

Genesis 1:1–13—Logotechnical Prosodic Analysis

Translation and Textual Notes

I. First Three Days: Creation of Planet Earth

Gen 1:1–13

A. Strophe 1: Creation of the Heavens and the Earth (1:1–2)

[4.9]

1:1	In the beginning / God created //	14 2	3 3 0
	the heavens / and the earth //	<u>15 2</u>	4 0 4
1:2	And the earth / was formless (<i>tôhû</i>) / and void /	<u>21 3</u>	4 4 0
	And darkness / was on the face of the deep (<i>təhôm</i>) //	<u>11 2</u>	4 4 0
	And the spirit of God / was hovering /	13 2	3 0 3
	on the surface / ^a of the waters //	<u>8 1</u>	<u>3 0 3</u>
		1:1–2	21 11 10

B. Strophe 2: Creation of Light—End of Day One (1:3–5)

[9.7]

1:3	And God said / “Let there be light” //	14 2	4 4 0
	and there was light //	<u>6 1</u>	<u>2 0 2</u>
		1:1–3	27 15 12
1:4	And God saw / the light / <u>that it was good</u> //	<u>16 3</u>	<u>6 6 0</u>
		1:2–4a	26 18 8
	And God separated /	9 1	2 0 2
	the light / from the darkness //	<u>14 2</u>	<u>4 0 4</u>
		1:2–4	32 18 14
1:5	And God called / the light day /	15 2	4 4 0
	and the darkness / he called night //	13 2	3 3 0
	and there was evening / and there was morning / day one //	<u>16 3</u>	<u>6 0 6</u>
		1:3–5	31 17 14

C. Strophe 3: Creation of the Firmament to Separate the Waters (1:6–7a)

[3.4]

1:6	And God said / let there be a firmament /	17 2	4 4 0
	in the midst of the waters //	<u>7 1</u>	<u>2 2 0</u>
		1:3–6b	37 23 14
	And let it divide / between the waters and the waters //	<u>16 2</u>	<u>5 0 5</u>
		1:1–6	63 34 29

1:7	And God made / the firmament /	_16 2_	<u>4 4 0</u>
		1:5-7a	28 17 11

D. Strophe 4: Separating the Waters to Form the Sky—End of Day Two (1:7b–8) [6.6]

	And he separated / the waters / that were under the firmament /	21 3	6 6 0
	from the waters / that were / over the firmament //	_19 2_	<u>5 5 0</u>
		1:6-7c	26 21 5

	And it was so //	_5 1_	<u>2 0 2</u>
		1:7	17 15 2

1:8	And God called / the firmament / sky //	21 3	4 4 0
	and there was evening / and there was morning / day two //	<u>17 3 6</u>	<u>0 6</u>
		1:5-8	51 32 19

E. Strophe 5: Creation of Dry Land (1:9) [4.3]

1:9	And God said / “Let the waters be gathered /	_17 2_	<u>4 4 0</u>
		1:7-9a	31 23 8

	From below the sky / to one place /	_16 2_	<u>7 7 0</u>
		1:7b-9b	34 26 8

	And let the dry land / appear //	12 2	2 2 0
	and it was so //	<u>5 1</u>	<u>2 0 2</u>
		1:8-9	23 15 8

F. Strophe 6: Naming the Earth and the Seas—Creation of Vegetation (1:10–13) [7.9]

1:10	And God called / the dry land / earth /	17 3	4 4 0
	and the gathering of waters / he called seas //	16 2	4 4 0
	and God saw / that it was good //	_11 2_	<u>4 0 4</u>
		1:8-10	35 23 12

1:11	And God said /	_9 1_	<u>2 2 0</u>
		1:6-11a	65 46 19

	Let the earth sprout ^a vegetation / plants yielding seed /	19 2	6 6 0
	fruit trees / producing fruit / after their kind /	16 3	5 5 0
	with seed in them / on the earth //	_13 2_	<u>5 5 0</u>
		1:10-11d	30 26 4

