

JOURNAL OF THE INTERNATIONAL SOCIETY FOR ORTHODOX CHURCH MUSIC

Vol. 7:1 (2023), Section II: Non-refereed Articles, pp. 34–50 ISSN 2342-1258 https://doi.org/10.57050/jisocm.122997

EXISTING HYPOTHESES ABOUT THE EMERGENCE OF NONSENSE SYLLABLES IN THE CHANT TRADITION OF TERETISMATA AND KRATEMATA IN BYZANTINE MUSIC

VASSILEIOS VARELAS

Department of Musicology, Uppsala University vassileios.varelas@gmail.com

In the present essay, I review and evaluate the three main hypotheses about the historical background and emergence of nonsense syllables in the chant tradition of *teretismata* and *kratēmata* in Byzantine music. The different historical hypotheses as to the historical roots and development of this singing practice, namely those of Gregorios Stathis (1979, 2014)¹, Diane Touliatos (1989)², and Grigorios Anastasiou (2005)³ are examined and analysed thoroughly.

The aim of the analysis is to summarize and discuss the contribution of up-to-date historical hypotheses to theoretical approaches of the topic, including the identification of potential flaws, lacunae and inadequacies of their explanatory power.

Touliatos takes antiquity as a starting point for her hypothesis and posits the roots of nonsense syllables in the music of Ancient Greece. After a historical gap of several centuries, those syllables reappear in the Byzantine music during the 14th century. Stathis and Anastasiou examine

¹ Grigorios Stathis, Οι Αναγραμματισμοί Και Τα Μαθήματα Της Βυζαντινής Μελοποιίας: και πανομοιότυπος έκδοσις του καλοφωνικού στιχηρού της Μεταμορφώσεως "Προτύπων την ανάστασιν", μεθ΄ όλων των ποδών και αναγραμματισμών αυτού, εκ του Μαθηματαρίου του Χουρμουζίου Χαρτοφύλακος (Athens: Institute of Byzantine Musicology, 1979); Grigorios Stathis, Introduction to Kalophony, the Byzantine 'Ars Nova': The Anagrammatismoi and Mathēmata of Byzantine Chant (Bern: Peter Lang, 2014).

² Diane Touliatos, "Nonsense Syllables in the Music of the Ancient Greek and Byzantine Traditions," *The Journal of Musicology*, 7, no. 2 (1989): 231–243.

³ Grigorios Anastasiou, $T\alpha$ Κρατήματα στην Ψαλτική Tέχνη (Athens: Institute of Byzantine Musicology, 2005). PhD dissertation defended at the University of Athens in 2004 and published by the Institute of Byzantine Musicology in Athens in 2005.

⁴ Touliatos, "Nonsense Syllables in the Music of the Ancient Greek and Byzantine Traditions."

the phenomenon exclusively within the boundaries of Byzantine music.⁵ Before reviewing the three hypotheses, we must consider the sources on which the theories are postulated.

NONSENSE SYLLABLES IN MUSIC: A HISTORICAL SURVEY FROM ANCIENT GREECE TO BYZANTIUM

The origins of nonsense syllables in vocal music are ambiguous and their use is not a phenomenon exclusive to the Greek alphabet and music. The practice of nonsense syllables is already mentioned in the second century A.D. in the treatise of Nichomachus of Gerasa, although it is believed that they were in use before this documentation.⁶

Their practice is found to be a common tradition later, and continuing to the present day, in Byzantine music performance. The nonsense syllables te, re, to, ro, ti, ri, reappear first during the 14th century in musical compositions in Byzantine music of the Byzantine empire, called *teretismata*. Those obviously derive from teretismos, a term sufficiently described by Manuel Bryennios in his treatise the *Harmonics*, written in the 13th century A.D.⁷

Bryennios refers to teretismos as the simultaneous instrumental playing by plucking an instrument with the plectrum and vocal singing by the same person, mimicking in this way what the cicada appears to do – thus its trilling sounds.

It is necessary to know that the combined form which occurs when *Melismos* and Kompismos are joined, is called by some Teretismos⁸ [...] Teretismos being used to both, namely when a person, in singing a melody plucks the strings at the same time with his fingers or with a plectrum in accordance with the melody [...] for this is what the cicada distinctly appears to do.9

In Byzantine Orthodox church music, the melodies of teretismata were transformed into kratēmata, which were found in the concluding sections in 14th-century Akolouthiai. 10 Both teretismata and kratēmata were interpolated musical parts whose soloistic technical features, along with anagrammatismoi, (a complete rearrangement of the word syntax, "anagrammatismoi", signifying vocalizations that are αγράμματοι "agrammatoi", which means senseless) constituted the ornamental basis of kalophonic compositions.¹¹

Stathis, Οι Αναγραμματισμοί Και Τα Μαθήματα Της Βυζαντινής Μελοποιίας; Stathis, The Anagrammatismoi and Mathēmata of Byzantine Chant; Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη.

Touliatos, "Nonsense Syllables," 231.
Touliatos, "Nonsense Syllables," 239; Manuel Bryennios, *The Harmonics*, transl. and ed. Goverdus Henricus Jonker (Groningen: Wolters-Noordhoff Publishing, 1970).

Bryennios, The Harmonics, 313. The original text in Greek in Jonker's book, p. 312: "Είδὲναι μέντοι χρή, ὂτι τόν κοινὸν σχηματισμὸν ἐκ τῆς συνθέσεως τοῦ μελισμοῦ καὶ τοῦ κομπισμοῦ ἒνιοι καλοῦσι τερετισμόν".

Bryennios (Eng. transl. and ed. Jonker, G.H. 1970), p. 313. The original text in Greek in Jonker's book, p. 312: "[...] ό δὲ τερετισμὸς κοινὸς τοῦ τε μουσικοῦ και ὀργανικοῦ καὶ γὰρ ὂταν τις τῷ μὲν στόματι ἄδη, τοῖς δὲ δακτύλοις ἤ τῷ πλήκτρῳ τὰς χορδὰς κατὰ τὸ μέλος κρούη, τότε τερετίζειν λέγεται [...] οὕτω καὶ γὰρ ἐναργῶς τερετίζειν οἱ τέττιγες φαίνονται".

