

Fiori dell'anima. La simbologia dei fiori nell'immaginario religioso
Flowers of the soul. The symbolism of flowers in the religious imagination
a cura di Marco Papisidero e Francesco Galofaro

Rosa Mystica

The Morphogenesis of the Rose

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Abstract

The paper focuses on the presence of botanical figures, such as flowers and gardens, in the sources of the Litany of Loreto, aiming to reconstruct how the function of these figures changed from the Old and New Testament through the acclamations of the Great Akhatist Hymn (626 B.C.) and the Aquileian version of the litany (8th century). Early patristic tradition established an opposition between Mary and Eve, the first woman, according to a soteriological perspective. However, it was not until the 4th century, in Efrem, that the contrast was extended to Eden, which surrounds Eve whereas it is embodied by Mary – see also Appiano Caprettini (1979). This successful association slowly disappeared during the western low middle ages as the cosmological function was replaced by the soteriological one in the Litany to the Virgin, following the model of the Litany to the Saints.

Keywords

Morphodynamics; Diachronic change; Discursive configuration; Figurativity; Homologation; Litany

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1. The Litany of Loreto¹

The litany of Loreto is a lengthy series of invocations to Our Lady. The syntagmatic structure is very simple: the name or an apposition of the Holy Virgin is followed by the invocation ‘pray for us’. The first part is always different, but each time it belongs to a specific category: Holy; Mother; Virgin; titles from the Old Testament; helper; Queen. These categories display isomorphism with the Litany to the Saints: Patriarchs and prophets; Apostles; Martyrs ... According to Galofaro and Kubas (2016), a regular generative grammar can generate the Litany to the Saints, the Litany of Loreto, and all the litanies inspired by their structure up to the 20th century (e.g. Litany of the Holy Name, Litany to the Divine Mercy). The grammar can also generate all the preceding proto-litanic texts that have been found in Syriac and Coptic settings beginning from the 6th century. For all intents and purposes, therefore, the grammar is an operative definition of litany. Such grammar allows us to consider the generated litanic structure as a *discursive configuration* – cf. Greimas and Courtès (1979), thus making it possible to avoid using the problematic, fuzzy notion of genre. From a computational point of view, its syntagmatic structure is the simplest: it can be generated by a regular grammar and interpreted by a finite automaton. This point is interesting when we focus on diachronic change in the litany, since the form can be defined as the aspect which remains stable over time. In particular, while the surface of the litany changes from moment to moment, its syntagmatic structure remains stable. In a similar way, Goethe contrasts *Gestalt* and *Bildung*: form as structure vs. form as development. I will return on this grammar below (section 10). Hereafter, to test these hypotheses, these litanies are investigated from a different, morphodynamic perspective. In particular, this article focuses on *functional change* in a set of botanical figures, beginning with the two that have survived in the Litany of Loreto: Mystical rose (*Rosa mystica*) and Queen of the most holy Rosary (*Regina sacratissimi Rosarii*).² Starting from the Old Testament, I identify “samples” of the use of botanical configurations, reconstruct their functional value, and search for a form of regularity in their metachronic (i.e. functional) change.

2. The Old Testament

Although the antonomasia ‘Mystical rose’ belongs to the set of Old Testament titles for the Virgin, the relationship is mediated by a lengthy tradition. Any attempt to establish a direct link would be controversial: there are no mystical roses in the Bible.

1 This paper is part of the research project NeMoSanctI (New Models of Sanctity in Italy (1960s-2000s) – A Semiotic Analysis of Norms, Causes of Saints, Hagiography, and Narratives), which has received funding from the European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme (grant agreement No 757314).

2 This advocacy was added to the litany in 1675 – cf. Santarelli (1997: 37).

Let us first consider the *Song of Songs*, the language of which dates back to the 3rd century BC:

I am the rose of Sharon,
the lily of the valleys.
- As a lily among the thistles,
so is my love among the maidens.
- As an apple tree among the trees of the orchard,
so is my Beloved among the young men.
In his longed-for shade I am seated
and his fruit is sweet to my taste.
(Song of Songs, 2, 1-3, transl. in *Jerusalem Bible* 1966: 994)

What is the rose of Sharon? The Plain of Sharon is

(...) the area where the coastal plain widens south of the slopes of Mt. Carmel, extending about thirty miles south to the Yarkon River north of Joppa. It varies from about eight to twelve miles in width. In Israelite times the dunes supported an impenetrable oak forest. The rose of Sharon is a kind of crocus growing as a “lily among brambles” (Song 2:1-2). Thus the biblical picture of Sharon is a forbidding jungle of oaks and swampy marshes rather than a fertile or productive plain. (Powell 2009).

The ‘rose of Sharon’ in the first verse is some type of wildflower. In the Septuagint – the most ancient version of the Bible, translated in Greek by Hellenized Jews in the 3rd century BC – the rose is simply an ἄνθος τοῦ πεδίου, a flower of the lowlands. In the Latin Vulgata it is a *flos campi*, flower of the field. Sometimes it is translated as ‘crocus’ or ‘narcissus’. The comment in the Jerusalem Bible (1966: 995) assigns it a symbolic value: both ‘spring’ and ‘eschatological age’. Christianity has interpreted the bride and groom of the poem as the Church and Christ. It is thus debatable whether there is a direct relationship between this flower and the mystical rose.³

However, the progression ‘flower’ - ‘plant’ - ‘fruit’ is interesting because it also appears in other texts of our corpus. In the previous strophe, we also find an olfactory *isotopy*:⁴

– While the King rests in his own room
my nard yields its perfume.
My Beloved is a sachet of myrrh
lying between my breasts.
My Beloved is a cluster of henna flowers
among the vines of Engedi.

3 However, during middle ages a minority Mariological exegetic tradition was established by Rupert of Deutz, *Commentaria in canticum canticorum*.

4 According to semiotics, an isotopy is a coherent layer of textual reading consisting in the recurrence of a given semantic value – cf. ‘Isotopy’ in Greimas – Courtés (1979: 163-165).

[...]

– The beams of our house are of cedar,
the panelling of cypress.

(Song of Songs, 1, 12-18, transl. in *Jerusalem Bible* 1966: 994)

We find the same isotopies in the *Book of Wisdom of Sirach*, a deutero-canonical book of the Bible generally dated to the mid-2nd century BC. Here, the personification of Wisdom says:

In the beloved city he has given me rest,
and in Jerusalem I wield my authority.
I have taken root in a privileged people,
in the Lord's property, in his inheritance.
I have grown tall as a cedar on Lebanon,
as a cypress on Mount Hermon;
I have grown tall as a palm in Engedi,
as the rose bushes of Jericho;
as a fine olive in the plain,
as a plane tree I have grown tall.
I have exhaled a perfume like cinnamon and acacia,
I have breathed out a scent like choice myrrh,
like galbanum, onycha and stacte,
like the smoke of incense in the tabernacle.
I have spread my branches like a terebinth,
and my branches are glorious and graceful.
I am like a vine putting out graceful shoots,
my blossoms bear the fruit of glory and wealth.
Approach me, you who desire me,
and take your fill of my fruits,
for memories of me are sweeter than honey,
inheriting me is sweeter than the honeycomb.
They who eat me will hunger for more,
they who drink me will thirst for more.

