

Example of application of the software : comparison between the syntactic structure of dedications and the syntactic structure of funerary inscriptions from Smyrna (Hellenistic and Imperial periods).¹

For this exercise, testimonies with 1 to 11 symbols are taken into account (the operators #, +, / and =, the square brackets [], the brackets () and the onomastic elements represented by the symbol "x" are counted as symbols), which represents a total of 36 dedications and 29 funerary inscriptions.

| | A | B | C | D | |
|----|----------------|--|-------------------------------|-----------|-------------|
| 1 | id attestation | | extrait avec restitution | formule | type_source |
| 20 | 7077 | Αγαθὴν Τύχην | {63}#{64} | Dédicace | |
| 21 | 7079 | θεῶ Νεῖκῃ | {28}#{219} | Dédicace | |
| 22 | 7123 | θεῶ Υψείστῳ | {28}#{81} | Dédicace | |
| 23 | 7137 | Ἑρμῷ ποταμῶ | {2019}#{351} | Dédicace | |
| 24 | 7138 | Ἡρακλεῖ ἐπιτῆ-κόῳ | {17}#{12} | Dédicace | |
| 25 | 7139 | Ἡρακλεῖ Καλλινεύκῳ | {17}#{19} | Dédicace | |
| 26 | 7140 | θεὸν Ἡρακλέα Ὀπλοφύλακα | {28}#{17}#{2021} | Dédicace | |
| 27 | 7141 | Ἡρακλεῖ Ὀπλο-φύλακι | {17}#{2021} | Dédicace | |
| 28 | 7221 | τοῦ Ἡλίου Ἀπόλλωνος Κισσαυλοδδηνού | {25}#{1}#{2007} | Dédicace | |
| 29 | 7221 | τοῦ Ἡλίου Ἀπόλλωνος Κισσαυλοδδηνού | {25}#{1}#{2007} | Dédicace | |
| 30 | 7222 | Πλούτωνος Ἡλίου καὶ Κούρης νν Σελήνης | {89}#{25}+{309}#{2029} | Dédicace | |
| 31 | 7333 | Στρατοπονηδὸς[Δηροδιδίτης] | {1682}#{3} | Dédicace | |
| 32 | 7353 | ὧ ἐκέρωνε | {422} | Dédicace | |
| 33 | 7499 | τοῦ πρὸ πάδεως [Διονύσου ?] | {2045}#{13} | Dédicace | |
| 34 | 7573 | θεῶς Νεμέσεω - - καὶ θεῶς πάσι καὶ πάσις καὶ Αὐτοκράτορι Καίσαρι - - - | {28}#{139}+{28}#{78}+{78}} | Dédicace | |
| 35 | 7578 | θεῶν Νε[-]μέσεων | {28}#{139} | Dédicace | |
| 36 | 7580 | τῶν κυρίων Νεμέσεων | {26}#{139} | Dédicace | |
| 37 | 7585 | τῷ κυρίῳ Σαράπιδι | {26}#{147} | Dédicace | |
| 38 | 8025 | θεοῖσι πάν | {28}#{78} | Dédicace | |
| 39 | 6828 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 40 | 6835 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 41 | 6837 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 42 | 6839 | τῇ Μητρί τῶν θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 43 | 6841 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 44 | 6843 | Μητρί θεῶν Σιτυληνῇ τῇ ἀρχηγέτι-δι ἡμῶν | {201}#{28}#{1994}#{136}#{404} | Funéraire | |
| 45 | 6845 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 46 | 6853 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 47 | 6857 | Μητρί Σιτυληνῇ | {201}#{1994} | Funéraire | |
| 48 | 6861 | Μητρί θε[-]ων Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 49 | 6865 | Μητρί θεῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 50 | 6867 | Μητρί θε-ῶν Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 51 | 6868 | τῇ θεῇ Σιτυληνῇ | {28}#{1994} | Funéraire | |
| 52 | 6871 | Μητρί θε[-]ων Σιτυληνῇ | {201}#{28}#{1994} | Funéraire | |
| 53 | 6872 | τῇ Μητρί τῇ Σιτυληνῇ | {201}#{1994} | Funéraire | |