Oliver Gerlach, The Oktoechos Hymnography and the Asmatic Rite of Constantinople (Early Byzantine Period) (Berlin: Humboldt-University, 2018), 35; Touliatos, "Nonsense Syllables," 239.

¹¹ Achilleas Chaldaeakes, "Review of Introduction to Kalophony, the Byzantine Ars Nova; The Anagrammatismoi and Mathēmata of Byzantine Chant, by Grigorios Stathis," Byzantina Symmeikta, 26, no. 2 (2016): 416, https://doi.org/10.12681/byzsym.10777; Williams, "Review of Byzantine Trisagia and Cheroubika

The latter characterized the Byzantine Ars Nova and the new musical style appeared in the 14th century, the melismatic *Kalophonic* or "Beautified style" of Byzantine music. Kalophony in the golden age of Byzantine chant arose after Constantinople's recovery from the Latin occupation of Byzantium (AD 1204-1261), and reached its final form in the first half of the fourteenth century.¹² In this style, musical compositions present extended melismatic ornamentation with prolonged interpolated musical passages of soloistic coloraturas called *teretismata* and *kratēmata*, based on nonsense syllables.¹³ The rhapsodic melodies of the new kalophonic chants of the concluding parts of the Akolouthia manuscript, were sang upon the same liturgical texts as the older Asmatikon *and* Psaltikon, but they were more florid and embellished.¹⁴ The word *kratēmata*, meaning "holdings", is derived from the verb " $\kappa \rho \alpha \tau \tilde{\omega}$ " which means "to hold" or "to sustain", thus to prolong a music passage (similar comparable use in the Western Church tradition of "tenor", from "tenere"= to hold).

Just like *kratēmata*, *teretismata* evolved to become independent musical compositions of the repertoire of Byzantine music.¹⁵ The 14th century is characterized by the appearance of revered individual composers in Byzantine music. According to John Plemmenos, during this period, the *kratēmata* reached their artistic peak, but after the fall of Constantinople to the Turks in 1453, the musical production of *kratēmata* stagnated until the late 16th century when it was revived again.¹⁶ The use of nonsense syllables in Byzantine chant is not limited to *teretismata* and *kratēmata*. Before starting to sing in each mode, the *domestikos* (precentor) gets properly "tuned", so to speak, in order to introduce the *ēchos* (mode) by singing a melodic intonation formula consisting of nonsense words. This intonation formula is called *ēchēma*, *epēchēma*, or *apihima* and each *ēchos* is allocated a name of the mode (see Table 1).

According to Werner, the well-known formulae from the Byzantine theory and from the writings of Aurelian of Réômen in the medieval Western church, *neannoe*, *noeagis*, *noeagis*, etc., have caused many speculations about their origin and their appearance in Latin psalms. ¹⁷ Recently, and according to Dimitri E. Conomos, the earliest Greek nonsense syllables of the eight Byzantine *ēchēmata* have been traced and identified back to the Aurelian of Réôme, in his treatise *Musica disciplina* (?c840–50). The Byzantine *ēchēmata* subsequently appeared in almost all tonaries until the 12th century. ¹⁸

of the Fourteenth and Fifteenth Centuries: A Study of Late Byzantine Liturgical Chant by Dimitri E. Conomos," *Journal of the American Musicological Society*, 30, no. 1 (1977): 149, https://doi.org/10.2307/831137.

¹² Stathis, The Anagrammatismoi and Mathēmata of Byzantine Chant.

Arsinoi Ioannidou, "The Kalophonic Settings of the Second Psalm in the Byzantine Chant Tradition of the Fourteenth and Fifteenth Centuries," PhD diss. (University of New York, 2014), 45.

¹⁴ Touliatos, "Nonsense Syllables," 33.

¹⁵ Ioannidou, "The Kalophonic Settings of The Second Psalm," 10; Touliatos, "Nonsense Syllables," 239.

John Plemmenos, "The Rosary and the Rose: Clergymen as Creators of Secular Poetry and Music in Early-modern Balkans," *Musicological Annual*, 50, no. 2 (2013): 78, https://doi.org/10.4312/mz.50.2.77-91.

¹⁷ Eric Werner, "The Psalmodic Formula "Neannoe" and Its Origin," *The Musical Quarterly*, 28, no. 1 (1942): 93.

¹⁸ Dimitri Conomos, "Ēchēma", Grove Music Online, accessed January 06, 2021; Werner, "The

According to Conomos, although the Western formulae were imported from the Byzantine East, they differ from them in that context, textually and functionally.19

TOULIATOS'S HYPOTHESIS: INCANTATE, SOLMIZATION AND GLOSSOLALIA FUNCTION OF THE TERETISMATA AND KRATEMATA

Diane Touliatos published in 1989 probably the most detailed review article about nonsense syllables in the music of Ancient Greek and Byzantium.²⁰ Touliatos points out that the appearance of nonsense syllables in the music of ancient Greece and Byzantium can be traced to the use of the seven Greek vowels in gnostic music. The nonsense syllables in Ancient Greek music functioned as incantations and were linked to the seven vowels α , ε , ι , η , o, v, ω of the Greek alphabet in gnostic music, something that, according to Touliatos, is well documented in many historical works and treatises:

The appearance of nonsense syllables in the music of ancient Greece and Byzantium can be traced to the use of the seven Greek vowels in gnostic music. From antiquity through the medieval period, the vowels α , ϵ , η , o, ω , are discussed in many historical works and treatises for their function as incantations. It is certain that these gnostic formulae were in existence long before they were documented.²¹

