

# General Introduction to Logotechnical Analysis

Dedicated to the memory of Professor Duane L. Christensen, the first scholar who took my quantitative structural analysis of biblical texts seriously\*<sup>1</sup>

## The counting of verses, words and letters in the Hebrew Bible

Logotechnical or Quantitative Structural Analysis (QSA) is a systematic investigation of the framework of biblical texts. This activity can also be called *numerological criticism*. It should certainly not be regarded as a new discipline in biblical scholarship but as a *supplementary* branch of *literary criticism*, of which the first and foremost task is to explore the architecture of a given text.<sup>2</sup> It is based upon the hypothesis that the biblical writings are numerically structured— that is, that their composers arranged words, verses, pericopes, sections, books, and collections of books according to patterns defined by number, much as poetry is defined by quantities of cola, verselines, strophes, and cantos/stanzas. The hypothesis is motivated primarily by three facts:

- The Masoretes and subsequent copiers of the text of the Hebrew Bible, who were responsible for handing down the text, carefully counted verses, words, and even letters of most biblical books and painstakingly located and registered their arithmetic centres. It is usually held that the purpose of this meticulous counting was to ensure that the text was transmitted correctly.<sup>3</sup> However, in my opinion, it had a more specific purpose: namely to preserve the intricate, delicate numerical structures, which can be done only by recounting what has been counted earlier.
- Every letter of the Hebrew alphabet, and hence any word written in them, has a numerical value. Computing such values according to one or another of two methods, — a procedure known as *gematria*— is well attested in the biblical period.
- Counting and writing were always understood to be closely related in the Hebrew tradition— indeed, the Hebrew verb סָפַר, *saphar*, means 'to count', the noun סֵפֶר, *sepher*, denotes 'a book', while the participle/noun סוֹפֵר, *sopher* means 'scribe'. In fact, we ourselves might speak in the same way of an 'account' which a storyteller 'recounts'.

The hypothesis that the biblical writings are *numerical compositions* is beginning to become hard fact seeing the results of a substantial number of inquiries carried out in recent times which convincingly

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\*<sup>1</sup> I owe thanks to my friend Pieter van der Lugt for his keen observations and constructive remarks.

<sup>2</sup> See my article "De literairkritische methode" in: A.S. van der Woude (ed.), *Inleiding tot de studie van het Oude Testament* (Kampen, 1986; 2nd edition 1993), pp. 102-127.

<sup>3</sup> However, note the criticism of the Masoretic counting advanced by F.I. Andersen & A.D. Forbes ("What Did the Scribes Count?" in D.N. Freedman, A.D. Forbes, and F.I. Andersen, *Studies in Hebrew and Aramaic Orthography*. Eisenbrauns: Winona Lake, Indiana (1992), pp. 297-318). They wrote: "A moment's reflection indicates that the reported counting activities of the scribes were quite likely to be flawed, as the evidence of the texts themselves confirms. No two manuscripts are orthographically identical; hence, the tally of letters differs from manuscript to manuscript. Nor is there available reliable knowledge of the true counts by which to test the accuracy of any copy. And without precision, there is no (scientific) point to the claims made." (p. 299). Furthermore, word- and letter-counts are not given for all the books of the Bible."

To substantiate their point, here is the Masoretic tally of **verses** in the Torah, with the computer tallies in brackets: Genesis: **1534**=59x**26** (1533); Exodus: 1209 (1213); Leviticus: 859 (859); Numbers: 1288 (1289); Deuteronomy: 955 (956). For the Torah: 5845 (**5850**=225x**26**). The computer tally, which reflects the real situation, is most significant! At the end of the Torah, the Masoretes noted that it has **400945** letters, which is a multiple of the divine name number **17** (23,585x**17**). This tally is in any case not correct, for my computer counted **304,850** letters, which is no less spectacular, being also a multiple of **17**: 11725x**17**! This seems to reflect the real situation. In my experience, however, the fallible Masoretic tallies do not distract anything from the accuracy with which they transmitted the canonical text.

In my analyses I shall not pay too much attention to the counting of letters – in order not to overburden the readers – for I shall only mention the most significant cases. The focus will be on verses and words.

show that that counting was part and parcel of the art of writing in biblical antiquity. This means that it was not Masoretic scholarship that added counting at some late stage in the transmission of the biblical text. On the contrary, the authors/redactors of these texts themselves did the first counting.

To them writing was composing, and composing inevitably involved counting. We should realize that in antiquity the use of numbers was taken for granted in the composition of texts and was accepted as a normal compositional technique to give structure to texts. The term 'numerical composition', *Zahlenkomposition*, denotes a literary composition of which the shape is fundamentally governed by number. Accordingly, it stands to reason that numerological criticism should be accepted as a legitimate scholarly approach in text analysis. This is already the case in the analysis of classical and medieval non-biblical texts, as witnessed by the definition given by Alistair Fowler (ed.), *Silent Poetry: Essays in Numerological Analysis*, London, 1970 (p. xi):

Numerological criticism analyses literary structures of various kinds, ordered by numerical symmetries or expressing number symbolism. In poetry, numerological structure often forms a level of organization intermediate in scale and externality between metrical patterns, on the one hand, and structure as ordinarily understood, on the other. As such, it constitutes a huge subject—perhaps even larger than most medieval and Renaissance scholars have begun to realize. It is probably no exaggeration to say that most good literary works—indeed, most craftsmanlike works—were organized at this stratum from antiquity until at least the eighteenth century. Moreover, numerological criticism is potentially a more fruitful subject than large-scale prosody, since it has more bearing on meaning, thematic content, structure and other adjacent strata.

For the use of number in ancient and medieval poetry, see the Chapter "Zahlenkomposition" in E.R. Curtius, *Europäische Literatur und Lateinisches Mittelalter*,<sup>8</sup> Bern-München, 1973, pp. 491-498, also V.F. Hopper, *Medieval Number Symbolism. Its sources, meaning and influence on thought and expression*, New York, 1969, and G. Quarnström, *Poetry and Numbers. On the structural use of symbolic numbers*, Lund, 1966.

While classical and medieval scholars have for more than 50 years been familiar with the structural use of numbers in literary works, until now biblical scholars have been remarkably reluctant to take the phenomenon seriously as regards the writings in the Hebrew Bible. Its rediscovery in our time should be credited to the Austrian orientalist Claus Schedl (University of Graz).<sup>4</sup>

We should also appreciate that numerical principles offer an author the opportunity to imbue his text with symbolic significance and to give it an extra, deeper, dimension. The structuring numbers speak a language of their own and tell their story in their own way. By virtue of number symbolism, the texts contain a latent message hidden in the fabric of the text, which can only be unlocked by the reader who is familiar with such techniques or who knows how to look for these devices and find them. The only way to do so is to study the numerical features of the text in question by means of logotechnique, which is a rational, scientifically well-founded discipline. Needless to say, it has nothing whatsoever to do with kabbalistic Mysticism, nor with Numerology as the belief in a divine, mystical relationship between a number and a coinciding event.

The biblical authors must have had an aesthetic aim as well: to compose works of art, literary architecture complying with their idea of perfect form and their sense of beauty. In my numerical research I came across many psalms deserving the label 'compositional gem' - [Psalm 19](#) is such a gem, in which it is said of the Torah of YHWH that it is תמימה, *temimah*, 'perfect' (verse 7), a term that primarily regards the contents of the Torah but undoubtedly refers to the artful literary form of the text as well. For the biblical authors it was not a matter of literary beauty for the sake of beauty, but a matter of beauty in the service of the contents. Form and contents belong inextricably together. In order to create such works of art, the texts were composed, irrespective of their size, according to premeditated designs suitable for the purpose and appropriate to their contents.

Claus Schedl coined the term 'logotechnique' to describe the art of numerical composition, which he derived from the Greek term *logotechnia* meaning "literature," more particularly a skilfully designed literary work of art conforming to certain laws governing its form. So 'logotechnique' denotes in fact 'word-art', 'language-art', 'compositional art', and signifying a scholarly tool, logotechnical analysis.

Though some evident numerical features of a text may be easily detected, especially in smaller texts, they do not readily meet the eye, since they are hidden in the inmost structure of the text. The

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<sup>4</sup> See C. Schedl, *Baupläne des Wortes: Einführung in die biblische Logotechnik*, Wien 1974, p. 22.

average readers cannot detect them, unless they count verses, words and other items and look for the centre of a text, knowing how to do this. However, I am not sure whether the biblical writers intended the numerical features of their texts to be understood and appreciated by the average reader. They knew that the artfully designed compositions could only be comprehended and prized by insiders familiar with the compositional techniques which were accessible to the initiated only.

The *Sopherim*, 'scribes', were men of learning in literature. The book of 1 Chronicles (in 2:55) mentions families of *sopherim* and 2 Chron. 34:13 knows *sopherim* as Levites. They formed a professional class of skilled craftsmen (1 Chron. 27:32; Jer. 36:26,32 and Ps. 45:1). A well-known man of such learning and professional skill was the priest and scribe Ezra, qualified as "a scribe versed in questions concerning the commandments and the statutes of YHWH" (see Ezra 7:11). The biblical authors/redactors like Ezra were the predecessors of the *Sopherim*, the Pharisaic teachers of the Torah, and of the later Masoretes, the guardians of the canonical text of the Bible, all of whom counted the verses, words and letters of the texts in order to preserve their numerical features.

We can imagine that the biblical scribes took pride in their numerical compositions. They did so in the same way as the architects and craftsmen responsible for the medieval cathedrals were proud of what they had achieved. Such works of art were not intended primarily to satisfy the aesthetic desires and pride of the craftsmen; they were constructed in this particular way essentially to the glory of God. The scribes believed that the hidden features of the text, the holy numbers giving it its artful structure, did not meet the eye of the average reader, but were visible to God to whom their work was dedicated after all. This sheds new light on the enigmatic text in Deut. 29:28 (29:29 in most translations):

The *hidden things* belong to YHWH our God; the *things revealed* belong to us and to our children for ever, that we may do all the words of this law.

The full connotation of the 'hidden things' and the 'things revealed' is not clear. The primary message of this verse is that in adverse and incomprehensible situations *in life*, situations are understood only by God; the people of Israel should leave those things to God and just keep to his commandments, which have nothing secret, enigmatic or incomprehensible about them. However, the author may have intended to convey an additional message for those who have ears to hear. The 'hidden things' *in the Torah*, the esoteric aspects of the text, are there for God's benefit to honour him; but the 'things revealed', the plain and manifest features of the Torah, are there for our benefit and for that of our descendants so that we may observe them. In other words, the message to the Israelites is: do not spend too much time and energy trying to discover the hidden secrets of the text, but apply yourselves to observing the Torah. This does of course not apply to modern biblical scholars!

