

קוסמולוגיה עברית

HEBREW COSMOLOGY

A PLEA FOR A GEOCENTRIC TERRESTRIAL PLANE



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✠ Introduction

Who is the man that could comprehend all the works of heaven? Or who is there among the children of men that is able to know the length and the breadth of the whole earth? Or what man is there that can know the extent of heaven, what its elevation is, or how it is supported, and how great the number of the stars is?¹ (1 En 92:20, 22–24)²

The answer to the above is: “There is none.” And because this is so, the following can only serve as a synopsis of our cosmos. It cannot go beyond that, but it may help to appreciate God’s wonderful creation.

Giving credence to heliocentrism is as little compatible with biblical faith as ignoring the law of causality or biogenesis. Intriguing tales about expanding singularities sparked off by magical quantum flutters are covered by scientism; they can be absorbed at school and university but will not be dealt with in this paper.

The subject at hand is sometimes called a *tool of division* and therefore avoided, but I beg to differ. If the Messiah came to bring division,³ then who are we to stand in His way? The sword, i.e. the Word of God divides, and I intend to use it.

Since various non-canonical and rabbinic sources⁴ add helpful information on the topic, I will quote them extensively, particularly the Book of Enoch.



¹ Cf. Job 38:33a, 4b, ***Do you know the laws of the universe? Tell me, if you know so much.***

² R. Laurence, *The Book of Enoch the Prophet* (Oxford, 1838). Unless otherwise indicated, 1 Enoch is quoted from M. Black, *The Book of Enoch or 1 Enoch* (Leiden, 1985).

³ See Lk 12:51. Both canonical and apocryphal scriptures are cited from various translations; for a detailed overview which Bible versions are used, please consult the appendix.

⁴ “[The rabbis] knew the secrets of astronomy as much as the Gentiles, and more than them, for the Sages knew that which was hidden from the learned Gentiles” (*Torat Ha-Olah* 1:2). Unless stated otherwise, rabbinic quotes are taken from “The Sefaria Library,” www.sefaria.org/texts.

Title page: *View across Midian from the summit of Mt. Sinai (2326 m) in northwestern Saudi Arabia.*

2 The Beginning

The Jewish historian Josephus ascribes the discovery of cosmological secrets to the progeny of Adam’s third son Seth.⁵ One of Seth’s descendants, the primeval sage Enoch,⁶ was entrusted by God to record and disseminate this information:

Give them the works written out by thee, and they shall read them, and know Me to be the Creator [...] They shall distribute the books of thy writing to their children’s children, and from generation to generation, and from nation to nation. And I shall not require them till the last age, for I have instructed My two angels to guard them, that the account of what I shall do in your family shall not be lost in the deluge to come. (2 En 33:8–9, 11–12)⁷

After the flood, this knowledge was passed on from Noah down to Abraham, the patriarch of the Hebrews.⁸

The foundation of Enoch’s divine insights reaches back to the beginning when God created the heavens⁹ and the earth (note: not in their final form).

Initially, the earth resembled an unstructured waste surrounded by water, known as the abyss or the deep (*tehom* תְהוֹם). When God said, “Light be!”, the Son of God was called into being and the Word of God materialized as the *Light of the World*.¹⁰ The Second Book of Enoch expands on this:

⁵ Josephus, *Ant.* 1.2.3.

⁶ Heb. *chanok* (חֲנוּךְ | ‘initiated’).

⁷ Quotes from 2 Enoch are taken from W. Morfill, *The Book of the Secrets of Enoch* (Oxford, 1896).

⁸ 1 En 68:1, **My grandfather Enoch gave me [Noah] the teaching of all the secrets.** R. Charles, *The Book of Enoch* (Oxford, 1893). Abraham taught the Phoenicians and Egyptians: “It was he [Abraham] who introduced astronomy and the other sciences to them, saying that the Babylonians and himself had found these things out, but tracing back the first discovery to Enoch.” Eusebius, *Praep. Ev.* 9.17.8. Gen Apocryphon 19:25, **I [Abram] read before them the book of the words of Enoch.** D. Machiela, *The Dead Sea Genesis Apocryphon* (Leiden, 2009).

⁹ *Shamayim* (שָׁמַיִם | ‘heavens’) is a meld of *sham* (שָׁם | ‘there’) + *mayim* (מַיִם | ‘water’) = ‘there is water.’

¹⁰ See Gen 1:3 and *Acts of Thomas* 143: **The only begotten Son of the depth.** Cf. Jn 1:1; 8:12; 9:5; 1 Pet 1:20; Sir 24:3, 9; 1 En 48:2–3. God’s Son is ‘the firstborn of creation’ or ‘the beginning of creation’ because he was born of water and Spirit on day one (Col 1:15; Rev 3:14). Jash 23:70 reveals that he is **the ram which the Lord God had created in the earth in the day that he made earth and heaven.** M. Noah, *ספר הישר* or *The Book of Jasher* (New York, 1840).

And I commanded in the deep that visible things should come out of invisible, and there came forth a great light.¹¹ And I was in the midst of a great light, and as light was begotten from light, there came forth a great world, revealing all creation which I had purposed to make. And I saw that it was good. And I placed for Myself a throne, and sat upon it, and said to the light: Go thence up higher and fix yourself high above the throne and be a foundation for the highest things. And there was nothing higher than the light, and as I reclined, I saw it from My throne. (2 En 25:1, 3–6)



Figure 1: *Creation of Light*, engraving by Gustave Doré from the *La Sainte Bible* (1865).

¹¹ Cf. Apoc. Abraham 9:3, ***I am before the worlds, and a mighty God who hath created the light of the world.*** G. Box, *The Apocalypse of Abraham* (London, 1918); “It is the light of the Messiah of which it is said ‘And God saw the light that it was good’” (*Pesikta Rabbati* 36); Heb 11:3; 2 Esdr 6:40, ***Then commandedst thou a fair light to come forth of thy treasures, that thy work might appear.***

After the Son had been begotten,¹² God fixed the earth firmly and immovable into place. The Genesis account omits the foundation of the earth, but numerous verses attest to it.¹³ Enoch states that God summoned the deep for a second time:

Let the solid thing which is visible come forth from the invisible. And the world came forth, bearing the creation of all lower things. And I saw that it was good. And I said: Go thence down below, and make yourself firm, and be a foundation for the lower things; and it was so. And it went down and fixed itself and became the foundation for the lower things. And there was nothing else below the darkness. (2 En 26:1, 3–4)

The foundation for the lower things is symbolized by the *Behemot* (בהמות | ‘beasts’). This lower realm is associated with darkness and comprises one half of our closed system, i.e. the lower or southern hemisphere. After it was fixed, God divided the light from the darkness by placing a ‘lid’ on Behemot, to wit, a circular plane:

And I commanded that it should be taken from light and from darkness, and I said: Let it be thick, and it was so. And I spread it out and it became water, and I stretched out the path of the waters above the darkness, below the light.¹⁴ And I separated between the light and the darkness, between the waters here and the waters there. And I said to the light: Be thou day, and to the darkness: Be thou night. And the evening and the morning were the first day. (2 En 27:1–4)¹⁵



¹² After the Son’s birth, all other spirits were created on the first day, see 2 En 23:5; Jub 2:2. “From the very moment when the world was created, all spirits were prepared for men.” M. Gaster, *The Chronicles of Jerahmeel or The Hebrew Bible Historiale* (London, 1899), 19.

