Significant Compositional Techniques in the Psalms

Evidence for the Use of Number as an Organizing Principle

by

Casper Labuschagne

Haren, the Netherlands

The present article was originally published in *Vetus Testamentum* 59 (2009), p. 583-605. However, due to a technical error the text of pages 593-595 was printed incorrectly. The publisher apologized for the error and supplied the correct version of the text concerned in an *Erratum, VT* 60 (2010), p. 1-4. The original, correct text of the article can be found on the following pages.

Abstract

This article directs attention to a largely unobserved, and grossly ignored, aspect of the biblical writings in general and of the Psalms in particular: their numerical features. It shall be demonstrated that in composing their texts, the biblical writers used specific numbers as an organizing principle to shape their texts and as a means of imbuing them with symbolic significance. In doing so, they employed a variety of numerical techniques, in which 7 and 11, symbolizing ‘fullness’ and ‘comprehensiveness’, play a crucial role as ordering devices. Evidence is adduced to show that the scribes also used the divine name numbers 17 and 26 in various ways to symbolically express God’s presence and to give prominence to their texts. Approaching the book of Psalms from this perspective provides us with a new key to unlock and understand the compositional architecture of the psalms and the five books of the Psalter. These claims are substantiated by a discussion of sufficient examples to illustrate that the psalms are interrelated numerical compositions and that the book of Psalms is a sophisticated, meticulously designed work of art, shaped primarily by numerical considerations.

Keywords

Quantitative structural analysis, symbolic numbers, menorah pattern, meaningful centre.

1. Introduction: The Psalms as Numerical Compositions

It is common knowledge among biblical scholars that the transmitters of the text of the Hebrew Bible carefully counted verses, words and even letters, and that they located and marked the mathematical centres of books and groups of books. These counting activities have always one-sidedly been interpreted as a means to control whether a text was copied correctly, and were simply left at that. In my view, however, there is more to it, because the counting by the transmitters of the Hebrew Bible is a reflection of the counting activities of the biblical scribes and their use of specific numbers as a literary organizing principle. For them writing entailed composing and composing necessarily involved counting. In fact, הָעַל, writing, document, book, and הָעַל, scribe, enumerator, secretary, derive from one and the same verb הָעַל, meaning both to count, to number, to report and to recount. This means that the biblical writings in general and the psalms in particular were not written in an off-the-cuff manner, but were meticulously composed according to compositional techniques in which counting played a crucial role.

In order to study the purely technical function of numbers in biblical times, scholarly research requires us to distance ourselves from the traditional association of numbers with the hazy world of mysticism, magic and pseudo-science. This means that we have to concentrate on their two main functions: first, as a technique to count, calculate and structure—also with regard to the composition of texts—and second, as a means of adding depth to a text and to imbue it with symbolic significance. As everyone knows, in antiquity numbers had a symbolic

* I am indebted to my friend Jim McMillan, doctor and poet, who checked my English.
value and a metaphorical capacity to refer to something beyond the surface meaning. In our modern, rationalistic First World culture we seem to know numbers only in their mathematical functions, as a means to count, reckon and measure. Though we are aware of the fact that numbers play an important role in composing music, the function of numbers in composing texts has fallen into oblivion. In addition to this, biblical scholars, being primarily schooled in arts and humanities, seem to feel ill at ease and out of their depth when it comes to numbers. This shows that though illiteracy has generally been conquered in our culture, mathematical illiteracy is still rife—even among academic scholars.¹

Classical scholars and medieval specialists have long been acquainted with the use of numbers as a device to give structure to literary compositions. Substantial research has been carried out already regarding the structural function of symbolic numbers in classical, medieval, and early modern texts, showing that numerical techniques were generally employed to organize literary compositions from antiquity until at least the eighteenth century. Numerical criticism is an accepted scholarly approach in text analysis. What it entails is clearly stated by Alistair Fowler in the foreword to the book Silent Poetry:

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.²

To what extent the biblical writers employed numerical techniques to give structure to their texts has not yet been studied systematically. In this respect biblical scholars are lagging far behind their colleagues in classical and medieval studies. This is rather surprising, if not astounding, since there have always been clear indications that the biblical writers did not write their literary productions off-the-cuff but composed them with minute care, using a variety of compositional principles and literary techniques. The biblical writings, and the psalms in particular, are numerical compositions. This is a fact that has by now been proven and substantiated beyond any reasonable doubt.³ Besides earlier investigations, my study of the numerical aspects of the psalms over the past decade has brought to light a massive amount of additional evidence confirming this claim.⁴

³ Consult my logotechnical analysis of the Psalms and other texts at http://www.labuschagne.nl/psalms.htm.
The purpose of this article is to direct the attention of the scholarly world to the numerical features of the psalms and to present the evidence I found for the numerical thinking of the biblical scribes and their use of number symbolism and number as an organizing principle. I shall demonstrate that the composers/editors had a marked preference for the use of the number 7, which symbolizes ‘fullness’, to shape their texts and to create groupings and series of key-words or key-acts. This also applies (though to a lesser degree) to the number 11, which symbolizes ‘comprehensiveness’ and ‘fulfilment’. Moreover, I shall discuss the various ways in which the scribes employed the divine name numbers 17 and 26, which symbolically signify God’s presence. These two numbers represent the numerical values of the name יְהֹוָה:

\[
Y (10) + H (5) + W (6) + H (5) = 26 \text{ (sum of the positional values)}
\]

\[
Y (1) + H (5) + W (6) + H (5) = 17 \text{ (sum of the digits).}
\]

They occur in an extraordinary high frequency throughout the Hebrew Bible and were used primarily to weave the holy name into the fabric of the text. This gives solid substance to the Jewish tradition that God’s name was woven into the texture of Scripture. At the same time, the scribes used them as literary tools to shape their compositions by giving prominence to certain sections of a text and to finalize/canonize a rounded-off composition.

