

The Rhythmical and Metrical Structure of the Byzantine Heirmoi and Stichera as a Means to and as a Result of a New Rhythmical Interpretation of the Byzantine Chant

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For many decades there has been a continuous effort towards the interpretation of Byzantine chant. Except for some – partly successful – interpretations of individual signs, no theory of rhythm has been formulated. Nor have the various problems concerning the metrical structure of the hymns been fully solved. I hope I will answer all these questions, at least as far as it concerns the poetical texts and the music of the kanones and the stichera.

As a starting point and as a basis for finding out the time-values indicated by the various musical signs and their combinations, as well as the rhythm by which these time-values together with the accents are arranged in rhythmical feet, can serve the very nature and form of the Byzantine hymns with their two constituting elements: the poetical text and the “melos”, the music, tied closely together in an unbroken whole, as it will become clearly apparent in the following lines. These elements, together with the recognition of the continuity of the Byzantine chant in time, can lead us, I believe, to the solution.

It is well-known that a large part of the Byzantine hymnography consists of the so called “proshomoia”, that is of hymns which have not their own music, but the music of another prototype hymn, to which the proshomoia bear a metrical similarity. But this principle of hymn construction is present not only in different hymns, but very frequently in the frame of the same hymn, in the form of the similar cola¹, which are usually set to the same music. The similar cola can therefore be considered as “little proshomoia”. But the whole construction, too, of the Byzantine chant is governed by this principle, by means of the “theseis”, i.e. the musical formulas, which are present and recurrent in the same or different hymns. So, to a certain formula, that is to a more or less stereotyped musical phrase, correspond many poetical texts, which can be considered as “little proshomoia”, with various number of syllables and positions of accents. The importance of this statement will become apparent in the following lines.

About the way of construction of the proshomoia, Theodosios Grammatikos gives the following information, taking as an example the case of the Kanones²: if one wants to make a kanon, one must first compose the music of the heirmos and then make the troparia having the same number of syllables and the same positions of accents as the heirmos and keeping its music. Here are the fundamental principles of the construction of the proshomoia: the principle of isosyllaby, the principle of homotony and the keeping of the same music in the heirmos and the troparia, between the automelon and its proshomoion. But from the study of the poetical texts of the hymns we can conclude that these principles are not always valid. As an example, let's take the first verses of the heirmos and of the first troparion from the Kanon of Christmas by Kosmas the Melodos: *Χριστὸς γεννᾶται, δοξάσατε* and *Ῥεύσαντα ἐκ παραβάσεως*. On the first two syllables of the troparion, there is a shift of the accent from the first to the second syllable. On the fourth syllable of the heirmos there is a strong accent (–vñ–), while in the corresponding position of the troparion there is an unaccented preposition (ἐκ). The principle of the isosyllaby is valid in these verses, but the principle of the homotony is not. Similarly, one can find verses, where both principles are not valid. So these principles have been questioned by some scholars working in the field of hymnography.

Other scholars have realized that the solution of the problem of the metrical structure of the hymns must be found in their music, because the proshomoia have to “keep the music”. But, either because they have based their investigations on the music sung nowadays, or because they have not been able to read the

¹ *colon*, pl. *cola* [from Gk. *kōlon* = limb, part of a strophe, clause of a sentence]: a rhythmical unit of an utterance: (1) *in Greek or Latin verse*: a system or series of from two to not more than six feet having a principal accent and forming part of a line; (2) a division of an utterance by sense or rhythm that is smaller and less independent than the sentence and larger than the sentence and larger and less dependent than the phrase {in *Webster's Third New International Dictionary of the English Language, unabridged*, published by Kōnemann Verlagsgesellschaft mbH, 2001, Köln, ISBN 3-8290-5298-8, p. 447 (editor's note)}.

² „Εάν τις θέλη ποιῆσαι κανόνα, πρῶτον δεῖ μελίσαι τν ερμόν, εἶτα ἐπαγαγεῖν τ τροπάρια σοσυλλαβοντα κα ὁμοτονοντα τ ερμ κα τν σκοπν ἀποσζοντα.“

old notations or find out the musical rhythm of the old chants, they have not been able to give a convincing solution to the problem of the metrical structure.

But just these deviations from the above-mentioned principles, together with some reasonable considerations about the nature and the musical treatment of the accents of the words, considerations deduced from the nature of the Greek language and the study of the old chants, can serve as a means leading us to the finding out of the duration and the exact interpretation of the signs and their combinations and finally of the rhythm of the chants. And the resulting interpretation can lead us back to the justification of the deviations and from there to a deep understanding of the construction of a *proshomoion*.