(Wisdom of Sirach, 24, 11-21, transl. in *Jerusalem Bible* 1966: 1066).

This lengthy passage features an interesting use of the term *root*. It is a catachresis (wisdom struck root) that has the function of an *isotopic connector* – Greimas and Courtès (1979). The first connected isotopy is relative to vegetables and plants: cedar, cypress, palm, and rosebush (in the Septuagint: ὡς φυτὰ ρόδου ἐν Ἱερουσόμ); the second one is olfactory, since all the plants evoked here represent essences (cinnamon, myrrh, galbanum, ...); the third is relative to edible fruits and introduces a new metaphor (to eat and drink wisdom). Considered together, these three connected isotopies evoke a garden and suggest a synaesthetic correlative to wisdom. The comment in the *Jerusalem Bible* (1966: 1067) underlines that «the liturgy applies this passage,

by accommodation,⁵ to the Blessed Virgin». However, this liturgic relationship between the Virgin and Wisdom invites us to investigate in more depth how and when the Virgin embodied this cognitive value, given that this book, actually considered apocryphal by Jews and protestant denominations, was nevertheless included in the Septuagint and read in the early Christian church.

3. The Gospel

A real cornerstone for understanding the morphogenesis of Marian botanical symbolism is Elizabeth's greeting to Mary (Luke 1:42):

'Blessed art thou among women, and blessed is the fruit of thy womb.' (Εὐλογημένη σὺ ἐν γυναιξίν καὶ εὐλογημένος ὁ καρπὸς τῆς κοιλίας σου).

This text merges with the Annunciation (Luke 1:28) in the *Ave Maria* prayer: another morphodynamic event that cannot be taken for granted.

To understand how the botanic symbology is constructed on the basis of Elizabeth's acclamation, we can formulate a relationship of homologation (1):

$$(1) \text{ Mother : Son} = x : \text{Fruit}$$

In which the unexpressed *x*, *case vide*, can be a fruit tree, for example. According to Martinet (1952), the presence of a *case vide* (an empty cell) in a system causes that system to undergo restructuring in search of a new equilibrium. A similar phenomenon triggers narrative, according to Deleuze (1973). Thence, by articulation, the tree can become a plant, a garden, or a flower ... and the term *καρπὸς* thus represents the germ of future unfoldings. René Thom (1983) defines *germ* as a structurally stable point that operates as an organizing centre for catastrophe geometries. The latter can be *unfolded* from the former.⁶ From our point of view, the germ is the condition of possibility for

- 1) sign production;⁷
- 2) a morphodynamic development of the resulting set of symbols;
- 3) a narrative concatenation of figures, i.e. a figurative trajectory;

In the next few sections I will provide evidence for this hypothesis, searching for the missing links between the Gospel and the Litany of Loreto.

5 "The doctrine dictates that by utilizing human authors, ideas, and language, God accommodated his revelation to humankind's level of comprehension" (Lee 2017: 3). The principle has been established by Augustine, *De Genesis ad Litteram*. The same principle is adopted by Basadonna (1997: 152) when interpreting the antonomasia "Rosa mystica" in the light of the quoted passage from the Book of Wisdom of Sirach.

6 I will return on this point in the final discussion. On catastrophe theory and semiotics, see Sarti, Montanari, and Galofaro (2014).

7 Umberto Eco (1976: 151-313) explores the labor of sign production in terms of the production of signal-units, of content units, of code-making and system making.

4. The Syriac Liturgy of St. James (4th century)

The concatenation between the Annunciation (Luke 1:28) and Elizabeth’s salutation was probably already in use in the 4th century. In the Syriac Liturgy of Saint James, the text reads (fig. 1):

Rejoice, grace-filled, the Lord with thee. Blessed art thou amongst women and blessed is the fruit of thy womb for thou hast given birth to the Saviour of our souls.

25 Χαίρε κεχαριτωμένη, ὁ Κύριος μετὰ σοῦ· εὐλογημένη σὺ ἐν
 γυναιξὶ καὶ εὐλογημένος ὁ καρπὸς τῆς κοιλίας σοῦ ὅτι σωτήρα
 ἔτεκες τῶν ψυχῶν ἡμῶν

Figure 1. The blending of the Annunciation (Luke 1:28) and Elizabeth’s salutation in the Syriac liturgy (4th century). The text of the Syriac liturgy has been published by Brightman (1896:56). This figure is a caption from the original text.

As we will see, this blending is highly important in that it links the Annunciation to the *fruit*, i.e. the germ of the virtual botanic isotopy originally located in Elizabeth’s salutation.

The entire formula is related to the beginning of life. In the final form of the *Hail Mary* it ends up being merged with a different formula (“Holy Mary, Mother of God, pray for us sinners now and at the hour of our death”) which is thematically connected to the *end of life*.⁸ This semantic value (death) also resurfaces later, in the Litany of Aquileia.

5. Mary Vs. Eve

At the dawn of Christianity, Mary was not the object of any particular devotion. She is first mentioned by Ignace of Antioch (a martyr from between 107 and 115 AD) who states that Christ was actually generated by her, in opposition to the docetist perspective and its assertion that Jesus was only apparently a man. Mary later reappears in the work of Justin Martyr, the author of an interesting dialogue between a Christian and a Jew (*Dialogus cum Tryphone*). This is a wonderful example of inter-religious dialogue, provided that both of them state their reasoning and the Jew does not convert at the end of the dialogue, as happens in similar, posterior dialogues. Justin draws a comparison between Mary and Eve, the first woman:

For Eve, who was a virgin and undefiled, having conceived the word of the serpent, brought forth disobedience and death. But the Virgin Mary received faith and joy, when the angel Gabriel announced the good tidings to her that the Spirit of the Lord would come upon her, and the power of the Highest would overshadow her: wherefore also the Holy Thing begotten of her is the Son of God; and she replied, ‘Be it unto me

8 I could not find the second part of the Hail Mary in the Syriac Liturgy.

according to thy word.’ And by her has He been born, to whom we have proved so many Scriptures refer, and by whom God destroys both the serpent and those angels and men who are like him; but works deliverance from death to those who repent of their wickedness and believe upon Him. (Dialogue with Trypho, C, 5-6)

Mary represents female redemption: she is opposed to Eve as life is opposed to death, joy to sorrow, and faith to disobedience. She generates a god while Eve generates human sinners.