By organizing verses, pericopes, sections, and books, in terms of numerically defined structures, the original authorial activity of the scribes launched the typically Jewish literary counting tradition. Their successors, the *Sopherim* and the Masoretes, merely continued this unique tradition. Accordingly, biblical scholars simply cannot brush this tradition aside as irrelevant. On the contrary, we are obliged to commit ourselves to studying the numerical features of the texts we inherited.

My very first (more or less systematic) effort to explore the numerical features of a Biblical writing in its entirety was my commentary on Deuteronomy: *Deuteronomium*, Vol. I-III (POT), Nijkerk/Baarn: G.F. Callenbach, 1987-1997. Duane L. Christensen applied the same principle in his commentary *Deuteronomy* (Vols. 6a-6b) in: the *Word Biblical Commentary* (Nashville: Thomas Nelson Publishers, 2001-2002). At the time I had at my disposal a counting program for MS DOS, designed by one of my students Albert Beetsma, which enabled me to work fast and to exclude human errors.

For the rediscovery of the paramount importance of numbers as a compositional device used to structure Biblical texts, the reader is referred to my *Numerical Secrets of the Bible*, BIBAL Press, North Richland Hills, Texas, 1999. For the freely downloadable electronic version, Ctrl-click on: <http://www.labuschagne.nl/z%26oz/book.htm>. It gave rise to three internet activities:

- 1) the website of [Rüdiger Heinzerling](#), who was the first to review my book (in English): he also opened a discussion on the numerical features of the biblical writings (with an introduction to Quantitative Structure Analysis and relevant literature),
- 2) the website of The Berkeley Institute of Biblical Archaeology and Literature ([BIBAL](#)), initiated by Duane Christensen, on which a major word-count program has been launched, and
- 3) my own website containing the results of my investigations since 2002.

## The name YHWH woven into the fabric of the text

There is a Jewish tradition— recorded for the first time, as far as we know, in the thirteenth century in France— that the name of God was woven into the very texture of Scripture. This does not mean that the tradition about this ‘weaving’ was invented at that time. For its origin we must look beyond the medieval kabbalistic tradition and go back to biblical antiquity. It was Claus Schedl who brought the *ariga* tradition to my attention. According to him, we should consider it a reminiscence of a scribal compositional technique that goes right back to biblical times until the finalization of the text of Holy Scripture in the first century of the Common Era.

In a private letter to me (17-5-1986), a few weeks before his tragic death in a car accident he wrote: “*Wäre es nicht möglich, dass in der späteren mittelalterlichen Kabbala noch das Wissen davon erhalten war, dass der biblische Text tatsächlich nach der Zahlen des Gottesnamens durchkomponiert wurde???!?*”. In other words, he suggested that this ‘weaving’ of God’s name into the text was carried out by means of the two numbers which represent the gematric values of the divine name, **26** and **17**. The first divine name number, **26**, represents the name *yahweh*, יהוה, an archaising form of the 3<sup>rd</sup> person form *yihyeh*, יהיה, “he is”.

- **26** = y h w h, יהוה, = 10+5+6+5.

In a private letter to Pieter van der Lugt (4-4-2011), Jacob Bazak drew our attention to the fact that Rab David, son of Joseph, son of David, in his book *Abudirham* (a commentary on the Jewish Prayer Book), written in Spain in 1340, noted concerning Psalm 136: “*This psalm contains 26 verses like the number of the divine name y-h-w-h which is 26.*” This is a very important piece of evidence showing incontestably that the use of the divine name number **26** for structuring purposes in the Hebrew Bible was still known in the Middle Ages.

The divine name number **17** can of course be explained as the sum of the *digits* of the numbers 10, 5, 6 and 5 (1+0+5+6+5=17), but it is also possible that **17** is the numerical value of a conjectured *’ahweh*, אהוה, which is *to ’ahyeh*, אהיה, “I am” (Ex. 3:14), as *yahweh*, יהוה, is *to yihyeh*, יהיה, “he is”:

- **17** = ’ h w h, אהוה, = 1+5+6+5.

The numbers **17** and **26** also both happen to be the numerical value of *kabod*, כבוד, or *kabôd*, כבוד, ‘glory’. Among the Jewish methods of computing gematric values, two are common:

- in one, by which we get the *positional* or *ordinal value* (also known as Gematria 22): the letters have the value of their position in the alphabet, the *alef* – *yod* represent 1 – 10, but *kaf* = 11, *lamed* = 12, *mem* = 13, and so forth; and
- in another, by which we get the *decimal value* (also known as Gematria 400) the letters *alef* through *yod* again represent the numerals 1 – 10, but *kaf* = 20, *lamed* = 30, *mem* = 40, etc....*qof* = 100, *resh* = 200, *shin* = 300, *taf* = 400.

As far as I know it has always been taken for granted that the decimal values of *yod* through *taf* (10 through 400) were simply *attributed* to these letters. In my opinion, however, these values were *calculated*: they were achieved by multiplying the sum of the digits of their ordinal values by **10** (*yod* through *tsadeh*) and **100** (*qof* through *taf*).

Alphabet	Ordinal value*	Decimal value
א	1	1
ב	2	2
ג	3	3
ד	4	4
ה	5	5
ו	6	6
ז	7	7
ח	8	8
ט	9	9
י	10	$[1+0=1] \times 10 = 10$
כ	11	$[1+1=2] \times 10 = 20$
ל	12	$[1+2=3] \times 10 = 30$
מ	13	$[1+3=4] \times 10 = 40$
נ	14	$[1+4=5] \times 10 = 50$
ס	15	$[1+5=6] \times 10 = 60$
ע	16	$[1+6=7] \times 10 = 70$
פ	17	$[1+7=8] \times 10 = 80$
צ	18	$[1+8=9] \times 10 = 90$
ק	19	$[1+9=10] \times 10 = 100$
ר	20	$[2+0=2] \times 100 = 200$
ש	21	$[2+1=3] \times 100 = 300$
ת	22	$(2+2=4) \times 100 = 400$

\* Also called Positional value or Place value.

The numbers 500, 600, 700, 800, 900, and 1000 are achieved by the juxtapositions קת, רת, שת, תת, תתק, and תתר respectively:

$$ת=400 + ק=100 = 500.$$

$$ת=400 + ר=200 = 600.$$

$$ת=400 + ש=300 = 700.$$

$$ת=400 + ת=400 = 800.$$

$$ק=100 + ת=400 + ת=400 = 900.$$

$$ר=200 + ת=400 + ת=400 = 1000.$$

Accordingly, as regards *kabod*, כבוד, also spelled as *kabôd*, כבֹּוד:

- **k b d** positional value       $11+2+4=17$     **kbwd**     $11+2+6+4=23$
- **k b d** decimal value         $20+2+4=26$     **kbwd**     $20+2+6+4=32$ .

The fact that **17** and **26** can stand for both the Name and the Glory is not surprising, since in the Bible the 'name' and the 'glory' of God were inextricably linked. This is most effectively demonstrated in Ex. 33:17-23, where Moses asks God to show him his *glory* and God responds by pronouncing his *name* in Moses' hearing. Both represent God's presence. Moreover, 'name' (or YHWH) and 'glory' are often mentioned together in the Hebrew Bible— see [Numerical Secrets of the Bible](#), pp. 88-92.

According to the kabbalah specialist Gershom Scholem it was the famous medieval kabbalist Joseph Gikatilla (late 13<sup>th</sup> century) who coined the term *'arigah* to express the idea that "the Name of God was interwoven in the Torah as in a fabric". He also refers to the kabbalistic writing *Sepher ha-Temunah*, "The Book of the Form," that is, the 'shape', 'likeness' or 'representation' of the letters of the alphabet, as one of the sources for the idea of the Name of God being woven into the Torah. The book was written most probably in Provence not later than the beginning of the 13<sup>th</sup> century and offers an explanation of the letters of the Hebrew alphabet on a kabbalistic basis, maintaining that the Name of God was included and preserved in a mystical way in the Torah.<sup>5</sup>

It is not easy to establish the precise connotation of the word Torah in this context. It might denote only the books of the Pentateuch, but it can certainly have a wider connotation signifying the entire Hebrew Bible as Holy Scripture. I believe that is so in this context. The results of my investigations into the numerical features of the Bible so far point definitely to a wider interpretation of the *'arigah* tradition: the Name of God was woven into the texture not only of the Torah but of the other canonical books as well. In any case, we may confidently conclude that the investigations carried out thus far into the numerical features of nearly half of the Hebrew Bible have established beyond any doubt the close relationship between the holy Name and the biblical text through the divine name numbers. At the same time they underscore the kabbalistic tradition about the weaving of the Name into the texture of Scripture and set it in a new light.

It occurred to me that the idea of the *weaving of YHWH's name* into the text may have originated already in biblical antiquity in the ritual of *the laying of YHWH's name* on the Israelites in the Priestly Blessing (Num. 6:22-27). The solemn thrice-repeated pronunciation of YHWH's name secures his presence among his people. In much the same way its weaving into the text secures God's presence in the events described in it. So there is a strong case for the assumption that the scribes did not invent the weaving idea entirely on their own, but were inspired by the ritual of the priestly blessing. See my analysis of the [Priestly Blessing](#).