¹³ Job 38:4; Ps 102:25; 104:5; 136:6; Prov 8:29; Isa 45:18; 51:13; Zech 12:1; Heb 1:10; Ass. of Moses 12:9.

¹⁴ Cf. Job 26:10: **He marked out a vault on the face of the waters for a boundary between light and darkness** (AT). As per ‘Brown-Driver-Briggs’, *chug* (חוג) signifies ‘vault.’ Cf. Job 38:8–11; Ps 104:6; Prov 8:29; 30:4.

¹⁵ Cf. Gen 1:4–5; 1 En 41:8, **[Yahweh] made a separation between the light and the darkness, and divided the spirits of men.** Charles, op. cit. Cf. Eph 1:4; Rev 13:8; 17:8.

ג The Dome

THE CREATION

Upon completing the southern hemisphere and a terrestrial plane on day one, God covered the latter with a concave northern hemisphere, i.e. with a dome:

And then I made firm the circle of heaven, and fashioned it like crystal, moist and dry, like glass and ice. And I showed the waters and the other elements their paths [...] and I saw that it was good. Thus I made fast the firmament and fixed it above the water. And the evening and the morning were the second day. (2 En 28:1, 4)¹⁶

In Hebrew, this hemisphere is called *rakia* (רָקִיעַ) whose verbal root means ‘to beat out,’ ‘to stretch out’ or ‘to spread out.’¹⁷ It is the visible sky, traditionally rendered *firmament*.

The word *firmament* is the anglicized form of the Latin *firmamentum* (‘support’) which in turn derives from the Septuagintal *steréōma* (στερέωμα from *stereós* ‘firm’). The firmament is therefore not an atmospheric expanse nor a metaphor or a phenomenal expression nor some radiation belt nor poetry nor a myth but a solid vault.¹⁸

He made the heavens above firm. (Prov 8:28)

Thou hast hung the heavens as a vault. (Eth Didasc 37:4)¹⁹

¹⁶ Cf. Gen 1:6–8; Ps 148:4. “The heavens were in a fluid form on the first day, and on the second day they solidified” (Ramban on Gen 1:6). 2 Enoch contains several doubtful passages such as certain Greek deities which God supposedly placed on heavenly circles (2 En 30:4). While these portions of 2 Enoch cannot claim divine inspiration, our limited knowledge of its origin forbids a wholesale condemnation.

¹⁷ “Let a lining be made for the firmament, as you read: ‘And they did beat the gold into thin plates.’” (*Beresbit Rabbah* 4:2). Cf. Exod 39:3; Job 9:8; 37:18; Ps 19:1; 104:2; Isa 48:13; 51:13; Jer 10:12; Ezek 6:11; 2 Esdr 16:59.

¹⁸ Origen calls the firmament “without doubt, firm and solid.” *Homilies on Genesis and Exodus* (Washington, 1982), 49. “The historical-grammatical meaning of *raqia* in Gen 1:6-8 is very clearly a literally solid firmament.” P. Seely, “The Firmament and the Water Above,” *WTJ* 53 (1991): 240.

¹⁹ J. Harden, *The Ethiopic Didascalia* (London, 1920).

A poetic description of the dome, however, is also provided:

I shall not keep silent about its parts or the matter of its mightiness and the grace of its proportions: It is firm and immovable, who can strip off its outer covering? Who can penetrate its double layer of armor? Who shall open the [flood] gates of his cheer? Its chest is solid like a rock, solid like a millstone. Its inwards are as brazen plates, and the texture of its skin as a smyrte stone [extremely hard crystallized alumina]. One part cleaves fast to another, and the air cannot come between them. Its eyes are like the red of dawn, and comets pour out of its mouth. When it sneezes, the sunlight sparkles like lightning across the vapor droplets, and its wake is a luminous path. It does not run away from arrows, and any hope of overcoming it is in vain.²⁰ It looks down on all high things; as pointed earthenware fragments are its underparts. Nothing else on earth is equal to it; it is made without a flaw.

(Job 41:12, 23, 13, 24, 6–7, 18, 24, 28, 9, 34, 30, 33)²¹



Figure 2: *Behemoth and Leviathan*, by W. Blake from his *Illustrations of the Book of Job* (1826).

²⁰ Nuclear missiles fired in 1962 reached a maximum height of 1100 km (an altitude not even close to the apex). The series of tests carried out by the U.S. was aptly called ‘Operation Fishbowl.’

²¹ This portrayal of the *Livyatan* (לִיְיָתָן | ‘coiled’) employs numerous versions such as the Israel Bible and Brenton’s LXX (vv. 6–7); for a description of *Behemot* see Job 40:15–24.

The dome was created to divide the upper waters from the water bodies on the earth. The literally meaning of *yamim* (ימים | ‘seas’) and *shamayim* (שמים | ‘heavens’) is ‘seawaters’ or ‘skywaters’ respectively.²²

The Holy One, blessed be He, took all the primeval water and poured half in the firmament and half into the ocean; hence the word *peleg* (river), meaning *palga* (half). The firmament is like a lake, and above the lake is a vault.²³ (Bereshit Rabbah 4:4–5)

William Blake, aware of the alleged science advancements in his day, observed:

The clouds bow to meet the flat earth and the sea in such an ordered space [...] As to that false appearance which appears to the reasoner [Newton, Bacon, Locke et al.], as of a globe rolling through voidness, it is a delusion.²⁴

THE MATERIAL

Various biblical and extra-biblical sources point to the dome being made of vitreous matter, which fits Enoch’s description of the way it was fashioned on day two.²⁵

There was something that looked like a dome made of dazzling crystal. (Ezek 1:22)

Pride of the heights, a clear vault of the sky – such is the beauty of the heavens, a glorious sight. (Sir 43:1)

All the spirits of the clear vault rejoice in His glory. (4Q405 23 i)²⁶

Josephus employs the word *kerustallon* (κρυσταλλον | ‘crystal’, ‘ice’):

On the second day, he placed the heaven over the whole world, and separated it from the other parts; and he determined it should stand by itself. He also placed a crystalline [firmament] round it, and put it together in a manner agreeable to the earth.²⁷

²² “R. Isaac said: Shamayim means sa-mayim, i.e. be laden with water.” H. Freedman, *Midrash Rabbah: Genesis*, vol. 1 (London, 1961), 33.

²³ Ib. 30. Cf. Job 38:25; Ps 65:10, ***The River of God is filled with water.*** L. Brenton, *The Septuagint with Apocrypha* (Peabody, 2013).

²⁴ G. Keynes, *The Complete Writings of William Blake* (London, 1966), 516. While Blake rightly discerned the symbolism of Behemot and Livyatan, they are depicted in the wrong order. Behemot (portrayed as a ‘hippopotamus’) signifies the lower hemisphere and coiled Leviathan the upper one.