	And it was so //	<u>6 1</u>	<u>2 0 2</u>
		1:10-11	32 26 6

G. Strophe 7: Creation of Vegetation on Earth—End of Day Three (1:12–13) [9.4]

1:12	And the earth brought forth / vegetation / plants yielding seed / after their kind /	12 2 _16 2_	3 3 0 <u>4 4 0</u>
		1:10–12b	39 33 6
	And trees bearing fruit /	_9 1_	<u>3 3 0</u>
		1:8–12c	65 51 14
	With seed in them / after their kind //	14 2	4 4 0
	and God saw / that it was good //	<u>11 2</u>	<u>4 0 4</u>
		1:11–12	38 32 6
		1:1–12	153 104 49
1:13	And there was evening / and there was morning / day / ^a three //	6 1 7 1 <u>7 2</u>	2 2 0 2 2 0 <u>2 2 0</u>
		1:10–13	56 46 10
		1:1–13	159 110 49

Scansion in Accentual Stress Units: (4.9).(9.7) .(13.13) . (7.9).(9.4)

$$= (13 + 16) + 26 + (16 + 13) = 29 + 26 + 29 = 84$$

or: 55 // 55 [with pivot counted in each half]

$$\{55 = 23 + 32 \text{ and } 84 = 2 \times 2 \times 3 \times 7\}$$

Concentric Compositional Formula: 159 = 79 + 1 + 79 [word count]

Notes:

1:2^a Reading *mērəkā* here in BHS as disjunctive.

1:11^a Reading *paštā* here immediately before *zaqēp qātôn* in BHS as conjunctive.

1:13^a Reading *mērəkā* here in BHS as disjunctive.

Summary of the Logotechnical Prosodic Analysis

1. Genesis 1:1–13 has seven strophes: 1:1–2, 3–5, 6–7a, 7b–8, 9, 10–11 and 12–13.

A	1:1	balanced dyad:	$(14 + 15)$	=	$14 + 15$	morae
	1:2	balanced dyad + pivot:	$(21 + 11 + [13 + 8])$	=	$21 + 11 + 21$	morae
B	1:3–4	2 balanced dyads + pivot:	$(14 + 6) + 16 + (9 + 14)$	=	$20 + 16 + 23$	morae
	1:5	balanced dyad + pivot:	$(15 + 13 + 16)$	=	$15 + 13 + 16$	morae
C	1:6–7c	triad & dyad + pivot:	$(17 + 7 + 16) + 16 + (21 + 19)$	=	$40 + 16 + 40$	morae
		{1:17bc functions as a bridge connecting two strophes and belonging to both of them}				

X	1:7b–8	2 balanced triads + pivot:	$(21 + 19) + 5 + (21 + 17)$	=	$40 + 5 + 38$	morae
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C'	1:9	balanced triad:	$(17 + 16 + [12+5])$	=	$17 + 16 + 17$	morae
B'	1:10–11	quatrain & triad:	$([17+16] + [11+9]) + (19 + 16 + [13+6])$	=	$53 + 54$	morae
A'	1:12	2 balanced dyads + pivot:	$(11 + 11) + 15 + (9 + 11)$	=	$22 + 15 + 20$	morae
	1:13	balanced dyad + pivot:	$([6 + 15]) + 9 + 19)$	=	$21 + 9 + 19$	morae