The function of the divine name numbers **17** and **26** is primarily to give structure to a text and to imbue it with symbolic significance, namely to signify YHWH's presence. Additionally, they serve to highlight certain crucial passages in the text in question and to finalize and 'seal' a composition by providing it with a total number of words that is a multiple of **17** or **26**. All along the scribes must have kept record of the number of verses, words, and letters in order to finalize and seal specific passages with a significant number of verses and/or words, and/or letters. Most intriguingly, such numbers always occur at the seams in the text. To give some examples:

Gen. 1:1-5, the 1<sup>st</sup> day, the creation of light: **52** (2x**26**) words,

Gen. 1:24-26, the 6<sup>th</sup> day, creation of living creatures and God's decision to create mankind: **51**(3x**17**) words,

Gen. 1:28-31, the 6<sup>th</sup> day, God blesses mankind and regulates the food for living creatures: **85** (5x**17**) words,

Gen. 4:17-24, Particulars about Cain, his children and grandchildren: **104** (4x**26**) words,

Gen. 12:10-17:27, Abram's stay in Egypt and Canaan until God's promise about his son: **1560** (60x**26**) words,

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<sup>5</sup> For the *Sepher ha-Temunah* see Gershom Scholem, *Major Trends in Jewish Mysticism* (New York 1961), pp. 136-137. In his book *Ursprung und Anfänge der Kabbala* (Berlin, 1962), pp. 414-415, he writes: "Der Name Gottes ist eben auf mystische Weise überall in der Torah enthalten und, wie später zum Beispiel Gikatilla sagt, in sie eingewoben." See also his book *Zur Kabbala und ihrer Symbolik* (Frankfurt, 1973), p. 69, where he writes: "Es scheint dass Gikatilla als erster diesen Begriff des Gewebes (*'ariga*) benutzte, um zu beschreiben, wie der Name Gottes in der Textur der Tora immer wieder vorkommt." In the *Encyclopaedia Judaica*, volume 15 (1971), p. 1241, we read "Some said the entire Torah consists of the Name of God set in succession... or interwoven in a fabric..." See also the deep-drilling comprehensive study on Joseph Gikatilla by Elke Morlok, *Rabbi Joseph Gikatilla's Hermeneutics*, Tübingen: Mohr Siebeck, 2011, and for the idea of 'weaving', pp. 139ff and especially 3.2, "R. Joseph Gikatilla and the Torah as a Woven Structure", pp 172-188.

Gen. 18:1-21:21, Abraham meets three Men, his stay in Gerar and the birth of Isaac: **1560** (60x**26**) words,  
 Gen. 50:22-26, Joseph's last days, his wishes and his death: **85** (5x**17**) words.  
 Ex. 1:1-7, the names of the sons of Jacob who came to Egypt: **51**(3x**17**) words,  
 Ex. 1:11-12, despite the appointment of taskmasters to oppress the Israelites, they increase further: **26** words,  
 Ex. 4:22-26, Pharaoh is summoned to let God's firstborn son go and the blood-bridegroom episode: **52** words,  
 Ex. 2:1-25, the birth of Moses and his flight to Midian: **340** (20x**17**) words,  
 Ex. 4:1-17, YHWH enhances Moses' credibility by means of miracles: **17** verses and **255** (15x**17**) words,  
 Ex. 40:34-38, YHWH occupies the Tent of Meeting and the Tabernacle: 60=**26+34** words.  
 Leviticus 11-15, the laws on Ritual purity: **204** (12x**17**) words,  
 Leviticus 16, the regulations for the Day of Atonement: **34** (2x**17**) words,  
 Leviticus 17-24, the regulations for holy living: **234** (9x**26**) words.  
 Numbers 1:1-20:13, the march in the Wilderness until the sojourn at Kadesh: **9418**( 554x**17**) words,  
 Numbers 20:14-36:13, the confrontation with the nations around and in Canaan: **6994** (269x**26**) words.  
 Deuteronomy 1:1-5 and 34:1-12, the Prologue and Epilogue of the book: **17** verses and **255** (15x**17**) words,  
 Deuteronomy 1:6-4:49, Moses' opening discourse and his first prophetic peroration: **156** (6x**26**) words,  
 Deuteronomy 12-26 divides into **17** sub-sections and **85** (5x**17**) paragraphs,  
 Deuteronomy 12:1-16:17, laws about one sanctuary, apostasy, dietary laws and the feasts: **119** (7x**17**) verses,  
 Deuteronomy 16:18-19:21, guidelines for the administration of justice: **68** (4x**17**) verses,  
 Deuteronomy 22:13-23:9, guidelines for marriage, sexual relations and forbidden relations: **26** verses.  
 Deuteronomy 1:1-33:29, the book in its entirety without the Epilogue (34:1-12): **14118** (543x**26**) words.

The logotechnical analysis charts will enable readers to discover for themselves how, and to what extent, these numbers are to be found in the texts. My logotechnical analysis of a great number of texts, which is primarily a descriptive activity, has brought to light that the numbers **17** and **26** occur in a very high frequency in the biblical writings. Though some occurrences may be due to coincidence, the great majority should be understood as consciously designed. The percentages in the Torah:

Genesis: 71% of the verses and 79% of the words,  
 Exodus: 73% of the verses and 73% of the words,  
 Leviticus: 82% of the verses and 64% of the words,  
 Numbers: 63% of the verses and 57% of the words,  
 Deuteronomy: 79% of the verses and 78% of the words,  
The Torah: 74% of the verses and 70% of the words.

When I first embarked on the exploration of the numerical features of biblical texts some thirty years ago, I was from the outset impressed by the high frequency of the occurrences of **17** and **26**. From the outset there was no doubt in my mind that these numerous incidents could not simply be due to coincidence, but must have been intentionally designed. At the time I was not interested in statistics, adamant as I was that I do not need statistics to support what I found and to convince my colleagues that the biblical writings are numerical compositions. However, it would be interesting to see what the following statistical exercise might come up with, so I counted the number of verses in which the adjacent numbers of **17**, namely **16** and **18** (or their multiples) occur, as well as the number of words governed by them, in relation to the verses and words governed by **17**. This is what I found in the first four chapters of Exodus (1:1-4:31):

**6** of the **100** verses (**6%**) and **96** of the **1428** words (**6%**) are governed by **16** and its multiples,  
**9** of the **100** verses (**9%**) and **144** of the **1428** words (**10%**) are governed by **18** and its multiples,  
 while **66** of the **100** verses (**66%**) and 953 of the 1428 words (**67%**) are governed by **17**.  
 Moreover, Exodus 1:1-4:31 as a whole is made up of **1428** words, a multiple of **17** (84x**17**).  
 The divine name number **17** clearly stands out in comparison with the adjacent numbers 16 and 18, which can only be interpreted as decisive evidence that coincidence is definitely out of the question. What is more, in the book of Exodus I could not find a single instance of the use of the numbers 16 or 18, or their multiples, which determine the number of words in a given major literary entity. This function is the prerogative of **17** and **26**. To mention a few additional examples from Exodus:

Exod 3:4-18, the revelation of YHWH's identity and his name: **289 (17x17)** words.

Exod 6:14-28, the Levitical descent of Moses and Aaron: **182 (7x26)** words.

Exod 12:1-28, the institution of the Passover: **442 (17x26)** words.

Exod 20:1-26, the promulgation of the Decalogue and its impact on the people: **312 (12x26)** words.

Exod 40:17-33, the erection of the Tabernacle: **208 (8x26)** words.

Significantly, the passage containing information about the sons of Jacob who came to Egypt at the beginning of the book of Exodus (1:1-7) has exactly **51 (3x17)** words. This sets the tone for the book as a whole, which ends with **34 (2x17)** words in 40:36-38. This brings us to the significant way of rounding off and finalizing a given text, e.g., in the books of Genesis, Exodus, and Deuteronomy:

Genesis begins with **52 (2x26)** words in 1:1-5 and ends with **85 (5x17)** in 50:21-26;

Exodus begins with **51 (3x17)** in 1:1-7 and ends with **60: 26** in 40:34-35 and **34 (2x17)** in 40:36-38;

Deuteronomy begins with **78 (3x26)** in 1:1-5 and ends with **60: 34** in 34:9-10 and **26** in 34:11-12.

Whoever wants to believe that the examples mentioned above rests on mere coincidence, may for my part continue doing so. However, biblical scholars should realize that by turning a blind eye to the numerical aspects of the text, they not only fail to notice an essential feature of the text, but they also slight the biblical authors/redactors who have produced such beautiful works of art. A text with such spectacular features both in form and symbolism simply cannot have been written off the cuff.

As far as I know, Oskar Goldberg was the first scholar in modern times who took the *ariga* tradition seriously and went in search of the divine name numbers in the Torah: *Die fünf Bücher Moses ein Zahlengebäude: Die Feststellung einer einheitlich durchgeführten Zahlenschrift* (Berlin, 1908). After the second world war a series of four articles by Goldberg, entitled "Das Zahlengebäude des Pentateuch: Eine Geheimschrift in den fünf Büchern Moses," were published in *La Revue Juive* numbers 89 – 93 (1947), pages 13-22; 100-105; 142-149; 193-199, in which he repeated his 1908 thesis, substantiating it with more examples. A French version appeared in numbers 94-95. In his opinion the qualification "Zahlengebäude" applies only to the Pentateuch, clearly due to the lack of research outside the Pentateuch—see his explicit remark in the last article of the 1947 series, p. 198: "Die heilige Zahlen kommen systematisch nur im Pentateuch vor..."

Goldberg's work was completely ignored by the main stream of biblical scholarship at the time. This also applies to the work of Claus Schedl. Apart from my own efforts the past three decades to rouse the interest of Old Testament scholars for the numerical features of the biblical writings, Jacob Bazak tried to interest scholars with "Numerological devices in Biblical Poetry", in: *Vetus Testamentum* 38/3 (1988), pp. 333-337. His article inspired the Jewish American jurist Herbert Rand to publish a study, "Numerological Structure in Biblical Literature", in: *Jewish Bible Quarterly*, Vol. XX, No 1 (77), 1991, pp. 50-56, about Gematria, the significance of the number **26** and deliberate numerical devices in TNK, with the aim of stimulating the search for numerological structured texts. He also was a voice crying in the desert.

One would have expected a follow-up to Rand's article from the side of Jewish scholars, but to my knowledge, it was only in 2012 that two Jewish writers took up the gauntlet: First, Israel Knohl, with his article "Sacred Architecture: The Numerical Dimensions of Biblical Poems", *Vetus Testamentum* 62 (2012), 189-197, second, V. Hurowitz, *Proverbs* (Mikra Leyisra'el: A Biblical Commentary for Israel), Magnes Press, 2012, 6-8 [heb]. I may also mention Duane L. Christensen's Commentary on *Deuteronomy* (Word Biblical Commentary), Nashville, Vol. 6a 2001, Vol. 6b 2002, and his Commentary on the book of *Nahum* (Anchor Bible), Yale University Press, New Haven, 2009, in which he paid serious attention to the numerical features of the texts. Pieter van der Lugt has published three volumes on the compositional structure of the Psalms, *Cantos and Strophes in Biblical Hebrew Poetry* (Oudtestamentische Studiën 53, 57, 63), Brill: Leiden-Boston, I, 2006, II, 2010, III, 2014, in which he registered the quantitative structural aspects of every individual psalm.