The small-scale system of values formulated by Justin was destined to endure for centuries; however, there are no botanical references in his work. Such references are to be found two centuries later in a Greek poem traditionally considered a translation from an original Syriac text by Saint Ephrem (306-373): the *Hymn to the Blessed Mary* (Fig. 2).⁹

ὄκλ' ἡ καρδίας · χάρις δ' ἄσμα Χερυβίμ ,
καὶ ὕμνος τῶ ἀγγέλων · χάρις εἰρήνη καὶ χα-
ραὶ τῶ ἀνθρώπων γένους · χάρις ὡς εἶδεν
τρυφῆς , χάρις ζωῆς τὸ ξύλον · χάρις τὸ
τείχος τῶ πιστῶν , λιμὴν κινδυνεύόντων · χά-
ρις ἀνάκλησις Ἀδάμ , ἡ εὐας χάρις λύτρον ·
χάρις πηγὴ ἡ χάριτος καὶ ἡ ἀθάνασις ·
χάρις ἀγία πνεύματος πηγὴ ἐσφραγισμένη ·
χάρις ναὶ θεοτάτε · χάρις θρόνε Κυρίου · χά-
ρις ἀγνή ἡ δράκοντος τῶ ἀρχεκάκῃ κάραν
συνθλάσασα καὶ εἰς ἄβυσσον ῥίψασα πεπε-
δημένον · χάρις τὸ καταφύγιον τῶ καταπονημέ-
των · χάρις ἀοσῆς ἡ λύτροσις · δι' ἧς ναοὶ
ὑἱὸς θεῶ τῶ ζῶντος · ὃς ὡρεται δόξα καὶ τιμὴ,
προσκύνησις καὶ ὕμνος νῦν καὶ αἰεὶ καὶ πάντοτε,
Ἀμήν εἰς τὰς αἰῶνας .

Figure 2. Greek text of *Hymn to the Blessed Mary*. Caption from Cod. Vat. 1190 p. 1147 – cf. n. 8.

9 The Greek text (and a Latin translation) can be found in ‘Oratio ad Sanctissimam Dei Matrem’ in *Sancti Efremiti Opera Omnia in Sex Tomos Distributa, Opera omnia quae extant Graece, Syriace, Latine: Graece et Latine*, Τόμος 3, Typographia Pontificia Vaticana, Roma, 1746, pp. 547-548 (from Cod. Vat. 1190: 1147). The English translation is in Berselli (1983).

Hail, song of cherubs and angel praises.
 Hail, peace and joy of the human race.
 Hail, garden of delight, Hail, o fuel of life.
 Hail, bulwark of the faithful, and port of the shipwrecked.
 Hail, reminder of Adam hail, ransom of Eve.
 Hail, fount of grace and immortality.
 Hail, temple most holy, hail, throne of the Lord.
 Hail, o chaste one, who crushed the serpent's head hurling him into the abyss.
 Hail, refuge of the afflicted,
 Hail, ransom of the curse.
 Hail, o Mother of the Christ, Son of the Living God,
 To whom shall be glory, honor,
 Adoration and praise
 Both now and for ever and everywhere;
 And for ever, Amen.

The hymn is clearly an unfolding of the Annunciation-Salutation presented above. Furthermore, it once again presents Justin's contrast between Eve and Mary (defined as the crusher of the serpent's head). We also find the botanical association with the Garden of delights (a literal translation of the Hebrew *Gan Eden*, earthly paradise). As Appiano Caprettini (1979) comments, Eve lived in an exterior paradise whereas an *interior paradise* is associated with Mary. The English translation is misleading in this case: fuel of life should have been translated *tree of life*, in keeping with the Greek term ξύλον.

6. The Akathist hymn

At the beginning of the 20th century, P. F. Krypiakiewicz (1909) finds many theological similarities between:

- 1) Saint Ephrem's poetic homilies written in Syriac;
- 2) the Greek poem presented above;
- 3) the great Akathist hymn in honor of the Virgin.

Krypiakiewicz concludes that the author of both the poem and the Akathist is to be considered an epigone of Ephrem, probably Romanos the Melodist who was born in Syria and estimated to have died in 555 AD (the dates are debated). However, according to tradition, the Akathist hymn was first sung in 626 AD when it was performed in the Blachernae Church to thank the Virgin Mary for saving Constantinople from a military invasion. The hymn is organized into stanzas, with each stanza (*oikos*) presenting a short, 3rd person narrative introduction and a series of acclamations addressed to the Virgin by the archangel Gabriel. The last acclamation is always Χαίρε, Νύμφη

ἀνύμφευτε. ('rejoice, o bride unwedded¹⁰'). Two different botanic isotopies can be found in the hymn:

Greek text (Meersseman 1958)	Translation (Meersseman 1958)
Ἐχουσα θεοδόχον ἢ Παρθένος τὴν μήτραν, ἀνέδραμε πρὸς τὴν Ἑλισάβετ• Τὸ δὲ βρέφος ἐκείνης εὐθὺς ἐπγνόν, τὸν ταύτης ἀσπασμὸν ἔχαιρεν, καὶ ἄλμασιν ὡς ᾠμασιν ἐβόα πρὸς τὴν Θεοτόκον• Χαίρε, βλαστοῦ ἀμάραντου κλήμα• χαίρε, καρποῦ ἀκήρατου κτήμα. Χαίρε, γεωργὸν γεωργοῦσα φιλόανθρωπον•	Havin begotten God in her womb, the virgin hastened to Elizabeth, whose child, understanding straightway her greeting rejoiced, and with stirrings as with songs praised the mother of God: Hail! Scion of an unwithering stem; hail! Estate yielding untainted fruit. Hail! Who cultivatest the man-loving cultivator;
χαίρε, φυτουργὸν τῆς ζωῆς ἡμῶν φύουσα. Χαίρε, ἄρουρα βλαστάνουσα εὐφορίαν οἰκτιρῶν• χαίρε, τράπεζα βαστάζουσα εὐθηνίαν ἰλασμῶν. Χαίρε, ὅτι λειμῶνα τῆς τρυφῆς ἀναθάλλεις•	hail! Who plantest the planter of our life. Hail! Field which produces a harvest of mercies; hail! Board which bearest a load of pities. Hail! Thou who deckest with flowers a meadow of delights;
χαίρε, ὅτι λιμένα τῶν ψυχῶν ἐτοιμάζεις. Χαίρε, δεκτὸν πρεσβείας θυμίαμα• χαίρε, παντός τοῦ κόσμου ἐξίλασμα. Χαίρε, Θεοῦ πρὸς θνητοὺς εὐδοκία• χαίρε, θνητῶν πρὸς Θεὸν παρηγοσία. Χαίρε, Νύμφη ἀνύμφευτε.	hail! Thou who prepest a harbour for souls. Hail! Acceptable incense of prayer; hail! The whole world's redeeming. Hail! God's goodness unto mankind; hail! man's freedom to speak before God. Hail! Mother undefiled!