One of the first treatises referring to the aforementioned role of nonsense syllables is the Handbook of Harmonics written by Nichomachus of Gerasa in 2nd century A.D. Touliatos anchors her interpretation of the role of the seven vowels of the alphabet, the incantantory function of nonsense syllables, and the number seven by referring to the Pythagorean treatise of Nichomachus. According to him, as Touliatos mentions, seven was considered to be a magical number, as each one of the seven spheres produced a sound corresponding to each one of the seven Ionian vowels. A for the Moon, E for Mercury, H for Venus, I for the Sun, O for Mars, U for Jupiter, and Ω for Saturn. The same claim about the mystic affiliation of the seven vowels with the seven planets, is also found in another treatise, *The Elocution*, written by a contemporary of Nichomachus, Demetrius Phalereus. There, it is documented that the Egyptian priests "worshipped their gods by chanting the seven vowels which designated sounds or pitches and which were substituted for the performance of the aulos or kithara".22

According to Touliatos, the gnostic formulae of the seven vowels corresponded to the musical notes of a heptachord, and thus a new musical system was created.²³ These gnostic formulae of the seven vowels functioned as invocations sung totally as nonsense, with rapid movement of the notes that caused a trembling of the voice. According to Touliatos, the definition

Psalmodic Formula "Neannoe" and Its Origin".

Conomos, "Ēchēma".

²⁰ Touliatos, "Nonsense Syllables," 231–243.

²¹

Touliatos, "Nonsense Syllables," 231. Touliatos, "Nonsense Syllables," 232. Touliatos, "Nonsense Syllables," 233.

²³

of this coloratura-like type of trill singing by the term *teretism* (multiple repetitions of same pitch-note corresponding to a certain vowel), first appears to the treatise *On Music*, written by an anonymous Hellenistic author.²⁴

For the explanation and documentation of the addition of consonants together with vowels during the evolution of the nonsense syllables, Touliatos refers to two theoretical treatises from antiquity, About Music by Aristides Quintilianus (written between the first and fourth century A.D.) and Bellermann's Anonymous (of uncertain date, first published by Fr Bellermann in 1841 in Berlin).²⁵ Quintilianus, who has had a wide reception in the study of music and rhetoric in Europe, talks about the seven vowels although he maintains (still according to Touliatos), that only four of them, corresponding to the musical notes of a tetrachord, had the desired sound qualities and were appropriate for solmization: alpha (A), epsilon (E), eta (H), and omega (Ω). The same author reports that the most appropriate consonant to juxtapose with the vowels was tau (T), the consonant that sounds like a string instrument and precedes the vowels in all Greek articles. The selection of the consonant tau created the combinations of syllables $\tau \alpha$, $\tau \varepsilon$, $\tau \eta$, and $\tau \omega$. The latter were used in solmization practice in Ancient Greek music and assigned to the different pitches of the tetrachords. Touliatos mentions that the *Anonymous* treatise presents - with few differences - the same facts about the solmization music system in Ancient Greece which was based on the four vowels and the consonant tau used for singing the musical intervals. Bellermann points out that this type of solmization system created three types of articulation, kompismos, melismos and teretismos.²⁶

Touliatos indicates that, between the period of antiquity and the 14th century, there is a theoretical gap owing to the lack of treatises. These nonsense syllables are discussed again in the treatise of Manuel Bryennios, the *Harmonics*, written in about 1300 A.D., which is influenced by Quintilianus, something that is obvious from the many affinities between the two treatises.

The tradition of nonsense syllables reappears in the Kalophonic melodic style of Byzantine chant during the 14^{th} century and is called *teretismata*. These begin with the consonant *tau* or *rau* and their function is to erase the gaping sound caused by the prolonged vowels. *Teretismata* were developed to the new kalophonic chant evolved further to independent and freely composed melismatic compositions based on nonsense syllables, mainly $\tau \varepsilon$, $\rho \varepsilon$, ρo , $\tau \iota$, $\rho \iota$, etc. The *teretismata*, when found in the concluding sections of the Akolouthia manuscripts, were called *kratēmata*

In Touliatos, "Nonsense Syllables," 234: "The treatise was published by A.-J.-H. Vincent, "Notices sur trois manuscrits grecs relatif a la musique," *Notices et extraits des manuscrits de la Bibliotheque du Roi, XVI,* 2nd part (Paris: Imprimerie royale, 1847), 53, 223".

²⁵ Anonymi Bellermann, Ανωνύμου Σύγγραμμα Περί Μουσικής, Βάκχειου του Γέροντος, Εισαγωγή Τέχνης Μουσικής, transl. Fridericus Bellermann (Italy: Berolini, 1841); Aristides Quintilianus, Peri Musikēs (On Music: In Three Books), transl. Thomas J. Mathiesen (Yale University, 1983).

and/or *anagrammatismoi* (anagrams), arranged according to the modes. Apart from the consonant *tau* and *rau*, other letters such as χ , ov, and $\gamma\gamma$ were in use. Although Touliatos supports the evolution of the *kratēmata* from the *teretismata*, she does not offer a convincing theory or hypothesis about how this transformation took place.²⁷

In many liturgical texts from 14th, 15th and 16th centuries and even from the neo-Byzantine era, interpolated sections with compositions based exclusively on nonsense syllables were written by composers as a way for chanters to express themselves and show their mastery and ability. Touliatos evokes the hypothesis in the *Exēgēsis* of Gerasimos, a seventeenth century Cretan monk, concerning glossolalia, (the "wordless jubilation", thus the attempt to mimick the singing of the angels). According to Touliatos, the glossolalia is a possible explanation for the allowance and evolution of this type of singing in the strictly religious Byzantine empire, despite its roots back in the magic papyri and pagan rituals of antiquity.²⁸ Gerasimos explains how the teretismata compare to the running of rivers, the singing of birds and the trilling of cicadas, while the kratēmata are described as river and nightingale, or musical instruments as trumpet and bell. For the latter explanation, Touliatos refers to the kratēma entitled "A Bell", written by Gregoritze Domestikos in 1453 for the fall of Byzantine empire. In this kratēma, the vocalization of the nonsense syllables imitates, by the use of intervals of fifths, the chiming of a bell.²⁹