Let's see first the above mentioned considerations.

As it can be deduced from the study of the music of the *heirmoi* and *stichera*, there are no syllables of a duration less than one time-unit (*protos chronos*). There are no notational indications for such short time-values for a syllable.

The duration of the syllables carrying only the signs *Diple*, *Kratema* and *Dyo Apostrophoi* is clearly determined in the theoretical treatises as being of two time-units. The duration of the syllables carrying the *Bareia*, the *Dyo Kentemata*, the *Klasma*, the *Apoderma* or the so called “*Synthetoi Tonoï*”, as well as *Dyo*, *Anatrichisma*, *Piasma*, *Xeron Klasma* etc. is not explicitly given and must be determined in some way. There are also syllables, mainly at the end of the *cola*, carrying the so called “*Themata*”, i.e. longer melismas. We shall not be concerned with them, as they need a special treatment and a somewhat different methodology and they do not affect seriously the basic conception of the rhythm.

As far as the accents are concerned we can notice that there are three kinds of musical accents:

- I. dynamic accent,
- II. pitch accent (a note in a higher tone than its preceding or its following note or than both)
- III. prosodic or sustaining accent (a prolongation of a syllable on one or more notes). These accents can coincide or not to the grammatical accents.

Although in poetry and music some accented syllables can be treated as unaccented or some unaccented ones can have a metrical accent, most grammatical accents must be poetically or musically apparent, otherwise there will be a strong feel of wrong accentuation and the poem or the musical setting will violate the sense of the language.

The grammatical accent of the new Greek language is usually considered as purely dynamic. However, it contains the elements of higher pitch and longer duration, even in the oral speech, although it is not always or clearly apparent. In the “*diastematic and rhythmical voice*” of the music the accent reveals at least one of these three elements. As it will be shown, the *heirmoi* and the *stichera* have at most a *diseme*³ rhythm.

In the frame of the *disemic* feet, an accented syllable can fall on the “*thesis*” (downbeat) or - and this is most important - it can fall on the “*arsis*” (upbeat) . But in this latter case it must have a pitch accent, that is it must be on a higher tone (pitch) than at least one of its neighbouring syllables, so that the feel of the wrong accentuation is avoided. The exact forms of this pitch accent can be seen in the chants themselves. An accented syllable can of course be prolonged to two time-units on a single or more notes, to three time-units (usually on a single note), to four time-units etc. But, as already mentioned, all these musical accents and prolongations can be present on grammatically unaccented syllables. This is not a confusion. The *Melodoi* achieve a fine balance between the musical accentuation of the grammatically accented and unaccented syllables, so that a plastic and varied movement of accents and durations is present under the steady flow of the *disemic* beat.

Let us now examine closer the durations of the syllables carrying the various signs. It is evident that syllables carrying the single signs: *Ison*, *Oligon*, *Oxeia*, *Petaste*, *Apostrophos* have the duration of one time-unit. From the theoretical treatises and from the chants themselves it can be shown that the syllables carrying one of the above mentioned signs with the *Dyo Kentemata* have a duration of one time-unit (one half plus one half). Less evident are the durations of the syllables with *Bareia* or *Klasma*. As we can see in the following examples, syllables with one phonetic sign and *Klasma* have a duration of one time-unit.

If the interval after this syllable is a descending second, the *Klasma* can produce a small melisma described by the *Kentemata* which is free to be performed or dropped (see Ex. 1).

³ *prosody*: equal to or having the length of two *morae* {in *Webster's Third New International Dictionary of the English Language, unabridged*, published by Könenmann Verlagsgesellschaft mbH, 2001, Köln, ISBN 3-8290-5298-8, p. 648 (editor's note)}.

Example 1

a) $\lambda \frac{\epsilon}{\pi \sigma \lambda}$

δρα με προ φθα σον

πι στει βο η σον

b) [$\frac{\epsilon}{\pi \sigma \lambda}$]

των αν θρω πων ε παυ σα το

των ει δω λων κα τηρ γη ται

των ει δω λων κα τηρ γη ται

c) D $\lambda \frac{\epsilon}{\pi \sigma \lambda}$

C₄

α νε βη ο θε ος

a)

δρα με πρό - φθα σον

πί στει βό - η - σον

b)

των άν - θρώ - πων έ παυ σα - το

των ε - δώ - λων κα τήρ - γη - ται

c)

- νέ - βη ό - θε ο - ός

However, this melisma may be indispensable in some cases, in order to produce a pitch accent, if the syllable carrying it is accented and falls on the arsis (see Ex. 2).