In this first isotopy, the articulation of the botanical figures is extended to work in the fields. Once again, the starting point is a presupposition: if Jesus is the farmer who produces fruits, his mother is thus the 'farmer of the farmer' and she thus cultivates, plants, produces the harvest, and decks the meadow with flowers. In semiotic terms, if God is the sender of semantic values allowing humankind to join with the value of salvation, his mother is an arch-sender allowing God himself to save humankind. At the same time, she is the scion and the estate. These two kinds of botanic isotopies are cases of the same abstract scheme: *source/outcome*.

Let us lay out the second botanic isotopy:

10 Meersseman (1958) translates this as 'Mother undefiled', not really a literal translation.

Greek text	English translation
Νέαν ἔδειξε κτίσιν ἐμφανίσας ὁ Κτίστης ἡμῖν τοῖς ὑπ' αὐτοῦ γενομένοις• ἐξ ἀσπόρου βλαστήσας γαστρός, καὶ φυλάξας ταύτην, ὡσπερ ἦν, ἄφθορον, ἵνα τὸ θαῦμα βλέποντες, ὕμνήσωμεν αὐτὴν βοῶντες•	A new creature the Creator showed when he appeared to us who were made by him, and blossoming from a seedless womb he kept it as it was, inviolate; so that we, seeing this wonder, might praise her, acclaiming:
Χαίρε, τὸ ἄνθος τῆς ἀφθαρσίας• χαίρε, τὸ στέφος τῆς ἐγκρατείας. Χαίρε, ἀναστάσεως τύπον ἐκλάμπουσα• χαίρε, τῶν Ἀγγέλων τὸν βίον ἐμφαίνουσα. Χαίρε, δένδρον ἀγλαόκαρπον, ἐξ οὗ τρέφονται πιστοί• χαίρε, ξύλον εὐσικιόφυλλον, ὑφ' οὗ σκέπονται πολλοί. Χαίρε, κυοφοροῦσα ὁδηγὸν πλανωμένους• χαίρε, ἀπογεννώσα λυτρωτὴν αἰχμαλώτους. Χαίρε, Κριτοῦ δικαίου δυσώπησις• χαίρε, πολλῶν πλαιόντων συγχώρησις. Χαίρε, στολὴ τῶν γυμνῶν παρῴησις• χαίρε, στοργὴ πάντα πόθον νικῶσα. Χαίρε, Νύμφη ἀνύμφευτε.	Hail! Unfading flower; hail! Crown of chastity. Hail! Flashing example of resurrection; hail! Illustration of the angles' life. Hail! Tree of delightful fruit feeding the faithful; Hail! Wood of welcome shade where many take refuge. Hail! Thou who sucklest the guide of all who stray; hail! Thou who bearest the Redeemer of all slaves. Hail! Appeasement of the just Judge; hail! Reconciliation of many sinners. Hail! Stole for those who lack freedom to speak; hail! Love surpassing all desire. Hail! Mother undefiled!

Let us focus on the concatenation:

- flower → virginity;
- Crown (στέφος means garland) → chastity;
- Plant → fruit, nourishment;
- Tree with shaded leaves (εὐσικιόφυλλον) → refuge.

A similar chain is found in the Old Testament (flower-tree-fruit). This is another example of figurative trajectory, in which each figure unfolds the previous one by controlling its polysemic potential – see 'Figurative' in Greimas and Courtés (1979). This particular form of rationality is manifested not by logic arguments, but by a concatenation of images. It can be found in many parables of the Gospel.

If we return to the homologation (1), therefore, we see that the concatenation whose germ lies in the *Song of Songs* and *Book of Wisdom* matches the *x*, the *case vide*, with a new element each time in the manner of a tape “fluttering” against the recording head,¹¹ thus maintaining constantly active and unexhausted the production of form.

7. The Litany of Aquileia

According to Gilles G. Meersseman (1960), the Akathist hymn was translated into Latin before 810 AD by Christopher I, Bishop of Olivolo. Olivolo was the first nucleus of the state of Venice, and it became part of the liturgy there. Meersseman’s reconstruction of Christopher’s life is presented, in English, in Sadowski (2018: 187-188). Another important Mariological source is represented by the works of John of Damascus (675-749) that were translated and disseminated in the Patriarchate of Aquileia beginning in pre-Carolingian times – see Alessio Persic (2004). It is worth mentioning him here because, in his poems, the ‘flower’ becomes a rose.¹² For example, his homily for the nativity of the Virgin is another development of the Akathist. It reads:

Hail, unfading rose (ρόδον ἀμάραντον) infinitely smelling; having smelled your perfume the Lord rested in you; being flourished himself from you, he let the perfume of the universe wither.¹³

This passage expresses the connection between two isotopies, olfactory and botanical, inherited from the Old Testament.

To return to Venice, the translation of the Akathist is the source of an extremely ancient litany (the oldest code dates back to the 12th century) that summarizes 92 antonomasias. Unlike the more recent Litany of Loreto, in the Aquileian litany the Virgin is always called *Sancta Maria* (Saint Mary). This clearly speaks to the influence exerted by the Litany to the Saints, which circulated in Italy during the 9th century AD – cf. Galofaro (2018).

In the litany, the antonomasia *Sancta Maria, caelestis margaritabegins* a list that defines the isotopy of the ‘door of paradise’ (*‘caelestis vitae ianua, porta patens et clausa, per quam intratur ad Deum’*) which is closed by a flower: specifically, the unfading rose (*immarcescibilis rosa*).

This is followed by another interesting list in which Mary is defined *pulchritudo angelorum, flos patriarchum, desiderium prophetarum, thesaurus apostolorum, laus martyrum, glorificatio sacerdotum*. This list proposes the same hierarchy that gives structure to the Litany to the Saints.

11 Think for instance of an old tape recorder or – why not? – a Turing machine.

12 Tradition – cf. Tradigo (2006: 221) – sometimes attributes the antonomasia to Joseph the Hymnographer (816-886 AD), but John’s poem predates it.

13 The Greek text and a Latin translation have been published in Migne (1864: 691-692). English translation mine.

Curiously, in an Irish Authorized Manual of Devotions (Belfast 1822), some of these antonomasias reappear in the same order in a traditional prayer to the Virgin *to obtain a good death*:

Mother of God, lady of heaven, sweetly beloved queen, and advocate of all human lineage, pray come, amiable and mild lady, lady of angels, *flower of the patriarchs, desire of the prophets, treasure of the apostles*, mother of confessors, Ornament of Virgins, O Sweet and Blessed Virgin Mary, pray for me.¹⁴

As in the *Hail Mary*, in this litany the Virgin embodies both the beginning and the end of life; furthermore, there is evidence that the Litany to the Saints, the source of the form of this passage, was part of the service for the dead in the Ambrosian environment, and this latter is known to have been closely related geographically, temporally, and politically to the Patriarchate of Aquileia.