From the outset it is important to be aware of the fact that we have to do with features of the biblical text that were only understood by a small number of professional scribes, who had a specialized knowledge of these compositional techniques. The intricate structures of a text do not readily meet the eye of the reader at first sight; neither can its complex rhetorical architecture be comprehended when the text is recited. In fact, the scribes did not compose their texts as literary artistry specifically for the benefit of the reader or the listener, but for their own satisfaction to show their craftsmanship and, more importantly, to the glory of God. Insight into the arcane character of the biblical writings offers an explanation of the fact that the specialized knowledge of their architecture gradually faded away and completely disappeared, leaving only a vague remembrance of locating the centre and counting verses and words in the minds of the transmitters of the text.

Modern biblical scholars have the good fortune that the numerical features of the biblical writings have been rediscovered in our times. Up till now, the work of the pioneers in

---


6 An alternative explanation is that 17 represents the numerical value of a conjectured word ‘ahweh*, which is to ‘ehyeh, “I am” (cf. Exodus 3:14), as yahweh* is to yihyeh, “he is”. See http://www.labuschagne.nl/aspects.pdf, “The name YWHH woven into the fabric of the text”.

7 See Numerical Secrets of the Bible, pp. 75-104.
this field of study has unfortunately been met with unfounded scepticism and grossly ignored, but in the light of the massive amount of evidence already available biblical scholars simply cannot continue avoiding their responsibility of taking the evident facts seriously. If the scribes used numbers to shape their texts – and they certainly did –, we have a bounden obligation to detect and lay bare their numerical features. We can do so by employing the discipline of logotechnical quantitative structural analysis, which should be on the agenda of every biblical scholar. This activity, which is in fact numerical criticism, is not a separate discipline but a supplementary branch of literary criticism, of which the first and foremost task is to explore and describe the literary architecture of a given text.\footnote{See my plea for the integration of numerical structural analysis into the discipline of literary criticism, “De literairkritische methode”, in A.S. van der Woude (ed.), \textit{Inleiding tot de studie van het Oude Testament}, Kampen, 1986; 2nd edition 1993, pp. 102-127.}

Logotechnical analysis is primarily concerned with \textit{words} as the smallest building blocks of a text. Since syllables do not function as building blocks, counting them, in my opinion, is a waste of time. In poetry the real building blocks in addition to the word are the colon, verseline, strophe, canticle, and canto/stanza. These literary categories can only be ascertained by painstaking rhetorical analysis and by counting in order to find out exactly how they are organized, and according to which principles. For this purpose I use a computer programme to count the number of words in a given psalm in terms of its individual compositional structure, which is determined by a variety of factors emerging from the text itself: words before and after \textit{atnach}, words in the main and subordinate clauses, words spoken about God and words directly addressed to him, etc. A separate programme calculates the numerical value of every word in the psalm (the positional value of the letters) to see whether specific key-words are used to define the number of words in the text or in part of it.\footnote{See the General Introduction to Quantitative Structural Analysis: \url{http://www.labuschagne.nl/aspects.pdf}. I am deeply indebted to Albert Beetsma, one of my former students, who designed the computer programmes.}

\section{2. The Use of 7 and 11 to Give Structure to the Book of Psalms and Individual Psalms}

In general, biblical scholars are aware of the great number of occurrences of the number 7 in the Bible and its use as an ordering principle. The number 11 is less well known, but there is sufficient evidence to show that, like the number 7, it was a well-established scribal tool used for structuring purposes. It appears mostly in the pattern \(11 = 7 + 4\), because it derives its symbolical significance from the fact that it is a combination of 7 and 4.\footnote{For the close relationship between 7 and 11 and their use for structuring purposes, see \textit{Numerical Secrets of the Bible}, pp. 26-74, and the overview at \url{http://www.labuschagne.nl/psalterstructure.pdf}, p. 4.}

\hspace{1em}Being odd numbers, 7 and 11 have the advantage of having a \textit{pivot} and the ability to make the \textit{middle} a strong focus of attention. This offered a composer the opportunity to give pride of place to a key-idea or key-text at the arithmetic centre of his composition. It is therefore important always to locate the arithmetic centre of a given text and to find the focal point in groupings or series of these two numbers.

The insight that the psalms are numerical compositions must necessarily lead to a new approach to the compositional structure of the book of Psalms. In a paper read at the CBL conference in August 2008 in Louvain, I presented my view on the architecture of the book of Psalms, arguing that it was shaped primarily by numerical considerations: Sub-groups of 7 and 11 psalms constitute the five books, which were sealed and finalized/canonized in terms of verselines by means of the divine name numbers 17 and 26.\footnote{Casper J. Labuschagne, “Significant Sub-Groups in the Book of Psalms: A New Approach to the Compositional Structure of the Psalter”, in \textit{The Composition of the Book of Psalms} (BETL), Leuven, 2009. For a full discussion, see \url{http://www.labuschagne.nl/psalterstructure.pdf}.}

I counted no less than 45 psalms that are in some way or another governed by the number 7 and 20 others in which the number 11 has a structuring role. Because 11 derived its
symbolical significance from the fact that it is a combination of 7 and 4, it is not surprising to find that 7 and 11 appear together in one and the same composition. Here are among others two examples of psalms having 11 verselines arranged in the 7 + 4 pattern:

**Psalm 46** vs. 2-8  Canto I,  7 verselines  YHWH and his city  55 (5 x 11) words
   vs. 9-12  Canto II,  4 verselines  YHWH and the world  36 words

**Psalm 95** vs. 1-7  Canto I  7 verselines  Words spoken about God  55 (5 x 11)
   vs. 8-11  Canto II  4 verselines  Words addressed to God  34 (2 x 17).