Touliatos concludes that this solmization practice, both in antiquity and Byzantine traditions, has in common syllables articulated as *tereritism*, a type of vocal ornament. Touliatos ends by claiming that this solmization system functioned as a mnemonic technique, which was further developed into the *noeane formulae* of the Western mediaeval music theory:

It is not accidental that this solmization practice was found in both traditions but is evidence of Greek theory influencing Byzantine theory and practice. This ancient system of solmization not only influenced the Byzantine tradition but also provided a link to the mnemonic solmization practices which developed in the West, for it is probably from similar syllables that the noeane formulae of Western medieval theory were derived.³⁰

²⁷ Touliatos, "Nonsense Syllables," 239–240.

Touliatos, "Nonsense Syllables," 240–241.

²⁹ Touliatos, "Nonsense Syllables," 241.

³⁰ Touliatos, "Nonsense Syllables," 243.

HYPOTHESIS BY TOULIATOS

ANTIQUITY: TERETISMATA

Incantate, solmization: combination of vowels α , ε , η and ω with consonant tau produced the syllables $\tau\alpha$, $\tau\varepsilon$, $\tau\omega$, $\tau\eta$ corresponding the four pitches of the tetrachord

BYZANTIUM: TERETISMATA EVOLVED INTO KRATĒMATA

- Distinctive features of the Kalophonic melodic style of Byzantine chant
 - Interpolating ornamentation parts and autonomous eponymous melismatic compositions
 - Glossolalia function
 - Based on nonsense syllables terere, tiriri, tototo, etc.

Figure 1. Historical hypothesis by Touliatos (1989)

STATHIS'S HYPOTHESIS: AFFILIATION OF TERETISMATA AND KRATĒMATA WITH ĒCHĒMATA IN ECCLESIASTICAL MUSIC/THE ORIGIN OF THE KRATĒMATA BY THE ĒCHĒMATA

A different theory about the history of Byzantine nonsense syllables has been proposed by Grigorios Stathis.³¹ The *ēchēmata* as melodic intonation formulas constitute a distinct chapter in the theory of the Papadikai or other various theoretical books dealing with the theory of the ecclesiastical Byzantine music.

The words of the intonation formula of each *ēchēma* corresponding to each *ēchos* (mode) of the Octoēchos, are presented in the following Table 1:

³¹ Primarily, the book used for research about the formulation of Stathis's approach is the English translation (see Stathis, *The Anagrammatismoi and Mathēmata of Byzantine Chant*) of the original book in Greek written by him in 1979: Οι Αναγραμματισμοί Και Τα Μαθήματα Της Βυζαντινής Μελοποιίας.

TABLE 1. The ēchēma of each ēchos in Byzantine music

Ēchos	ēchēma	
First	Ananes or Ananeanes	
Second	Neanes	
Third	Nana or Aneeanes	
Fourth	Hagia	
First plagal	Aneanes	
Second plagal	Ne(h)eanes	
Third plagal	Aanes	
Fourth plagal	Ne(h)agie	

Apart from *Hagia* and *Ne(h)agie* (meaning *Holy/Saint* and *yes-holy/saint*), the ēchēmata lack conceptual context and appear to be totally nonsensical. It is generally believed that they made as little sense to a Greek speaker in Byzantium. For some conservative Byzantine scholars, the fact that music genre aiming to serve God lacks real linguistic meaning, is a scandal.³² The ēchēmata are found in manuscripts dated to the tenth century AD, although scattered testimonials about the use of *ēchēmata* in secular and ecclesiastical ceremonies are found the Book of Ceremonies written by the Byzantine emperor Constantine Porphyrogennetos (b. 905-d. 959 AD).³³ If we take into account recent findings about the relation of ēchēmata and the intonation psaltic formulae *neannoe*, then the appearance of the former can be testified even earlier, almost simultaneously with the birth of the Octoechos.³⁴ The ēchēma is recited by the domestikos in order to introduce the choir to the ēchos and its sound. Apart from this intonation's practical significance, the ēchēmata gradually developed into distinct ornamentation element, or kallopismos, of the structure of kalophonic melismatic compositions.³⁵

Stathis states that the three main features of kallōpismos (ornamentation in kalophōnia are a) the kalophonic melos, which is more elaborate and eloquent compared to the papadic melos, b) the anagrammatismoi of the poetic text, and c) the ēchēmata or kratēmata. The same scholar claims that the kratēmata originate from the ēchēmata and he uses the terms nenanismata, teretismata and teretismos as synonyms of the kratēmata. The kratēmata are mainly based on the nonsense syllables Tititi, Tiriri, Terere, Tetete and Terirem, while the ēchēmata on the nonsense syllables Anane, Anena and Tenena. The nonsense syllables of the ēchēmata establish the genesis of the kratēmata:

³² Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 91–2.

Constantine Porphyrogennetos, *The Book of Ceremonies*, trans. Ann Moffatt and Maxeme Tall, ed. Ken Parry, Amelia Brown, Meaghan McEvoy, Eva Anagnostou-Laoutides, Danijel Dzino, Wendy Mayer and Roger Scott, Byzantina Australiensia, vol. 18, no. 1–2, Australian Association for Byzantine Studies (Leiden: Brill, 2017).

³⁴ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 92.

³⁵ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 93.

³⁶ Stathis, The Anagrammatismoi and Mathēmata of Byzantine Chant, 58–60.