Later, in the final form found in the Litany of Loreto, the figurative antonomasias were substituted by the title ‘Queen’ (Queen of Angels, Queen of Patriarchs, Queen of Prophets, Queen of Apostles, Queen of Martyrs, Queen of Confessors, Queen of Virgins, Queen of all Saints).

The comparison between the Aquileian and Irish version of the litany is instructive in terms of understanding diachronic development. In language, the oldest strata can be found at the borders of a linguistic region. In a similar way, if we are able to identify the geographic origin of the morphological innovation, the oldest variants of a morphodynamic process can be found in peripheral cultures.

8. Why is the Rose Mystical?

Middle Age literature is brimming with flourishing gardens. A rosary is literally a rosebush, and in fact it had already appeared in the *Book of Wisdom*. According to the Pianigiani Italian etymological dictionary (1907),

The large grains of the crown, which are used to count, were called roses, as if they represented the flowers of a mystical wreath in honour of Mary.

This practice, established by Saint Dominic, dates back to the 13th century. As far as Franciscans are concerned, they offer the *Laus Beatae Virginis*, attributed to St. Bonaventura.¹⁵ Other antonomasias read:

Rosa decens, rosa munda,
Rosa recens sine spina,
Rosa florens et secunda
Rosa gratia divina

¹⁴ Our italic.

¹⁵ The text is published in <<https://tinyurl.com/y86bfsnl>> (retrieved November 19th, 2019).

Rose graceful, rose clean,
fresh rose without a thorn,
rose in bloom and favourable,
Rose divine grace

While the antonomasia “Queen of the most holy Rosary”, added to the Litany in 1675, has its root in late medieval devotion, other flowers have been pruned from the Litany of Loreto. As noted above, some of them have been substituted by the title ‘Queen’. The only surviving antonomasias in the 12th century version of the Litany of Loreto – the first version that is known to exist – are *Rosa mystica* and *Flos virginittatis*.¹⁶ This sememe constitutes the contraction of the botanical isotopy. In morphogenetic terms, this short and concise formula represents a maximum degree of stability because it survived unchanged for centuries.

There is reason to wonder why the rose is mystic. The adjective “mystic” is absent in the Akhatistos or Aquileian version, but “mystic” is certainly a Greek adjective. Nonetheless, the association between “mystic” and “rose” is not present in the Greek Patrology. There is, however, an interesting co-occurrence of “mystic” and “flower” in Procopius (465-528 AD), the most prominent representative of the Christian school of Gaza. His works include a commentary on the *Song of Songs*.

In particular, when commenting “Let’s see whether the vine has budded, its blossom is open, and the pomegranates are in flower (7, 12) he writes:

The mystical and manifest flower of faith was already called the flower of the pomegranates, which have a sweet fruit inside, and a really bitter peel on the outside; in fact, the fruit of faith, which is sweet as for the secret disposition of the soul, because of the hope of future remuneration, as for the flesh is really not happy, for the effort of virtue.¹⁷

In this passage, the adjective “mystic” is opposed to “manifest” as the sweet pulp in a fruit is opposed to the bitter peel.

Mystic / Manifest = Sweet / Bitter = Pulp / Peel

The value of mystic is not “secret”; it is more correct to associate it with “hidden”, “interior”. However, Procopius’ interpretation does not refer directly to the Virgin. To find the μυστικον άνθος used as an antonomasia of the Virgin one must look at the Byzantine hymns. For example, the Anthologion

¹⁶ Magdalena Kubas brought this to my attention. It is published in Meersseman (1960).

¹⁷ ής πίστεως το ρηθέν μυστικον και φανερον άνθος, βοών έστιν άνθος, αύπερ έντος μεν το γλυκύ του καρπού περιφέρουσεν, εκτός δε το του λεπύρου - πικρόν και γάρ και ο τής πίστεως καρπος, κατά μεν την κεχυμένην της ψυχής διάθεσιν, ευφραντικός έστι, διά τήν τής μενούσης μισθαποδοσίας ελπίδας κατά δε την εκτός της σαρκός, οδυνηρός, διά το τής άρετής επίπονον (Migne 1865: 1768).

offers a collection of ordinary chants for liturgic use. Many of these chants are exempla of Θεοτοκίον, i.e. refrains dedicated to the Mother of God. They involve formulas such as:

You are a Mystical Paradise, O Mother of God, which made Christ sprout without cultivation.¹⁸

Once again, the Virgin embodies the Garden (Paradise). This garden is mystical, i.e. interior, hidden, with reference to the mystery of motherhood. A second Θεοτοκίον refers to Isaiah (11:1):

Today, from the stem of David, purple palace of Joachim, the mystical flower begins to sprout, in which Christ our God blossomed, the keeper of our souls.¹⁹

Thus, the apposition “mystical flower” has a second important value: it is hidden but will eventually be revealed. In terms of structural semantics, this value is an inchoative aspect. These formulas are found in the poems and sermons of byzantine authors such as Andrew from Crete (650-740 AD) and Tarasios of Constantinople (730-806 AD) – cf. Passaglia (1855: 1143-1144).

As we have seen, the morphological development of the “mystical rose” antonomasia is exactly identical to the other botanical isotopies found in our corpus: they originate in the Song of Songs and are semantically reinterpreted in relation to the Virgin because of a recurring source-outcome schema (Flower -> Fruit = Mother -> Son).

As shown above, the mystic flower is related to Byzantine liturgy even though it is not present in the Akathistos. This suggests a second possible source for the antonomasias of the Litany to the Virgin. Indeed, this is only a hypothesis requiring further investigation. In Byzantine liturgy, the adjective ‘mystic’ refers to those passages that have to be pronounced in a low voice. Whereof this rose is quiet, thereof I must be silent.

9. A Morphodynamic Model

To explain the morphodynamic development of the botanical isotopy embodied in the Holy Virgin, we began from a *germ*: fruit. By catachresis, the infant is the fruit of the womb. This germ is used to construct the homologation (1) in which one term is represented by a *case vide* (Mother : Son = x : Fruit). The place of the x can be occupied, by articulation, by many different botanical figures.

18 Μυστικός ει Θεοτόκε Παράδεισος Αγεωργήτως βλαστήσασα Χριστόν (Antologion 1857: 14, col. 2).