In **Psalm 146** we find the 7 + 4 pattern reversed in the summation of YHWH’s wondrous deeds in vs. 6-9, consisting of 4 deeds phrased by means of participles dealing with YHWH as Creator and Sustainer (vs. 6-7b) and 7 deeds representing his distinctive qualities (7c-9):

1. who made heaven and earth (6a)
2. who keeps faith forever (6b)
3. who deals out justice for the oppressed (7a)
4. who gives food to the hungry (7b).

1. YHWH sets the prisoners free (7c)
2. YHWH opens the eyes of the blind (8a)
3. YHWH raises those who are bowed down (8b)
4. **YHWH loves the just (8c)**
5. YHWH protects the strangers (9a)
6. the widow and the fatherless he upholds (9b)
7. but the course of the wicked he thwarts (9c).

**Psalm 147** has 7 strophes, 21 (3 x 7) verselines, 42 (6 x 7) cola and 140 (20 x 7) words. Exactly 119 (7 x 17) words are used to describe YHWH’s activities, and 21 (3 x 7) words for the introductory exhortations. Its overall framework is based on the hymnic passages and YHWH’s qualities and deeds:

1. How good is it to sing psalms of praise to YHWH! (8 words)
2. Eleven characteristics of YHWH
3. Sing to YHWH with thanksgiving! (6 words)
4. Seven acts performed by YHWH and things he delights in
5. Sing to YHWH, Jerusalem! Praise your God, Zion! (7 words)
6. Fourteen deeds performed by YHWH for the benefit of Israel.

In vs. 2-6 the psalmist lists 11 characteristic deeds and qualities of YHWH:

1. he builds up Jerusalem
2. he gathers the outcasts of Israel
3. he heals the broken-hearted
4. and he binds up their wounds
   1. he numbers the stars one by one
   2. he calls each by name
   3. great is our Lord
   4. **and surpassing in power**
   5. his skill is beyond telling
   6. he lifts up the downtrodden
   7. he casts the wicked to the ground.

---

12 Omitting the restored colon of v. 8d would wreak havoc with these statistics. For particulars, see my analysis at [http://www.labuschagne.nl/ps147.pdf](http://www.labuschagne.nl/ps147.pdf).
In vs. 8-11 he mentions 7 acts performed by YHWH and things YHWH delights in:

1. he covers the sky with clouds
2. he provides rain for the earth
3. he makes the hills sprout grass and plants for the use of mankind
4. he gives food to the cattle and to the ravens
5. he does not delight in the strength of a horse
6. he does not take pleasure in men’s legs
7. he takes pleasure in those who fear him, who wait for his love.

The 14 deeds performed by YHWH for the benefit of Israel are listed in vs. 13-20:

1. he strengthens the bars of your gates
2. he blesses your inhabitants within you
3. he makes peace in your borders
4. he satisfies you with the finest wheat (see note 12)
5. he sends his command to the earth
6. he gives snow like wool
7. he sprinkles hoarfrost like ashes
8. he scatters his ice like morsels
9. he sends his word
10. and he melts them
11. he makes his wind blow
12. he has declared his words to Jacob
13. he has not dealt thus with any other nation
14. he has never taught them his ordinances.

The 14 activities are in three parts, according to the pattern $4 + 7 + 3$: the first 4 deeds together with the last 3 relate to YHWH’s care for the city of Jerusalem and the land of Israel, while the middle 7 deeds have to do with his control of the climate.

Psalm 78 is a typical example with its 77 (7 x 11) verselines spread over 3 cantos of 11, 33 and 33 lines respectively, its 528 (48 x 11) words its 7-word meaningful centre (v. 35). These instances must suffice to illustrate the use of 7 and 11 in combination. More examples of the use of 11 are to be found in Psalms 20, 23, 33, 34, 37, 38, 42-43, 59, 60, 62, 63, 70, 118, 140, 142 and 146. Note the accumulation at the end of the Psalter.  

3. The Menorah Model: 7 Items with a Distinct Centre

The Austrian scholar Claus Schedl was, to my knowledge, the first to draw attention to the menorah pattern as a compositional model and the use of the divine name numbers. The defining feature of the lampstand is that it has a central shaft flanked by 3 ‘arms’, as described in Ex. 25:31-40. The biblical writers often employed this model to shape their texts in such

---

13 For more examples of the pivotal positioning of feeding and food, see Numerical Secrets of the Bible, pp. 36f.
14 For particulars, consult my analyses of these psalms at http://www.labuschagne.nl/psalms.htm.
a way that they have a distinct centre flanked by a concentrically arranged equal number of words on either side. Schedl used Deut. 5:14 to illustrate the use of this model:  

1. יוהי העש יתברך לאלוהי אלהינו 5w.
2. לא תעשו מלאך אלהינו 4w.
3. את אלהי אלהינו 3w. 7
4. ונברך אלהינו 2w.
5. והביכר אלהינו את אלהינו 4w.
6. והביכר אלהינו את אלהינו 3w. 7
7. ולא ירשא אלהינו את אלהינו 5w.

The very first numerical menorah I myself discovered was the passage in Deut. 1:34-40 dealing with the granting of permission to enter the promised land. The 7 verses are structured in a symmetric pattern with v. 37, YHWH’s refusal to grant Moses that privilege, at the centre (8 + 15 + 19 + 11 + 15 + 19 + 8): 

Verse 34 YHWH’s reaction to the Israelites’ words 8
Verse 35 Entrance refused to the old generation 15 +
Verse 36 Entrance granted to Caleb 19 = 34
Verse 37 Entrance refused to Moses 11
Verse 38 Entrance granted to Joshua 15 +
Verse 39 Entrance granted to the new generation 19 = 34
Verse 40 YHWH’s command to the Israelites 8.

Further investigations revealed that this sevenfold compositional model was used dozens of times to give structure to a text or to create groups or series of seven items to express the idea of fullness. Moreover, the literary technique of providing a composition with a distinct arithmetic centre on the level of words, cola, verselines or strophes as the focal point containing a central idea stems from this model.