The designation *ēchēmata*, which was originally used for all the kratēmata, refers specifically to the kratēmata using the syllables *Anane*, *Anena* and *Tenena*. This particular instance is interesting because we can acurratelly establish the genesis of the kratēmata through these very syllables.³⁷

Although this affiliation seems to be valid, the hypothesis proposed by Stathis needs further confirmative investigation in order to explain sufficiently the transition from the syllables of the *ēchēmata* to those of the kratēmata. The nonsense syllables in the kratēmata are mainly linked to the consonants *tau* and *rau*, and thus consonants very different from the syllables of the *ēchēmata*. Here, a comparative and statistical text analysis of the linguistic construction of the kratēmata would shed further light on such theoretical considerations.

Also, the hypothesis accepts a priori the synonymity of kratēmata with teretismos without taking into consideration the theory of the function of teretismos by Bryennios. This synonymity seems to arise from the use of the syllables te and re and the ancient verb $\tau \epsilon \rho \epsilon \tau i \zeta \omega$ (mimic the sound of cicada and birds) and the derivation of the word $\tau \epsilon \rho \epsilon \tau i \sigma \mu \delta \zeta$ (teretismos) as the object of the verb. This is a very common practice found generally in Greek traditional music and not only in ecclesiastical music, i.e., the $\chi \epsilon \lambda \iota \delta o \nu i \sigma \mu \alpha \tau \alpha$ ('helidonismata', from the word $\chi \epsilon \lambda \iota \delta \delta \nu \iota$ meaning swallow), a tradition originating from antiquity in ancient Greece. These were the songs of the New Year's eve of the spring, namely the first of March according to the Orthodox liturgical calendar at the time. These songs had clear references to the coming of Spring and the swallows. The custom is later found in Byzantium and transmitted orally under the year of the occupation by the Ottomans. The song was recorded in notation much later by Cl. Fauriel (1772-1884) in his famous collection, "Greek Folk Songs". The song was recorded in notation much later by Cl. Fauriel (1772-1884) in his famous collection, "Greek Folk Songs".

Moreover, the origin of the ēchēmata has not been totally clarified apart from their appearance in the palace ceremonies with the use of the nonsense words, nana, hagia, and ananes, whose syllables, however, are not the dominant and most frequently appeared nonsense syllables in the kratēmata. The Byzantine scholar Christian Troelsgård has argued that the evolution of kalophōnia can be traced even earlier, to the early kalophonic tradition in 1300 AD, and this earlier melismatic tradition appears to have no less a melismatic character than the later. By analysing the kratemata-like passages in the Grottaferrata manuscript (G), Troelsgård mentions that the kratēmata are regularly sung upon the nonsense syllables τερερε, τορορο, and in a few cases upon the nonsense syllables $\nu\varepsilon$ $\nu\alpha$ as reminiscent of the intonation formulas. As an exception to this rule, in this old kalophonic composition, the vowels of the nonsense syllables are used in an even more expanded way than usual. Based on this observation, Troelsgård introduces the term *meloform tropes* for the kratemata in order to support his hypothesis about the kratemata as melodic expansions which gradually

³⁷ Stathis, The Anagrammatismoi and Mathēmata of Byzantine Chant, 58–60.

³⁸ Touliatos, "Nonsense Syllables".

³⁹ Claude Fauriel, Ελληνικά δημοτικά τραγούδια, Vol. 1 (Crete: Crete University Press, 1999).

evolved to autonomous additions, i.e. "the addition of new melodic material to a text already in existence, and this would in fact imply an organic development from moderate to long additions, that, in the mature phase of the kalophonic style, apparently first emancipated from the basic text and acquired, so to speak, a life of their own."⁴⁰

HYPOTHESIS BY STATHIS

BYZANTIUM: ĒCHEMATA

Intonation formulas based on nonsense syllables *Ananes, Ananeanes, Neanes, Nana, Aneeanes, Hagia*

BYZANTIUM: KRATĒMATA

- Evolution of *ēchemata* into *kratēmata*
- Kratēmata: kallōpismos (ornamentation) in the Kalophonic style of Byzantine music
 - Kratēmata synonym to teretismata

Figure 2. Historical hypothesis by Stathis (2014)

ANASTASIOU'S HYPOTHESIS: KRATĒMATA IN ECCLESIASTICAL MUSIC AS MELISMATIC INTERPOLATIONS AND AUTONOMOUS MELISMATIC COMPOSITIONS/KRATĒMA IN ECCLESIASTICAL MUSIC AS NEUMA

In 2004, Grigorios Anastatiou, student of Stathis at the department of Musicology at the University of Athens, defended the most comprehensive work so far on the topic of kratēmata in Byzantine ecclesiastical music. This dissertation was published in 2005 by the Foundation of Byzantine Musicology in Athens as number 12 in a series of publications under the title $M\varepsilon\lambda\dot{\varepsilon}\tau\alpha\iota$ (studies), edited by Stathis.⁴¹

Anastastiou refers to the double explanation of the term $krat\bar{e}ma$ (singular of kratemata). First, as neumatic mark used during the early and middle period of the neumatic notation of Byzantine music. The kratema belongs to the $\dot{\alpha}\phi\omega\nu\alpha$ (speechless) neumes and more specifically

⁴⁰ Christian Troelsgård, "Thirteenth Century Byzantine Melismatic Chant and the Development of the Kalophonic Style", *PaleoByzantine Notations III: Acta of the Congress held at Hermen Castle, the Netherlands in March 2001*, ed. Gerda Wolfram (Hermen: A.A. Bredius Foundation, 2004), 77.