19 Σήμερον εκ ρίζης του Δαυιδ, βασιλική Πορφυρίς εκβλαστήσασα, του Ίωακειμ βλασάνειν απέρχεται, άνθος το μυστικόν, εν ώ Χριστος ο Θεός ημών εξήνησεν, ο σωζων τας ψυχας ημών (Antologion 1857: 175, col. 1).

In Thom’s catastrophe theory,²⁰ however, actantial functions are responsible for the individuation of final saliencies. During our review of different texts dating to different periods, a similar scheme emerged: *source/outcome*. According to René Thom, this ‘emission’ is a cusp (fig. 3, point 1). If we reverse the arrow of time, the same morphology organizes the diachronical ‘inclusion’ of Eden in Mary (in her womb),²¹ simultaneously generating the internal/external topological opposition (fig. 3, point 3). Thus, she becomes the *hortus conclusus* of the Song of the songs.

Recursively, we also identified a *first* source the outcome of which is a *second* source of a second outcome (mother of God, creator of creatures) – see fig. 3, point 2.

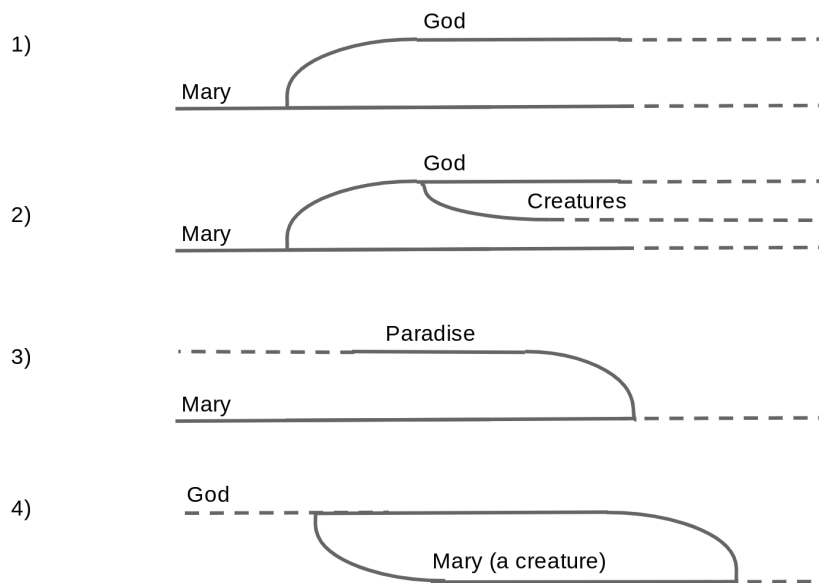


Figure 3. The unfolding of the structure according to which Mary is the creature of her creature.

Fig 3, point 4 exploits a feature of catastrophe theory: the reversibility of the arrow of time to represent both the creation/absorption of God by Mary’s

²⁰ A problem in Thom’s theory is related to the geometry of the semantic space, which he identifies, *by definition*, in C^∞ (Thom 1983: 59). In the works of mine C is a particular sub-space of a wider finite-dimensional Hilbert semantic space H, in line with Quantum Computing – see e. g. Galofaro, Toffano, and Doan (2018). While Thom explicitly excluded indetermination from his epistemology, I considered it to leave room for superposition of contradictory states that can happen during individuation processes – see Galofaro (2012). In quantum theory, the proto-actants that organize the semiotic square, formalized in C in Thom (1989), most likely organize a similar square whose internal relations are identified with the Pauli non-commutative operators *XYZ plus I (Identity)*. These IXYZ operators are a *quaternion* such as the INRC group which perform transformations in a traditional semiotic square – see Piaget (1957).

²¹ Curiously, the same happens in Feynman diagrams.

womb and the creation/absorption of Mary by God with the same morphology: the swallow tail.²² The result is a first source the outcome of which is the second source of an outcome which is the first source in that God created Mary, but Mary is the mother of God.

Fig 3. shows the actantial ‘forcefields’ (ironically, Thom’s technical term is *pregnancy*) unfolding the figurative trajectories that we encountered. They explain Mary’s figurative metamorphosis, for example, into a flower, a garland, a plant and finally a tree, allowing the articulation of an abstract semantic space of sacred meanings: virginity, chastity, nourishment, and refugee. They also explain – thanks to the reversibility of the arrow of time, why Mary is the origin and the end, why she accompanies the birth and death (*in hora mortis nostrae*).

10. The Syntagmatic Structure of the Litany

Having described the morphodynamical development of a set of figures found in the Litany of Loreto, I will now compare this morphodynamical explanation to the synchronic interpretations of litanic structures. In particular, I consider the litanic grammar introduced in section 1 as well as an interpretation of the litany as a chronotope proposed by Witold Sadowski (2018: 231-295).

Sadowski (2018: 260-264) shows how *Ave Christi Mater Digna*, a medieval poem inspired by the Akathist hymn, has a circular structure based on a fixed central element (a pin) and various changing elements, like wheels rotating at different speeds. The structure, he argues, allows variants of the litany to be automatically generated through simple permutations. This principle is the basis of Jean Meschinot’s *Oraison à la Vierge* whose hemistiches can be re-combined following only the logic of metric rules – see Kowalska (2018: 102-103).

The syntagmatic grammar of the Litany reconstructed by Magdalena Maria Kubas and myself can be considered a generalization of this structural regularity which features the litany as a “genre” – cf. Galofaro and Kubas (2016). As I wrote above (section 1), a *regular* grammar can generate (from a syntagmatic point of view) every litany, so much so that we can consider the grammar to be an operative definition of the litanic “genre”.²³ Since the grammar is regular, we can also represent litanic structure as a regular expression²⁴ (Fig. 4):

²² See in Thom (1983: 204).

²³ When a syntagmatic structure can be reconstructed, Greimas and Courtés (1976) propose to substitute the fuzzy notion of “genre” with the more technical notion of *discursive configuration*.

²⁴ An introduction to Regular Expressions can be found in Hopcroft, Motwani, and Ullman (2009).

Regular Expression	$A((B C)\{1,2\}DE)+((FGHE)+(IJKLME)+)^*N$
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Syntagma	<p>A = introductory formula (e.g. “Lord have mercy. Christ have mercy ...”)</p> <p>B = Actant²⁵ Subject (Name, e.g. “Holy Mary”; “Saint Gabriel”)</p> <p>C = Actant Subject (Antonomasia, e.g. “Mirror of Justice”)</p> <p>D = First stemma (pray for ...)</p> <p>E = Actant Object (us)</p> <p>F = Circumstant (e.g. “from the snares of the devil”)</p> <p>G = Actant Subject (Lord)</p> <p>H = Second stemma (Deliver)</p> <p>I = Actant Subject (We)</p> <p>J = Third stemma (Beseech)</p> <p>K = Actant Object (Thee)</p> <p>L = Second circumstant (that Thou would spare us)</p> <p>M = (Hear)</p> <p>N = Envoy (e.g. “Lamb of God, who takest away the sins of the world...”).</p>
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Meaning of the operators	<p>R S denotes the set union of sets described by R and S {x,y} between x and y²⁶</p> <p>+ indicates one or more occurrences of the preceding element</p> <p>* indicates zero or more occurrences of the preceding element²⁷</p>
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Figure 4. The syntagmatic structure of every litany can be represented as a regular expression.