---

17 Note the conspicuous compositional formula 15 + 19 = 34 (2 x 17) in vs. 35-36 and 38-39. This intriguing formula occurs in no less than ten related texts in connection with the loss of the land through apostasy, see Observation 3 in my analysis of Psalm 95, http://www.labuschagne.nl/ps095.pdf.
18 See my Deuteronomium, Vol. IB (1987), pp. 30-33, where I mentioned Psalms 23 and 82 and Zech. 4:1-14 in addition to examples from Deuteronomy. See also Numerical Secrets of the Bible, pp. 31-62 and 130-135.
Psalm 67 is the menorah psalm *par excellence* and it is no wonder that it was traditionally written in the form of the six-branched menorah. Since its unparalleled artistic structure is too complicated to describe in this article, I refer the reader to the analysis on my website. The following examples must suffice to illustrate the use of the menorah model.

Psalm 19 is another high-grade numerical composition of exceptional beauty. In a most ingenious way the author made use of numerical compositional techniques to underscore his message that the entire universe - in which the Sun and the Torah occupy a central position - proclaims God’s glorious handiwork. He made the fullest possible use of the number 7 to symbolize the ‘fullness’ and ‘abundance’ of God’s presence and the blessings of the Torah. The psalm has 14 (2 x 7) Masoretic verses; there are 7 occurrences of the name YHWH (vs. 8a, 8b, 9a, 9c, 10a, 10c, 15c), with the middle instance, the reference to YHWH’s radiant commandments (v. 9c), precisely within the meaningful centre (v. 9) of the psalm, which has (8 + 2 + 8 verselines; 18 + 4 + 18 cola and in v. 9 precisely 21 + 21 letters). Moreover, there are 7 cosmic elements mentioned in vs. 2-5 and the psalmist lists 14 (2 x 7) characteristics of the Torah in vs. 8-11.

<table>
<thead>
<tr>
<th>7 Cosmic Elements</th>
<th>7 Aspects of Torah (1)</th>
<th>7 Aspects of Torah (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 heavens (2a)</td>
<td>it is perfect (8a)</td>
<td>enlightens the eyes (9d)</td>
</tr>
<tr>
<td>2 vault of heaven (2b)</td>
<td>revives the soul (8b)</td>
<td>it is pure (10a)</td>
</tr>
<tr>
<td>3 day (3a)</td>
<td>it is stable (8c)</td>
<td>endures for ever (10b)</td>
</tr>
<tr>
<td>4 night (3b)</td>
<td>makes wise (8d)</td>
<td>it is true (10c)</td>
</tr>
<tr>
<td>5 earth (5a)</td>
<td>it is right (9a)</td>
<td>righteous (10d)</td>
</tr>
<tr>
<td>6 end of the world (5a)</td>
<td>rejoices the heart (9b)</td>
<td>better than gold (11ab)</td>
</tr>
<tr>
<td>7 sun (5b)</td>
<td>it is radiant (9d)</td>
<td>sweeter than honey (11cd)</td>
</tr>
</tbody>
</table>

Note that the Sun is the 7th cosmic element, and ‘radiant’ the 7th characteristic of the Torah!

Psalm 92 has 7 instances of the name YHWH and the author lists the acts of YHWH, the fools/evildoers and the righteous in three series of 7, with the crucial ones at the centre:

<table>
<thead>
<tr>
<th>YHWH</th>
<th>Fools and evildoers</th>
<th>The righteous</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. he made me glad (5a)</td>
<td>cannot know (7a)</td>
<td>sprout like a palm (13a)</td>
</tr>
<tr>
<td>2. his works are great (6a)</td>
<td>cannot understand (7b)</td>
<td>grow like a cedar (13b)</td>
</tr>
<tr>
<td>3. his thoughts are deep (6b)</td>
<td>sprout like grass (8a)</td>
<td>planted in the temple (14a)</td>
</tr>
<tr>
<td><strong>4. he is exalted for ever (9)</strong></td>
<td><strong>they sprout (8b)</strong></td>
<td><strong>sprout in the courts (14b)</strong></td>
</tr>
<tr>
<td>5. he exalted my horn (11a)</td>
<td>they are doomed (8c)</td>
<td>bear fruit in old age (15a)</td>
</tr>
<tr>
<td>6. he is upright (16a)</td>
<td>they shall perish (10a-b)</td>
<td>are fresh and green (15b)</td>
</tr>
<tr>
<td>7. he is a righteous rock (16b)</td>
<td>shall be scattered (10c)</td>
<td>show God is upright (16a)</td>
</tr>
</tbody>
</table>

Psalm 65 has 105 (15 x 7) words in total, with 63 (9 x 7) before, and 42 (6 x 7) after *atah*, and the meaningful centre (v. 8) is made up of 7 words. The introduction (vs. 2-4) and the conclusion (vs. 12-14) are both made up of 21 (3 x 7) words, which gives 63 (9 x 7) words in the central passage introduced by יבר, 'blessed', describing the state of happiness under God's blessing: vs. 5-11.

---


20 For more details, see my analysis of Psalm 19 at [http://www.labuschagne.nl/ps019.pdf](http://www.labuschagne.nl/ps019.pdf), and *Numerical Secrets of the Bible*, pp. 147-149.
Moreover, there are 7 verbs describing God’s beneficial acts:

1. he forgives (v. 4b)
2. he chooses (v. 5a)
3. he brings near (v. 5a)
4. he answers us (v. 6a)
5. he establishes the mountains (v. 7a)
6. he stills the waters (v. 8a)
7. he makes east and west shout for joy (v. 9b).

These 7 acts are followed by 10 more in vs. 10-12, giving 17 acts in total.