⁴¹ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη.

to the μεγάλες ἀργίες or μεγάλες ὑποστάσεις.⁴² Second, as a specific melismatic composition compiled of nonsense syllables, it appeared for the first time in the codex EBE 2458 dated in 1336 (page 201v: Κράτημα Κυρ Ξένου καί λαμπαδάριου τοῦ Κορώνη, ἦχος πλ. ά, Τοτοτο and page 203ν: *Κρατήματα κατ* $\tilde{\eta}$ χον, $\tilde{\eta}$ χος $\tilde{\alpha}$, *Ερερετερερε*)⁴³, and is then found in the majority of Byzantine liturgical manuscripts between 14th and 19th century AD.44 Regarding the appearance of kratema as neumatic sign, this is very well established by its use in thousands of known ecclesiastical music manuscripts, in Papadikai and other codices⁴⁵, but regarding its function, Anastasiou mentions that the two types of kratēma (as sign and melic type belonging to kratemata), do not correlate directly to each other. Rather, they are analogous because both constitute elements of prolongation, the former of a phonetic sign, the latter of the psaltic worship. 46 According to Wellesz, the sign kratēma "means a doubling of the rhythmical lengthening of the note under which it is placed, but it has a special cheironomic significance. It means a note produced with great emphasis."47 Floros also talks about the "mega kratēma, a combination of diplē and petastē – the most important lengthening sign in Byzantine semiography".48

Anastasiou indicates that the etymology of the word "kratēma" suggests the kratēmata as melismatic type intended exclusively for prolongation of the psaltic worship and melismatic ornamentation, a fact very often evident in indications in manuscripts for optional chanting of kratēmata. In fewer cases, the term *kratēma* is attributed to kalophonic composition because the kratēmata are structural elements almost of each and every kalophonic composition.⁴⁹

Anastasiou claims that the term *kratēma* is the predominant one but often is replaced – in order of frequency of occurrence in handwritten texts – by equivalent terms with the same meaning as, *ēhēma*, *teretismos*, *nenanismos*, *nai*, *prologos*, *logos*, *apologitari*, *apolytarisma*, *isophonia*, *katavasia*, *omonia* (see also Table 2). Anastasiou mentions that the term *teretismos* (or terirem) indicate kratēmata whose text is based upon the nonsense syllables *terere*, *tototo*, *tititi*, etc. Because almost all the kratēmata contain those syllables, the term *teretismos* can be considered as identical to kratēma. Anastasiou mentions that the word *teretismos* was not established in the ecclesiastical psaltic art but was already in use from antiquity, there meaning mimesis of the song of cicada or swallow, the song or the playing of the "kithara", or generally a type of trill. He continues by claiming that the term has a similar meaning (apart from this of the kratēma), of the mimesis of a bird, during

⁴² Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 67.

⁴³ National Library of Athens, Codex EBE 2458.

⁴⁴ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 67–68.

⁴⁵ Stathis, Οι Αναγραμματισμοί Και Τα Μαθήματα Της Βυζαντινής Μελοποιίας.

⁴⁶ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 68.

Egon Wellesz, *A History of Byzantine Music and Hymnography*, 2nd edition (Oxford University Press, 1961), 294.

Constantin Floros, *The Origins of Western Notation*, rev. and transl. Neil Moran with a report on "The reception of the Universale Neumenkunde, 1970-2010" (Frankfurt am Main: Peter Lang, 2011), 43.

⁴⁹ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 68–69.

the Byzantine and post-Byzantine era. Here, the scholar does not take into equal consideration the theoretical considerations of Bryennios about the musical function of the term, but he mainly keeps the linguistic part of the term *teretismos* (which coincides with the word's nonsense syllable *te* and *re*), in order to justify the argument about the identical terms $krat\bar{e}ma$ and teretismos. His general claim, however, about the function of teretismos as mimesis of the voice of the cicada or the birds, offers some consideration of its role in the melismatic compositions, similar to Bryennios. For the latter consideration, he refers to sources from codices with texts and inscriptions mentioning that the swan "τερετίζει" or that the "τερετίσματα" are the song of cicada and swallow.

The notion of the secular origin of the kratemata is not supported by him in the introduction of his thesis:

Even if we accept the synchronicity of the *psaltes* (church singers of Byzantine music) with music instruments at ceremonies taking place out of the church, the completion of ecclesiastical compositions with instrumental melodies would presuppose the imperfection or incompleteness of the former. In a different case, such technical additions would be expelled from the ecclesiastical music when it would be found again to its physical place, the church. Or in any case, some melic compositions with their earlier form (without *kratēma*) and the later one (with *kratēma*), would have been delivered by the eponymous melodists.⁵²

Later in his dissertation, the author supports the impact of "θύραθεν" (secular) music on the kratēmata. According to this argument, the proofs of this affiliation are the national names of various kratēmata (e.g., Βονλγάρικον, Ισμαηλιτικόν, Περσικόν, Τατάρικον, Ροδαῖον, etc.), secular music terminology mainly in the post-Byzantine era (names of maqams in kratēmata, e.g., Segiah, Evitz, Atzem, etc.), and names of musical instruments for kratēmata which are considered "instrumental" or evoke the name of instruments (viola, nai, trumpet, etc.). Anastasiou rejects the fact that the "instrumental" kratēmata suppose the use of instruments or that the psaltes could mimic the sound and timbre of the instruments by performing the nonsense syllables of the kratēmata. Here, a degree of controversy concerning scholar's arguments relating to the "secular" origin of the kratēmata occurs as, initially, he rejects categorically this hypothesis and then "leaves the door open" for the impact of secular music on the kratēmata.

Anastasiou refers also to the opposite process, the influence of nonsense syllables of ecclesiastical music after the 14th century AD on the nonsense syllables of the *terenum* (a vocal style which appeared in Turkey and North Africa), in addition to the use of Byzantine parasimantikē (notation) in post-Byzantine codices for the notation of secular music.⁵³

⁵⁰ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 70–71.

⁵¹ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 70–71.

⁵² Anastasiou, $T\alpha$ Κρατήματα στην Ψαλτική Τέχνη, 79–¬80 (transl. by the present author from the Greek text).

⁵³ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 445–455.