This peculiar syntagmatic structure involves a fixed syntagmatic structure (DE) which can be seen as a *pin*: the simulacrum of the community of the worshippers (“us”), labelled “authorized speaking voice” by Sadowski (2018: 208-284), and the request to pray. The *intercession schema* entails a double prayer:²⁸ worshippers praise a mediator who will in turn praise the Deity – see Galofaro (2018).

²⁵ Regarding the notion of actant and circumstant, see Tesnière (1959).

²⁶ While in the Litany of Loreto the antonomasia and the name are alternative, in the litanies they can be present at the same time. See for example “Divine Mercy, lifting us out of every misery, I trust in You”.

²⁷ In the case of the Litany of Loreto, the syntagmatic structure ((FGHE)+(IJKLME)+) is absent.

²⁸ According to Francesco Marscianni (2008) the enunciational structure of a prayer usually involves two subjects, the worshippers and the divinity. The worshippers are inferior to the divinity in terms of power; thus, they use knowledge to seduce the divinity. The Litany to the Virgin represents a special case wherein seduction is addressed firstly to the Virgin, in her role as mediator.

The Antonomasias of the Virgin –(B|C){1,2} – forms the circular wheel that rotates around the pin. According to Sadowski (2018: 241-242), the meaning effect of this peculiar, circular structure is the establishment of a chronotope – Bakhtin (1981). In particular, the concentric space-time of the litany in the Middle Ages was the standard worldview of educated men, in line with the Christian reception of Neoplatonism. The creation is an emanation from the centre toward the periphery, analogous to the sun and its rays. As Sadowski notes, the litany implies an authorized response directed from the periphery (from the Church) to the centre – Bachtin’s “superaddressee”. Therefore, Sadowski’s reconstruction of the synchronic structure of the litany and my research converge.

11. Toward a Metachronic Description of the Litany

Is the synchronic interpretation of the Litany consistent with the morphodynamical reconstruction proposed above (section 9)?

Hjelmslev (1959) distinguishes between diachronic change in terms of *use*, connected to extrinsic factors, and metachronic change in the norm, involved in the conditions of the internal change in the functional structure of the semiotic system.

According to Sadowski (2012), the litanic genre is characterized by three features, all of which are present in the Litany to the Virgin:

- i) *Chairetic* - having the character of invocation or praise;
- ii) *Polyonymic* - having the character of a list of names or attributes;
- iii) *Ektenial* - contains a set of supplications to the Deity based on the model of the ektenia in the orthodox liturgy where a long list of invocations to the divinity is accompanied by the formula Kyrie eleison.

The ektenial feature is represented by the A and DE syntagma in the Litany to the Virgin while, as outlined above, the Chairetic and Polyonymic features are represented by the (B|C){1,2}. When discussing the origin of litanies, Sadowski presents these three features as genes (2018: 99-103) and finds them to be historically related to the Akathist hymn, or to the lists of heroes in the epic genre. However, considering the difference between diachronic and metachronic change introduced above, the three features selected by Sadowski do not correspond to functions which remain constant over time. In fact, in the Akathist hymn the Virgin is *acclaimed* rather than praised: the *intercession function* is not present. The function of the botanical figures in the Akathist hymn is mainly *cosmological*. In the Litany to the Virgin, the chairetic and polyonymic features manifest a *different soteriological function*. The same manifesting element displays different manifested functions. This is common in the linguistic semiotic system: for example, the ablative case in Latin has the values of “instrumental”, “locative”, “cause”, “comparison”, etc. According to our metachronic description, the Litany to the Saints is the model of the intercessory structure that re-shaped the Akathist hymn and caused it to

change in terms of function. The new soteriological functionalization may also explain how the set of botanical figures is reduced to the mystical rose and rosary in the final version.

A similar functional change occurred at the origin of the Litany to the Saints during the 4th century, when the *intercession* of the Saints replaced the simple *memory* of the Martyrs – see Galofaro (2018). In early pre-litanic forms, the polyonymic feature is related only to the function of memory linking the Church on Earth to the Church in Heaven and time to eternity, thereby allowing the Church to assume a collective identity and active role as a subject acting in history. From the point of view of this article, this fact further supports Sadowski's interpretation of litanies in terms of chronotope. In fact, in order to reconstruct the medieval worldview Sadowski interprets Litanies in light of Christian neoplatonic philosophy, while recognizing the ecclesiological function related to memory allows the chronotope to emerge directly from the litanic figures.

12. Conclusion

In conclusion, let me revisit the principal points of the argument presented above. As shown, there is a logic in the change that leads from the botanical elements found in the Song of Songs and Old Testament) – section 2 – to the two surviving antonomasias of the Virgin in the 12th-century version of the Litany (*mystical rose* and *flower of maidenhood*). In terms of structural semantics, this logic can be summarized as the *noologic* opposition source -> outcome which is projected on the world as a grid to produce figures (flower -> fruit; mother -> son) as well as aspectual values, temporal schemes, and topologic homologations (interior -> exterior, mystical -> manifest, hidden -> revealed) – section 8. The projection of a noologic grid on a figurative set produces the semiotics of the world of our phenomenological experience – see Greimas (1983). In the case of the Virgin, this *cosmology* is redoubled and reversible in that the Mother is the source of God and vice-versa – section 9.

The contact between the Litany to the Saints and the Latin translation of the Akathist, dating to the 8th-9th century (section 7) produced a *misfolding of its form* (as in prion diseases) causing its function to change from cosmological to soteriological. This may be the reason why the set of botanical figures in the Litany of Loreto is so drastically reduced.

Therefore, while the attempt to define the synchronic features of the litany in terms of grammars, structures, enunciation, and chronotope (section 10) defines litany in a scientific way as a discursive configuration, it also restricts the notion of litany to the western exemplars of the 2nd millennium.

Morphodynamics provides a different interpretation of the labour of sign-production – see Eco (1976). It aims to explain the immanent logic of functional development and change without resorting to the idiosyncratic creativity of a personal author. On the contrary, since the labour is aimed at producing signs and not subjects, the subjectivity of the many great poets who unfolded and articulated this system of symbols is a mere waste-product of

the rules governing the formation of the form: it is the Most Holy Virgin who invented poets, not vice-versa.

Addendum

While this paper was being typesetted, Pope Francis added three new invocations in the litany (June 2020): “Mother of Mercy”, “Mother of Hope”, and “Solace of Migrants”. This confirms that the morphodynamic unfolding of this litany is still active.