²⁵ That Israel did not think the sky was made of metal is evident from the warning given to her: ***The skies above your head shall be copper and the earth under you iron*** (Deut 28:23). Cf. 3 Bar 3:7.

²⁶ G. Vermes, *The Complete Dead Sea Scrolls in English* (London, 2012), 338.

²⁷ Josephus, *Ant.* 1.1.1.

We cannot examine the firmament, but the properties of graphene²⁸ would make it the perfect material.

THE FOUNDATION

The ancient sages believed that the earth was planar, and the mere fact that a dome cannot rest on a sphere *and* provide a closed system, suggests the earth's shape to be a circular plane.²⁹

In a vision, Enoch found himself near the outer rim of the terrestrial plane where he saw the vault of heaven touching the earth:³⁰

I saw the ends of the earth whereon the [vault of] heaven rests. (1 En 33:2)

The ends or *extremities* of the earth denote the region where God marked out a circle and hedged in the sea on day one. This hedge is a 50-meter ice wall which constitutes 95% of the Antarctic coast and is some 60,000 miles in length.³¹ The remaining 5% are transantarctic mountain ranges up to 4,500 meters above sea level. The ice shelf is several hundred meters thick and serves as the foundation for the vault:

[He has] founded His vault on the earth. (Amos 9:6)³²

He spreadeth out the heavens like a vault; upon the waters hath he founded it. (2 Esdr 16:59)³³

²⁸ Graphene is a two-dimensional carbon crystal; it is 200 times stronger than steel yet almost transparent.

²⁹ All biblical and cuneiform texts “posit a flat, probably disk-shaped world. The heavens are made of solid material. They are [...] dome-shaped, completely enclosing the surface of the earth.” M. Simon-Shoshan, “The Heavens Proclaim the Glory of God: A Study in Rabbinic Cosmology,” *BDD* 20 (2008): 70. [The ancient sages of Israel] believed that the earth is a roughly flat disc, and the rest of the universe is a hemispherical solid dome fixed above it.” N. Slifkin, *The Sun's Path at Night* (Jerusalem, 2010), 4.

³⁰ Cf. 1 En 18:2, 6; ‘vault of heaven’ is a so-called epexegetical genitive, i.e. ‘heaven’ is defined by ‘vault.’ 1 En 1:9 is quoted in Jude 1:14–15, and 1 En 89:56 is quoted as Scripture in the *Letter of Barnabas* (16:5). Moreover, 1 Enoch was deemed Scripture by Athenagoras, Irenaeus, Clement of Alexandria, Justin Martyr and Tertullian; according to the latter it was preserved by Noah. The Ethiopian and Eritrean churches believe the *Book of Enoch* was written around 3300 BCE; it has always belonged to their canon.

³¹ Cook sailed for three years along the Antarctic coastline covering 60,000 miles; he never found an inlet through the glacial wall. In 1774 he wrote: “[The ice] extended east and west, far beyond of our sight; the southern half of our horizon was illuminated by the rays of light reflected from the ice to a considerable height.” J. Cook, *The Voyages of Captain James Cook*, vol. 1 (London, 1846), 445.

³² Cf. 2 Sam 22:8, *the foundations of heaven*, and Job 26:11, *the pillars of heaven*. 4Q433a speaks of an *elevated support of heaven*, and IIQ17viii mentions *four foundations of the marvellous firmament*, which alludes to the cardinal points or four corners of the earth (Vermes, op. cit. 306, 339).

³³ Cf. Apoc. Abraham 15:4, *the heaven which was fixed upon the surface*. Box, op cit.

Given that Antarctica has been penetrated for 800 miles, the circumference of the vault at its base and thus of the earth ought to be reckoned at 65,000 miles. The apex height may be taken at 4,000 miles, an estimate which will be corroborated below.

THE FLOODGATES

Both the Book of Jubilees and the Book of Enoch state that the vault is equipped with seven floodgates or *arubot* (ארבות):

And [Yahweh] opened seven floodgates of heaven, and the floodgates began to pour down water from the heaven forty days and forty nights. (Jub 5:24–25)³⁴

And again I raised my eyes to heaven and saw a lofty roof, with seven sluices therein, and these sluices flowed with much water into an enclosure. (1 En 89:2)³⁵

The expression *mabul* (מבול) is often simplistically translated as ‘flood’, but it conveys neither a mere flood nor conventional rain. *Mabul* is an old designation for the celestial ocean,³⁶ and the torrents that gushed out of those gates were the *mabul*, i.e. the waters which had been stored in the vault.³⁷

THE THRONE

Yahweh is enthroned above the heavenly ocean.³⁸ (Ps 29:10)

Heaven is God’s throne. (Mt 5:34)

The realm above the heavenly waters is the so-called Third Heaven or the Heaven of Heavens.³⁹ Paul was translated to this place and so was Enoch:

³⁴ R. Charles, *The Book of Jubilees* (London, 1902). ‘The LORD’ is replaced with ‘Yahweh.’

³⁵ Cf. Isa 24:18; Gen 7:11, LXX, ***The floodgates of heaven were opened.***

³⁶ G. Botterweck, *Theological Dictionary of the Old Testament*, vol. 8 (Grand Rapids, 1996), 62. “Above the heavens is the celestial ocean.” Simon-Shoshan, op. cit. 70. Cf. Gen 6:17; 7:6–7, 10, 17; 9:11; Job 38:25.

³⁷ The waters from above were reunited with the waters from below: 1 En 89:3 states that simultaneously ***[seven] chambers in the interior of the earth were opened.*** F. Martínez, *The Dead Sea Scrolls Study Edition*, vol. 1: 1Q1–4Q273 (Leiden, 1997), 427. Cf. Gen 7:11; Ps 18:15; Prov 3:20; Jub 5:24–25; 1 En 54:7–9; Jash 6:11. Since the deluge was a unique event that reversed the dividing of the waters, *mabbûl* is nowhere else used for ‘flood’; the LXX employs the term *kataklysmos* (κατακλυσμός | ‘cataclysm’).

³⁸ Quoted as verbalized by R. Rendtorff, *The Canonical Hebrew Bible* (Leiden, 2005), 612.

³⁹ See Deut 10:14; Neh 9:6; Ps 115:16; Lk 23:43; 2 Cor 12:2–4; Rev 2:7; 3 Macc 2:15. Seeing that God is omnipresent, the rabbinic ‘Seven Heavens’ appear to reflect a carnal view of the phrase ***the heaven of heavens cannot contain thee*** (1 Kgs 8:27). Cf. 2 Chr 2:6; 6:18; Isa 66:1; 1 En 84:2.

And he translated my spirit into the heaven of heavens, and I saw there as it were a structure built of crystals, and between those crystals tongues of living fire. And round about were Seraphim, Cherubim, and Ophanim. (1 En 71:5, 7)⁴⁰

Since the heavenly abode of God finds its counterpart in the earthly tabernacle or *mishkan* (משכן | ‘dwelling’), it seems obvious that the vault answers to the veil which separated the holy from the most holy place and thus divided the sanctuary. Behind the heavenly veil, that is, above the vault is the Throne of God:⁴¹

Above the dome there was something that looked like a throne made of sapphire. (Ezek 1:26)

The exact location is given to us by the fallen cherub who used to guard the throne:⁴²

I will climb to the sky; higher than the stars of *Hashem* I will set my throne. I will sit in the mount of assembly, on the summit of *Zaphon*. (Isa 14:13)

The summit of *Zaphon* (‘north’) is the crown of the dome; it is located above the North Star aka Polaris, one of the luminaries.⁴³



⁴⁰ Charles, op. cit.