In his book *The Psalms in Form: The Hebrew Psalter in its Poetic Shape*, Deo Publishing: Leiden, 2002, J.P. Fokkelman incidentally and briefly comments in his "Annotations and remarks" on some numerical aspects of the stanzas, strophes, versets, cola, words (very rarely), and syllables in individual psalms. Worth mentioning also is H.J. Koorevaar's contribution, "The Psalter as a Structured Theological Story", in: *The Composition of the Book of Psalms* (Bibliotheca Ephemeridum



Theologiarum Lovaniensium, 238), Leuven 2010, pp 579-592, and his article, “De opbouw van de tien woorden in Exodus 20:1-17” (Acta Theologica 15/2), Bloemfontein: Die Universiteit van die Oranje-Vrystaat, 1995, pp 1-15, and Koorevaar, Hendrik J. & Mart-Jan Paul (red.), *Theologie van het Oude Testament*, Zoetermeer: Boekencentrum, 2013, pp 123-156.

Are there now (2014) any signs of a real breakthrough in the world of biblical scholarship? I am afraid not, or not yet, despite the publications by the scholars referred to above. However, I have full confidence in the convincing power of truth based on hard facts, knowing full well that it takes time for a new paradigm to be appreciated and accepted. And numerological criticism is a new paradigm.

In 2013 I wrote a little article to inform my colleagues about the results of my research, but much to my dismay it was summarily rejected by the editorial boards of two international journals. So I decided to publish it on my website hoping that it will inspire unbiased and open-minded scholars to take the numerical aspects of the Bible seriously: “[Exodus 21-24: Specimen of a Numerical Composition](#)”.

### Defining the building blocks of poetic texts (see also p. 19f.)

The logotechnical analysis is primarily concerned with *words* (logos-technique!) as the smallest basic building blocks of a text. Syllables (Freedman, Fokkelman) or morae (Christensen) do not function as building blocks and cannot, in my view, contribute anything to our understanding of the structure of a given text. Therefore, I consider counting them a waste of time.

Being also quantitative structural analysis in a broader sense, logotechnical analysis inevitably involves paying attention to other, larger, building blocks: in poetry, the colon, verseline (not necessarily coinciding with the Masoretic verses), strophe, canticle, and canto or stanza. The purpose of counting such building blocks is to find out exactly how a text is organized on word- and other levels, and according to which principles.

I have been led in my analyses by principles which emerged in the course of my work. The building blocks for poetry mentioned below, are illustrated by examples from Book I of the Psalter (1-41), just to give the reader an impression of the variety of principles and the variegated and imaginative way they were applied.

**The word** is the smallest distinct meaningful element of the language, comprising its inflected and variant forms as well as composite words formed by prefixes and suffixes written as *one* word. When the Masoretes tied two, three, or even four words together by means of the hyphen *maqeph*, which means ‘*the threader/stringer*’, the words retain their distinctness and do not count as one single word.<sup>6</sup> Such word-strings were not created to construct a *composite word*, but to generate *one accentuated phoneme* to function as a *phonetic* unit. This means that the *maqeph* has nothing to do with the composition of a text, but served only and specifically to preserve the correct *recitation* of the text in the synagogal liturgy. In other words, the *maqeph* was not invented by the authors/redactors, but by the Masoretes who transmitted the text.<sup>7</sup>

**The colon**, called ‘line’ by some, is the smallest distinct group of words in a *poetic* verseline, usually demarcated by a disjunctive marker. Together with another *colon* it constitutes a *bicolonic verseline* forming a semantic or formal parallelism. Three *cola* constitute a *tricolonic verseline*, which occurs less often than the bicolonic one. In a tricolonic verseline the *atnach* (or incidentally the ‘*ole weyored*’ according to Van der Lugt) is usually to be found after the second colon. Four *cola* in a Masoretic verse constitute *two bicolonic verselines*.<sup>8</sup>

**The verseline** is a larger distinct unit comprising two or three *cola*. In the book of Psalms (and the book of Job), in the great majority of instances the verseline coincides with the Masoretic verse, the end of which is signified by *soph pasuq*. Sometimes, in order to achieve a desired number of verses

<sup>6</sup> The hiph`il of the verb נָקַף, *nqf*, means ‘to form a string’ – see Isa. 29:1 “Let the feasts form a string.”

<sup>7</sup> See E. Kautzsch – A.E. Cowley, *Gesenius’ Hebrew Grammar*, 1910<sup>2</sup>, §16, and P. Joüon – T. Muraoka, *A Grammar of Biblical Hebrew*, 1993, §13.

<sup>8</sup> For these and other terms, see Pieter van der Lugt, *Cantos and Strophes in Biblical Hebrew Poetry*, I (OTS 53), Leiden-Boston: Brill, 2006, pp. 69-74 (and 524 about ‘*ole weyored*’), and Volume III (2014), pp. 611ff.

in a group of psalms, or book of the Psalter, the Masoretes have accommodated two poetic verselines in one verse. The first example I encountered is to be found in Ps. 5:10 and 11. In the Tables I have registered both: the poetic lines as well as the Masoretic verses.

**The strophe** comprises two to three (sometimes four) verselines to form a sub-section of the poem, a canticle or canto. The strophe is basically determined by formal factors and unity of thought.

**The canticle**, which comprises one or more strophes, forms a sub-section of the canto or stanza.

**The canto**, also called **stanza**, which is the largest component of a poem, orders its content and formal framework.

In the book of Psalms the individual psalms are the natural building blocks of the Psalter. The collection is shaped by means of the structural numbers **7** and **11**, primarily in terms of verselines, to form a literary composition of the highest order. For particulars illustrated with telling examples, see my article "[The compositional structure of the Psalter](#)". For the prose texts, see below.

### A reassessment of current literary and textual criticism

The discovery in our time that the biblical writings are numerical compositions has far-reaching consequences for our view and treatment of the biblical text. Speaking for myself, this insight has aroused in me a profound respect, not only for the compositional craftsmanship of the biblical authors, but also for the two great codices of the Hebrew Bible, the Codex Leningrad and the Aleppo Codex. The reliability of Codex Leningrad, the only codex representing the entire canonical text of the Hebrew Bible, has been confirmed by the integrity of its numerical features. This insight has led to a radical change in my attitude towards textual criticism. For my numerical structural investigations of the biblical writings I strictly abide by one particular textual tradition, the one to be found in Codex Leningrad. If I would allow myself to use other texts and to 'mix' textual traditions, there would loom the great danger of emending a text *in order to achieve* desired numbers. Being deeply aware of this, I shall never yield to the temptation. That is the reason why I adhere to one specific textual tradition as a principled choice.

This means that the purpose of the present study is to explore the characteristics of this textual tradition to the full and does not aim at establishing 'the original text'. My approach is strictly *synchronic*, taking the text primarily in the form it has been transmitted to us. Therefore, the *literary* analysis of the form of a text as we have it should be clearly distinguished from the *historical* research of the history of its coming into being and its development. It is a matter of methodology and priorities. In other words, the *synchronic* approach to the text must always precede a *diachronic* investigation.

The ascertainment of the crucial function of the structural numbers in the formation of the biblical writings provides scholars with an effective tool to investigate, respect, and appreciate the text studied, annotated and transmitted by the Masoretes as the canonical text of the Hebrew Bible. This is a decisive exercise in future textual criticism. Potential emendations of the text can now also be evaluated in light of its numerical features, which go back to the authorial and redactional stage. Addressing a text-critical problem, one needs to consider all relevant issues, including the numerical aspects of the text in question. An emendation that disturbs the numerical features of a text that has been finalized and sealed by **17** and **26** is in principle unacceptable.

Using the numerical features of the text as criterion for textual criticism, my main objective is to show that there is no warrant for emendations, unless they improve or restore the numerical and/or poetical structure (e.g., *metri causa*). I do not claim to be able to reconstruct 'the original text', but I endeavour to retrieve the text that was ultimately canonized.

Such awareness is a most effective safeguard against random emendations, a practice that was rife among biblical scholars in the past century and is still practised. We now have an ultimate reason to think twice before changing the text. However, this does not portend the eclipse of textual criticism; it implies a radical change in its application.

## The Masoretic layout markers *Petuchah* and *Setumah*

In studying the *form* of a text literary criticism is primarily concerned with delimiting its 'larger' and 'smaller' literary units, the major parts and the sub-sections into which it is divided—to speak in modern terms: its chapters and paragraphs. Detecting the precise arrangement of a text with respect to its coherent literary units is of crucial importance in matters of interpretation. In the layout of the text of the Hebrew Bible handed down in the Codex Leningrad and the Aleppo Codex the Masoretes have preserved a great number of 'layout markers' indicating the delimitation of its literary units. Different kinds of larger and smaller *open spaces* in the text were used as such 'paragraph markers'—represented by a *parashah petuchah*, 'open parashah,' (**P**) and a *parashah setumah*, 'closed parashah,' (**S**) in the printed editions, e.g., the *Biblia Hebraica Stuttgartensia* (BHS).

These layout markers have excellent credentials going back to the time of the formation of Scripture and should never be ignored. In my experience, they have two different functions: first, the well-known demarcating function to delimit sub-sections of the text, and second, a highlighting function to draw special attention to what follows.<sup>9</sup>

Unfortunately they have in general been ignored and are still completely disregarded by the great majority of modern biblical scholars. Some writers on biblical subjects do as if the Masoretes had no notion whatsoever of the division of the text. However, such a claim has no foundation, neither is there any justification for their disregard of the Masoretic divisions in favour of their own subjective delimitations. My experience with the layout markers in the Hebrew Bible has brought to light the fact that the Masoretes have not consistently and fully brought about such markers. In quite a number of instances the **P** and **S** are absent where we would expect them. Moreover, they are not used exactly in the same way in the two codices, that of Leningrad and that of Aleppo. Nevertheless, they should never be disregarded in those instances where they do occur.

A notorious instance of the disregarding of the Masoretic layout markers is the **P** between verse 3 and verse 4 of Genesis 2, which has been ignored by many commentators who think that there is a break between verse 4a and verse 4b. To make matters even worse, the editors of the printed edition of the Codex, *Biblia Hebraica Stuttgartensia*, have without any justification, introduced an open space at this point, which is highly misleading to scholars who have no access to the Codex.<sup>10</sup>

There is no doubt at all that the preceding literary unit, Genesis 1:1-2:3, with its **34** (2x17) verses, dealing with the *creation* of heaven and earth, ends at 2:3. The next section, dealing with the *universal history* of heaven and earth, more particularly that of the human race, starts at 2:4, with the *Toledoth of the World* (2,4-4-26).