- The first strophe (1:1–2) has two parts: 1:1 and 2.
 - There is no use of the primary compositional numbers in this strophe
- The second strophe (1:3–5) has two parts arranged in 4 subdivisions on the basis of word-count: 1:3, 4a, 4bc and 5.
 - 1:2–4a **26** words
 - 1:2–4 **32** words
 - 1:3–5 **17** words before *atnach*
- The third strophe (1:6–7a) is a single part arranged in 3 subdivisions on the basis of word-count: 1:6ab, 6c and 7a.
 - 1:3–6b **23** words before *atnach*
 - 1:1–6 **34** (= **17** x 2) words before *atnach*
 - 1:5–7a **17** words before *atnach*
- The fourth strophe (1:7b–8) is a single part arranged in 3 subdivisions on the basis of word-count: 1:6ab, 6c and 7a.
 - 1:6–7c **26** words
 - 1:7 **17** words
 - 1:5–8 **51** (= **17** x 3) words and **32** words before *atnach*
 - 1:5–9a **34** (= **17** x 2) words before *atnach*
 - 1:8–9 **23** words
- The fifth strophe (1:9) is a single part arranged in 3 subdivisions on the basis of word-count: 1:9a, 9b and 9cd.
 - 1:7–9a **23** words before *atnach*
 - 1:7b–9b **34** (= **17** x 2) words and **26** words before *atnach*
 - 1:8–9 **23** words

7. The sixth strophe (1:10–11) is a single part arranged in 4 subdivisions on the basis of word-count: 1:10, 11a, 11b-d and 11e.
 - 1:8–10 **23** words before *atnach*
 - 1:6–11a **46** (= **23** x 2) words before *atnach*
 - 1:10–11d **26** words before *atnach*
 - 1:10–11 **32** words

8. The seventh strophe (1:12–13) has two parts arranged in 4 subdivisions on the basis of word-count patterns: 1:12ab, 12c, 12de and 13.
 - 1:12ab **39** (= **13** x 3) words
 - 1:8–12c **65** (= **13** x 5) words and **51** (= **17** x 3) words before *atnach*
 - 1:11–12 **32** words before *atnach*
 - 1:1–12 **153 = 104 + 49** [compositional formula]
 - 1:10–13 **46** (= **23** x 2) words before *atnach*

Observations

1. The seven strophes in Gen 1:14–31 may be outlined in a menorah pattern, which is determined primarily on prosodic grounds in terms of the inverse concentric arrangement of syntactic accentual-stress units, rather than content as such—though repetition of themes underscores the concentric structure found in the prosodic analysis to some degree.

First 3-Day Panel: Creation of the Planet Earth

Gen 1:1–13

A	St 1: Creation of the heavens and the earth	[4.8]	1:1–2
B	St 2: Creation of light— <i>end of day one</i>	[9.7]	1:3–5
C	St 3: Creation of the firmament to separate the waters	[3.4]	1:6–7a
X	St 4: Separating the waters to form the sky—<i>end of day two</i>	[6.6]	1:7b–8
C'	St 5: Creation of the dry land—beneath the “sky dome”	[4.3]	1:9
B'	St 6: Naming the Earth and the Seas—creation of vegetation	[7.9]	1:10–11
A'	St 7: Creation of vegetation on the earth— <i>end of day three</i>	[8.4]	1:12–13

2. Numerous scholars have observed that the six working days of creation are arranged in parallel 3-day “panels” as follows:

Panel One: “Universe as a Building”

Panel Two: “The Furniture”

Day 1	Light (“The Big Bang”—1:3–5)	Day 4	Lights: sun, moon & stars (1:14–19)
Day 2	Sky dome—separating waters (1:6–8)	Day 5	First inhabitants on earth (1:20–23)
	Sky		Fish
	Seas		Birds
Day 3	Earth appears as dry land (1:9–10)	Day 6	Animals (1:24–26) & humans (1:27–29)
	Vegetation appears on earth (1:11–13)		Vegetation as food for animals (1:30–31)

The physical domains of the universe and immovable objects on earth are created in the first three days. In the second three days, the movable things are created for each of the

days in the first “panel” of three days. The chiasmic reversal of the products of the middle days adds to the symmetry, as Mark Thronveit has noted (*The Genesis Debate: Persistent Questions about Creation and the Flood*, ed. R. Youngblood [New York: Thomas Nelson, 1986], p. 46)