Example 2

$\frac{\epsilon}{\pi \sigma \lambda}$

Ε μον πως ε δυς εξ ο φθαλ μων μου

υ - μό ον πως έ δυς - έξ ο φθαλ - μων - μου

That the syllables carrying the Bareia have a duration of one time-unit, can be verified by its replacement by the Petaste or the Oxeia (see Ex. 3). The Petaste is simply the notational representation of the first and higher note of the melodic movement, the second note being silently (although sung!) meant, while the Bareia describes both notes which last half a time-unit each.

Example 3

Example 3 illustrates the replacement of Bareia with Petaste or Oxeia. The syllables are arranged in two rows:

Row 1: E ξην θη σεν

Row 2: αν τι θε ον

The musical notation below shows the corresponding notes on a staff. The first line corresponds to the first row of syllables, and the second line corresponds to the second row. The notes are in a 2/4 time signature. The syllable 'αν' is followed by a note with a Petaste (a single note with a dot above it), and 'τι' is followed by a note with an Oxeia (a single note with a dot above it). The syllable 'θε' is followed by a note with a Bareia (two notes with a dot above the first), and 'ον' is followed by a note with a Bareia. The syllable 'τι' is followed by a note with a Bareia. The text 'or simply' is written above the note for 'ον'.

Just here can again become apparent the embellishing function of the Klasma, which belongs to the Hemiphona or Hemitona, which is set on the Tonoι Haploι without affecting the total duration of the syllable but simply rearranging the time-values of the notes and producing fast extra notes resulting in an embellishment of the melodic movement. The same holds true for the other Hemitona, the Parakletike and the Kouphisma, which can replace each other or can be replaced by the Tonoι Haploι, as it becomes evident through comparisons of formulas or hymns contained in the same or different MSS (see Ex. 4).

Example 4

Example 4 illustrates the embellishing function of the Klasma. The syllables are arranged in three rows:

Row 1: Βυ θου α νε κα λυ ψε πυθ με να

Row 2: Ι σχυν ο δι δους τοις βα σι

Row 3: Ε λευ θε ρα μεν

The musical notation below shows the corresponding notes on a staff. The notes are in a 2/4 time signature. The syllables are followed by notes with various embellishments, including the Klasma (a note with a dot above it and a fast extra note). The text 'or simply' is written above the note for 'ον' in Example 3.

So, the combination Apostrophos with Klasma and Apostrophos vertically arranged (“Rhapsima”), usually described in palaeobyzantine sources by a single Klasma, has a duration of one time-unit, that is three quarters with a small melisma for the first Apostrophos and one quarter for the second Apostrophos. Exactly the same meaning have the combinations Apostrophos with Klasma- Apostrophos with Elaphron and Bareia- Apostrophos with Klasma- Apostrophos.

We are now in the position to make a more general statement: every melodic movement on *one* syllable can be embellished through a small rearrangement of the time-values of the notes while the total duration of the syllable is not affected by this procedure. We have seen this in the case of the one time-unit syllables. The same, and much more, must be true for the syllables of a longer duration. But here we can discover another more important and further reaching possibility: comparing the formulas (similar melodic movements) in various hymns or in proshomoia, we can see that a certain melodic movement corresponding to *two* syllables in the appearance of a certain formula may correspond to only *one* syllable in a reappearance of the same formula, or vice versa. But this change in the number of syllables has as a result the use of different signs for the two cases of the otherwise same melodic movement, something strikingly apparent especially in the palaeobyzantine notations. So, evaluating the duration of a melodic movement for the case of two syllables (which is an easier task), we find the duration of the same movement for one syllable. From the details of the melodic movement with two syllables and from the fact that in the same movement with one syllable we can slightly rearrange the time-values of the notes or make small embellishments, we can find out the exact interpretation of the so called “Tonoi Synthetoi” (see Ex. 5).


Example 5 *Piesma*

a)
 ως α γα θεος και φι λαν θρω πος σου και ε ξε σην κυ ρι ε


b)
 ο υ πε ρα νω πα σης αρ χης α μαρ τι ας η μων υ ψω θη σο μαι υ ψω θη σο μαι υ ψω θη σο μαι

