew in mentioning a comet in connection with the Deluge, the great medieval rabbinical authority Rashi was probably among them.⁽⁴⁾ Rashi wrote concerning *Khima*, a celestial body mentioned in Job 9:9 and 38:31, and in Amos 5:8, that it is "a star with a tail," or a comet. In the Talmud, *Khima* is associated with the Deluge, and this seems to have been the source of the cometographers' assertion that a comet appeared in conjunction with that event.

The question now is, what was Khima, and what was its role in the Deluge? Was it really a comet as Rashi thought?

References

1. Herlicius wrote in 1619 (*Kurzer Discurs vom Cometen, etc.*): “*Man liest in den Historien dass im God. Jahr Alters Nohae, in welchem die Strafreife Welt mit der Suendfluth vordorben, ein Comet in der Fischen erschienen sey unter der Gubernation Jovis, welcher 29 Tagen alle Signa oder Zeichen des Zodiacs durchgangen, und aller Welt Erschienen sey.*”
2. *Anno a conditu mundi, millesimo, sexcentesimo, quinquagesimo sexto, postquam Noa annum aetatis sexcentimum attingit, triduo ante obitum Methusalem, Cometa in duodecatemorio piscium, a toto terrarum orbe, conspectus est, quid duodecim signa coeli, unius mensis spatio percurrit, dicimq; sexto Aprilis die rursus evanuit. Post hunc, diluvium statim secutum est, in quo omnia viventia humiq; serpentina animalia, Noa excepto, reliquisque creaturis cum Noa in arcam ingressis, suffocata sunt. De quibus Genesism cap. 7 scriptum est.*
3. *Worlds in Collision*, section “The Comet Typhon.”
4. “Rashi” is an abbreviation for Rabbi Isaac ben Solomon; he lived in the south of France in the eleventh century. His commentary to the Bible and to some parts of the Talmud is still regarded as the most authoritative in the field of rabbinical knowledge, which has great authorities in every one of the twenty centuries since the beginning of rabbinical learning. Till today Rashi’s commentary is supplied to many Hebrew editions of the Scriptures and Talmud, with supracommentary on Rashi by later authorities added as well.





Khima

In the Tractate Brakhot of the *Babylonian Talmud* it is said that the Deluge was caused by two stars that fell from Khima toward the earth. The statement reads:

When the Holy One . . . wanted to bring a flood upon the world,
He took two stars from *Khima* and brought a flood upon the world.

[\(1\)](#)

I have already mentioned that Rashi, the medieval exegete whose authority is unsurpassed among the rabbis, says that in the quoted sentence Khima means a star with a tail, or a comet. This explanation found its way into the works of several gentile theologians.[\(2\)](#) Should it be understood so that two large meteorites fell from a comet and falling on Earth caused tidal waves? Instances when meteorites fell while a comet was glowing in the sky are known, and the classic case is found in Aristotle.[\(3\)](#) Should a meteorite equal in mass to the one which by its impact formed the Arizona crater fall into the ocean, tidal waves of a wide spread would result, possibly circling the globe. Then are we to understand the Deluge as a huge tidal wave rushing across the continents? This picture differs widely from the story in Genesis, according to which water was falling for a long period from the sky and the waters of the depths rose, covering the surface of the earth.

The Tractate Brakhot so explicitly points to the cause of the Deluge that before classifying the narrative in Genesis in its entirety as folkloristic imagery (which in part it most certainly is), and also before following Rashi's idea any further, we ought to inquire: Which celestial body is Khima? Is it correctly explained as a comet?

In the Old Testament Khima is mentioned in several instances. In Job, Chapter 9, the Lord is He who "removes the mountains . . . and overturns them . . . and shakes the earth out of her place . . . which commands the sun and it rises not . . . which alone spreads the heaven . . . which makes Aish and Kesil, and Khima, and the chambers of the south . . ." In the King James Version these names are translated as Arcturus, Orion, and Pleiades. Chambers of the South are usually explained as constellations of the south.

Khima and Kesil are also named in Job, chapter 38, here again in a text that deals with the violent acts to which the Earth was once subjected: ". . . Who shut up the sea with doors [barriers], when it brake forth, as if it had issued out of the womb? . . . [Who] might take hold of the ends of the earth, that the wicked might be shaken out of it? . . ." The Lord asks Job: "Canst thou bind the chains [fettters] of Khima and loosen the reins of Kesil? Canst thou lead forth the Mazzaroth in its season? . . ." Davidson and Lanchester wonder at the meaning of this passage: like the King James Version they translate Pleiades for Khima and Orion for Kesil.[\(4\)](#) Mazzaroth is left untranslated.

In Amos, chapter 5, once more, Khima and Kesil are mentioned in a verse that reveals the great acts of the Lord who "makes Khima and Kesil, and turns the shadow of death into morning, and makes the day dark with night: that calls for the waters of the sea, and pours them upon the face of the earth. . . ."

Hieronymus, also known as St. Jerome, the fourth century author of the *Vulgate*, the Latin version of the Old Testament, translates Khima as Arcturus

in one instance (Amos 5), as Pleiades in another (Job 38), and as Hyades in the third (Job 9):

	KHIMA	KESIL	AISH
Job 9:9	Hyades	Orion	Arcturus
Job 38:31	Pleiades	Arcturus	
Amos 5:8	Arcturus	Orion	

Similarly Kesil was translated by the *Septuagint*, the Greek version of the Old Testament that dates back to third century before the present era, as Hesperus, or the Evening Star, and in another instance as Orion. Aish, translated as Arcturus in the Vulgate, is rendered as Pleiades by the Septuagint:

	KHIMA	KESIL	AISH
Job 9:9	Arcturus	Hesperus	Pleiades
Job 38:31	Pleiades	Orion	
Amos 5:8	not given	not given	

Obviously the true meaning of these names was lost, because one and the same authority in various instances used different star constellations or planets for each of them: Kesil, Khima, Mazzaroth, Aish. Later interpreters groped in the dark; so Calmet, the eminent French commentator and exegete of the early eighteenth century translated Khima as Great Bear.⁽⁵⁾ Others rendered it as Sirius (Canis Major).