⁴¹ “According to ancient belief, this vault [...] provided the boundary beyond which the Divine dwelt.” W. Plaut, *The Torah* (New York, 1981), 18. Cf. Exod 24:10; 1 Kgs 22:19; Job 22:14; Ps 2:4; 11:4; 103:19; 104:3; Isa 6:1; 40:22; 66:1; Ezek 10:1; Rev 4:6; Recognitions 3:27–28.

⁴² See Ezek 28:12–19.

⁴³ The actual cardinal points were illustrated by King Solomon: ***If the tree fall toward the south, or toward the north, in the place where the tree falleth, there it shall be*** (Eccl 11:3). Whether someone dies unsaved and goes down, or saved and goes up, that is where they will remain.

7 The Luminaries

And God said: “There shall be Lights in the expanse of heaven, to distinguish between the day and the night; and they shall be for signs and for times, for the numbering of days and years. And they shall be for luminaries in the expanse of heaven to shine upon the earth;” – and it was so. And God made the two great luminaries: the greater luminary to rule in the day; and the smaller luminary to rule in the night, and the stars. (Gen 1:14–16)⁴⁴

The celestial bodies such as the sun, the moon, and the stars do not move *below* the firmament like the birds, nor are they located *above* the firmament like the throne, but *in* the firmament.⁴⁵ The firmament is not solid through and through, otherwise it could not contain the heavenly ocean and serve as God’s floor at the same time.⁴⁶ The Targum shows that Yahweh separated between the waters below the expanse, and “the waters which were above *in* the collection (or covering) of the expanse.”⁴⁷ In other words, the vault is water-filled and the luminaries move within it.

That is why the dome is portrayed as shiny or resembling water mixed with fire:⁴⁸

I saw something that looked like a glass sea mixed with fire, and people stood on it.
(Rev 15:2)

The cherubim bless the image of the throne-chariot above the firmament, and they praise the majesty of the luminous firmament beneath His seat of glory. (4Q405 20, ii–22)⁴⁹

⁴⁴ J. Etheridge, *The Targums of Onkelos and Jonathan Ben Uzziel on the Pentateuch* (London, 1862), 36.

⁴⁵ The firmament acts as a prism. Spinning water droplets scatter the spectral colours into perfect white, but do not produce a rainbow. Yet, ice or water particles can act as a screen if the light is split between the source and the particles. Since sunlight is dispersed by the dome, i.e. by a vaulted arch, the spectrum projected to the droplets forms an arch. Rainbows are ever-present as any lawn sprinkler will reveal; a secondary rainbow is the dome’s reflection of the main bow (as evidenced by its reversed spectrum); halos are caused by the same refractive properties of the vault. “Atmospheric refraction is technically not possible without a solid extension above the earth.” M. Eugenio, *Dossier 111* (Turin, 2018), 293.

⁴⁶ Its depth is argued in the Talmud and Midrash, e.g. *Chagigah* 13a, *Bereshit Rabbah* 4:5, *Pesachim* 94a.

⁴⁷ Etheridge, op. cit. 158.

⁴⁸ *Shamayim* (‘heavens’) can also be derived from *aisb* (‘fire’) + *mayim* (‘waters’). “The ancient sages taught that God took fire and water, joined them together and made the heavens” (*Bereshit Rabbah* 4:7).

⁴⁹ Vermes, op. cit. 77.

The laws which govern the movement of the luminaries in the vault were shown to Enoch who noted them down in a book:

[The] Book on the Motion of the Luminaries of the Heaven, how each one of them stands in relation to their number, to their powers and their times, of their names and their origins and their months. (1 En 72:1)

THE SUN

Swift is the sun in his course, for he compasseth the heavens round about, and fetcheth his course again to his own place in one day. Is He not great that maketh these things? (1 Esdr 4:34–35)

The sun, as he emerges, proclaims at his rising: How wonderful a thing, the work of the Most High! At his zenith, he parches the ground, who can withstand his blaze? Great is the Lord who created him and whose word speeds him on his course. (Sir 43:2–3, 5)

The sun's ancient name *shemesh* (שמש | 'servant') is indicative of his role as a man-servant. It may surprise our post-Enlightenment academics (who are obsessed with providing 'rational' explanations) but the greater light is alive and subject to God.⁵⁰ Viewed physically, he is a rotating sphere made of gas with a surface temperature of 5500°C and a diameter of 40 miles, illuminating about half of the earth at any given time.⁵¹

Due to his clockwise movement the sun always seems to rise in the east and set in the west, but this impression is merely due to convergence. The horizontal lines described by the earth's surface, the sun's path and the observer's eye-line appear to converge in the distance. The rising and setting points tally with the zodiac signs that appeared to Enoch in the form of horizontal gates.⁵²

The light called Sun has his exit among the gates of heaven in the east and he sets among the gates of heaven in the west. (1 En 72:2)

One revolution of the sun around the earth's hub takes 24 h, and his journey between the tropics takes 1 year. Plane trigonometry puts his height at some 6,000 km above

⁵⁰ **Who commands the sun not to shine** (Job 9:7).

⁵¹ The sun is also called *chammah* (חמה | 'heat'). **[He] is all filled with fire that illuminates and heats** (1 En 72:4). "We know that it rotates because there is a red shift of the light arriving from the east edge of the sun that is moving toward us." Eugenio, op. cit. 202. As to the sun's diameter see ib. 264–5.

⁵² "The Holy One, Blessed be He, said to Israel: My daughter, I created twelve constellations in the firmament" (*Berakhot* 32b). "Several scholars have recently demonstrated that the Enochic gates might be seen as a projection of the zodiacal signs on the horizon." E. Ratzon, "The Gates Cosmology of the Astronomical Book of Enoch," *DSD* 22 (2015): 100.

the inner tropic and 3,000 km above the outer, thereby establishing the sun’s conical ecliptic in the vault.⁵³

This ecliptic transits 6 altitude zones or ‘gates’ (Aram. *tar’in* | תרעין) which in turn result in 6 gates on the horizon, to wit, in 6 sunrise and sunset zones:

Where the sun rises and sets on the longest day of the year, the summer solstice, this route of the sun is the face of the north. The sun rises in the northeast and sets in the northwest, and thus travels [within the 6th gate] from east to west [...] Conversely, where the sun rises and sets on the shortest day of the year, the winter solstice, this route of the sun is the face of the south [in the 1st gate]. (Erwin 56a)

Thus, the ecliptic between the solstices passes from north to south and vice versa. For instance, when the sun spirals downward, his orbit increases and his rising and setting points move towards the earth’s circumference. Each gate comprises thirty or thirty-one sections, one section a day. After six months the sun reaches the Tropic of Capricorn, i.e. the 1st gate. Then he spirals up again for six months till he reaches the Tropic of Cancer or the 6th gate.