Other forms
 υ ψω θη σο μαι υ ψω θη σο μαι υ ψω θη σο μαι

c)
 εν ος με ηα θεο δη γη σον ο θε ος των πα τε ρων η μων

d) $\lambda \pi \psi$ 

υ περ η μων α χθεν σφα γι ον

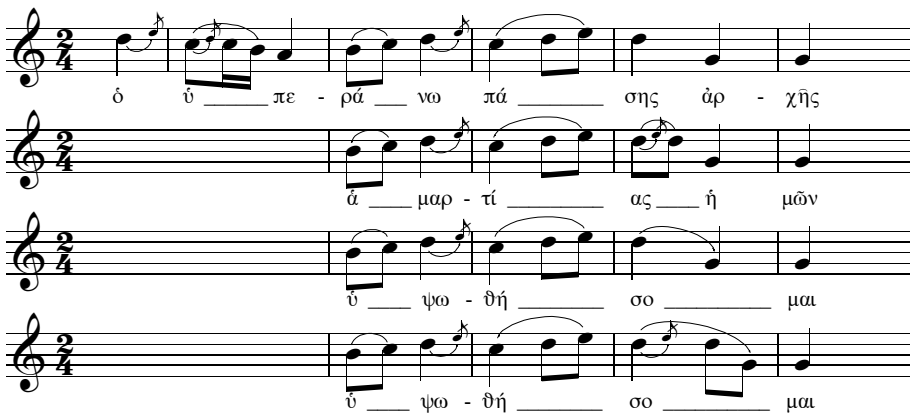
ψ 

το σκο τος λυ ων της

a) 

ως ά - γα - θό ος και φι λάν θρω πος

σου και έ ξέ - ζην κύ ρι ε

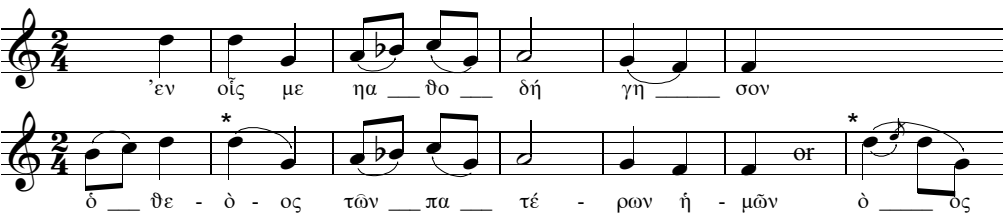
b) 

ό ύ πε - ρά νο πά σης άρ - χης

ά μαρ - τί ας ή μων


ύ ψω - θή σο μαι

ύ ψω - θή σο μαι

c) 

εν οίς με ηα θο δή γη σον

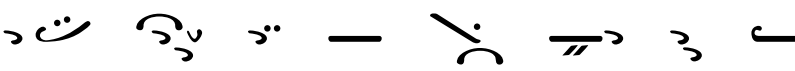
ό θε - ο - ος των πα τέ - ρων ή - μων ό ος

d) 

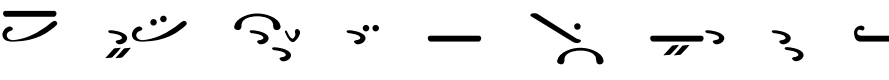
(ύ) περ ή - μων ά - χθεν σφα - γι - ον χθεν εν

το σκο - τος λυ - ων της...

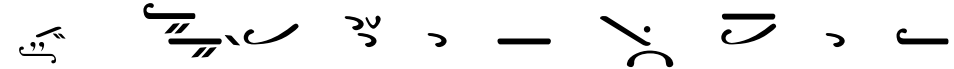
Exemplul 5 Anastama

a) $\bar{\psi} \bar{\psi} \bar{\omega}$ 

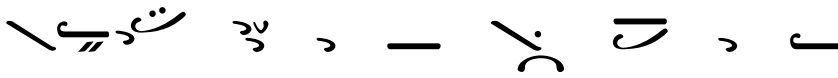
μο λυ σμου σαρ κος και πνευ μα τος

$\bar{\psi}$ 

ελ θε εν τη βα σι λει α σου

b) 


(άσθε) νεις σε πε ρι ε ζω σαν το



 (ή) μων σω τη ρι ας αι τι ος

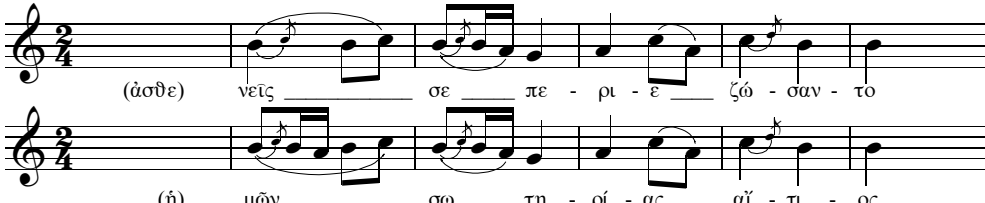
(Floros, Zwei- und vierstufiges Anastama)

a)