The interpreters were especially intrigued by the description in Job 38. The Lord asks Job whether he can bind the chains of Khima or loosen the reins of Kesil. “The word in the second clause is from a root always meaning to draw . . .”⁽⁶⁾ Which star is in chains? And which star is drawn by reins, as if by horses?

The identities of Khima and Kesil, Aish and Mazzaroth, were of lesser importance when it amounted to finding their meaning for their own sake in the poetical sentences of Amos and Job. But such identification, especially of Khima, grows in importance if the quoted sentence from the Tractate Brakhot may contribute to an understanding of the etiology of the Deluge, as the ancients knew or thought to know it.

In *Worlds in Collision* I have already explained that Mazzaroth signifies the Morning (Evening) star; the Vulgate has Lucifer for Mazzaroth and the Septuagint reads: “Canst thou bring forth Mazzaroth in his season and guide the Evening Star by his long hair?” I have already shown why the Morning-Evening star was described as having hair or coma, and why Venus did not appear in its seasons.

Apparently the other members of the group were planets, too. And actually we could have started by the disclosure that in the rabbinical literature Khima is referred to as Mazal Khima.⁽⁷⁾ In Hebrew *mazal* means “planet.” Then which planet is Khima? If we can find out which of the planets is Khima, then we may know also to which planet the Talmud assigned the physical cause of the world inundation. As we have seen, the Biblical texts by themselves do not contain the means to determine which of the planets Khima and Kesil are.

“Were it not for the heat of Kesil the world could not endure the cold of Khima; and were it not for the cold of Khima, the world could not endure the heat of Kesil.” This sentence is found, too, in the *Babylonian Talmud*, in the Tractate Brakhot.⁽⁸⁾

Kesil means in Hebrew “fool.” From the biblical texts it is not apparent why one of the planets received this adverse name, or, why, more probably, the word “fool” was derived from the name of the planet.⁽⁹⁾

In the *Iliad* Ares-Mars is called “fool.” Pallas Athena said to him: “Fool, not even yet hast thou learned how much mightier than thou I avow me to be, that thou matchest thy strength with mine.”⁽¹⁰⁾ These words explain also why Mars was called fool: it clashed repeatedly with the planet-comet Venus, much more massive and stronger than itself. To the peoples of the world this prolonged combat must have appeared either as a very valiant action on the part of Mars, not resting but coming up again and again to attack the stupendous Venus, or it must have appeared as a foolish action of going again and again against the stronger planet. Homer described the celestial battles as actions of foolishness on the part of Mars. Thus Kesil, or “fool,” among the planets named in the Old Testament, is most probably Mars.

In Pliny we find a sentence which reads: “The star Mars has a fiery glow . . . owing to its excessive heat and Saturn’s frost, Jupiter being situated between them combines the influence of each and renders it healthy.”⁽¹¹⁾ The heating effect ascribed in the Talmud to Kesil is ascribed by Pliny to Mars, and the cooling effect of Khima to Saturn. By this sentence of Pliny we are strengthened in our identification of Kesil as the planet Mars; it corroborates the conclusion we just made with the help of the *Iliad*. But what is even more important, Pliny helps to identify the “planet Khima” : it is Saturn.

Cicero also wrote that “Saturn has a cooling influence,” whereas Mars “imparts heat.”⁽¹²⁾ Porphyry, an author of the third century, wrote similarly with Pliny and Cicero: “The power of Kronos [Saturn] they perceive to be sluggish and slow and cold. The power of Ares [Mars] they perceive to be fiery.”⁽¹³⁾

Porphyry’s contemporary Plotinus wrote: “When the cold planet [Saturn] is in opposition to the warm planet [Mars], both become harmful.”⁽¹⁴⁾ Other statements to the same effect are found in Vitruvius,⁽¹⁵⁾ and Proclus.⁽¹⁶⁾ In these sentences, as in those of Pliny and of the Talmud, Mars is regarded as being a fiery planet,⁽¹⁷⁾ Saturn as being a cold planet.⁽¹⁸⁾

The passage in the Book of Job (38:31) can now be read: “Canst thou bind the bonds of Saturn and loosen the reins of Mars?” The bonds of Saturn can be seen even today with a small telescope. The reins of Kesil I discussed in *Worlds in Collision*, section “The Steeds of Mars.” The two small moons of Mars, Phobos and Deimos, were known to Homer⁽¹⁹⁾ and are mentioned by Vergil.⁽²⁰⁾ They were regarded by the peoples of antiquity as steeds yoked to Mars’ chariot.

The passage in the Talmud that makes the planet Khima responsible for the Deluge means: “Two stars erupted from the planet Saturn and caused the Deluge.”