**Psalm 104** has 7 canticles and two sets of 7 acts by the Creator (vs. 2-4 and vs. 27-30):

1. **He** covered himself in light  
   **You** provide them with their food when it is due
2. **He** spread out the heavens  
   **You** give to them; they gather up
3. **He** laid the beams of his dwelling  
   **You** open your hand; they eat their fill
4. **He** made the clouds his chariot  
   **You** hide your face; they are dismayed
5. **He** rode on the wings of the wind  
   **You** take away their spirit; they return to dust
6. **He** made the winds his messengers  
   **You** send forth your spirit; they are created
7. **He** made fire and flame his ministers  
   **You** renew the face of the ground. ²¹

**4. The Arithmetic Middle as the Meaningful Centre**

Since the transmitters of the text of the Hebrew Bible located and registered the arithmetic centres of books and groups of books on the level of verses and words, the same procedure has to be carried out in the logotechnical analysis of every individual psalm. This activity is not only obligatory, but also meaningful, because it brings the ‘heart’ of a psalm to light, which contains the gist of the text, or at least a notion important to it. We have already encountered several examples of this compositional technique in the previous paragraph. Here I shall deal with texts that are not necessarily shaped in a menorah pattern.

It stands to reason that every psalm has a pivot: 2 middle words in an even number and 1 in an odd number. Such a centre is not necessarily deliberately designed or meaningful. Therefore, taking this centre as starting point, one has to proceed to detect a larger centre that is meaningful and presumably intended as such, either on word level or in terms of the rhetorical structure: the pivotal colon(s), verseline(s), or strophe. In order to qualify as meaningful, an apparently suitable centre has to consist of a key-word or a phrase expressing a thought or idea that can be interpreted as crucial or essential from the perspective of the author. How meaningful an arithmetic centre is must be judged in each poem individually.

Independently and probably unaware of Schödl’s discovery of the menorah model, Jacob Bazak drew attention to the fact that ‘the psalmists deliberately employed numerical devices in order to emphasize central sentences and also to make use of symbolic numbers’. ²² He demonstrated that in *Psalm 23* the central expression, יד עםיך, ‘for you are with me’ (v. 4d), is flanked by 26 words on either side (55 = 26 + 3 + 26), and that the pronoun נאם, ‘you’, designating God, is positioned exactly in the centre of the central expression. To show that this is no coincidence, he mentioned more examples: *Psalm 92* and *Psalm 81* (see below).

Despite the instances cited in my commentary and in Bazak’s article, Schödl’s discovery of this important compositional device had little, if any, effect in the scholarly...
world. However, Duane Christensen and a couple of Dutch scholars took the phenomenon seriously, among others Smit Sibinga, Karel Deurloo and Pieter van der Lugt.\textsuperscript{23} The following examples must suffice to substantiate and prove the discovery that the scribes used the divine name numbers 17 and 26 as a literary device to emphasize.

**Psalm 23: Additional remarks**

The meaningful centre, הָיָה תֵּעָכָּר, ‘for you are with me’, is highlighted by the sudden switch from words spoken about God to words directly addressed to him. This is a frequently used attention drawing literary device to give prominence to the meaningful centre.\textsuperscript{24} The second person pronoun הָיָה, ‘you’, emphasizes the change, the more so, because it is the middle word of the psalm. In addition to the divine name number 26, the name YHWH itself, which occurs strikingly only in the first and last verseline, is used as a device for inclusion.

The meaningful centre clearly contrasts the notion of being accompanied by God to the idea of being forsaken by God as expressed in Psalm 22 (v. 2a). Moreover, the structure of the 55 words in Ps. 22:13-19 is strikingly similar to that of Psalm 23 (55 = 26 + 3 + 26):

<table>
<thead>
<tr>
<th>Psalm 23:1-4c</th>
<th>26 words</th>
<th>Psalm 22:13-16a</th>
<th>26 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psalm 23:4d</td>
<td>3 words</td>
<td>Psalm 22:16b</td>
<td>3 words</td>
</tr>
<tr>
<td>Psalm 23:4e-6</td>
<td>26 words</td>
<td>Psalm 22:16c-19</td>
<td>26 words</td>
</tr>
</tbody>
</table>

In addition, the 60 words of Ps. 22:24-29 has a clear meaningful centre, v. 26, which is likewise flanked by 26 words (60 = 26 + 8 + 26): vs. 24-25 + v. 26 + vs. 27-29. The central statement stands out by the sudden switch to words addressed to God, exactly as in Psalm 23. Since these common features cannot be mere coincidence, we may conclude that Psalms 22 and 23 belong closely together and were composed by the same author.

Examples of other psalms which have a conspicuous key-word positioned at the arithmetic middle, are 9-10, 72, 76, and 99. For particulars see my website.

**Psalm 80** is an example of a psalm with a larger central core as its meaningful centre. It is made up of 130 (5 x 26) words.\textsuperscript{25} The central core of the poem (vs. 9-16), the 52-word lament over the vine and the vineyard, is surrounded by the 78-word (3 x 26) prayer for restoration, which is in two parts (49 + 29 words):

<table>
<thead>
<tr>
<th>vs. 2-8 First part of the people’s prayer for restoration</th>
<th>49</th>
</tr>
</thead>
<tbody>
<tr>
<td>vs. 9-16 Lament over the vine and the vineyard</td>
<td>52 (2x26)</td>
</tr>
<tr>
<td>vs. 17-20 Second part of the people’s prayer for restoration</td>
<td>29</td>
</tr>
</tbody>
</table>

The vine and the vineyard are evidently a metaphor for Joseph, who is specifically mentioned in v. 21. The striking way in which the 52-word *lament over Joseph* is enveloped by 78 (3x26) words, recalls the 52-word *blessing for Joseph* in Deuteronomy 33 (vs. 13-17), which is encompassed in a comparable way by multiples of the divine name numbers:

---

\textsuperscript{23} See Christensen’s commentary on Deuteronomy cited in note 3 and Van der Lugt, *Cantos and Strophes, I*, (see note 3), who consistently registers the arithmetic middle in terms of words, cola, verselines and strophes. See also J. Smit Sibinga, “Gedicht en getal: Over de compositie van Psalm 6”, in *NTT* 42 (1988), pp. 185-207, and K.A. Deurloo, “Die Klage in der Mitte von Psalm 6”, in Janet Dyk (ed.) *Give Ear to my Words. Psalms and other Poetry in and around the Hebrew Bible*. Societas Hebraica Amstelodamensis, Amsterdam 1996, pp. 3-9. Significantly enough, Jan Fokkelman, in his recent studies on the psalms, *Major Poems of the Hebrew Bible* (4 volumes), diligently counted words in the psalms but completely ignored this important phenomenon, as noted by Van der Lugt in “The Mathematical Centre and its Meaning in the Psalms”, paper read at the Colloquium Bibliicum Lovaniense in August 2008, in *The Composition of the Book of Psalms* (BETL), Leuven, 2009. Paying particular attention to the rhetorical building blocks, the middle colon and verseline, and to the way the divine name is used to highlight the centre, he discusses, in addition to Psalms 23, 81 and 92, Psalms 11, 13, 58, 61, 74, 79, 82, 102, 140, 144, 149, and 151 (11QPs).

\textsuperscript{24} See “Special devices to highlight the meaningful centre” at [http://www.labuschagne.nl/aspects.pdf](http://www.labuschagne.nl/aspects.pdf).

\textsuperscript{25} For the textcritical problems in vs. 3a and 16b, see my analysis at [http://www.labuschagne.nl/ps080.pdf](http://www.labuschagne.nl/ps080.pdf).
This cannot be a matter of coincidence but strongly suggests that Psalm 80 and Deuteronomy 33 are interdependent. In my opinion, the author of Deuteronomy 33 (presumably an Asaphite Levite) was either also the author of Psalm 80, or familiar with it, and used not only the central positioning of the Joseph passage but also its number of words as a compositional model to give structure to the Blessing of Moses.26

Psalm 81 has a comparable structure. The 69-word central section, YHWH’s oracles, is surrounded by 51 (3 x 17) words. His warning against idolatry is positioned in pride of place at the centre of the 7 strophes (vs. 9-11). The name הַיְהֹוָה in v. 11a is the pivot of the oracles and is strikingly flanked by 34 (2 x 17) words on either side: 69 = 34 + 1 + 34. Moreover, the name is positioned precisely in the 3 middle words בְּיָדָךְ הַיְהֹוָה אֲלֵהֶיהָ, ‘I, YHWH, am your God!’ (33 + 3 + 33), which recalls the first words of the Decalogue. The use of 69 words in the oracles is intentional, for 69 is the numerical value of the first word, הַיְהֹוָה, ‘sing out in praise!’ (5+20+14+10+14+6). See below under paragraph 6.

Psalm 82 is composed in the same vein. Its meaningful centre is the 6-word statement in v. 5a-b describing the complete lack of understanding and knowledge by the ‘gods’:

‘They know nothing and understand nothing; in darkness they walk about.’

It is significantly flanked by 26 words on either side: 58 = 26 + 6 + 26. In terms of the criteria ‘heaven’ and ‘earth’, the psalm divides into two scenes: the heavenly scene, where God presides at the meeting of the ‘divine council’ (vs. 1-4), and the earthly scene (vs. 5c-8), demarcated by the inclusion הָאָרֶץ, ‘earth’ (vs. 5c and 8a), in which the psalmist assesses the disposition of the ‘gods’ after God’s challenge. It is most intriguing to note how the mere arrangement of the text vividly depicts the ‘nowhere’ position of the ‘gods’: dangling in the middle of nowhere, in the void between heaven and earth.

vs. 1-4 Heavenly scene: God challenges the gods 26 words
vs. 5a-b The gods are literally nowhere 6 words
vs. 5c-8 Earthly scene: implications for the earth 26 words.

In v. 5c the psalmist describes the consequences for the earth: ‘all the foundations of the earth are giving away’, which is followed by God’s verdict (vs. 6-7) and the psalmist’s call on him to judge the earth as well (v. 8). The number 58 represents the numerical value of the key-word בְּמַעֲלָה, ‘Most High’ (16 + 12 + 10 + 6 + 14), a designation that is explicitly used in v. 6b.

5. Psalms with a Balanced Bipartite Structure

Psalm 79

This was the very first psalm I discovered consisting of two exactly equal parts. It is made up of 2 cantos, 4 canticles, 16 verselines, and 130 (5 x 26) words, dividing into:

vs. 1-7 Canto I National lament 2 canticles 8 verselines 65 words
vs. 8-13 Canto II Prayer for forgiveness 2 canticles 8 verselines 65 words.

This convinced me that its perfectly balanced bipartite structure could only have been achieved by the deliberate counting of the compositional building blocks of the poem. A closer examination of the word structure revealed that the two parts are composed according to exactly identical compositional formulae determined by the placement of the atnach:

26 See my analysis of Deuteronomy 33, especially Observation 4 in http://www.labuschagne.nl/2.deut.33.pdf.
vs. 1-7 65 words in total with 43 before, and 22 after *atnach* \((65 = 43a + 22b)\)

vs. 8-13 65 words in total with 43 before, and 22 after *atnach* \((65 = 43a + 22b)\).

The fact that the positioning of the *atnach* is in some cases ‘remarkable’ strongly suggests that its placement was intentional in order to achieve two identical compositional formulae.²⁷

Further investigations brought to light that there are three other psalms exhibiting exactly the same features: Psalms 6, 20, and 121, which decisively confirmed the involvement of meticulous counting activity on the part of the composers. See my logotechnical analyses.