[The sun] goes toward the south, and turns about to the north. (Erwin 56a)

And I saw six gates from which the sun rises and six gates where the sun sets. (1 En 72:3)

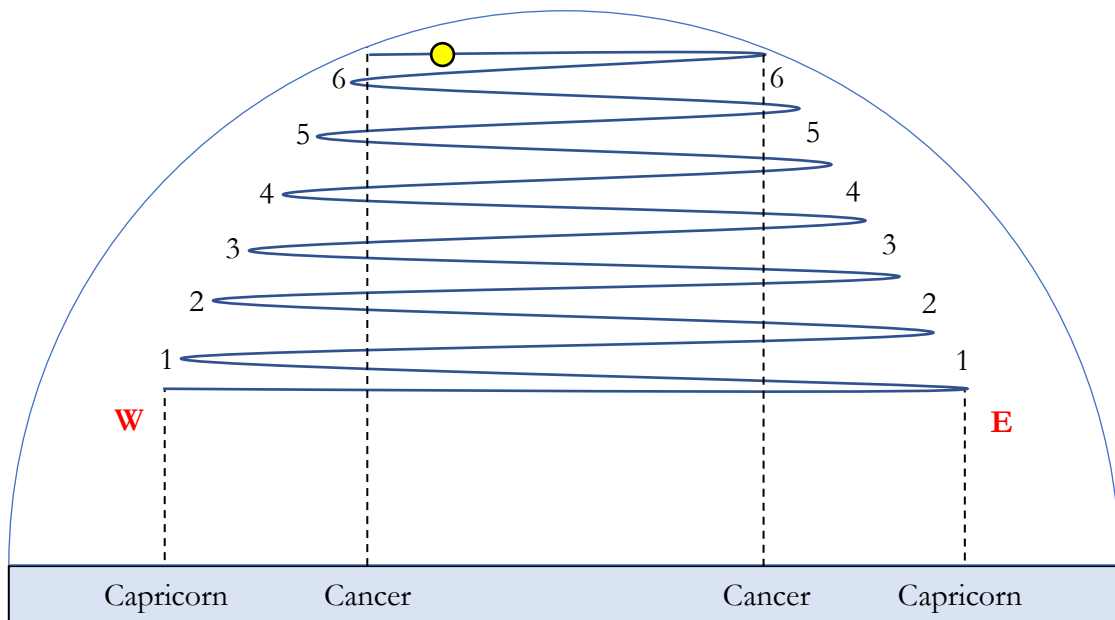


Figure 3: Cross-sectional view of the sun’s conical ecliptic through the six gates.

⁵³ I.e. a spiral, as implied by the dome’s poetic name *Livyatan* (‘coiled’). “The *Ecliptic*, or path of the sun, if it could be viewed from immediately beneath the Polar Star, would form a complete and perfect circle, [...] concentric with the *Equator*.” E. Bullinger, *The Witness of the Stars* (London, 1893), 16.

The sun is constantly moving on a conical trajectory at an incline of 23.4 degrees⁵⁴ and the gradual change in his altitude and orbital circumference causes the different seasons.⁵⁵

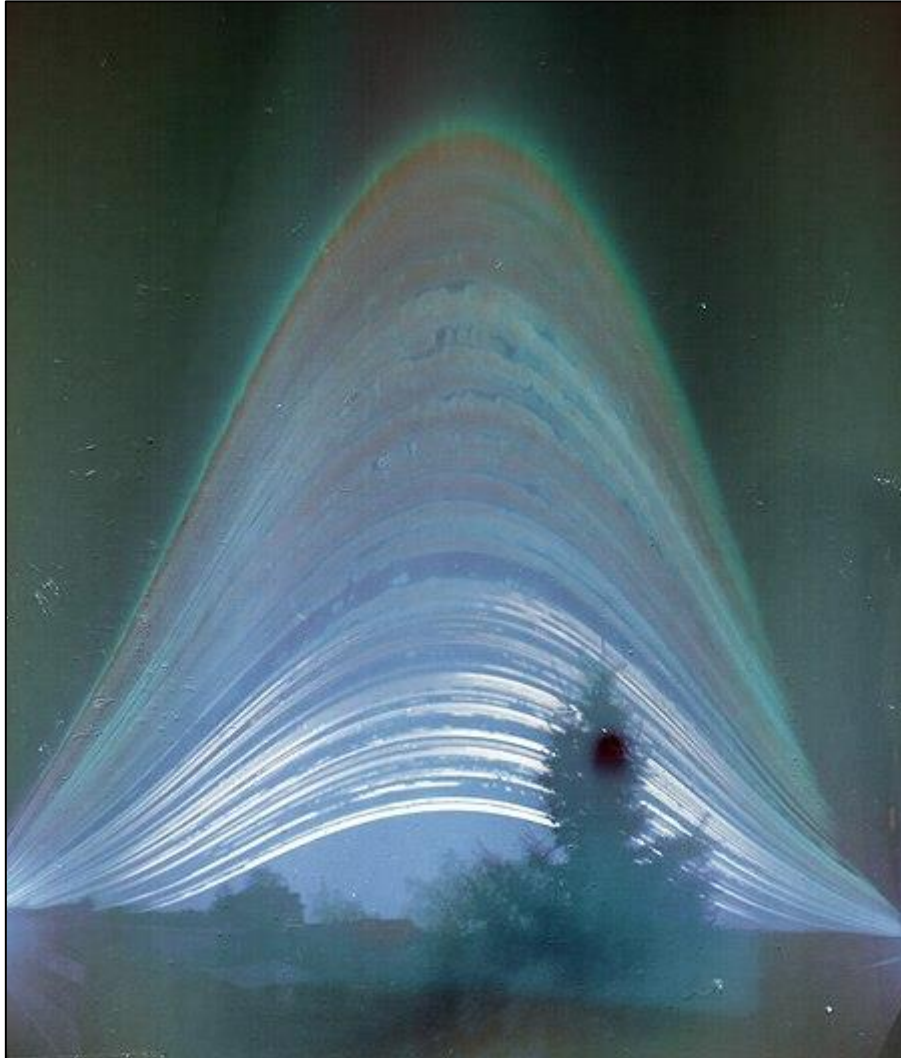


Figure 4: One-year exposure solargraph showing the sun's change in altitude & orbital circumference during 2014 (taken near Budapest by Elekes Andor).

⁵⁴ The earth's supposed 'axial tilt' is merely the inclination angle of the sun's conical path.

⁵⁵ Since the tropics differ in circumference, the orbital speed of the sun varies. At the Tropic of Cancer, the sun travels approx. 1,000 mph to complete his daily circuit, while at Capricorn he has a velocity of 2,000 mph, resulting in short twilight periods and in an average temperature gap of 25 °C between the Arctic and Antarctica. Since the Hebrew year starts in spring, Enoch's description of the sun's annual journey commences at the fourth gate, to wit, at the *tekufat Nisan* (תְּקוּפַת נִיסָן | 'vernal equinox') when ***the day equals the night and they are the same [length]*** (1 En 72:20). See also 1QH xx: ***in accordance with the laws of the Great Light of heaven*** (Vermes, op. cit. 296).