References

1. Tractate Brakhot (Seder Zerafim) chapter IX, Fol. 59a, transl. by Maurice Simon, ed. by I. Epstein (London, 1948).
2. Cf. for instance J. B. Wiedeburg, *Astronomische Bedenken ueber die Frage ob der vorstehende Untergang der Welt natuerlicher Weise entstehen, insbesondere durch Annaeherung eines Cometen zur Erde werde befoerdert werden.* (Jena, 1744), pp. 80, 157.
3. The meteorite fell at Aegospotami, near the Bosphorus. See Spyridon Marinatos, *Two Interplanetary Phenomena of 468 B.C.* (Athens, 1963).

4. A. B. Davidson suppl. by H. C. Lanchester, to Job 38:31 in *The Cambridge Bible* (Cambridge, 1926).
5. Augustin Calmet, *Commentaire littéral sur tous les livres de l'ancien et du nouveau Testament*, “Les XII petits prophètes” (Paris, 1715).
6. *The Cambridge Bible*.
7. Jacob Levy, *Woerterbuch ueber die Talmudim und Midrashim* 2nd ed. (Berlin, Vienna, 1924): entry “Khima.”
8. *Op. cit.*, Fol. 58b.
9. S. R. Driver to Amos 5:8 in *The Cambridge Bible* (Cambridge, 1918).
10. *Iliad*, Book XXI, line 400.
11. Pliny, *Natural History II. 34*: “*Saturni sidus gelidae ac rigentis esse naturae . . . tertium Martis ignei, ardentis a solis vicinitate . . . hujus ardore nimio et rigore Saturni, interjectum duobus ex utroque temperari Jovem salutarmque fieri. . .*”
12. *De Natura Deorum II. 46*.
13. L. Thorndike, *A History of Magic and Experimental Science* Vol. I (New York, 1920), p. 43.
14. Plotinus, *Is Astrology of Value?* transl. by K. Guthrie (London, 1918). [Similarly wrote the astrologer Dorotheus—see J. Haeg in *Hermes XLV* (1910), pp. 315-319. In Babylonian astrology the conjunction of the two planets was deemed favorable (J. Oppert, *Fragments mythologiques* (Paris, 1882), p. 37.)
15. *De Architectura IX. 1*, par. 16: “*Martis stella, itaque fervens ab ardore solis efficitur. Saturni autem . . . vehementer est frigida. Ex eo Iovis cum inter utriusque circumitiones habeat cursum, a refrigeratione caloreque earum medio convenientes temperatissimoque habere videtur effectus.*”
16. Proclus Diadochus, *In Timaeo* Vol. IV, p. 92: “The Stars” iii.1.: “Saturn and Mars are the extremes and in opposition to one another . . . one being the principle of cooling, the other of heating . . . Jupiter holds the center and brings to a happy mix the creative activities of the other two.” [Cf. also Proclus’ summary of the system of Philolaos in his *In Euclide I. 402. 21*: “Cronos in fact sustains all humid and cold substances, and Ares all the nature of fire.”]
17. The other name for Mars in rabbinical Hebrew—Maadim—signifies “red” or “reddening.” Mars has a reddish color.
18. [These astrological qualities of the two planets are described at length in Ptolemy’s *Tetrabiblos II.9*. Cf. R. Klibansky, E. Panofsky, and F. Saxl, *Saturn and Melancholy* (London, 1964); also D. Cardona, “The Mystery of the Pleiades,” *KRONOS* Vol. 3 no. 4 (1978), pp. 24-44.]
19. *Iliad XV. 119-120*.
20. *Georgica III. 91*: “*Martis equi biiuges.*”





Saturnian Comets

Before searching ancient traditions for any possible association of Saturn with the Deluge, let us notice that the idea that Saturn may have anything to do with the origin of some of the comets of the solar system is not without a theoretical foundation. A group of short-period comets carries the name of “Saturnian family of comets” ; they revolve on ellipses that approach closely the orbit of Saturn. A larger family of short-period comets carries the name “Jovian” and Jupiter is regarded as having something to do with their origin: their orbits come close to the orbit of Jupiter.

The usual explanation for the Saturnian and Jovian families of comets is that they had originally traveled on extremely elongated or even parabolic orbits and, passing close to one of the large planets, were changed into short-period comets, traveling on ellipses—it is usual to say that they were “captured.” However, the Russian astronomer K. Vshekhsviatsky of the Kiev Observatory, one of the leading authorities on comets, has brought strong arguments to show that the comets of the solar system are very youthful bodies—only a few thousand years old—and that they originated in explosions from the planets, especially from the major planets Saturn and Jupiter or their moons. By comparing the observed luminosity of the periodic comets on their subsequent returns, he found it failing and their masses rapidly diminishing by loss of matter to the space through which they travel; the head of the comet emits tails on each passage close to the sun and then dissipates the matter of the tails without recovery. Thus Vshekhsviatsky concluded that comets of short duration originated in the solar system, were not captured from outside of that system—a point to which the majority of astronomers still adhere—and that they came into existence by explosion from Jupiter and Saturn, and to a smaller extent by explosion from the smaller planets, like Venus and Mars. [\(1\)](#)

In order to originate in this manner from a planet the exploded mass must overcome the gravitational pull of the parent body; the larger the mass of the planet, the greater must be the initial velocity of the exploding matter, the velocity of escape. For this reason the idea of explosion of comets from the planets is preferred to the idea of their explosion from the sun. Due to the great mass of the sun the velocity of escape from there must be in the approximation of xxx kilometers in the first second, and from Saturn only 35 km. But even these velocities are rather high, so that Professor Vshekhsviatsky acknowledged that there must have been unusual circumstances which he did not try to determine, but the existence of which he claimed on the basis of the effects produced, namely the short-lived comets reaching to the orbits of Jupiter and Saturn every time these comets recede from the sun to their farthest points (*aphelia*). [\(2\)](#)

The sentence in the Tractate Brakhot that ascribes the cause of the Deluge to the cometary bodies that erupted from the planet Saturn no longer appears as fantastic as when we first understood the meaning of Khima in that sentence.