There are psalms with a less strict bipartite structure, because the two parts do not have identical compositional formulae on word level, e.g., 12, 91, 92, and others.²⁸

**Psalm 12** has 74 words, which divide into two cantos of 4 verselines and 37 words each:

- vs. 2-5 Canto I the utter *untrustworthiness* of human beings
- vs. 6-9 Canto II the complete *trustworthiness* of God.

The psalmist places them, as it were, on a pair of scales to show that God’s trustworthiness is in equilibrium with the untrustworthiness of human beings and fully compensates for it.

**Psalm 91** is made up of 16 verselines and 112 words, which divide into two parts:

- vs. 1-8 Canto I 8 verselines, with 56 (8 x 7) words
- vs. 9-16 Canto II 8 verselines, with 56 (8 x 7) words.

The numerical structure is clearly regulated by the number of fullness, 7, which may be explained as deliberately designed to prelude Psalm 92, a Song for the Sabbath.

**Psalm 92** is a special case. Instead of a vacuum between the two equal halves it has a strikingly tiny 4-word monocolic verseline, vs. 9, as its arithmetic centre.

- vs. 2-8 Canto I 3 strophes 7 verselines 15 cola 52 (2 x 26) words
- vs. 9 Canto II 3 strophes 7 verselines 15 cola Yes, you are exalted forever, YHWH!
- vs. 10-16 Canto II 3 strophes 7 verselines 15 cola 52 (2 x 26) words.

Vs. 9 constitutes the meaningful centre on no less than four levels: strophes, verselines, cola and words, and is furthermore flanked by a significant number of words: 52 (2 x 26). The pivot is additionally brought into focus by the central instance of the 7 occurrences of the name מָהָרָה falling exactly within v. 9.²⁹ A specific feature of Psalm 92 is that the number 52 is not only 2x the divine name number 26, but also the numerical value of the key-word מָהָרָה (13+20+6+13), which gives the meaningful centre prominence in still another way.


²⁸ Psalms 35, 90, 119, and 139 also divide into two equal parts in terms of verselines and words, which however does not coincide with their canto structures. For particulars, consult my logotechnical analyses. See also Van der Lugt’s survey of psalms having identical numbers of strophes, cantos/canticles and words, in *Cantos and Strophes, I*, pp. 457-460.

²⁹ For this focusing instrument, see "Special devices to highlight the meaningful centre" on my website: [http://www.labuschagne.nl/aspects.pdf](http://www.labuschagne.nl/aspects.pdf). Compare the 7 occurrences of the key-word מָהָרָה, ‘Most High’, in Psalms 73-83, of which the middle instance falls precisely in the middle verseline of Psalm 78 (vs.35). Psalm 78 constitutes the central peak of the eleven Asaphite Psalms. Consult [http://www.labuschagne.nl/ps078.pdf](http://www.labuschagne.nl/ps078.pdf).
6. The Use of the Numerical Value of a Key-Word in the Text

We have already encountered this intriguing numerical device in Psalms 23, 81, and 82. This hardly known and generally unobserved quantitative structuring device is used in the Hebrew Bible as well as in the New Testament, as I have demonstrated in *Numerical Secrets of the Bible* (pp. 135-140). In some cases one must allow for coincidence, but the examples cited there and the 60 instances I detected in the book of Psalms, as well as the examples in the other texts I analysed logotechnically, cannot possibly be dismissed as coincidence.

I have deliberately refrained from using the word *gematria*, which is in disrepute among biblical scholars, being generally associated with kabbalistic speculations and the pseudo-science of numerology. These practices go far beyond the intentions of the biblical writers and amount to gross misuse of the numerical aspects of the Bible. The use of the numerical value of a key-word or important name in biblical times was a purely rational scribal technique to shape a text and to imbue it with the imprint of an idea or person considered of crucial importance in the context in question.

For instance, when the very first Davidic Psalm in the Psalter, *Psalm 3*, is found to be evidently structured by the number 14, the numerical value of the name David (4 + 6 + 4), one cannot wave it aside as coincidence.

On strophic level, the 56 (4 x 14) words of vs. 2-8 divide into 14 + 14 + 28:

Strophe 1 vs. 2-3  14 demarcated by *selah*
Strophe 2 vs. 4-5  14 demarcated by *selah*
Strophes 3-4 vs. 6-8  28 (2 x 14).

Since Psalm 3 is the first Davidic Psalm in the Psalter, the author has obviously chosen this number symbolically to stamp David’s name on it. It is important to note, however, that this is a special case and that it does certainly not imply that every 14 occurring in the book of Psalms refers to David! The purpose of this technique is to stress David’s presence and his participation in what is said in the psalms in question.

The two Korahite Zion-Songs, Psalms 48 and 87 are both structured by the number 48, the numerical value of Zion (18 + 10 + 6 + 14). They share this feature with a third Zion-Song, Psalm 126 and the closely related Psalm 122 in the Songs of Ascents. This is not surprising, since Zion is a key-name occurring exactly 7 times in Psalms 120-134. In fact, one of the defining characteristics of the Songs of Ascents is the conspicuous use of the numerical value of key-words in the text to define the total number of words:

- Psalm 120 הבניא, ‘song’, in v. 1 (21+10+20) 51 words including the heading.
- Psalms 121, 124, 127 הבנים, ‘guard’ or ‘keep’, in 121:3b, 4b, 5a, 7a, 7b, 8a, 127:1c, 1d (21+13+20) 54 words in 121, 124, and 54 words surrounding the centre in 127.
- Psalm 125 הבנים, ‘those who trust’, in v. 1a (5+2+9+8+10+13) 47 words in total.
- Psalm 128 הבנים, ‘like a vine’, in v. 3a (11+3+17+14) 45 words in total.
- Psalms 129 and 130 הבנים, ‘(my soul) waits in hope’, in 130:5a (19+6+22+5) 52 words; both psalms have 2 cantos, 4 strophes, 8 verselines, 17 cola and 52 words!
- Psalm 131 הבנים, ‘hope’, in v. 3a (10+8+12) 30 words in total.
- Ps. 132 הבנים, ‘your anointed’, in v. 10b (13+21+10+8+11) 63 words on either side of the arithmetic centre. It also happens to be the 63rd word of the psalm.
- Psalm 133 הבנים and הבנים, ‘beard of Aaron’, in v. 2c (7+19+14 = 1+5+20+14) 40 words including the heading.
- Psalm 134 הבנים in vs. 1a and 2b (1+22) 23 words in total.\(^{31}\)

\(^{30}\) In Matthew 1 the same device is used to structure the 42 (3 x 14) generations in the ancestry of Jesus, who is explicitly called ‘son of David’ (1:1).
For more examples of this well-established scribal technique, the reader can consult the list - which does not pretend to be complete – in “The numerical value of a key-word in the text”, http://www.labuschagne.nl/aspects.pdf.

7. Implications for Textual Criticism

The discovery 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 Leningrad Codex and the Aleppo Codex. Since numerical criticism has to a great degree confirmed their reliability, this has led to a radical change in my scholarly attitude towards textual criticism. No doubt all scholars will experience this, when they gain deeper insight into the delicate numerical structure of the biblical texts.

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 accepted as a normal procedure. We now have a new and very sound reason to think twice before changing the text. This does of course not portend the eclipse of textual criticism, but means a radical change in its application. Moreover, the discovery of the function of the divine name numbers as a finalizing/canonizing device in the formation of the biblical writings provides an effective tool to rediscover a text that approximates the original, no longer recoverable text. Quantitative structural analysis is therefore a decisive exercise in textual criticism, because potential emendations should now also be judged and weighed in terms of the numerical features of the text, which in my opinion go back to the authorial stage of its composition.

Textual emendations that are based upon solid grounds do not always affect the numerical structure of a given text, but if they do, there is a great danger of seeking to emend a text in order to achieve desired numbers. Scholars should be fully aware of this and never yield to the temptation. In sum, there is no need to shun emendations that are really required on sound textual grounds. But this necessarily entails a great measure of restraint.

From a numerical point of view, emendations only matter when they have an effect on the number of words. In a number of cases numerical considerations univocally support MT and resist proposed emendations. Ps. 48:15c is such a case. Some scholars read the two words שלמה מתייחד שלמה מתייחד of MT as one word, either as שלמה מתייחד (compare Ps. 9:1), as in many Hebrew manuscripts, or שלמה מתייחד (meaning uncertain – cf. שלמה מתייחד in Ps. 46:1). Another possibility would be to read שלמה מתייחד, which may mean 'eternally', in light of the LXX rendering eis tous aionas, 'for evermore'. However, on logotechnical grounds, the MT reading should be retained, except that שלמה מתייחד should be vocalized שלמה מתייחד, ‘until death’.

Another instance is Ps. 55:20: In Codex L the particle שלוח in v. 20 is not positioned at its normal place at the end of the verse, but right within the body of the text (as in Ps. 57:4). Whatever its function may be in this case, the suggestion by the editor in BHS to read שלוח is in any case totally unacceptable on numerical grounds. An extra word in the psalm would disturb the obviously intended 34 (2 x 17) words in vs. 17-20 as well as the total number of 187 (11 x 17) words; moreover, it would disrupt the carefully designed numerical structure of the 60 words phrased in 3rd person dividing into 34 in vs. 17-20, and 26 in vs. 21-23.

This may be just a matter of coincidence, were it not that this word strongly recalls the 'Aleph-Taw device for inclusion' to be found e.g. in Psalm 1. See Observation 3 in my analysis http://www.labuschagne.nl/ps001.pdf.

For the poems outside the Psalter, consult http://www.labuschagne.nl/psalms.htm, and see especially my analyses of the Song of Hannah (1 Samuel 2) and the Last Words of David (2 Samuel 23).
In some cases numerical considerations support an emendation proposed on textcritical grounds, e.g., in Psalm 115. The LXX reads MT’s שְׁמֵי הַשָּׁמַיִם in v. 16a as though the Hebrew text had שְׁמֵי הַשָּׁמַיִם ‘heaven of heavens’. The MT reading is not incomprehensible, but rather odd: ‘the heavens are the heavens of YHWH’. The question arises whether both phrases were not misreadings of the original text, which was evidently based on Deut. 10:14, שְׁמֵי הַשָּׁמַיִם שְׁמֵי הַשָּׁמַיִם ‘heaven and the heaven of heavens’. Presuming that the ‘original’ reading of v. 16a had been שְׁמֵי הַשָּׁמַיִם שְׁמֵי הַשָּׁמַיִם, this would not only make excellent sense, but would also have a significant influence on the numerical structure of the text. The extra word would change the compositional formula of vs. 13-17 to 34 = 17a + 17b and bring the total number of words in the text including hallelu-yah to 136 (8 x 17). Moreover, the 68 (4 x 17) words spoken about YHWH, will be in perfect balance with the 68 words addressed to YHWH and Israel.

Comparable instances are Psalms 80 and 147, discussed above. In Psalm 145 the missing nun-verseline in MT is an intriguing case. There is logotechnical evidence in support of supplying the missing verseline on the basis of Kennicott 142, 11QPs, LXX, and the Syriac Version, but there is other evidence to show that the nun-verseline was deliberately omitted in the canonized text of Psalm 145. For particulars, see http://www.labuschagne.nl/ps145.pdf. This is a textbook case sounding a caveat concerning textcritical matters not to make rash decisions leading to drastic emendations to ‘improve’ the Masoretic text. There may be very good reasons for the text as it stands in MT.