

The Function of Numbers in Antiquity

Section from my book [*Numerical Secrets of the Bible*](#)

An examination of studies on the use of numbers in biblical times from the first half of the 20th century shows that these studies have themselves contributed much to the linking of numbers with mysticism and magic. A typical example is the frequently cited book by F. Dornseiff, *Das Alphabet in Mystik und Magie* (Berlin, 1925).¹ The result was that the function of numbers in biblical times came to be associated primarily with number-symbolism, number-mysticism and magic—a most unfortunate and lamentable development. Countering this deplorable situation, the primary concern of the quantitative structural analysis of the biblical writings is to study the use of numbers as a *purely technical device* in the art of writing to give structure to the text and to imbue them with symbolism. It is an exact and rational approach to the text. Nonetheless, since numbers did have a symbolic value in antiquity, the investigation into the numerical aspects of the text inevitably involves the study of the symbolism of the numbers in question as well. Study of the pure technical function of numbers in the Bible has until now been grossly neglected. Scholars seem to have been interested in their symbolic function only and in their use in mysticism and magic.²

In order to study the pure 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, numbers had a symbolic value in antiquity: they had a metaphorical and allegorical capacity to refer to something beyond the surface meaning.

In our modern, rationalistic First World culture we seem to know numbers only in their arithmetic and 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.³

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 and medieval 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.

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.⁴

For an introduction to Quantitative Structural Analysis, go to: <http://www.labuschagne.nl/aspects.pdf>.

¹ Especially pp. 91-118; see also E. Bischoff, *Die Mystik und Magie der Zahlen* (Berlin 1920); L. Baron von Hellenbach, *Die Magie der Zahlen* (Leipzig, 1923); P. Friesenhahn, *Hellenistische Wortzahlmystik im Neuen Testament* (Leipzig-Berlin, 1936); F.C. Endres, *Mystik und Magie der Zahlen* (Zürich, 1951, 3rd ed.); and the critical works of the American mathematician E.T. Bell, *Numerology* (New York/London, 1933/1946), and *The Magic of Numbers* (London, 1946).

² See O. Fischer, *Orientalische und griechische Zahlensymbolik* (Leipzig, 1918); A. Heller, *Biblische Zahlensymbolik* (Reutlingen, 1936), and M.H. Farbridge, *Studies in Biblical and Semitic Symbolism* (New York, 1970 reprint), especially the chapter “Symbolism of Numbers,” pp. 87-156. See also the more general studies by C. Butler, *Number Symbolism* (London, 1970); M. Riemscheider, *Von 0 bis 1001. Das Geheimnis der numinosen Zahl* (Munich, 1966), and K. Menninger, *Zahlwort und Ziffer. Eine Kulturgeschichte der Zahl* (Göttingen, 1979; 3rd edition); for the Middle Ages see V.F. Hopper, *Medieval Number Symbolism. Its sources, meaning and influence on thought and expression* (New York, 1969) and particularly H. Meyer, *Die Zahlenallegorese im Mittelalter* (Munich, 1975). For the most recent comprehensive studies see Franz Carl Endres & Annemarie Schimmel, *Das Mysterium der Zahl. Zahlensymbolik im Kulturvergleich*, Eugen Diederichs Verlag (Munich, 1993; 7th edition), with an extensive systematic bibliography on pp. 297-316, and Hans A. Hutmacher, *Symbolik der biblischen Zahlen und Zeiten* (Paderborn: Verlag Ferdinand Schöningh, 1993).

³ See John Allen Paulos, *Innumeracy, Mathematical Illiteracy and its Consequences* (1988); I know the Dutch version of this fascinating booklet: *Ongecijferdheid. “De gevolgen van wiskundige ongeletterdheid”. “Met een nawoord van Rudy Kousbroek”* (Amsterdam: Uitgeverij Bert Bakker, 1989).

⁴ *Silent Poetry: Essays in Numerological Analysis*, edited by Alistair Fowler (London, 1970), p. xi. The use of “numerology” and “numerological,” being associated with the occult, is most unfortunate. I prefer to use “numeric(al),” which has no such connotation. See also the chapter “Zahlenkomposition” in the major work by E.R. Curtius, *Europäische Literatur und lateinisches Mittelalter* (Bern-Munich, 1973; 8th edition), and R.A. Laroche, *Number Systems, Number Mysticism, and Numerical Practices in Livy (Books I-X) and Related Greek and Roman Writers* (Ph. D. Dissertation Tufts University, 1972), as well as the studies edited by A. Zimmermann, *Mensura, Mass, Zahl, Zahlensymbolik im Mittelalter*, in the series *Miscellanea Mediaevalia*, Vol. 16, 1 (1983) and 2 (1984). See also the remarks in the chapter “Getallen” by Casper Honders, *Over Bachs schouder...*, (Groningen, 1985), pp. 90-98. For a study on the structural use of numbers in the poetry of Dante, Milton and Spencer, see G. Quarnström, *Poetry and Numbers. On the Structural Use of Symbolic Numbers* (Lund, 1966), and for an examination of the medieval poet Hadewijch’s work see J. Bosch, *Vale Milies. De structuur van Hadewijch’s bundel “Strophische Gedichten,”* in *Tijdschrift voor Nederlandse Taal- en Letterkunde* 90 (1974), pp. 161-182.