THE MOON

The moon, ever punctual to mark the times, an everlasting sign: It is the moon that signals the feasts, a luminary that wanes after being full. The month derives its name from her, she waxes wonderfully in her phases, banner of the hosts on high, shining in the vault of heaven. (Sir 43:6–8)

The moon, at times called *levanah* (לבנה | ‘white one’), is the sun’s feminine counterpart.⁵⁶ She is a rotating sphere⁵⁷ and in circumference equal to the sun:

With respect to their size the two [the sun and the moon] are equal. (1 En 72:37)

The moon is the lesser or smaller light (*ma’or ha-katan* | מאור הקטן) because it differs in magnitude:

The brightness of the sun is one kind, the brightness of the moon another. (1 Cor 15:41)

The ratio of brightness of the moon to the sun is 1 to 7:

The sun has a light seven times greater than the moon. (2 En 11:2)

Since Genesis defines the moon not as a reflector but as a luminary, we know that she emits her own light. Put another way, the moon illuminates not through reflection but through transduction.⁵⁸ As commonly held, her position in relation to the sun determines the phases, i.e. the visible area of the moon’s illuminated hemisphere:

On the first day she is called New Moon because on the day light appears on her. The whole time in which the illumination of the moon progresses, light is transmitted to her, facing the sun, until the fourteenth day when her light is complete; then it amounts to one seventh of the light of the sun. (1 En 78:12, 11; 73:3)

The moon then wanes over fourteen days until she exhibits zero illumination:⁵⁹

⁵⁶ As typified in Yosef’s dream, see Gen 37:9–10, ***The sun, the moon, and eleven stars were bowing down to me [...] Are we to come, I [the sun] and your mother [the moon] and your brothers, and bow low to you to the ground?*** Cf. Rev 12:1.; Kerygmata Petrou (H III 22).

⁵⁷ The moon behaves like any object in a rigid-body vortex: throughout her rotation the orb remains in the same relative position towards the axial line, which is why we only see one side of her. For footage showing the moon in a water filled firmament, see M. Stark, “World’s sharpest Tele lens! Moon, 300x zooming in! 4K, UHD, Leica 2.8/400 mm,” video, 3:54, 2016, www.youtube.com/watch?v=DCfD.

⁵⁸ The Ethiopic text of 1 Enoch portrays the moon as ‘taking’ from the sun. She acts like a fluorescent bulb which absorbs electromagnetic radiation and re-emits the photons in the form of cold light.

⁵⁹ Lunar *eclipse* is a misnomer: “Since about the 15th century over 50 eclipses have occurred while both sun and moon have been visible above the horizon.” F. Cook, *The Terrestrial Plane* (London, 1908), 58. When the EM axis between the terrestrial and celestial North Pole alters the conductive potential of

In her waning the moon decreases from her light. On the first day she has 14 parts, and on the second day 13 parts... [and on the fourteenth day 1 part]. And all the rest of her light is removed, and her orb emerges, devoid of all light, hidden by the sun. (1 En 78:8, 14)⁶⁰

The moon's primary name is *yareach* (ירח | 'wanderer'). She moves clockwise like the sun but a bit slower, completing her daily circuit in 24 h and 50 min. Yet, instead of one year it takes the moon only one month to wander her cone up and down. The reason for this lies not so much in the fact that her cone is a tad smaller, but rather that her trajectory is much steeper. On the average, the moon passes through each gate 2.5 times, not thirty times as the sun does. Accordingly, the moon covers some 3,000 km in altitude within two weeks.⁶¹

Table 1 shows the positions and phases of the moon during the month of Sivan (May–June).⁶² Throughout the entire month the sun rises and sets in gate six at the celestial Tropic of Cancer:

Day	Gate (G)	Illumination	Day	Gate (G)	Illumination
1	G ₆	1/14	16	G ₁	13/14
2	G ₆	2/14	17	G ₁	12/14
3	G ₆	3/14	18	G ₁	11/14
4	G ₆	4/14	19	G ₁	10/14
5	G ₅	5/14	20	G ₁	9/14
6	G ₅	6/14	21	G ₂	8/14
7	G ₄	7/14	22	G ₃	7/14
8	G ₄	8/14	23	G ₄	6/14
9	G ₃	9/14	24	G ₄	5/14
10	G ₃	10/14	25	G ₅	4/14
11	G ₂	11/14	26	G ₅	3/14
12	G ₂	12/14	27	G ₆	2/14
13	G ₁	13/14	28	G ₆	1/14
14	G ₁	14/14	29	G ₆	0/14
15	G ₁	14/14	30	G ₆	0/14

Table 1: Lunar positions and phases in Sivan

the moon, the latter appears orange. It happens on rare occasions when the sun and moon are opposing each other while having the same distance to the equinox.

⁶⁰ J. Milik, *The Books of Enoch* (Oxford, 1976), 292, 284. Cf. *Shemot Rabbah* 15:26.

⁶¹ "What the sun traverses in thirty days, the moon traverses in two and a half days [...] What the sun traverses in twelve months, the moon traverses in thirty days" (*YT Rosh Hashbanah* 12b).

⁶² Milik, op. cit. 278. The data is taken from MS. 64 of the Bibliothèque Nationale, Paris. Fol. 40^v–43^r contain a development and application of 1 En 72–76 bearing the title: *Of Enoch the Prophet: Book of the Revolution of the Lights of Heaven According to their Order, their Time, their Classes, their Names, their Origins, and their Months, composed by Enoch, Son of Yared, the Prophet, which the Angel Uriel showed to him.*

Any sun and moon tracking app will confirm the above movement which was shown to Enoch 5,300 years ago: the moon stays for four days in G₆ at the celestial Tropic of Cancer, then spirals down to G₁ above Capricorn where she orbits for eight days before going back to G₆. This pattern repeats itself every month with a different combination of gates.

THE STARS

The sun shines differently than the moon, the moon differently than the stars. (1 Cor 15:41)

There are two types of stars or *kocharim* (כוכבים): the fixed stars that maintain their relative position in a constellation and the wandering stars that move independently. The only motionless star is Polaris which is circled by the *mazalot* (מזלות | ‘constellations’) in anticlockwise direction.

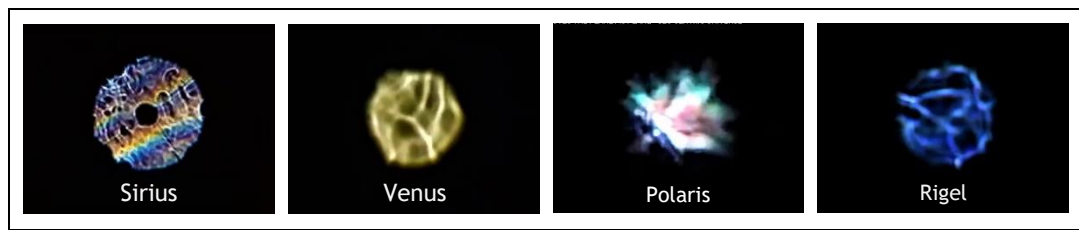


Figure 5: Stars shot with a *Nikon P1000* | 125x optical zoom + 250x digital zoom (by C. Dee)

a) *The Fixed Stars*

The fixed stars move in the upper half of the sphere which we perceive as the sky. At times, depending on the season, some of them enter the lower hemisphere which we cannot perceive; the stars complete their round within 23 h and 56 min.⁶³

The Jewish Sages say the celestial sphere of the zodiac is stationary, and the constellations revolve in their place within the sphere. (*Pesachim* 94b)

Like the sun and the moon, the stars were put into the vault, from which follows that they are surrounded by water. Stars can be described as sonoluminescent cavities (‘bubbles’) which constantly expand and collapse, thereby emitting short bursts of light. Each star pulsates at a different frequency which determines shape and colour.