3. The English word firmament, which is defined as the “vault of heaven” or “sky,” may in fact owe its origin in Middle English (from the Latin *firmamentum*) as an attempt to come up with an equivalent to the Hebrew word *rāqîaʿ*. Thus it seems better to retain the word firmament in the English translation of Gen 1:6–8 and to describe it in relation to the concept of a dome—as in the “Sky Dome,” a sports arena in Tacoma, Washington. The “lights” (sun, moon and stars) are envisioned as being placed in this firmament that separates the waters above from the waters below. The waters above are the source of torrential rains that come down when the “windows” of the firmament are opened. The waters below are the source of water found in wells, and in underground rivers, as evidenced in one of the sources of the Jordan River at Tell Dan in Israel. Here the water comes bursting forth from the ground itself as a raging torrent (cf. Ps 42:6–7 and “the thunder of thy cataracts”—“from the land of Jordan and of Hermon, from Mount Mizar”).

4. Much has been said about the so-called “Bible Code” in which information is coded into the Hebrew text of the Tanakh at equidistant letters. Behind all this is some small measure of truth, as revealed by a close look at Gen 1:1–5, which curiously constitutes a remarkably “modern” poetic account of what some today call the “Big Bang” theory of the origin of the universe. The word תורה (“Torah”) is spelled out in fixed intervals 49 letters apart. Starting with the final letter of the first word in the Bible, בראשית (“in the beginning”), which is ת, we count 49 letters and the next one is ו in the word תהום (“the deep”). Count 49 letters again and the next one is ר in the word וירא (“and he saw”). Count 49 letters again and the next one is ה in the word אלהים (“God”). The sequence spells out the word תורה (“Torah”).

The same phenomenon appears again in Exodus 1:1–6 starting with first occurrence of the letter ת in the word שמות (“names”). A similar phenomenon appears in Numbers 1:1–3, where the word תורה (“Torah”) is spelled out in reverse at intervals of 49 letters, beginning with the first occurrence of the letter ה at the end of the word משה (“Moses”). A variation of this phenomenon appears in Deuteronomy, where the word תורה (“Torah”) is spelled out in reverse at intervals of 48 letters, starting with the word תורה (“Torah”) in Deut 1:5. The situation is different in Leviticus, where the divine-name יהוה (YHWH) appears in fixed intervals of 7 letters, starting with the very first word ויקרא, which is the traditional Jewish name of the book itself. How appropriate to find YHWH enthroned in his Tabernacle in the structural center of the Torah itself.

5. In terms of the 159 words in Genesis 1:1–13, the **arithmological center** falls on the word כן (“[and it was] so”), the last word in 1:7, with 79 words on either side. The initial **concentric compositional formula** is:

$$\begin{aligned}
 159 &= 79 + 1 + 79 && \text{[word count]} \\
 \text{or: } &80 // 80 && \text{[word count—with “pivot” included in each half]} \\
 &\{80 = 40 \times 2 \text{ and } 40 = 17 + 23\}
 \end{aligned}$$

One candidate for the **meaningful center** is found by adding one word on either side of the **arithmological center**, as follows:

ויהי כן ויקרא And it was so; and he called.

In this instance, the **concentric compositional formula** becomes:

$$159 = 78 + 3 + 78 \quad \text{[word count]}$$

$$\text{or: } 81 // 81 \quad \text{[word count—with “pivot” included in each half]}$$

The **meaningful center** may be expanded to include 16 words on either side of the **arithmological center**.