Diagram statistics

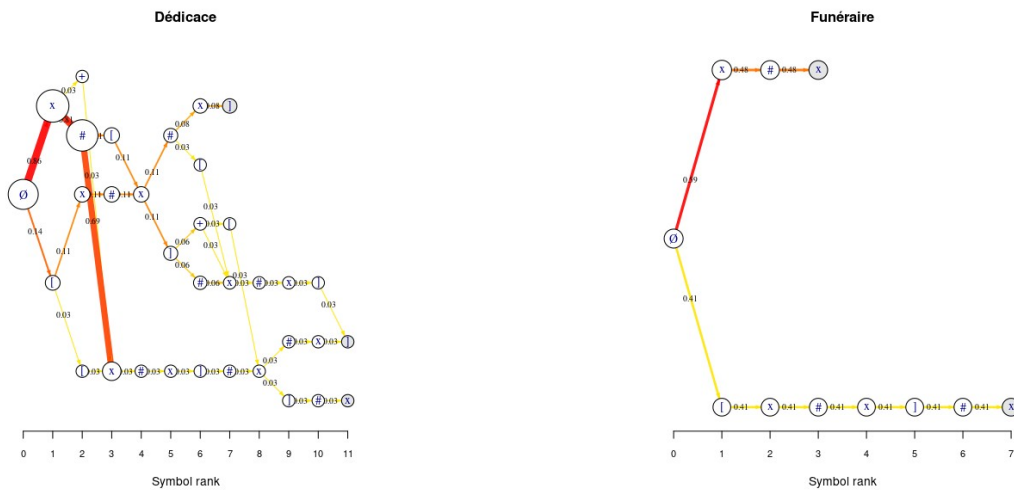
| | Dédicace | Funéraire |
|-------------------------------|-----------|-----------|
| total number of sequences | 37 | 31 |
| number of selected sequences | 36 | 29 |
| number of different sequences | 9 | 3 |
| sequence max. length | 11 | 7 |
| sequence mean length | 4.3 ± 2.6 | 4.4 ± 2.3 |
| diversity of the elements | 3.54 | 2.38 |
| number of nodes | 34 | 11 |
| number of different symbols | 5 / 9 | 4 / 9 |
| number of terminal symbols | 3 | 2 |
| number of articulation points | 5 | 6 |
| degree centralisation | 0.03 | 0.02 |
| median transition rate | 0.03 | 0.41 |

While the structure of the funerary onomastic sequences varies very little (3 different sequences), the sequences from the dedications offer a greater sequential diversity (9 different sequences, i.e. three times more). This is illustrated in the table on the left: a large part of the testimonies contain the formula 'Mother of the gods Sipylene' (Μητρί θεῶν Σιτυληνῇ), encoded as follows: [{201} # {28}] # {1994} (i.e. [x # x] # x). Dedications have a greater diversity of elements and syntactic arrangements. Two examples are testimony #7140, 'the god Heracles Hoplophylax' (θεὸν Ἡρακλέα Ὀπλοφύλακα), encoded as {28} # [{17} # {2021}] (x # [x # x]); or attestation #7222, 'Pluto Helios and Kore Selene' (Πλούτωνος Ἡλίου καὶ Κούρης νν Σελήνης), encoded as: [{89} # {25}] + [{309} # {2029}] ([x # x] + [x # x]). In fact, a greater number of symbols are found in the formulae from dedications (34) than in the formulae from funerary inscriptions (11).

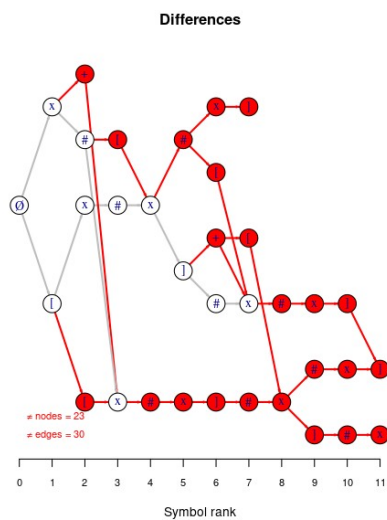
The sequence diagrams allow these statistics to be visualised. The order of the x-axis indicates the rank of the symbols in the formulae studied. The first symbol, positioned at rank 0, is an empty sign. We then see what proportion of the sequences begin with the next symbol (here x or []). Thus, 86% of the formulae from the dedications begin with an onomastic element (x), and 14% begin with a bracket ([), i.e. by introducing a phrase. The distribution is much less nuanced among funerary formulae : 59% begin with an element, compared to 41% with a bracket. Then, moving to the right, we discover the proportion of symbols located in second position in the formulae. We can see that dedications offer a greater number of possibilities (4 possible symbols: +, #, x or []), compared to funerary formulae which only offer two possibilities (# or x).

1 Sources from the corpus PETZL G., *Inscriptionen von Smyrna*, t. I-II, Bonn, 1982-1990

Graph distances



The third diagram compares the syntax of the formulae according to the variables chosen (here the type of source: dedication or funerary). The red symbols and lines represent the nodes and edges that appear in only one of the two types of sources studied, while the grey/white symbols and lines represent the nodes and edges that appear in both dedications and funerary inscriptions.



Looking again at the symbols in second position in the formulae studied, we see that the # and x are in white because they can appear in second position in formulae from both dedications and funerary inscriptions, while the + and [are in red because they appear in second position only in formulae from dedications.