Another remarkable feature is the rather exceptional positioning of a considerable number of layout formula "This is the history of the heavens and the earth after their creation." The Masoretic delimitation of 1:1-2:3 –**P**- 2:4-25 is followed, e.g., by the *Revised English Bible*.

Taking the layout markers seriously in my quantitative structural analysis, I make sure that in the division of the text in the tables all of the main Parts and paragraphs are demarcated by the **P** or **S** as far as they are present. The cases without a layout marker, where there is clearly a seam in the text, I mark with [ ].

Since the **P** and **S** also have a *highlighting* function within a coherent, indivisible paragraph, as has come to light in the Torah and the books of Joshua and Judges (in the tables marked in **green**), it has been rather difficult in a number of instances to determine their exact function with absolute certainty. At any rate, in no less than nine cases the **P** definitely has only a highlighting function, being positioned within a coherent literary entity (after 8:21; 10:18a; 10:24; 14:12; 14:19a; 20:8; 26:24; 2

<sup>9</sup> For this important distinction, see my commentary *Deuteronomium* (POT), Nijkerk-Zoetermeer 1987-1997, Part 1A, pp. 22-23 and 153. See now also Eveline van Staalduine-Sulman, "Theologische *petuchot* en *setumot* in de boeken Samuël", *Alef-Beet*, 22, 2012, pp. 16-25. For the layout markers in general, see J.M. Oesch, *Petucha und Setuma* [OBO 27], Fribourg, 1977, and "Textgliederung im Alten Testament und in den Qumran-handschriften," *Henoch* 5 [1983], 289-321, as well as M.J.A. Korpel and J.M. Oesch, *Delimitation Criticism*, Brill, 2000. Other titles can be found at <http://www.brill.com/delimitation-criticism>.

<sup>10</sup> This goes for all the open spaces brought about by the editors of BHS. They should be removed!

Sam. 3:37 and 21:18). An even greater number of **Setumoth** appear to function exclusively as highlighting devices. In 1 Samuel I counted and 30 cases, and in 2 Samuel 40. In Joshua I found 5 cases: 1:11; 4:3.13.24, and 24:26; in Judges several: 1:27-32; 3:30; 7:5.6; 10:12; 11:31 and 13:1.

Layout markers can even appear *within* a verse, none of which should ever be ignored, in my opinion. The very first instance I encountered was the **S** between Deut. 2:8a and 8b, which proved to have an important demarcating function, namely to indicate a crucial turning point in the journey. See pp. 2-5 in my analysis of [Deuteronomy 1-3](#). In [1 Samuel](#) I found no less than 12 cases and another 12 in [2 Samuel](#): 1 Samuel 10:18.22; 14:12.19.36; 16:2.12; 17:37; 20:27; 23:2.4.11; 2 Samuel 16:13; 18:2.28; 20:10.14; 21:1.6; 23:29.37; 24.10.11.23.

## The mathematic middle as the meaningful centre of the text

Since the transmitters of the text of the Hebrew Bible located and registered the centres of books and groups of books on the level of verses and words and even on the level of letters, the same procedure has to be carried out in the logotechnical analysis of a text. This operation is not only obligatory, but also meaningful, since it brings the 'heart' of a passage to light, which in most cases contains the gist of the text, or at least a notion important to it.<sup>11</sup>

It goes without saying, that, in terms of *words*, every poem has a mathematic centre: one simply has to locate the middle word (in case of an uneven total number of words), or the two middle words (in case of an even number of words). That is the simplest mathematic centre. Such a centre is not necessarily meaningful. Therefore, taking this centre as starting point, one can proceed to determine a larger centre on word level, in search of a meaningful centre. Such a meaningful centre is either present, or it is not. We have to realize that not every poem necessarily has a meaningful centre on the level of words; there may be a consciously designed meaningful centre on another level, namely in terms of the poetic structure of a text: the pivotal verseline(s), colon/cola, or strophe, of which there are numerous examples in the book of Psalms.

In order to qualify as a genuine meaningful centre, an apparently suitable centre has to meet strict requirements: first, it should not play havoc with the grammatical sense of the direct context, but must make sense grammatically; and second, it must express a thought or idea that can be interpreted as crucial or essential from the perspective of the author. In other words, one should always consider whether such a central phrase or sentence has been consciously intended by the author to occupy pride of place in central position in the poem. How meaningful a conceivable mathematic centre is – either on the level of words or in terms of verselines, cola or strophes – must be judged in each poem individually.

## Special devices to highlight the meaningful centre

In order to draw attention to the meaningful centre of a poem, the authors used a number of clever scribal devices to highlight and emphasize that centre. In a great number of psalms it appears that they did so by means of a *sudden switch* from 2<sup>nd</sup> to 3<sup>rd</sup> person or vice versa. In other words, they positioned the centre at the boundary of two forms of address. For examples, see Psalms 6, 7, 12, 16, 21-22, 25, 27, 28, 30, 34, and 40. My standard example is [Psalm 23](#), which has the words **כִּי־אַתָּה עִמָּדִי**, 'for you are with me', at the centre flanked by **26** words: **26+3+26=55**.

- 1) Another highlighting device used was *the exceptional form* of the centre, e.g. its relatively *shortness*, as in the case of [Psalm 92](#) (for which see also my [Numerical Secrets of the Bible](#), p. 134), or its *unique syntactical structure*, as in [Psalm 58](#) – see Observation 2 in my analysis of Psalm 58 or the *centre being a refrain*, as in [Psalm 56](#) and [Psalm 59](#).
- 2) Another significant highlighting technique was to structure a series of occurrences of *the name YHWH* in such a way that the middle instance falls precisely within the centre of the text. See, e.g., Observation 3 in the analysis of [Psalm 11](#), Observation 4 in [Psalm 12](#), Observation 1 in [Psalm 30](#), and Observation 2 in [Psalm 40](#).

<sup>11</sup> See [Numerical Secrets of the Bible](#), pp. 10-11.

- 3) As in the case of the divine name, I have detected a considerable number of instances of *an important key-word* in the text being positioned exactly within the centre, obviously in order to emphasize its significance. See e.g. Psalms 33, 35, 37, 51, 52, and 57.
- 4) A popular technique was to let the centre on word level coincide with the *middle colon, bicolon or entire verseline* (Van der Lugt). For a clear example – which can easily be multiplied – see my analysis of [Psalm 37](#), “Specific features of Psalm 37”, and Observation 1, where several highlighting techniques are used simultaneously.
- 5) Some psalms divide into *two precisely equal halves*: Psalms 6, 12, 20, 35, 79, 90, 91, 92, 121, and 122. In these cases, the meaningful centre is situated either at the end of the first half, or at the beginning of the second, as is clearly the case in the alphabetic acrostics. [Psalm 92](#) is a special case: it has its meaningful centre in a separate verse between the two equal halves of **7** verselines and **52** words each.

It is intriguing to note that in four of these psalms the two halves have *identical compositional formulae* in terms of the *atnach* (Psalms 6, 20, 79 and 121 –see also Psalms 12 and 90!):

<a href="#">Psalm 6</a>	vs. 2-6 (2 <sup>nd</sup> person) with 5 verselines and 39 words: 22a + 17b
	vs. 7-11 (3 <sup>rd</sup> person) with 5 verselines and 39 words: 22a + 17b
<a href="#">Psalm 20</a>	vs. 2-6 addressed to the king 5 verselines with 33 words 18a + 15b
	vs. 7-10 spoken about him 5 verselines with 33 words 18a + 15b
<a href="#">Psalm 79</a>	vs. 1-7 national lament 8 verselines with 65 words: 43a + 22b
	vs. 8-13 prayer 8 verselines with 65 words: 43a + 22b
<a href="#">Psalm 121</a>	vs. 1-4 2 strophes 4 verselines 8 cola 27 words: 16a + 11b
	vs. 5-8 2 strophes 4 verselines 8 cola 27 words: 16a + 11b.
<a href="#">Psalm 118</a>	Canto III, 1 (vs. 13-16) 27 words: 14a + 13b
	Canto III, 2 (vs. 17-20) 27 words: 14a + 13b.

## The alphabetic acrostics

Alphabetic acrostics in the Old Testament occur primarily in the Book of Psalms: Psalms 9-10; 25; 34; 37; 111; 112; 119; 145, but also in Proverbs 31:10-31 and in Lamentations.

On the level of words, the mathematic centre of the alphabetic acrostics always coincides with the middle of the alphabetic sequence, i.e., in all cases it is situated either in the verseline with initial *kaph* (the 10<sup>th</sup> letter) or initial *lamedh* (the 11<sup>th</sup> letter), or in both. This means that the centre of a text in terms of words has carefully been tuned to the centre of the alphabet! This compositional technique has been used consistently in all eight alphabetic acrostics in the book of Psalms.

[Psalm 119](#) is a special case: its 176 verselines divide into two equal halves of 88 verselines each. In terms of its 1063 words we get the following picture:

Vv. 1-88	88 verselines	533 words
Vv. 89-176	88 verselines	530 words.

This means that the last 3 words of v. 88 constitute the arithmetic centre:  $1063 = 530 + 3 + 530$ . This positioning of the meaningful centre at the end of the first half can also be found in The Songs of Ascents, Ecclesiastes and in Third Isaiah. See [Psalm 119](#) note 1, and my articles “Compositional Structure of the Book of [Ecclesiastes](#)” and “Numerical Features of [Third Isaiah](#)”.

This device has also been used in the alphabetic acrostic in Proverbs 31:10-31, in which the centre in terms of its 150 words, in 31:21, starts with the letter *lamedh*.

And finally, in Lamentations, the arithmetic centre of the book, in terms of its 154 verses, is theoretically between 3:33 (the 77<sup>th</sup> verse) and 3:34 (the 78<sup>th</sup> verse):  $154 = 77 + 77$ . The 78<sup>th</sup> verse, the real centre, starts with a *lamedh*.