- 7 ויעש אלהים את הרקיע And God made the firmament
 ויברל בין המים And he divided between the waters
 אשר מתחת לרקיע that were under the firmament
 ובינ המים And between the waters
 אשר מעל לרקיע that were above the firmament
 ויהי כן And it was so
- 8 ויקרא אלהים לרקיע שמים And God called the firmament sky
 ויהי ערב ויהי בקר יום שני and it was evening and it was morning, day two
- 9 ויאמר אלהי יקוו המים And God said, “Let the waters be gathered
 מתחת השמים from below the sky

In this instance, the **concentric compositional formula** becomes:

$$159 = 63 + 33 + 63 \quad \text{[word count]}$$

$$\text{or: } 96 // 96 \quad \text{[word count—with “pivot” included in each half]}$$

$$\{96 = 32 \times 3\}$$

6. Summary of the concentric compositional formulae for Gen 1:1–13:

$$159 = 78 + 3 + 78 \quad \text{or: } 181 // 81 \quad \{78 = 26 \times 3\}$$

$$159 = 63 + 33 + 63 \quad \text{or: } 96 // 96 \quad \{96 = 32 \times 3\}$$

{with others in between}

$$159 = 31 + 97 + 31 \quad \text{or: } 128 // 128 \quad \{128 = 32 \times 4\}$$

$$159 = 10 + 139 + 10 \quad \text{or: } 149 // 149$$

$$84 = 29 + 26 + 29 \quad \text{or: } 55 // 55 \quad \text{syntactic accentual-stress units}$$

$$\{55 = 23 + 32 \text{ and } 84 = 2 \times 2 \times 3 \times 7\}$$

$$39 = 13 + 13 + 13 \quad \text{or: } 26 // 26 \quad \text{briques (primary accentual-stress units)}$$

7. In the prosodic structure of Gen 1:1–13, the basic building blocks (**briques**) in each poetic **verset** are the **primary syntactic accentual stress units**. These sub-units are delineated by the Masoretes, who marked the boundaries with one of the following:

- **Soph Pasuq** A large colon following a word signifies the end of a verse, which does not always coincide with the end of a sentence.
- **Atnach** A small caret-like mark (like ^) beneath the consonantal text, pointing upward, is used to divide most verses. Its primary importance for our purposes concerns its use in the matter of numerical composition—i.e., the total word-count in each line is divided into the number of words before and after *atnach*.

In the prosodic analysis presented with the translation (above), the presence of these two primary disjunctive markers is indicated with a double slash (/). Gen 1:1–13 has 39 **briques** (primary stress units), 25 of which are marked by *soph pasuq* (13 times, at the end of each verse) and *atnach* (12 times, in each verse, except verse 13). The boundaries of the 14 remaining **briques** are marked by *revia* (2 times, in verses 9 and 11), *zaqeph parvum* (9 times, in verses 2, 4, 5, 6, 7, 10, 11 [twice] and 12), *segolta* (verse 7), *pashta* (verse 9) and *telisha magnum* (verse 12).

8. The prosodic structure of Gen 1:1–13, in terms of its **briques** (primary syntactic accentual-stress units), may be displayed as follows: ^ represents *atnach*; : represents *soph pasuq*; and † represents all other accent markers.

I A ¹ *bəreʔšit bārāʔ ʔəlohîm ^* *ʔēt haššāmayim wəʔēt hāʔāreš :*
² *wəhāʔāreš hayəṭāh ṭōhû wābōhû †* *wəḥōšek ʕal pənê ṭəhôm ^*
wəruʔah ʔəlohîm məraḥēpēt ʕal pənê hammāyim :

B ³ *wəyōʔmer ʔəlohîm yəhî ʔôr ^* *wayəhî ʔôr :*
⁴ *wayyarʔ ʔəlohîm ʔet hāʔôr kî ṭōb ^* *wayəbdēl ʔəlohîm †*
bên haʔôr ûbên haḥōšek :
⁵ *wayyiqrāʔ ʔəlohîm lāʔôr yôm †* *wəlaḥōšek qārāʔ lāylāh ^*
wayəhî ʕereḥ wayəhî bōqer yôm ʔəḥād :