⁶³ This revolution is referenced as the *circle of the stars* (Ass. of Moses 10:5; Wis 13:2) and includes the Milky Way or *Nebar Dinur* (נהר דיִינור | ‘River of Light’), a mere accumulation of small fixed stars (cf. Dan 7:10). While stars do not travel through the lower hemisphere, in certain months the southern constellations dip into it.

The stars differ from each other in their beauty and brightness. (1 Cor 15:41)

Thus, physically seen, a star is sound turned into light.⁶⁴ Spiritually seen, however, stars are spirits; they are angels (*malakhim* | מלאכים). Angelic spirits can act both as guardians and warriors, yet their main purpose is to convey a message.⁶⁵

The spirits are exalting the mighty deeds of God; they are proclaiming soundlessly a divine oracle. (IIQ17viii)⁶⁶

We cannot hear their words, and yet, we know exactly what they are saying: they are proclaiming the Glory of God, i.e. the Messiah and his redemptive work.⁶⁷

The heavens are proclaiming the glory of God; and the firmament declares his handiwork. Day after day they bubble forth speech; night after night they tell it again. Without a sound or word, silent in the skies, their message reaches out to all the world. (Ps 19:1–4)

Can it be that Israel hasn't heard the message? No, they have heard it, for: The voice has been heard throughout the world, and its message has gone to the ends of the earth! (Rom 10:18)

The stellar hemisphere has been communicating the gospel since creation. Each year the sun leads us through the redemption story commencing with the virgin in G₄ (*Virgo*) and concluding twelve months later in G₅ with the reign of the Lion of Judah (*Leo*).⁶⁸ The table shows the sun's journey between the solstices, that is, between *tekufat Tammuz* (תקופת תמוז) and *tekufat Tevet* (תקופת טבת):

⁶⁴ “Imagine discovering bubbles in your bathwater that are as hot as the sun’s surface. You might wonder how they got there, and you wouldn’t be alone. For 70 years, physicists have puzzled over sonoluminescence, a process where sound waves create thousands of hot, luminous bubbles in water [...] Physicists first saw sonoluminescence in 1934, but it took them over a half-century to figure out what made the bubbles glow.” G. Brumfiel, “Size Matters for Flashing Bubbles,” *Phys. Rev. Focus* 7 (2001): 23, physics.aps.org/story/v7/st23. For raw footage of stars and wandering stars see A. Webster’s “Frequency of the Heavens: Cymatics, Bio & Sonoluminescence,” video, 14:51, 2015, www.youtube.com/watch?v=MxnjCRi5NJI.

⁶⁵ Cf. Gen 15:5 with Heb 12:22; Neh 9:6 with Dan 8:10; Isa 14:12 with Rev 12:4; Dan 12:3 with Mt 22:30; see also Job 38:7; Ps 148:2–3; Rev 1:20. Stars helped Israel fighting the Canaanites (Jdg 5:20), and their commander-in-chief Mikha’el appeared to Yehoshua with a drawn sword (Josh 5:14). Cf. Num 22:23, 31; 1 Chr 21:16; Rev 12:7.

⁶⁶ Vermes, op. cit. 339.

⁶⁷ **[The Messiah] is the sole expression of the glory of God** (Heb 1:3; cf. Rev 21:23). Stars signify “the things that exist, those that are yet to be, those that are temporal, and those that are eternal. Indeed, for this reason they came into being, even for signs, for times, and for seasons, and they are seen by everyone, but they are only understood by the observant” (Recognitions 1:28). 1 Chr 12:33 portrays the Issacharites as **men who knew how to interpret the signs of the times** and Yosef even had a star map (Jash 53:18–20), Noah, op. cit. For a detailed study of the redemption story in the stars see E. Bullinger, *The Witness of the Stars* (London, 1893).

⁶⁸ The Hebrew civil year begins on 1 Tishrei, the day the Messiah was born (following the sign of *Virgo*). Since the Egyptians were taught by Avraham, they invented the sphinx to show the start and end of

Gate	Sign	Sun	Sign	Gate
G ₆	Gemini		Cancer	G ₆
G ₅	Taurus		Leo	G ₅
G ₄	Aries		Virgo	G ₄
G ₃	Pisces		Libra	G ₃
G ₂	Aquarius		Scorpio	G ₂
G ₁	Capricornus		Sagittarius	G ₁

Table 2: Positions of zodiac signs in the firmament and the path of the sun

Unlike the sun which revolves 360° in 24 h, the stars orbit 361° which causes the signs to shift. After one month the starry host has moved by 30° and the relative position towards the sun of e.g. Capricornus is taken by Aquarius, and a month later by Pisces, etc. That is the reason why the sun spirals down through the remaining six signs and not through the previous six.⁶⁹

b) *The Wandering Stars*

Wandering stars aka planets⁷⁰ change their relative position. Like the sun, they travel on a conical ecliptic in clockwise direction but with different orbital periods. Planets slow down or speed up depending on their proximity to the sun. For instance, Venus and Mercury move inside the sun’s cone and are the fastest, while the outer planets such as Jupiter and Saturn are the slowest.⁷¹ The ‘Hebrew Bible Historiale’ approximates the sun’s innermost planets accordingly:

The second degree is the orbit of Mercury, in which it describes its circuit in the firmament.
 The third degree is the orbit of Venus, in which it also describes its circuit in the firmament.
 The fourth degree is the middle of them, viz. the habitation of the sun [i.e. the ecliptic].⁷²

the zodiac: a head of a virgin with the body of a lion. See 2 En 30:5, ***And I placed the sun [...] that he should go according to each sign of the zodiac.*** The zodiacal signs have always been identified with the Twelve Tribes, each of which bore one of them on its standard (cf. Num 2:1–34); Dan’s ensign was the eagle because it is the chief enemy of the scorpion (*Scorpio*); see the appendix for an overview.

⁶⁹ The twelve showbreads, which were arranged in two rows of six, were stacked on top of each other to represent the sun’s ascend and descend. “The twelve loaves that were upon the table signified the circle of the zodiac.” Josephus, *Wars* 5.5.5 (cf. Lev 24:6; Rambam, *Hilkehot Temidim u-Musafim* 5:2).

⁷⁰ Cf. Jude 1:13 and the identification of ‘wandering stars’ as angels who have abandoned their fixed place.