I cannot withhold from the reader how ingeniously the book of Lamentations is structured in a sevenfold pattern by means of the number **22** ( $11 \times 2$ ) and the divine name number **17**:

1.	1:1-22	22 verses	}	<b>68</b> ( $4 \times 17$ )
2.	2:1-22	22 verses		
3.	3:1-24	24 verses	}	<b>18 verses (3:25-42) in the arithmetic centre</b>
4.	<b>3:25-33</b>	<b>51 words</b>		
	<b>3: 34</b>	<b>6 words</b>		
	<b>3:35-42</b>	<b>51 words</b>	}	<b>68</b> ( $4 \times 17$ )
5.	3:43-66	24 verses		
6.	4:1-22	22 verses	}	<b>68</b> ( $4 \times 17$ )
7.	5:1-22	22 verses		

The compositional formula of the entire book, in terms of *verses*, is:  $154 = 68 + 18 + 68$ .

That of the centre, **3:25-42**, in terms of *words*, is:  $108 = 51 + 6 + 51$ !

See the brief discussion in my book, [Numerical Secrets of the Bible](#), p. 14-16, and for particulars, my analysis of [Lamentations](#).

The discovery of the centre of the text of Lamentations raises the question whether the Book of Psalms as a whole has a comparable centre. It is interesting to note that the mathematical middle in terms of the Masoretic verses of the Psalter is marked: **Psalm 78:36**. Given that **Ps. 78:35** (the adjacent verse!) is the *middle verse* of the magnificent *maskil* Psalm 78, and that this psalm is positioned at the mathematical middle of the 11 Asaphite Psalms (73-83), this may be interpreted as an indication of the central position of Psalm 78 in the Psalter. See my Analysis of [Psalm 78](#).

### Special compositional patterns

**The menorah pattern** is modelled on the heptadic or sevenfold form of the six-branched Lampstand described in Exodus 25:31-35. It features **7** items in the pattern  $3+1+3$  symmetrically or asymmetrically arranged around a distinct centre. This pattern occurs frequently throughout the biblical writings, but one should not expect to find a menorah pattern in every psalm – see my caveat in Observation 4 in my analysis of [Psalm 105](#). However, [Psalm 67](#) is a clear example: the menorah poem that has been artfully copied many times in Jewish tradition. See Trudie Labuschagne's Undergraduate Thesis on [the Menorah](#) (1993) and her forthcoming [PHD dissertation](#).

The menorah composition *par excellence* in the book of Psalms is [Psalm 92](#), the impressive "Song for the Sabbath Day". Its 15 verselines are structured in the following way:

Vs. 2-8	<b>7</b> verselines	<b>52</b> ( $2 \times 26$ ) words
<b>Vs. 9 centre</b>	<b>1</b> verseline	<b>4</b> words
Vs. 10-16	<b>7</b> verselines	<b>52</b> ( $2 \times 26$ ) words.

Moreover, the name YHWH occurs **7x**, with the 4<sup>th</sup> (middle) instance precisely in vs. 9 ( $3+1+3$ !)

To mention some randomly chosen examples of series or strings of seven items:

- 7** occurrences of YHWH in Psalm 7;
- 7** items in Psalm 19:2-7 and 8-11;
- 7** acts of God in Psalm 23:2-5;
- 7** occurrences of 'voice' in the **7** verses of Psalm 29:3-9;
- 7** characteristics of the evildoer in Ps. 52:4-6;
- 7** items describing God's judgement and its effects in Ps. 52:7-8;
- 7** occurrences of the key-word Elyon in the Asaphite Psalms (73-83);
- 7** occurrences of the name of Moses in the Mosaic Book IV (Psalms 90-106);
- 7** items in 101:2-5, 104:2-4, 27-30, 105:39-44, 146:7-9, 147:8-11, 13-20, and 148:1-4, 7-8.

See [Numerical Secrets of the Bible](#), pp. 31-70 and 130-135, and for more examples p. 18 below.

**The double kabod pattern** consists of **55** words explicitly divided into the component parts **23+32**, or vice versa, the numerical values of *kbwd* ( $11+2+6+4=23$  according to its positional value) and *kbwd*

( $20+2+6+4=32$ , according to its numeral value). The term ‘double *kabod* pattern’ offers a better definition of the pattern in question than the term ‘minor tetraktys’ coined by Claus Schedl, which I used earlier – see [Numerical Secrets of the Bible](#), pp. 121ff. It is important to note that the mere occurrence of the number 55 in a given text is not enough to be identified as ‘the double *kabod* pattern’. The two components, 23 and 32, must demonstrably constitute the pattern by their presence in the text, or in the formula  $55 = 23 + 32$ . Symbolically, these numbers express the glory of God. For examples in Book I, see my analyses of [Psalm 13](#), [Psalm 19](#), [Psalm 22](#), and [Psalm 23](#).

I do not consider the two *kabod* numbers **23** and **32** regular compositional numbers in the same sense as the two divine name numbers. They feature only in contexts in which God’s ‘glory’ signifying his presence is explicitly mentioned or subtly implied. In that case, they usually feature in the double *kabod* pattern, and/or in the *kebod*-YHWH pattern – see below. Their appearance outside these texts should be regarded as coincidence. Therefore, I do not mark them in bold face as a matter of course.

The divine name numbers **17** and **26**, however, are consistently marked in **bold face**, because they derive their status as compositional numbers from the fact that they are woven into the fabric of the text – see below under “The name YHWH woven into the fabric of the text”. This weaving and the concomitant high status do not apply to the *kabod* numbers. Treating them as regular ‘compositional numbers’ would increase the chances of ‘always finding a compositional number’. This would cause a high inflation rate of ‘sacred numbers’, which justifies the reproach on the part of sceptics that “you can always find a sacred number”.

**The YHWH *èchad* pattern** consists of **39** words explicitly divided into **26+13**, “YHWH is One”. Note that the number **39** in itself does not represent the YHWH-*èchad* formula; it only does, if its component parts feature in the text. For examples of the YHWH-*èchad* pattern in Book I of the Psalter, see the analysis of [Psalm 3](#), [Psalm 5](#), [Psalm 6](#), [Psalm 8](#), [Psalm 24](#), [Psalm 29](#), [Psalm 33](#), and [Psalm 34](#). It occurs frequently in [Deuteronomy](#); compare also [Isaiah 36-39](#), pp. 1 and 3-5.

**The concatenation of divine name numbers** is an extremely useful device to weave them into the fabric of the text. For examples of the most impressive cases, see Observation 3 in the analysis of [Psalm 1](#), and particularly Observation 4 in that of [Psalm 29](#) and Observation 2 in that of [Psalm 81](#).

### The use of a coda as a device for conclusion

In his book *Rhetorical Criticism and the Poetry of the Book of Job* (Oudtestamentische Studiën, deel XXXII) Leiden – New York – Köln, 1995, pp. 470-471, Pieter van der Lugt has drawn attention to what he calls a ‘closing unit’, e.g. at the end of Job 5, 25-26 and 33. He also identified this significant phenomenon at the end of some psalms, primarily based on canto length, which he describes in his book *Cantos and Strophes in Biblical Hebrew Poetry* (OTS 53), Leiden – Boston: Brill, 2006, pp. 513-518. He distinguishes a *concluding doxology*, a *summary with a doxology motif*, a *summary*, a *protestation of trust* and a *prayer for the deliverance of Israel*.

Up till now, I have independently encountered the phenomenon here and there in the Psalter, which I recognized because of the sudden switch in the direction of address at the end of a poem: from 2<sup>nd</sup> to 3<sup>rd</sup> person, e.g., in Ps. 13:6, 26:12 and 27:13-14; from 3<sup>rd</sup> to 2<sup>nd</sup> person, e.g. Ps. 28:9 and 33:22. At the time I interpreted it as a highlighting device focusing on what is said at the end of the poem. However, there is more to it. Having found it now in five successive psalms in Book V (Psalms 105-109; see also 135-136, 139 and 144), I think the time has come to define this newly found phenomenon more precisely. I suggest calling it a **coda**, which is a very useful term to describe it.

The coda is defined in the *New Oxford Dictionary of English* primarily as a musical term:

“the *concluding passage* of a piece or movement, typically forming an addition to the basic structure; the *concluding section* of a dance, especially of a pas de deux or the finale of a ballet..”;

but it is also used in connection with literature:

A concluding event, remark, or section: “his new novel is a kind of coda to his previous books”.

A.F. Scott, *Current Literary terms: A Concise Dictionary*, defines the coda as:

“The *tail-piece*, occasionally added to a sonnet, giving it sixteen lines or more instead of the orthodox fourteen.”

The challenge we are faced with in regards the use of a coda in the book of Psalms is to identify genuine, deliberately devised codas. Of course, every psalm has an ending, but not every ending is necessarily a coda. In my judgement at this stage of my investigations, a genuine coda must meet two requirements: first, in terms of *content* it has to be a specific *concluding statement* or a *general conclusion* based on the main theme of the poem; and second, in terms of *form* it has to stand apart and be distinct from the preceding body of the text. For the codas in Psalms 105-109, consult my preliminary remarks in the “Specific Features” and the concluding section of each logotechnical chart, as well as Observation 5 in the analysis of [Psalm 105](#) and the relevant Observations in the analyses of the 4 other psalms.

One of the problems to be resolved is to decide whether the coda structurally belongs to the concluding strophe or canto, or whether it stands completely on its own outside the body of the psalm. Each case should be decided individually, but unless there is strong evidence for the contrary, I consider the coda structurally integral to the last canto of the psalm, standing **apart**, but **within** the concluding canto of the psalm.

### The numerical value of a key-word in the text

In the book of Deuteronomy and elsewhere in both Old and New Testament, the numerical value of a key-word in the text often defines its compositional structure, or that of part of it. For telling examples, see [Numerical Secrets of the Bible](#), pp. 135-140. In some cases one must allow for coincidence, but there are no less than 56 instances, but probably many more, in the book of Psalms that cannot simply be dismissed as a matter of chance. Here are some telling examples:

- [Psalm 1](#) opens with **אשרי**, ‘happy’, of which the numerical value is **52** (1+21+20+10), **2x** the holy number **26**. Intriguingly, this key-word occurs exactly **26x** in the book of Psalms. The mathematical centre of Psalm 1 on the level of words, the description of the qualities of the fruitful tree (v. 3) is surrounded by **52** words with **26** on either side: **26+15+26**. Compare also [Psalm 32](#) and [Psalm 41](#), which have likewise **אשרי**, ‘happy’, as their initial word.
- [Psalm 12](#) has a clear bipartite structure in terms of cantos, strophes, verselines and words. It is made up of 74 words divided into 2 cantos, 4 strophes, 4 verselines and **37+37** words. The number **37** represents the numerical value of the key-word **חסיד**, ‘loyal’ (v. 1a).
- [Psalm 76](#) has **41** words, which represent the numerical value of the key-word **נורא**, ‘awesome’ (14+6+20+1=41), positioned precisely in the middle of the meaningful centre in v. 8a: **אתה נורא אתה**, ‘You, awesome You!’.