The explosion of cometary bodies from Saturn and Jupiter is claimed on the basis of purely astronomical observations and calculations; the circumstances of such explosions must have been admittedly extraordinary; the time when this happened must be measured in thousands of years, not tens of thousands or millions. Will we also be able to establish with the help of collective human memory what were the extraordinary conditions?

But should we not first, as intended, place ourselves on firmer ground by showing that the statement in the Tractate Brakhot is not a lone testimony unsupported in the traditions and beliefs of the ancient races of the world?

References

1. K. Vshekhsviatsky, *Publications of the Astronomical Society of the Pacific* Vol. 74 (1962), p. 106.
2. [Su-ma Chien, the Chinese historian (ca. -145 to ca -80) wrote that the planet Jupiter, “if it is not in the place where it should be” may produce different types of cometary bodies. (*Les gouverneurs du ciel*, transl. by E. Chavannes). The origin of comets from conjunctions of planets was postulated by several Greek philosophers, among them Democritus and Anaxagoras. (Aristotle, *Meteorologica* I, 6; Diogenes Laertius; Seneca, *Quaestiones Naturales*).]





Saturn and the Deluge

Following the rabbinical sources which declare that the Deluge was caused by two comets ejected by the planet Khima, and our interpretation of the planet Khima as Saturn, we begin to understand the astrological texts, such as certain passages in the *Tetrabiblos* of Ptolemy, which attribute to the planet Saturn floods and all catastrophes caused by high water.⁽¹⁾

The planet's presence in Aquarius especially brought expectations of heavy rains and flooding⁽²⁾ as is attested, among others, by the first-century Roman author Lucan.⁽³⁾ Many of the ancient astrologers were in agreement on this point.⁽⁴⁾ In a work entitled *Speculum astrologiae*, Junctinus ascribes inundations to the action of Saturn's comets.⁽⁵⁾ Cuneiform texts contain prophecies of a deluge taking place when a comet assumes a direction with its head towards the Earth.⁽⁶⁾

Philosophers of antiquity who were not astrologers also expressed their belief that Saturn is in some way related to moisture—among them the pre-Socratics Philolaus and Philodemus,⁽⁷⁾ and, somewhat later, Plato.⁽⁸⁾ The elder Pliny wrote in his *Natural History* that it is well known that heavy rains follow transitions of Saturn.⁽⁹⁾ Servius asserted that “Saturn is a god of rains When in the sign of Capricorn, he causes very heavy rains, especially in Italy”⁽¹⁰⁾ and again: “Saturn is the god of all that is humid and cold.”⁽¹¹⁾ Proclus recorded the beliefs of the Pythagoreans: “Again, in the heavens, Ares is fire, Jupiter air, Kronos water.”⁽¹²⁾ Nonnos referred to “ancient Kronos, heavy-kneed, pouring rain.”⁽¹³⁾ Hippolytus wrote of the beliefs of a member of the Peratae sect: “But water, he says, is destruction; nor did the world, he says, perish by any other thing quicker than by water. Water, however . . . they assert (it to be) Cronus.”⁽¹⁴⁾ We recognize that the astrological connection between Saturn and catastrophes created by high water has a very ancient origin.

In the Chaldean story of the Deluge, as told by Berossos, Kronos (Saturn) disclosed to the king Xisuthros that a universal flood would begin on the 15th of the month Dasios. Abydenos says: “Kronos announced to Sisithros that a flood would pour from above.”⁽¹⁵⁾

References

1. *Tetrabiblos* II. 8. 84. Similar statements may be found in Hephaestion I. 20.
2. A. Bouche-Leclercq, *L'astrologie grecque* (Paris, 1899), p. 96 and n. 1; cf. J. Geffcken, “Eine gnostische Vision,” *Sitzungsberichte der Preussischen Akademie der Wissenschaften* (1899), p. 699.
3. Lucan, *Pharsalia*, transl. by R. Graves (London, 1956), Bk. I, 11. 640ff: “It is not as though this were the Watercarrier's month, and the cold and malicious planet Saturn had lighted his dusky fires aloft, thereby raising a truly Deucalionian Flood to overwhelm these lands.”
4. *Catalogus Codicum Astrologorum Graecorum* X, 249, 2ff.