References

Antologion

1857 Venezia, tipografia ecclesiastica della Fenice.

Appiano Caprettini, Ave

1979 *Lettura dell'Annunciazione fra semiotica e iconografia*, Torino, Giappichelli.

Bakhtin, Mikhail

1981 *The Dialogic Imagination: Four Essays*, trans. Caryl Emerson and Michael Holquist, Austin, University of Texas Press.

Berselli, Costante (ed.)

1983 *Sing the Joys of Mary*, Oxford, Morehouse-Barlow.

Brightman, Frank Edward (ed.)

1896 *Liturgies Eastern and Western*, vol. 1: eastern liturgies, Oxford, Clarendon Press.

Comunità di Bose (ed.)

2000 *Maria: testi teologici e spirituali dal I al XX secolo*, Milano, Mondadori.

Deleuze, Gilles

1973 “A quoi reconnaît-on le structuralisme ?”, in F. Châtelet, *Histoire de la philosophie VIII. Le XXe siècle*, Paris: Hachette (Engl. Transl. Michael Taormina (ed.) “How Do We Recognise Structuralism?”, in *Desert Islands and Other Texts 1953-1974*, Trans. David Lapoujade, Los Angeles and New York, Semiotext(e), 2004).

Eco, Umberto

1976 *A Theory of Semiotics*, Bloomington, Indiana University Press.

Galofaro, Francesco

2012 “Slavi si nasce o si diventa? La costituzione del Soggetto in Ritorneranno di Giani Stuparich”, in Dario Mangano e Bianca Terracciano (eds.) *Passioni collettive. Cultura, politica, società, EC 11-12*, Edizioni Nuova cultura, Roma.

2018 “Figures of Memory and Memories of the Figure: The Group of Martyrs in the Litany of the Saints”, in *Lexia. Rivista di semiotica*, 31–32 DOI 10.4399/97888255278419, pp. 217-236.

- Galofaro, Francesco; Kubas, Maria Magdalena
2016 “Dei Genitrix: A Generative Grammar for Traditional Litanies”, *OASICS*, 53,
DOI: 10.4230/OASICS.CMN.2016.12
- Galofaro, Francesco, Toffano, Zeno, and Doan, Bich-Liên
2018 “Quantum Semantic Correlations in Hate and Non-Hate Speeches”, in
Electronic Proceedings in Theoretical Computer Science, Vol. 283, pp. 62-74,
<<http://eptcs.web.cse.unsw.edu.au/content.cgi?CAPNS2018>>.
- Greimas, Algirdas J.
1983 [1966] *Structural Semantics: An Attempt at a Method*, trans. Daniele
McDowell, Ronald Schleifer, and Alan Velie. Lincoln, Nebraska, University of
Nebraska Press.
- Greimas, Algirdas J. and Courtés, Joseph
1979 *Sémiotique: Dictionnaire raisonné de la théorie du langage*, Paris,
Hachette (Engl. Transl. *Semiotics and Language: an analytical dictionary*,
Bloomington, Indiana Univeristy Press).
- Hjelmslev, Louis
1959 “La structure morphologique”, in *Essais linguistiques*, TCLC, XII.
- Hopcroft, John E.; Motwani, Rajeev; Ullman, Jeffrey D.
2009 *Introduction to Automata Theory, Languages, and Computation*, Milan,
Pearson Paravia Bruno Mondadori.
- Jerusalem Bible
1966 A. Jones (ed.) New York, Doubleday & C.
- Kowalska, Magdalena
2018 *Litanic Verse III: Francia*, Berlin, Peter Lang.
- Krypiakiewicz, P. F.
1909 “De hymni Acathisti auctore”, in *Byzantinische Zeitschrift* 19, pp. 357-382.
- Kubas, Magdalena M.
2018 *Litanic Verse IV*, Berlin, Peter Lang.
- Lee, Hoon J.
2017 *The biblical accommodation debate in Germany : interpretation and the
Enlightenment*, Cham, Switzerland, Palgrave Macmillan.
- Marsciani, Francesco
2008 “Il discorso della preghiera (un abbozzo)”, in N. Dusi and G. Marrone (eds.),
Destini del sacro. Discorso religioso e semiotica della cultura, Meltemi,
Rome, vol. 1, pp. 305–314.
- Martinet, André
1952 “Function, structure, and sound change», in *Word*, 8, 1, pp. 1-32.
- Meerseman, Gilles G.
1958 *The Acathistos hymn*, Fribourg Switzerland, University Press.
1960 *Der Hymnos Akathistos im Abendland*, Vol. 2, Fribourg Switzerland,
University Press.

Migne, Jacques-Paul (ed.)

1864 *Patrologiae Cursus Completus*, Series Graeca, Tomus XCVI.

1865 *Patrologiae Cursus Completus*, Series Graeca, Tomus LXXXVII, pars secunda.

Passaglia, Carlo

1855 *De immaculato deiparae semper virginis Mariae conceptu commentarius*,
Naples, apud Josephum dura bibliopolam

Persic, Alessio

2004 *Le litanie mariane 'aquileiesi' secondo le recensioni manoscritte friulane a confronto con la tradizione comune*, Roma, edizioni monfortane.

Piaget, Jean

1956 *Logic and Psychology*, New York, Basic Books.

Pianigiani, Ottorino

1907 *Vocabolario etimologico*, Milano, Albrighi & Segati.

Powell, Mark A. (ed.)

2009 *HarperCollins Bible Dictionary*, Atlanta, Society of Biblical Literature.

Ricciotti, Giuseppe

1939 *Inni alla Vergine di S. Efreim siro tradotti dal siriano*, Roma, Società ed.
internazionale (2^a edizione).

Sadowski, Witold

2011 *Lytania i poezja*, Warsaw, WUW.

2018 *European Litanic Verse: A Different Space-Time*, Berlin, Peter Lang.

Santarelli, Giuseppe

1997 "Le litanie lauretane nella storia e nell'arte", in *Litanie lauretane*, Città del
Vaticano, Libreria editrice vaticana, pp. 12-65.

Sarti, Alessandro; Montanari, Federico; Galofaro, Francesco

2014 *Morphogenesis and Individuation*, Berlin, Springer.

Tesnière, Lucien

1959 *Éléments de syntaxe structurale*, Paris, Klincksieck.

Thom, René

1983 *Mathematical Models of Morphogenesis*, New York, Horwood.

1989 "Cyclical structures in semiotics", in Perron, Collins (eds.), *Paris School
Semiotics*, Amsterdam, John Benjamins Publishing Company.

Tradigo, Alfredo

2006 [2004] *Icons and Saints of the Eastern Orthodox Church*, Los Angeles, the
Paul Getty Museum.

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