The earliest Papadikē from 1336 AD contains kratēmata either as autonomous compositions or as parts of a composition. This date is set by Anastasiou as the terminus ante quem of the appearance of the kratemata.⁵⁴ Concerning the origin of the kratemata, Anastasiou argues that this is obscure and ambiguous. He mentions the spontaneous coming into existence of the kratemata by pointing that they seem to appear suddenly in ecclesiastical manuscripts, both as autonomous melismatic compositions and as parts of these.⁵⁵ However, the explanation of automatic genesis seems not to be adequate. That's why, Anastasiou also proposes that the compelling appearance of the kratemata should be a result of an evolutionary process, which we have to trace. Concerning this proposal about the origin of the kratēmata, the author does not formulate any new hypothesis but mainly agrees with the hypothesis by Stathis concerning the genesis of the kratemata. Regarding their generative cause, the scholar claims that this was the inherent melismatic character of kalophonic melos, based on the use of intercalary consonants and the prolonging of the last melismatic syllable upon the use of nonsense syllables.⁵⁶ He states in the conclusion of his dissertation that the kratemata were the result of the development of the melismatic character of the Kalophonic style and constitute an integral structural element of the kalophonic compositions. They appear at the end of the 13th century AD originating from the nonsense and melismatic character of ēchēmata, sung by the domestikos as intonation formulas for each ēchos and for artistic ornamentation of the melos:

They originate from the Kalophonic melos and the role of the domestikos to sing the *ēhēmata* or *enēhēmata* in the various melic compositions, in the beginning for the enforcement of the ēchos, and not much later for artistic ornamentation of those compositions.⁵⁷

Very soon, they are transformed into independent eponymous kalophonic compositions found in ecclesiastical Byzantine books such as *Papadikai*, *Anthologies* and *Oikimataria*, and later at the beginning of the 19th century, in the Kalophoniko Eirmologio, an autonomous collection of kratēmata. Their gradual development and the accumulation of more and more kratēmata gave rise from the middle of the 16th century to a new type of codex, the *Kratēmatario*. The melos of the kratēmata differs from the melos that appears in other types of the Papadiko genus in Byzantine music.⁵⁸ The kratēmata appear to be instrumental in character and melismatic freedom is allowed by the absence of the text. The performance and explanation of the *Great*

⁵⁴ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 81–82.

⁵⁵ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 77.

⁵⁶ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 87.

⁵⁷ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 503–504 (transl. by the present author from the Greek text).

Maria Alexandrou, Παλαιογραφία Βυζαντινής Μουσικής (Athens: Hellenic Academic Ebooks, 2017), 44, e-book, http://hdl.handle.net/11419/6487: "In relation to the various types of discovered music codices and the living practice of chanting of Byzantine music, three genera have been identifiend and categorised: the so-called*Eirmological*genus (from the type of musical manuscript called*Eirmologion*), the*Stichiraric*(from*Stichirario*) and*Papadiko*(from Papadiki)".

Hypostases are simpler, shorter, repetitive, and individual and not in sequence and succession. The nature of kratēmata allows them to be influenced by the εξωτερικό (from outside) and mainly the οργανικό (instrumental / organic) μέλος, something that is reflected in the post-Byzantine kratēmata, the so-called ἐθνικά (national). During the transitional explanatory notation (about 1670-1814/15 AD)⁵⁹, the exēgēsis (explanation) of the kratēmata is not attempted due to the fact that it does not offer practical significance since the chanting of the kratēmata is limited and almost abandoned during the post-Byzantine era, and the synoptic character of the θέσεις (positions) of the Great Hypostases of the kratēmata do not require specific interpretation. 60

HYPOTHESIS BY ANASTASIOU

AMBIGUOUS ORIGIN OF THE KRATĒMATA:

TWO HYPOTHESES



BYZANTIUM FIRST HALF OF 14TH C.: SUDDEN APPEARANCE OF KRATĒMATA

- Specific melismatic composition compiled of nonsense syllables
 - Structural elements almost of each kalophonic composition
 - Melismatic interpolations and autonomous melismatic compositions
 - Kratēma is also neuma
- Hints about echos of the secular music in the kratemata
- The term kratēma as a synonym for ēchēma, teretismos, nenanismos, etc., (see Table 2)

BYZANTIUM END OF 13TH C.: GENESIS OF KRATĒMATA BY ĒCHĒMATA

- Kratēmata as result of the development of the melismatic character of Kalophonic style
- Integral structural element of kalophonic compositions.
 - They originate from the nonsene and melismatic character of ēchēmata

Figure 5. Historical hypothesis by Anastasiou (2005)

⁵⁹ Alexandrou, Παλαιογραφία Βυζαντινής Μουσικής, 310.

⁶⁰ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 501–506

TABLE 2. Synonyms of the terms Teretismos, Teretismata, and Kratēmata according to the scholars Touliatos⁶¹, Stathis⁶², and Anastasiou⁶³

Term	Synonyms	Author
Teretismos	Kratēma	G. Anastasiou
Teretismata	kratēmata and/or anagramma- tismoi	D. Touliatos
Kratēmata	Teretismata, teretismos, nena- nismata	G. Stathis
Kratēmata	Ēhēma, teretismos, nenanismos, nai, prologos, logos, apologitari, apolytarisma, isophonia, katavasia, omonia	G. Anastasiou

CONCLUSIONS

Touliatos constructs her hypothesis about the historical origin and function of the nonsense syllables in teretismata and kratēmata, mainly upon treatises from antiquity and Byzantium, as also upon sporadic other sources describing the historical role of those syllables. Touliatos's theoretical approach seems very solid in the parts dealing with the use of nonsense syllables in the music of ancient Greece and then the appearance of those syllables in the kalophonic style of the Byzantine, although the evolutionary process dealing with the emergence of the kratēmata by the teretismata, as also their distinctive musical features – apart from the ornamentation – is not explained sufficiently.

Stathis bases his results almost exclusively on manuscripts of kalophonic compositions containing kratēmata and ēchēmata. He claims that the kratēmata originate from the ēchēmata and he uses the terms teretismata and teretismos as synonyms of the kratēmata. This hypothesis needs further confirmative investigation as it does not sufficiently explain the transition from the syllables of the ēchēmata to those of the kratēmata. Finally, the above hypothesis accepts a priori the synonymity of kratēmata with teretismos without taking into consideration the theory of the function of teretismos as described by Bryennios.