5. Junctinus, *Speculum astrologiae* p. 317a. Cf. F. Boll, *Sternnglaube und Sterndeutung*, 4th ed. by W. Gundel (Leipzig, 1931), p. 114.
6. “Die Keilschriften prophezien bereits, dass eine Hochflut eintritt, wenn der Komet diese Richtung [mit dem Kopfe nach der Erde] einnimmt. F. Boll, *op. cit.*, p. 114; Cf. Jastrow, *Die Religion Babyloniens und Assyriens* (Giessen, 19??), Vol. II, p. 696, n.1.
7. Cf. Klibansky *et al.*, *Saturn and Melancholy*, p. 138, n. 39.
8. *Cratylus* 402b.
9. Pliny, *Natural History* II. 106: “Igitur (sidera) in suo quaeque motu naturam suam exercent, quod manifestum Saturni maxime transitu imbribus faciunt.”
10. Servius, *Commentarii in Virgili Georgicas* I. 336: “Saturnus deus pluviarium est, unde etiam senex fingitur . . . Hic autem in Capricorno facit gravissimas pluvias, praecipue in Italia.”
11. *Ibid.*, I. 12: “Quod Saturnus humoris totius et frigoris deus sit.” Cf. Pauly’s *Realencyclopaedie* XI. 1987-1988, where Kronos is described as representing rivers and water. The ninth-century Arab astrologer Abu Ma’sar wrote: “[Saturn] presides over works of moisture . . . lakes and rivers.” (*Introduction to Astrology*, Bk. IV, quoted in Klibansky *et al.*, *Saturn and Melancholy*, p. 130.
12. Proclus Diadochus, *In Timaeo* 32b. [In his commentary to Euclid’s *Geometry* (I. 402. 21), Proclus ascribes a similar conception to the pre-Socratic philosopher Philolaos.]
13. Nonnos, *Dionysiaca* VI, 175-178.
14. Hippolytus, *Refutatio Omnium Haeresium*, Book V, chapter 11 in *The Ante-Nicene Fathers*, Vol. V. Hippolytus lived between the years 170 and 236.
15. Cyril, *Contra Julianum* I. 5. Cf. Syncellus, *Chronicon* 28 and Eusebius, *Praeparatio Evangelica* IX. 12. Cf. also the account of Alexander Polyhistor in Cyril, *Contra Julianum*, *loc. cit.* [The traditions of the Hindus assign the Deluge to the end of the Satya yuga and to the reign of Satyavrata, who is acknowledged to be Saturn (E. Moor, *The Hindu Pantheon* [1864], p. 108). Cf. Sir W. Jones, “On the Gods of Greece, Italy and India,” *Asiatick Researches* Vol. I (1799), p. 234: “The Satya, or (if we may call it) the Saturnian, age was, in truth, the age of the general flood. . . .” Brahma (i.e., the planet Saturn—see below, section “The Worship of Saturn,” n. 5), is said to have warned Manu of the Deluge soon to engulf the world (*The Mahabharata*, XXXX); and when the waters of the deluge covered the earth, Brahma is described as floating over the expanse of the ocean (*Agneya Purana*, chapter IV; cf. S. Shastri, *The Flood Legend in Sanscrit Literature* [Delhi, 1950], p. 51). An ancient woodcut published by Athanasius Kircher (*China Illustrata* [Amsterdam, 1667], p. 158) portrays Brahma (identifiable by his four faces, or *chatra mukha*) as seated on a rayed disk, apparently Saturn, that hovers over the waters of the Deluge. Cf. F. Maurice, *Indian Antiquities* (London, 1800), Vol. II, opp. p. 352. The woodcut illustrates the third avatar of Vishnu and, more specifically, may be inspired by the words of the *Padma Purana*: “then the lord . . . floated over the vast ocean, void of the sun and the moon. . . .” (Shastri, *The Flood Legend*, p. 41; compare also Psalm 29: “the Lord sitteth upon the flood”).].





The Light of the Seven Days

Isaiah in describing the days to come, when great changes in nature will take place, says that the earth will give its increase in abundance, and “the light of the moon shall be as the light of the sun, and the light of the sun shall be sevenfold, as the light of the seven days. . . .” [\(1\)](#)

One could think that “the light of the seven days” refers to the seven days of creation—however, the actual explanation appears to me to be different: the expression “the light of the seven days” refers, in my view, to the seven days preceding the Flood that are referred to in the verse: “For yet seven days, and I will cause it to rain upon the earth. . . . And it came to pass after seven days, that the waters of the Flood were upon the earth.” (Genesis 7: 4, 10) It is not explained in the text—after seven days of what? But the rabbinical tradition relates that for seven days before the Deluge “the people heard a great commotion in the heaven,” that signified “the end of the age.”

The Talmudic tradition that often reaches much farther into the past than better known sources, like the books of the Scriptures, reveals in this instance a memory not suspected at the reading of the seventh chapter of Genesis. But in view of what we have brought out until now, and what we intend to illuminate on the following pages, the blinding light preceding the Deluge by seven days is an interesting and important detail. The world was in a dazzling light, sevenfold stronger than the light of the sun; the light was so strong and so brilliant day and night alike, that the sun was entirely overpowered by it; and in the days of Isaiah, thousands of years later, the memory of the light of the seven days was vivid in tradition, so that the prophet could refer to it in desiring to describe the solar light of the messianic age. [\(2\)](#)

Numerous Sanscrit texts assert that seven or even twelve suns shone just before the Deluge. “Being ignited, all of a sudden, the entire terrestrial sphere blazed forth.” Twelve suns shone with “dazzling radiance” and consumed the world. (*The Skanda Purana in Shastri, The Flood Legend in Sanscrit Literature*, p. 86). Cf. similar accounts in the *Matsya Purana*, ch. ii, the *Padma Purana*, ch. xxxvi, the *Vishnu Purana*, ch. iii, the *Kalika Purana*, ch. xxv, and in the *Mahabharata*, chapter “Matsyopakhyaṇa.”]

The light of the seven days was not of solar origin. Of what origin was it? Was it caused by brightly illuminated clouds of ionized hydrogen, or protons, hurled throughout the solar system and poured on earth? In the latter case they could have arrived from the present distance of Saturn in about a week, considering that the proton particles—ionized hydrogen—arrive from the sun in the space of twenty-five hours. [\(3\)](#) This is the time which elapses from a flare-up on the sun (protuberance) to the display of the polar lights—the aurora borealis.