II X ⁶ *wəyōʔmer ʔəlohîm †* *yəhî rāqîaʕ bəṭōk hammāyim ^*
wîhî məbdîl bên māyim lāmāyim :
⁷ *wayyaʕas ʔəlohîm ʔet hārāqîaʕ †*

wayyəbdēl bên hammāyim ʔāšer mittaḥat lārāqîaʕ †
ûbên hammāyim ʔāšer mēʕal lārāqîaʕ ^ *wayəhî kēn :*
⁸ *wayyiqrāʔ ʔəlohîm lārāqîaʕ šāmāyim ^*
wayəhî ʕereḥ wayəhî bōqer yôm šēnî :

- ⁹ *wəyōʾmer ʾēlōhîm † yiqqāwû hammayim mittahat haššāmayim †*
ʾel māqôm ʾehād wəṭērāʾeh hayyabbāšāh ^ wayəhî kēn :
- III B' ¹⁰ *wayyiqrāʾ ʾēlōhîm layyabbāšāh ʾeres † ûlamiqwēh hammayim qārāʾ yammîm ^*
wayyarʾ ʾēlōhîm kî tōb :
- ¹¹ *wəyōʾmer ʾēlōhîm tadšēʾ hāʾāreš dešeʾ † ʿēseḅ mazrîaʿ zeraʿ †*
ʿēs pərî ʿōseh pərî ləmîno † ʾāšer zarʿô ḅô ʿal hāʾāreš ^ wayəhî kēn :
- A' ¹² *wattôšēʾ hāʾāreš dešeʾ ʿēseḅ † mazrîaʿ zeraʿ ləmînehû †*
wəʿēs ʿōseh pərî ʾāšer zarʿô ḅô ləmînehû ^ wayyarʾ ʾēlōhîm kî tōb :
- ¹³ *wayəhî ʿereḅ wayəhî ḅoqer yôm šəlîšî :*

The **arithmological center** of Gen 1:14–31 falls on the second occurrence of the word **kēn** (“[and it was] so”) in Gen 1:7c, with a total of 79 words on either side. There are 84 syntactic accentual-stress units, 39 **briques** (primary accentual stress units), 13 **versets**, 5 **strophes** and 3 **cantos**. The **arithmological center** is in the middle canto, the middle strophe, the middle verset, the middle **brique**, and the middle two syntactic accentual-stress units. There are xxx morae in Gen 1:1–13, with xxx morae before the the word **kēn** (“[and it was] so”) in Gen 1:7c, and xxx morae after it.

According to the analysis presented here, the 39 **briques** in Gen 1:1–13 are distributed as follows: 39 = (5 + 8) + (4 + 5 + 4) + (8 + 5) = 13 + 13 + 13; or **26 // 26** with the central pivot included in each half.

9. Note the following list of significant compositional numbers at the boundaries of the verses counting from the beginning of the book of Genesis:

Gen 1:1–4	39 (= 13 x 3) words
Gen 1:1–5	52 (= 26 x 2) words
Gen 1:1–6	34 (= 17 x 2) words before <i>atnach</i>
Gen 1:1–7	80 (= 40 x 2) words and 49 words before <i>atnach</i>
Gen 1:1–9	64 (= 32 x 2) words before and 39 words after <i>atnach</i>
Gen 1:1–10	115 (= 23 x 5) words
Gen 1:1–12	153 (= 17 x 9) words and 104 (= 26 x 4) words before <i>atnach</i>
Gen 1:1–13	49 (= 17 + 32 = 23 + 26) words after <i>atnach</i>

It is not possible to use one of the four primary compositional numbers (**13**, **17**, **23** and **32**) until the end of verse 2, which leaves 12 boundaries with which to work. In 6 out of 12 of these boundaries (or 50% of the time) a multiple of one of the four compositional numbers is present. If the numbers 40 and 49 are added, the percentage increases to 66.7% (8 out of 12). This evidence suggests the possibility of deliberate design at the point of the numerical composition of Gen 1:1–13.

10. Determining the details of the musical and literary structures in Genesis calls for input on the part of others in the Word Count Project, as we consider the rhetorical features in greater depth and further information contained in the *te'amim* of this particular text.

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