[Psalm 92](#) is made up of 108 words with the four words in v. 9, **וְאַתָּה מְרוֹם לְעֶלְיָם יְהוָה**: “You, YHWH, are exalted forever!”, at the centre flanked by **52** words, which also happen to be the numerical value of the key-word **מרום**, ‘exalted’ (13+20+6+13=52). Its compositional structure is amazingly regular:

vs. 2-7	Canto I	7 verselines	15 cola	<b>52</b> (2x26) words
v. 9	Centre	1 verseline	1 colon	<b>4</b> words
vs. 10-16	Canto II	7 verselines	15 cola	<b>52</b> (2x26) words.

- [Psalm 121](#) has **54** words, which represent the numerical value of the key-root **שמר**, ‘to guard, to keep’ (21+13+20=54). This is also the case in [Psalm 124](#). The two psalms are similar in form, made up of 2 cantos, 4 strophes, and **54** words. [Psalm 127](#) is the third psalm of which the number of words is determined by the key-word **שמר**.
- [Psalm 129](#) has exactly the same compositional structure as [Psalm 130](#), the psalm of hope: 2 cantos, 4 strophes, 8 verselines, **17** cola and **52** words. The key-word **קוּתָה**, ‘(my soul) waits in hope’, in 130:5 (numerical value: 22+19+6+5=52), determines the total number of words in both psalms.
- [Psalm 131](#) has **30** words which are determined by the numerical value of the key-word **יחל**, ‘to hope’ (10+8+12=30). Being a follow-up to Psalm 130, the psalm reiterates its central theme:



waiting for YHWH in trust and hope. The passionate exhortation **יחל ישראל אל־יהוה**, 'Israel, wait in hope for YHWH' (Ps. 130:7a), is repeated here to conclude the psalm.

- [Psalm 132](#) has **63** words in Canto I, which is determined by the numerical value of the key-word **משיחך**, 'your anointed' (13+21+10+8+11=**63**). Seeing that it is a messianic psalm, this is a key-word of paramount importance (compare verses 10 and 17). It is intriguing to note that **משיחך** happens to be the **63<sup>rd</sup>** – and last – word of Canto I (vs. 1-10).
- In [Psalm 144](#): the important key-word **אשרי**, 'happy', that pervades the book of Psalms in a string of **26** instances, occurs twice at the end of the psalm (vs. 15a and 15b). Its numerical value (**52**) determines the number of words in vs. 3-9. Its symbolic significance is to denote the continuous happiness of Israel as the people of YHWH.

The last (**26<sup>th</sup>**) instance of **אשרי** is to be found in [Psalm 146](#), where it determines the number of words (**52**) in vs. 1-7b, with **26** words in Canto I (vs. 1-4) and **26** in Canto II (vs. 5-7b).

Here are psalms of which the number of words are in one way or another determined by a key-word in the text: 1, 12, 19, 20, 32, 34, 39, 40, 41, 48, 49, 53, 54, 57, 58, 59, 61, 67, 76, 80, 81, 82, 84, 85, 86, 87, 88, 91, 92, 93, 94,, 96, 99, 100, 118, 120-134 (!), 137, 139, 142, 144, 146.

## The numerical signature of the main character in a text

In the same vein is my discovery of the spectacular use of the numerical value of a person's name, particularly that of the main character, to denote his/her signature. This intriguing phenomenon has only recently been brought to light and needs further investigation, because there are probably many more than I have noticed in passing. In any case, though some of the cases may be a matter of coincidence, there is every reason to assume that we have to do with an accepted scribal technique in biblical times. Needless to say, the knowledge of this device is highly esoteric.

As a matter of fact, I have noticed this phenomenon years ago in Psalm 3, the very first Davidic psalm, but it was only later that I realized that the frequent occurrence of the number **14** in the psalm was intended by the author to denote David's numerical signature.

What meets the eye immediately in the logotechnical analysis of [Psalm 3](#) is the prolific use of **14** to give structure to the text. **14** is the numerical value of the name of **דוד**: 4+6+4=**14**. Its structure is:

Strophe 1 (vs. 2-3)	<b>14</b> words	Strophe 1 is demarcated by <b>selah</b>
Strophe 2 (vs. 4-5)	<b>14</b> words	Strophe 2 is demarcated by <b>selah</b>
Strophes 3-4 (vs. 6-8)	<b>28</b> (2x <b>14</b> ) words.	

Since Psalm 3 is the first Davidic Psalm in the Psalter, the author has obviously chosen this number to structure the psalm and to imbue it with David's signature. Note, however, that this does certainly not imply that every number **14** occurring in the book of Psalms refers to David!

Let us now turn to the New Testament, **Matthew 1:1-17**, with the heading "The Genealogy of Jesus Christ, the son of *David*, the son of *Abraham*". The passage contains a list of **42=3x14** 'achieved' generations and **41** real generations from Abraham to Jesus to illustrate the idea that Jesus is the son of *Abraham* and the son of *David*. The number **14** represents the signature of David, **דוד**, and **41** that of Abraham by means of the numerical value of his name in Hebrew, **אַבְרָהָם**: 1+2+20+5+13=**41**.

What follows is a number of significant examples, but there are undoubtedly more:

**Deuteronomy 1:1-5**: The time and place of Moses' discourse (preceding the introductory formula **לֵאמֹר**): **78=2x39** words, the numerical value of the name **מֹשֶׁה**: 13+21+5=**39**.

**Joshua 23:15-16**: The stern warning against idolatry at the end of Joshua's farewell address: **58** words, which represent the numerical value of his name, **יְהוֹשֻׁעַ**: 10+5+6+21+16=**58**.

**1 Samuel 1-28**: the signature of Samuel figures no less than 8x: **שְׁמוּאֵל** = 21+13+6+1+12=**53**:

1. 1:1-3, **53** words at the beginning of the passage where the main characters are introduced;
2. 1:9-11, **53** words at the beginning of the passage where Hannah prays and makes a vow;
3. 2:19-21, **53** words at the end of the passage dealing with little Samuel's cloak;

4. 3:8-10, **53** words at the end of the passage where Samuel says: "Speak, for your servant hears!"
5. 7:2-17, **265** (5x53) words in the passage dealing with Samuel as judge and intercessor;
6. 9:15-20, **106** (2x53) words in the passage where YHWH informs Samuel about his intentions;
7. 12:22-25, **53** words at the end of Samuel's famous speech;
8. 28:12-14, **53** words in the passage about the appearance of the ghostly form, identified as Samuel.

**1 Samuel 17:1-54:** David as the Philistine champion: the passage has altogether **854** words, 61x14, the numerical value of the name of David, **דוד**: 4+6+4=14.

**1 Samuel 27:1-28:2:** David as raider in the service of Achish: the passage has altogether **252** words, 18x14, the numerical value of the name of David, **דוד**: 4+6+4=14.

**2 Samuel 12:1-3:** The beginning of the passage dealing with Nathan's meeting with David has **50** words, which is the numerical value of the name Nathan, **נתן**: 14+22+14=50.

**2 Samuel 13:11-14:** The passage in which Tamar tries to ward off the rape has **55** words, which is the numerical value of the name of Tamar, **תמר**: 22+13+20=55.

**2 Samuel 13:20-22:** The passage dealing with the aftermath of the rape has also **55** words.

**1 Kings 1:32-34:** David orders Solomon's anointment and to hail him: **51** words, which represent the numerical value of the name Solomon, **שלמה**: 21+12+13+5=51.

**1 Kings 4:1-5:1:** The passage deals with Solomon's high officials and is authorized at the beginning (4:1-6) by his signature of **51** words as well as at the end (4:18-5:1).

**1 Kings 17:5-7:** The passage dealing with Elijah's stay by the brook Cherit has **34** words, which may be interpreted as signifying Elijah's signature, **אליהו**: 1+12+10+5+6=34. The same goes for

**1 Kings 1:36-37:** Elijah's prayer preceding the coming of YHWH's fire from heaven: **34** words.

**Isaiah 9:13-17:** The passage dealing with YHWH's warning that he will 'cut off head and tail' (14), has **68** words, which represent Isaiah's numerical signature: **ישעיהו** =10+21+16+10+5+6=68. In v. 15 the true prophets are called the head, as opposed to the false prophets as the tail. The latter will be cut off, while the true prophets (*represented by Isaiah!*) will remain.

**The book of Joel** is a special case. It begins with **29** words (1,1-3). This number appears no less than four times in the book. It reappears in threefold in the **87** (3x29) words of 2,12-17, in fivefold in the **145** (5x29) words of 2,18-27, and to crown it all, in the total number of words: **957** (33x29). Note that 33 is the number of instances of the name YHWH! All this is not surprising, for **29** represents Joel's numerical signature: 10+6+1+12=29 = **יואל**, 'YHWH is God!'. At the same time it underlines the monotheistic confession expressed in his name. But there is more – see my analysis of [Joel](#).

**The book of Habakkuk** is made up of **54** verses in the prophecies, excluding the headings (1,1 and 3,1). The number **54** signifies the signature of Habakkuk by means of the numerical value of his name: 8+2+19+6+19=54=**הבקוק**. See my analysis of [Habakkuk](#).

**In the book of Zechariah** the call to the exiles to flee from the land of their captivity to Zion (2,10-13) constitutes the gist of the book as a whole. That this particular passage is made up of **53** words is not coincidental but deliberate in order to create Zechariah's signature: 7+11+20+10+5= **53**=**זכריה**. See my analysis of [Zechariah](#).

**In the book of Malachi** the verse in which the name of Elijah is specifically mentioned is made up of **28** words, which is the numerical value of his name: 1+12+10+5=28=**אליה**. See my analysis of [Malachi](#).

**In the book of Job** (MT) there are several passages consisting of **19** words (or multiples of it), which is the numerical value of the name Job: 1+10+6+2=19=**איוב**.