The light of the seven days served the population of the world as a warning of some extraordinary events. [\(4\)](#)

References

1. Isaiah 30:26.

2. [A memory of the light of the seven days may be preserved in the Babylonian account of “flaming torches, lighting up the land with their brightness” just prior to the arrival of the waters of the Deluge. (*The Epic of Gilgamesh*, transl. by A. Heidel, tablet XI).]
 3. The distance of Saturn from the Sun is about 9.5 astronomical units. See below, section “Saturn’s Golden Age.”
 4. [A warning of seven days’ duration is also a feature of several of the Sanscrit accounts. See S. Shastri, *The Flood Legend in Sanscrit Literature* (Delhi, 1950), p. 30.]
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Nova

From time to time, once in a decade or once in a century, a dimly shining or invisible star flares with brilliant light; it may become brighter than any of the fixed stars, or any of the planets in the sky; it may be seen not only in the nocturnal sky, but in some cases in full daylight; it burns for weeks or months, then loses its brilliance, and finally becomes once more a hardly visible star. Such a blazing star is called a nova.⁽¹⁾ The *stella nova* seen in 1572 in the days of Tycho de Brahe belonged actually to the supernova category. De Brahe observed that the nova did not belong to the solar system but was one of the fixed stars. It was brighter than Jupiter and Venus and was seen at midday—for months it remained visible to the naked eye. Another supernova was observed by Johannes Kepler in 1604. An earlier such event, recorded in the Chinese annals for the year 1054, gave rise to the Crab Nebula. Other observations indicate that a supernova also occurred in 1006.

Isaac Newton suggested a collision between two stars as the cause of the formation of a nova. The prevalent view is that a nova results from the interaction of two stars in a binary system when the two members disrupt one another on close approach. In such a case filaments of the disrupted star are torn out of its body and hurled in great spurts, to be absorbed by the companion star. The sudden transfer of matter is thought to set off the star's cataclysmic explosion.⁽²⁾

With the development of spectroscopy in the nineteenth century it was found by the displacement of the spectral lines that the gases of a nova move rapidly toward the observer, as also in all other directions; the star's atmosphere expands with a velocity reaching at times over three thousand kilometers per second.⁽³⁾

While the star's outer gases are hurled into space, much of the inner core remains.

References

1. [It is thought that as many as twenty novae occur in our galaxy each year, but only rarely does one become so prominent as to approach even a third magnitude brightness. A supernova in the part of our galaxy observable from the Earth may occur once in several hundred years: Kepler's nova (1604) was the last such event.]
2. [In the case of small novae the increase in brightness is about hundredfold. See J. S. Gallagher *et al.*, *Astrophysical Letters* Aug. 15, 1976.]
3. [More commonly the velocities range from 1,300 to 2,500 km/sec.]





“Star of the Sun”

Saturn is not a conspicuous planet in the sky. Were it not for its sluggish movement, an unaided eye would hardly distinguish it from the surrounding stars. In many ancient sources Saturn is called “sun.” The usual name for Saturn in Chaldean astronomy was Alap-Shamas, meaning “Star of the Sun.” ⁽¹⁾ Diodorus of Sicily reported that the Chaldeans called Cronos (Saturn) by the name Helios, or the sun, and he explained that this was because Saturn was the most conspicuous of the planets; ⁽²⁾ Hyginus also wrote that Saturn was called “Sol.” ⁽³⁾ In the Babylonian astrological texts the word Shamash (Sun) was used to designate Saturn: “We learn from the notes written by the astrologers that by the word ‘sun’ we must understand the ‘star of the sun,’ i.e., Saturn.” ⁽⁴⁾ Ninib was the Babylonian name for Saturn: “Ninib in various places is said to shine like the sun.” He was known as UT-GAL-LU, the “great sun of storms.” ⁽⁵⁾ The Greeks used to call Saturn *Phaenon*, “the shining one.” ⁽⁶⁾

If Saturn was always as inconspicuous as it is at present, what could have caused the races of antiquity, as if by common consent, to give to Saturn the appellation “sun” or “the shining one”? “The astrologers certainly must have found it increasingly contrary to reason to associate the star that gives us light and life with one of the palest, and the slowest of the planets.” ⁽⁷⁾

The folk etymology of the Hebrews explained the name Khima as meaning “about a hundred (*ke’me-ah*) stars.” ⁽⁸⁾

The *Bhagavat Gita* contains the following description of a deity: “If the radiance of a thousand suns were to burst at once into the sky, that would be like the splendor of the mighty one . . . the shatterer of worlds.” ⁽⁹⁾

All that we have considered up to now indicates that Saturn once exploded in a nova-like burst of light. The date of this event I would be hard-put to specify, even approximately, but possibly it took place about ten thousand years ago. The solar system and reaches beyond it were illuminated by the exploded star, and in a matter of a week the Earth was enveloped in waters of Saturnian origin.

References

1. J. Menant, *La bibliotheque du Palais du Ninive* (Paris, 1890), p. 99.
2. He calls Saturn “*epiphanestaton*”—the most conspicuous (II. 30. 3-4). [J. Bidez, *Revue de Philologie* XXIX (1905), pp. 319-320 drew attention to the fact that one of the best manuscripts of the Platonic *Epinomis*, the Parisinus 1807A, has “Sun” where “Saturn” would be expected in the passage where the role of the planets is discussed. Bidez commented: “. . . La designation qui fait du Saturne ‘l’astre du soleil’ se trouve attestee par un temoignage nouveau, extremement remarquable a cause de son anciennete.” Cf. F. Boll, “Kronos-Helios,” *Archiv fuer Religionswissenschaft* XIX (1919), p. 344. The author cites also other examples. In 1869 a stele dedicated to “Kronos-Helios” was found in Beirut. See G. Colonna Ceccaldi, “Stele inedite de Beyrouth,” *Revue Archeologique* 23 (1872), Vol. I, pp. 253-256. On the solar aspect of Saturn’s cult in Roman Africa, see M. Leglay, *Saturne Africain* (Paris, 1966), pp. 183-187, 229.]