⁷¹ Wandering stars always follow the ecliptic of the sun in terms of altitude independent of its longitude. The reason for retrograde motion is that most planets describe circles and ellipses as they follow the sun (except for Venus and Mercury whose retrograde movements are more complex).

⁷² Gaster, op. cit. 12. These are the visible planets as embodied in the Menorah: “The seven lamps signified the seven planets; for so many there were springing out of the candlestick.” Josephus, *Wars* 5.5.5.

Given that the radius of Jupiter is 0.8 km as per plane trigonometry, an overview of planet sizes appears rather unnecessary; wandering stars are small.



7 Conclusion

The views which were presented describe the real world we live in, not a virtual solar system. Although Copernicanism is meant to be an impregnable concept, there is no need to falsify it, since its folly is apparent.

From the days of Constantine, Rome has aimed to replace the worship of God with the worship of the sun, and when Holy Writ went public, she started to employ other means than merely corrupting Scripture and killing its readers. To undermine the Bible's authority, Rome began to change the perception of the masses regarding reality. That way she would nullify its main opponent without having to burn people or Torah scrolls.

Heliocentrism was simply a tool of the Counter-Reformation and has been the bedrock of Jesuit 'education' ever since. Like the big bang and macro-evolution, it is an ancient pagan belief that was revived by 'the beast.'

Jesuit priest Bernhard Stempfle, the ghostwriter of *Mein Kampf*, explains the secret of Rome's success quite aptly:

In the big lie, there is always a certain force of credibility because the broad masses of a nation are always more easily corrupted in the deeper strata of their emotional nature than consciously or voluntarily. And thus in the primitive simplicity of their minds, they more readily fall victim to the big lie than the small lie, since they themselves often tell small lies in little matters but would be ashamed to resort to large-scale falsehoods. It would never come into their heads to fabricate colossal untruths, and they would not believe that others could have the impudence to distort the truth so infamously, even though the facts which prove this to be so may be brought clearly to their minds, they will still doubt and waver and will continue to think there may be some other explanation.⁷³

Added to this, we find that by and large fallen humanity prefers deception if it negates the Creator's existence.

⁷³ A. Hitler, *Mein Kampf*, vol. 1 (London, 1942), 134.

The few, however, who neither dread the ridicule nor the risk of losing friends or reputation, will find the probing of the topic most rewarding and refreshing.⁷⁴

In summary, we may conclude that Enochian cosmology is correct and accurate while today's so-called astronomical science with all its worlds, suns, and systems is merely a graven image (and obviously wrong).

Hence the Rabbis have said that the orbit of the sun and the circuit of the moon, the order of the stars, the arrangement of the planets, the calculation of the circuits, the length of days and the division of the hours [...] are all the work of God.⁷⁵

Keep that which is committed to thy trust, avoiding profane and vain babblings, and oppositions of science falsely so called. (1 Tim 6:20)



⁷⁴ A bit of investigation coupled with common sense reveals that space travel and anything linked to it such as 'outer space,' universal gravitation, moon landings, the ISS, satellites, the Hubble telescope, the Webb telescope, etc. constitutes a large-scale scam (admittedly well-presented and preserved). Despite the cognitive dissonance one might experience, I recommend B. Sibrel's documentary "A Funny Thing Happened on the Way to the Moon," www.documentarystorm.com/a-funny-thing-happened-on-the-way-to-the-moon/ as well as: "Apollo 11 Post Flight Press Conference," www.youtube.com/watch?v=Yz6nzutr7RU. Gazing into the night sky with hunting binoculars (12x) is another worthwhile approach.

⁷⁵ Gaster, op. cit. 13–4.

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ZODIAC SIGNS & MONTHS WITH HEBREW NAMES

Constellation			Month	
Latin	English	Hebrew	English	Hebrew
<i>Aries</i>	Ram Lamb	<i>Taleb</i>	March	Nisan
<i>Taurus</i>	Bull	<i>Shor</i>	April	Iyar
<i>Gemini</i>	Twins	<i>Teomim</i>	May	Sivan
<i>Cancer</i>	Crab	<i>Sarton</i>	June	Tammuz
<i>Leo</i>	Lion	<i>Ari</i>	July	Av
<i>Virgo</i>	Virgin	<i>Betulah</i>	August	Elul
<i>Libra</i>	Scales	<i>Moznayim</i>	September	Tishrei
<i>Scorpio</i>	Scorpion	<i>Akrab</i>	October	Cheshvan
<i>Sagittarius</i>	Archer	<i>Kassbat</i>	November	Kislev
<i>Capricornus</i>	Goat Kid	<i>Gedi</i>	December	Tevet
<i>Aquarius</i>	Water Bearer	<i>Dli</i>	January	Shevat
<i>Pisces</i>	Fish	<i>Dagim</i>	February	Adar

THE CAMP OF YISRAEL

	Yissachar <i>Cancer</i>	Yehuda <i>Leo</i>	Zevulun <i>Virgo</i>	
Naftali <i>Capricornus</i>		E		Shimon <i>Pisces</i>
Dan <i>Scorpio</i>	N	Levi <i>Scales</i>	S	Reuven <i>Aquarius</i>
Asher <i>Sagittarius</i>		W		Gad <i>Aries</i>
	Binyamin <i>Gemini</i>	Efraim <i>Taurus</i>	Menashe <i>Taurus</i>	

BIBLE VERSIONS USED

Page 1:	Job 38:33a, 4b	TLB	The Living Bible
Page 3:	2 Esdr 6:40	KJV	King James Version
Page 5:	Prov 8:28	TIB	The Israel Bible
Page 7:	Ezek 1:22	GNT	Good News Translation
	Sir 43:1	TJB	The Jerusalem Bible
	Deut 28:23	TIB	The Israel Bible
Page 8:	Amos 9:6	TIB	The Israel Bible
	2 Esdr 16:59; 2 Sam 22:8	KJV	King James Version
	Job 26:11	KJV	King James Version
Page 9:	Mt 5:34	CEV	Contemporary English Version
	1 Kgs 8:27	KJV	King James Version
Page 10:	Ezek 1:26	GNT	Good News Translation
	Isa 14:13	TIB	The Israel Bible
	Eccl 11:3	KJV	King James Version
Page 11:	Rev 15:2	CEV	Contemporary English Version
Page 12:	1 Esdr 4:34–35	KJV	King James Version
	Sir 43:2–3, 5	TJB	The Jerusalem Bible
	Job 9:7	TIB	The Israel Bible
Page 15:	Sir 43:6–8	TJB	The Jerusalem Bible
	1 Cor 15:41	NAB	New American Bible
	Gen 37:9–10	TIB	The Israel Bible
Page 17:	1 Cor 15:41	VOICE	The Voice
	Wis 13:2	KJV	King James Version
Page 18:	1 Cor 15:41	TLB	The Living Bible
	Ps 19:1	NRSV	New Revised Standard Version
	Ps 19:2	EXB	Expanded Bible
	Ps 19:3–4	TLB	The Living Bible
	Rom 10:18	TPT	The Passion Translation
	Heb 1:3	AMPC	Amplified Bible, Classic Edition
	1 Chr 12:33	TIB	The Israel Bible
Page 22:	1 Tim 6:20	KJV	King James Version