**1,13-22** The four testing disasters that befall Job: **152** (8x19) words.

**1-14** From Chapter 1 until the end of the first Round: **19** instances of **יהוה**.

**19,18-22** Job's passionate plea for pity on him: **38** (2x19) words.

**31,35** Job's 'sign'/signature or ID in the form of a clay seal.

**38,1-3** Job's signature used to identify him as the addressee of YHWH's first discourse: **19** words.

**29,1-31,40a** Job's concluding discourses: altogether **703** (37x19) words – see pp. 29-30.

**42,4-6** Job's confession and repentance: **19** words.

These examples must suffice to substantiate and validate my discovery of the numerical signature of a person as a scribal device. It gains credibility in light of the fact that having a personal signature was not unknown in ancient Israel. In Job 31,35 Job says “Here is my signature (הֵן־חַתְּמִי)”. The word חֵט is derived from the last letter in the Hebrew alphabet and means ‘mark’ or ‘signature’.

See *Hebrew & Aramaic Lexicon of the Old Testament*, s.v.

For the earliest signature, go to <http://www.historyofinformation.com/expanded.php?id=2614>.

### Defining the building blocks of prose texts (see p. 9)

The building blocks of prose texts, and ‘mixed’ compositions such as the books of the prophets, dividing into larger and smaller literary entities are totally different from those of poetic texts. They range from the Masoretic verse to paragraphs, sections, main parts, segments, books and groups of books such as the Story of Ancient Israel in Genesis-Kings, of which the Torah is a distinct part. As in the case of the poetic texts, the purpose of numerical structural analysis applied to the prose texts is to find out how, and to what extent, their building blocks are governed by the structural numbers we encountered in poetry: the number of fullness **7**, the number of fulfilment/completion **11**, and the divine name numbers **17** and **26**.

For the analysis of these texts I have at my disposal a more sophisticated program, designed by Klaas Eikelenboom, for the counting of verses, words and letters, to compute their totals and the numerical value of individual words, and to count the occurrences of key-words and phrases such as the introductory formula כֹּה אָמַר יְהוָה, ‘thus says YHWH’, and the name יְהוָה. Whereas during the first decade of the century I had to count by hand the **26** occurrences of the key-word אֲשֶׁרִי, ‘happy’, in the Psalms, the present program can do this flawlessly within a few seconds. What a thrill I had to discover, e.g., that the name יְהוָה occurs **1820** times in the Torah (**70x26**) and that YHWH and his angels speak altogether **2054** (**79x26**) words in Genesis.

How intriguing was it to see that there are **26** divine speeches in the story of the creation of the world and the Toledoth of Adam (Genesis 1:1-6:8) and that in Genesis 2:4-3:24 YHWH speaks altogether **156** (**6x26**) words, with **34** (**2x17**) words in the introductions. Most significantly, the Toledoth of Noah (Genesis 6:9-9:29) divides into **7** paragraphs in accordance with the layout markers **P** and **S**. The text as a whole is sealed with **17** occurrences of the designation Elohim and **7** instances of the name יְהוָה. The name Noah occurs altogether **34x** (**2x17**). The number of fullness **7** plays an important role to express completeness: there are **7** pairs of ritually clean beasts; **7** days are mentioned (7:4.10; 8:10.12) and the **7<sup>th</sup>** month (8:4). In the Flood-story as such (6:9-9:7) כָּל־בֶּשֶׂר, ‘all flesh’, occurs **7x** (6:12.13.17.19; 7:16.21; 8:17). YHWH’s command to Noah to build an ark (6:14-21) is made up of **119** (**7x17**) words, etc., etc. All this inspired me to continue this type of research in other books as well.

The evidence gleaned from the logotechnical analysis of the books of Genesis-Kings is impressive and overwhelming, showing conclusively that these books are, each in its own way, painstakingly designed numerical compositions shaped primarily by the structural numbers in question.

Finally, the well-established compositional technique of positioning the most crucial part of the text at the mathematical centre is also to be found in the prose texts. To give a few examples:

**The book of Genesis:** taking the Creation of the World (1:1-2:3) as a Prologue, the rest of the book divides on the basis of the **11** Toledoth into **11** parts, with the Toledoth of Terah at the centre. The number of Toledoth was obviously chosen on the basis of the number of fulfilment en completeness, but it is used elsewhere as a structural number, e.g., in the book of [Psalms](#).

Here follows the **11**-fold structure of the Toledoth in Gen. 2,4-50,26:

- I Toledoth of the world (Genesis 2:4-4:26)
- II Toledoth of Adam (Genesis 5:1-6:8)
- III Toledoth of Noah (Genesis 6:9-9:29)
- IV Toledoth of Noah's sons (Genesis 10:1-11:9)
- V Toledoth of Shem's sons (Genesis 11:10-26)
- VI Toledoth of Terah (Genesis 11:27-25:11)**
- VII Toledoth of Ishmael (Genesis 25:12-18)
- VIII Toledoth of Isaac (Genesis 25:19-35:29)
- IX Toledoth of Esau/Edom (Genesis 36:1-8)
- X Toledoth of Esau/Seir (Genesis 36:9-37:1)
- XI Toledoth of Jacob (Genesis 37:2-50:26).

In Deuteronomy 1-3, dealing with the fulfilment of the land promise there are a great number of passages governed by the number of fulfilment **11** on the level of words:

1:19-22	The promised <b>land in sight</b>	<b>77</b> (7x11) words,
2:2-6	YHWH's speech: <b>land for Esau/Edom</b>	<b>55</b> (5x11) words,
2:7	Moses' address	<b>22</b> (2x11) words,
2:9-13b	YHWH's speech: <b>land for Lot/Moab</b>	<b>66</b> (6x11) words,
2:2 13b	Both divine speeches together (55 + 66)	<b>121</b> (11x11) words,
2:18-25	YHWH's speech: <b>land for Lot/Ammon</b>	<b>121</b> (11x11) words,
2:16 – 3,29	Total number of words	<b>770</b> (70x11) words,
3:1-7	Narrative: the march to Bashan	<b>110</b> (10x11) words,
3:2	YHWH's speech: <b>land for Israel</b>	<b>22</b> (2x11) words,
3:18-20	Quotation by Moses	<b>55</b> (5x11) words,
3:23-29	Moses' request to enter the land	<b>99</b> (9x11) words,
3:26b-28	YHWH's speech: <b>no entrance for Moses</b>	<b>44</b> (4x11) words.

This is the largest accumulation of **11** and its multiples I ever came across in the OT.

Let us return to the sevenfold structures with a clear meaningful centre:

**The book of Exodus** has a sevenfold structure with the Book of the Covenant at the centre:

- Part I The Exodus from Egypt and the crossing of the Reed Sea (1:1-15:21)
- Part II The first stages of the Wilderness wanderings (15:22-18:27)
- Part III The theophany at Mount Sinai and the promulgation of the Decalogue (19:1-20:26)
- Part IV The Book of the Covenant made with Israel (21:1-24:18)**
- Part V Directions for the fabrication of the Tabernacle and its equipment (25:1-31:18)
- Part VI The Golden Calf drama at Mount Sinai (32:1-34:35)
- Part VII The fulfilment of YHWH's instructions concerning the Tabernacle (35:1-40:38).

**The book of Leviticus** has also a sevenfold structure, with the Regulations for the day of Atonement at the centre:

- Part I Regulations for Sacrifices (1-7)
- Part II Ordination of Priests (8-10)
- Part III Laws on Ritual Purity (11-15)
- Part IV Regulations for the Day of Atonement (16)**
- Part V Regulations for Holy Living (17-24)
- Part VI Moral Holiness in Everyday Life (25-26)
- Part VII Vows and Modifications (27).

**The book of Deuteronomy** can likewise be divided into **7** parts arranged in a perfect symmetric pattern, with the promulgation of the Covenant stipulations at the centre:

- Part I **Moses' Opening discourse** (1:1-3:29)  
 Part II Moses' Opening *prophetic peroration* (4:1-49)  
 Part III Moses expounds the Horeb **covenant** (5:1-11:32)  
**Part IV Moses promulgates the covenant stipulations** (12:1-26:19)  
 Part V Moses expounds the Moab **covenant** (27:1-28:69)  
 Part VI Moses' Concluding *prophetic peroration* (29:1-30:20)  
 Part VII **Moses' Concluding discourse** and his necrology (31:1-34:12).

Let me conclude the General Introduction with a simple but telling example of the ingenious way in which a prose text is numerically structured regarding its mathematical centre, the Story of the Binding of Isaac (Genesis 22). The arithmetic centre of the 307 words is constituted by the name יצחק in verse 9b, which is flanked on either side by **153** (9x17) words:

$$153 + \boxed{1} + 153 = 307.$$

As I have argued and asserted time and again throughout my present research project, the number **17** symbolically expresses YHWH's presence in the events described in the text. This means that the author of Genesis 22 consciously organized his text in this specific way in order to illustrate Isaac's precarious position during his binding on the altar and to demonstrate at the same time that he is surrounded by YHWH's presence. See my article "[Numerical Features of Genesis 22,1-19](#)".

This vividly recalls the position of the psalmist 'in a valley of deepest darkness' in Psalm 23, where the three words כי־אתה עמדי, 'for you are with me' (v. 4), are positioned at the mathematic centre of the text flanked by **26** words on either side in order to express symbolically that YHWH is present in that situation and that the person in question is surrounded by him (See the analysis of [Psalm 23](#)):

$$26 + \boxed{3} + 26 = 55.$$

For the hymns in the book of Psalms, the outside hymns and prayers, and a considerable number of miscellaneous texts, please go to: [Psalms and other Selected Texts](#). All downloadable for free.

For the numerical features and quantitative structural analyses of the nine books of Genesis-Kings, the **Story of Ancient Israel**, the reader can consult the analyses of its two parts separately:

**Genesis-Deuteronomy:** <http://www.labuschagne.nl/torah.htm>

**Joshua-Kings:** <http://www.labuschagne.nl/joshua-kings.htm>

**The book of Isaiah:** <http://www.labuschagne.nl/isaiah.htm>

**The book of Jeremiah:** <http://www.labuschagne.nl/jeremiah.htm>

**The book of Ezekiel:** <http://www.labuschagne.nl/ezekiel.htm>

**The book of the Twelve Minor Prophets:** <http://www.labuschagne.nl/minorprophets.htm>

**Numerical features of the books of the Ketubim:** <https://www.labuschagne.nl/ketubim.htm>

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