3. "Secunda stella dicitur solis quam alii Saturni dixerunt. Hanc Eratosthenes a Solis filio Phaethonta appellatam dicit. (Hyginus, *De Astronomia* II. 42, 8-10. Cf. A. Bouche-Leclercq, *L'astrologie grecque* (Paris, 1899), p. 93, n. 2.
4. R. C. Thompson, *The Reports of the Magicians and Astrologers of Nineveh and Babylon in the British Museum*, Vol. II (London, 1900), pp. xxv-xxvi (nos. 174 and 176). [Cf. M. Jastrow, "Sun and Saturn," *Revue d'Assyriologie et d'Archeologie Orientale* VII (1910); and idem, *Die Religion Babylonien und Assyrien* (Giessen, 1905), Vol. II, p. 483 n. 4; 578, n. 4.]
5. P. Jensen, *Die Kosmologie der Babylonier* (Strassburg, 1890), pp. 116, 140. [Cf. Jastrow, *Die Religion Babylonien und Assyrien* Vol. I, pp. 57, 154.]
6. Cicero, *De Natura Deorum* II. 52. [Cf. Manetho, *Apotelesmaticorum libri sex* IV. 14. Cf. also J. Geffcken, "Eine gnostische Vision," *op. cit.*, p. 699. "The Shining Star" was a designation for Saturn in Babylonia. See for instance, an inscription of Nabonidus in James B. Pritchard ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, 1950), p. 310.

In India the appellation of the sun, *arki*, was also applied to Saturn. R. Temple writes (*The Sirius Mystery* [New York, 1976], p. 180):

In Sanscrit again *arka* means "belonging or relating to the sun." *Arkam* means "as far as the sun, even to the sun inclusively." *Arki* has become a name for Saturn, thought at that time to be the most distant planet. *Arc* means "to shine, be brilliant," and can mean "to cause to shine." *Arkin* means "radiant with light."

Arkaja, the name often applied to Saturn, designates it as an offspring of the Sun (*Markandeya Purana*).].

7. Bidez, *Revue de Philologie*, *op. cit.*, p. 320: "Les astrologues trouverent sans doute de plus en plus deraisonnable de donner en appanage a l'astre d'ou nous vient la lumiere et la vie, une des plus pales et la plus lente des planetes."
8. Rabbi Samuel in Tractate Brakhot, Seder Zera'im of the *Babylonian Talmud*, IX, fol. 59.
9. *The Bhagavat Gita*, ch.





Arrival of the Waters

Following the “seven days” when the world appeared to be ablaze in “the radiance of a thousand suns” the Deluge started.

First, according to the Hindu account, vast clouds gathered which “overshadowed the entire world.” ⁽¹⁾

“These ominous clouds . . . rumbling and shooting lightning, overspread the sky.” ⁽²⁾ They were “as vast as mountains.” “Some were dusky, some crimson, some white, some brilliant (in hue).” ⁽³⁾ Other sources describe them as yellow, or azure, or red. “Loud in roar and mighty in size they fill the entire sky.” ⁽⁴⁾ They were “fringed with lightning, meteors and thunderbolts.” ⁽⁵⁾ Then, “rumbling aloud with lightning [they] poured torrential streams thick like chariot wheels.” ⁽⁶⁾ They “rained with a sullen roar, inundating the three worlds with ceaseless downpour of torrents. . . .” ⁽⁷⁾ “And then there were seen on all sides the four oceans engulfing with tempestuous waves the whole surface of the earth.” ⁽⁸⁾ All creation was “smitten by the luminous dense floods.” ⁽⁹⁾

In the beginning of the deluge the nova in the sky shone through the splendor of the illuminated skies and through the sheets of rain, ever increasing in intensity. ⁽¹⁰⁾ The Biblical expression “the Lord sitteth upon the flood” ⁽¹¹⁾ was an apt description of the blazing nova above the waters of the Deluge. It has a Babylonian counterpart in the title of Tammuz as *bel girsu*: “lord of the flood.” ⁽¹²⁾ The nova blazed terrifically, but soon the light became diffused, the shadows grew ever dimmer, the world that was all splendor and light turned gloomier and gloomier; the outpouring waters grew ever thicker; the clouds of dust darkened ever more the sky, and finally the drama of what was taking place on earth went on in darkness.

The Deluge was not a peaceful though abundant rain filling the earth with water, rising ever higher. Ancient sources give a description of the Deluge that differs greatly from the pageant of showers pouring from above on a peaceful land and peaceful sea.

References

1. Skanda Purana in S. Shastri, *The Flood Legend in Sanscrit Literature* (Delhi, 1950), p. 87.
2. Agneya Purana in *ibid.*, p. 50.
3. Kalika Purana in *ibid.*, p. 103.
4. Vishnu Purana in *ibid.*, p. 50.
5. Skanda Purana in *ibid.*, p. 88.
6. Bhagavata Purana in *ibid.*, p. 61.
7. Kalika Purana in *ibid.*, p. 103.
8. Bhagavata Purana in *ibid.*, p. 61.