Anastasiou distinguishes between the kratēma as neumatic sign in paleography and the kratēma as melismatic composition of the kalophonic style. In the second case, the kratēma, although it is the predominant term in use, is identical to the terms ēchēma, teretismos, nenanismos, nai, prologos, logos, apologitari, apolytarisma, isophonia, katavasia, omonia, and very often replaced by them. Concerning the origin of kratēmata, Anastasiou proposes their sudden appearance in the Byzantine chant or their genesis from the ēchēmata, although he suggests a deeper investigation of the hypothesis about

Touliatos, "Nonsense syllables," 239.

⁶² Stathis, The Anagrammatismoi and Mathēmata of Byzantine Chant, 111.

⁶³ Anastasiou, Τα Κρατήματα στην Ψαλτική Τέχνη, 67-69.

the origin of the kratēmata as a result of an evolutionary process. Although the scholar openly claims no affiliation whatsoever of the kratēmata with secular Byzantine music, he mentions their 'secular' character, a feature that supposedly gave rise to post-Byzantine autonomous 'secular' kratēmata.

BIBLIOGRAPHY

Alexandrou, Maria. Παλαιογραφία Βυζαντινής Μουσικής. Athens: Hellenic Academic Ebooks, 2017. E-book. http://hdl.handle.net/11419/6487.

Anastasiou, Grigorios. Τα Κρατήματα στην Ψαλτική Τέχνη. Institute of Byzantine Musicology: Athens, 2005.

Bellermann, Anonymi. Ανωνύμου Σύγγραμμα Περί Μουσικής, Βάκχειου του Γέροντος, Εισαγωγή Τέχνης Μουσικής. Translated by Fridericus Bellermann. Italy: Berolini, 1841.

Bryennios, Manuel. *The Harmonics*. Translated and edited by Goverdus Henricus Jonker. Groningen: Wolters-Noordhoff Publishing, 1970.

Chaldaeakes, Achilleas. "Review of *Introduction to Kalophony, the Byzantine Ars Nova; The Anagrammatismoi and Mathēmata of Byzantine Chant,* by Grigorios Stathis." *Byzantina Symmeikta, 26,* no. 2 (2016): 395–418. https://doi.org/10.12681/byzsym.10777.

Conomos, Dimitri. "Ēchēma." *Grove Music Online*. Accessed January 06, 2021. https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000008792.

Constantine Porphyrogennetos. *The Book of Ceremonies*. Translated by Ann Moffatt and Maxeme Tall. In *Byzantina Australiensia*, vol. 18, no. 1–2, edited by Ken Parry, Amelia Brown, Meaghan McEvoy, Eva Anagnostou-Laoutides, Danijel Dzino, Wendy Mayer and Roger Scott. Australian Association for Byzantine Studies. Leiden: Brill, 2017.

Fauriel, Claudie. Ελληνικά δημοτικά τραγούδια, Vol. 1. Crete: Crete University Press, 1999.

Floros, Constantin. *The Origins of Western Notation*. Revised and translated by Neil Moran with a report on "The reception of the Universale Neumenkunde, 1970-2010." Frankfurt am Main: Peter Lang, 2011.

Gerlach, Oliver. *The Oktoechos Hymnography and the Asmatic Rite of Constantinople (Early Byzantine Period).* Berlin: Humboldt University, 2018.

Ioannidou, Arsinoi. "The Kalophonic Settings of the Second Psalm in the Byzantine Chant Tradition of the Fourteenth and Fifteenth Centuries." PhD diss., University of New York, 2014.

Plemmenos, John. "The Rosary and the Rose: Clergymen as Creators of Secular Poetry and Music in Early-modern Balkans." *Musicological Annual*, 50, no. 2 (2013): 77–91. https://doi.org/10.4312/mz.50.2.77-91.

Stathis, Gregorios. Οι Αναγραμματισμοί Και Τα Μαθήματα Της Βυζαντινής Μελοποιίας: και πανομοιότυπος έκδοσις του καλοφωνικού στιχηρού της Μεταμορφώσεως «Προτύπων την ανάστασιν», μεθ» όλων των ποδών και αναγραμματισμών αυτού, εκ του Μαθηματαρίου του Χουρμουζίου Χαρτοφύλακος. Athens: Institute of Byzantine Musicology, 1979.

Stathis, Gregorios. Introduction to Kalophony, the Byzantine 'Ars Nova': The Anagrammatismoi and Mathēmata of Byzantine Chant. Bern: Peter Lang, 2014.

Touliatos, Diane. "Nonsense Syllables in the Music of the Ancient Greek and Byzantine Traditions." *The Journal of Musicology*, 7, no. 2 (1989): 231–243.

JISOCM Vol. 7:1 (2023), 34-50

Troelsgård, Christian. "Thirteenth Century Byzantine Melismatic Chant and the Development of the Kalophonic Style." In *PaleoByzantine Notations III: Acta of the Congress held at Hermen Castle, the Netherlands in March* 2001, edited by Gerda Wolfram, 67–90. Hermen: A.A. Bredius Foundation, 2004.

Quintilianus, Aristides. *Peri Musikēs* (*On Music: In Three Books*). Translated by Thomas J. Mathiesen. Yale University, 1983.

Wellesz, Egon. A History of Byzantine Music and Hymnography. 2nd edition. Oxford University Press, 1961.

Werner, Eric. "The Psalmodic Formula "Neannoe" and Its Origin." *The Musical Quarterly*, 28, no. 1 (1942): 93–99.

Williams, Edward V. "Review of Byzantine Trisagia and Cheroubika of the Fourteenth and Fifteenth Centuries: A Study of Late Byzantine Liturgical Chant by Dimitri E. Conomos." Journal of the American Musicological Society, 30, no. 1 (1977): 148–150. https://doi.org/10.2307/831137.