9. *Ibid.*, *loc. cit.*

10. Cf. the Babylonian expression in the wailings for Tammuz: “The shining ocean to thy perditions has taken thee.” (S. Langdon, *Tammuz and Ishtar* [Oxford, 1914], p. 15).

11. Psalm 29.

12. S. Langdon, *Babylonian Liturgies* (Paris, 1913), p. 96.





The Deluge in Rabbinical Sources

During the “seven days” when the world was flooded by sheets of light, and terrifying signs and commotion filled the heavens, “the Holy One . . . reversed the order of nature, the sun rising in the west and setting in the east.” [\(1\)](#)

But during the Deluge “the sun and the moon shed no light” [\(2\)](#) and for an entire year the planets did not follow their regular courses. [\(3\)](#) It may be that because of dust discharged by volcanoes the sky remained veiled for a long period, and this veil made any celestial orientation impossible for the few survivors; but quite possibly the statement refers to a change in the celestial orbits. The rabbinical sources add that the earth was quaking, and the sun was darkened, and the foundations of the cosmos were dislodged. The entire world was in volcanic activity; “amidst lightnings and thunders a very loud sound was heard in the entire world, never heard before.” [\(4\)](#)

The Flood was caused by waters pouring from above, but also by waters drawn up from the ground. “All the fountains of the great deep were broken up, and all the windows of heaven were opened.” [\(5\)](#) The waters that came from the sky were heated. Many passages in the rabbinical literature refer to the heated water. [\(6\)](#)

The rabbinical literature also refers to great tides and surges of water that covered the face of the earth. “The flood began to toss the ark from side to side. All inside of it were shaken up like lentils in a pot.” [\(7\)](#) It is also said that not one, but many arks or vessels were used as a means of escape, but they were ruined or capsized one after the other in the surging water. [\(8\)](#) Judged by this, one would think that there were ample signs of the impending catastrophe, and attempts to organize rescue by preparing boats or ships, all probably destined to fail. The Biblical account, in order to explain the survival of the human species and some land animals, made the ark of Noah the central theme of the story. There must have been many Noahs, and the Midrashim also say so—but probably none of them escaped with his boat the outrages of nature. Possibly, in some caves high in the mountains, in far separated regions of the earth, human beings survived the Deluge; but hardly any vessel or ark. The attempt to find the remains of an ark on Mount Ararat are probably as futile as looking for the ribs of Adam. Yet such attempts are made even in our time. [\(9\)](#)

The duration of the flood is described differently—forty days, and also much longer. [\(10\)](#) Like the former catastrophe of the fall of man, this catastrophe of the Deluge, according to the Hebrew cosmogony, changed the nature of herb, animal and man. The prosperity of the time before the great flood was gone, never to return; the world lay in ruins. The earth was changed; even the sky was not the same.

The continents changed their places in the former catastrophes, and once again in the catastrophe of the Deluge. The areas which are now the shores of the Mediterranean were the shores of an open ocean—or so one may conclude from the following statement: “Before the birth of Noah, the sea was in the habit of transgressing its bounds twice daily, morning and evening. Afterwards it kept within its confines.”

As volcanoes erupted, the sky was darkened, and the ocean swelled and rolled on a helpless planet that fluttered when caught in hydrogen clouds of cosmic origin.

References

1. Tractat Sanhedrin 108B of the *Babylonian Talmud*, ed. by I. Epstein (19xx). [Taken literally, this statement implies a reversal of the Earth's rotation, or a "tippe-top" -type reversal of its poles. For a discussion of the latter possibility, see Peter Warlow, *The Reversing Earth* (London, 1982) and discussion by V. J. Slabinski and C. L. Ellenberger in *KRONOS* VII. 2 (1982), pp. 86-96; cf. also *KRONOS* VIII.3 (1983), pp. 84-89. In the electromagnetic model proposed by Velikovsky in *Cosmos without Gravitation* (1946) or such as that conceived by R. Juergens ("On the Convection of Electrical Charge by the Rotating Earth," *KRONOS* II.3 [1977], pp. 12-30) and E. R. Milton, a disturbance of Saturn of the magnitude described here would almost certainly bring about drastic changes in the Earth's rotational motion.].
2. L. Ginzberg, *The Legends of the Jews* (Philadelphia, 1928), vol. I, p. 162.
3. Midrash Rabba to Genesis 25:2.
4. Ha-Yewani Zerahiah, *Sefer Hayashar, The Book of the Righteous*, ed. and transl. by S. J. Cohen (New York, 1973), p.
5. Genesis 7:11.
6. The opinion of Rabbi Hisda to this effect is recorded in Rosh Hashanah 12A and Sanhedrin 108B. Cf. J. B. Wiedeburg, *Astronomische Bedenken* (Jena, 1744), p. 80, and sources in Ginzberg, *Legends* Vol. V, p. 178.
7. Ginzberg, *Legends*, vol. I, p. 162.
8. *Ibid.*, Vol. VI, p. 35.
9. E.g., the expedition recounted by D. Balsinger and C. Sellier, jr. in *In Search of Noah's Ark* (Los Angeles, 1976). If there are some ancient fossilized structures that resemble an ark, as some explorers assert, then more probably it was the presence of these remains which caused the Biblical penman to relate the rescue ship to the mountainous crag of Ararat in the southern Caucasus.
10. It appears that the tradition of "a year" of the deluge led to confusion in calculations, and the traces of this confusion seem to be found in the double redaction of the story of the Deluge. The age of Noah and his contemporaries would indicate that the year was shorter; it could still have consisted of a number of months, but not of months of thirty days; and the days themselves could have been shorter.