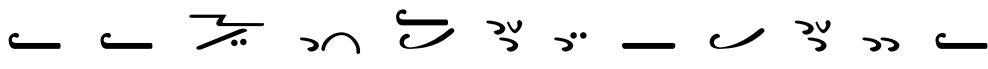
μο - λυ — σμου — σαρ — κος και — πνευ — μα — τος
 ἐλ — θε — εν — τη — βα - σι — λει — α — σου

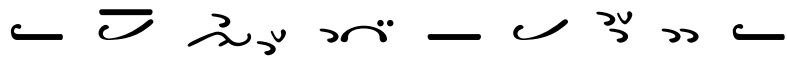
b)



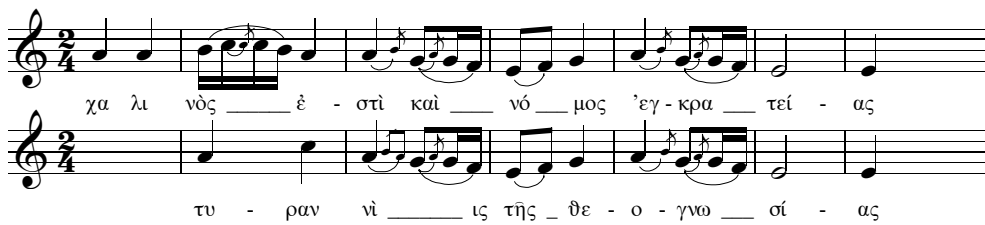
(ἀσθε) νεῖς — σε — πε - ρι - ε — ζώ - σαν - το
 (ή) μων — σω — τη - ρι - ας — αἴ - τι - ος

Exemplul 5. Xeron Klasma




 χα λι νος ε στι και νο μος εγ κρα τει ας


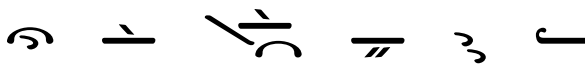
 τυ ραν νις της θε ο γνω σι ας



χα λι νος — ἐ - στι και — νό - μος 'εγ - κρα — τεί - ας
 τυ - ραν νι — ις της — θε - ο - γνω — σί - ας

Exemplul 5. Konjunktur of Diple-Bareia



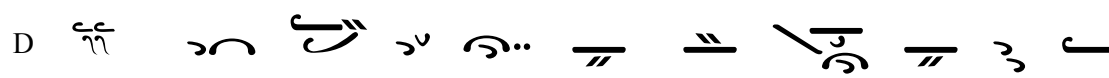
 η μων κυ ρι ε


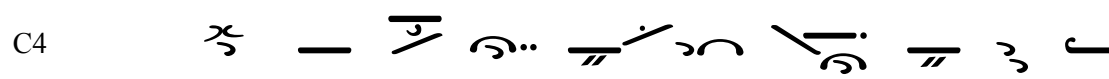
 γε νε σθαι σπευ σω μεν



Ε - μων — κύ - ρι — ε
 γε - νέ - σθαι — σπεύ - σω — μεν

Exemplul 5. Diple–Dyo [// , //]

D 

C4 

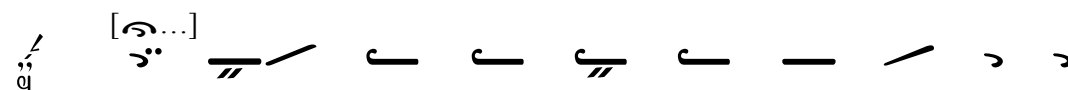
ε π ι π α σ αν σ ά ρ κ α εκ κε χ υ τ αι

D 

C4 

ε π ι π α σ αν σ ά ρ κ α εκ κε χ υ τ αι

Exemplul 5. Apoderma 



κα ι σα ρ κ α λα β ω ν δι ε λ η λ υ θ ε

ως π ρ ι ν Ι ω ν η αι π ι σ τ ει ...



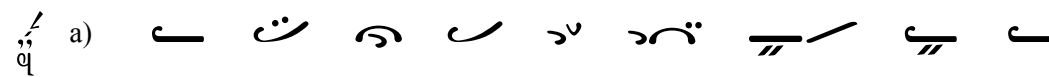
κα σ ά ρ κ α - λα β ώ ν δι - ε - λ ή - λ υ - θ ε

ς π ρ ι ν Ι - ω ν η αι π ί σ τ ει ...

So, it can be shown that syllables carrying doubled signs, as Diple, Dyo Apostrophoi (horizontally or vertically arranged), Piasma (double Bareia) have a duration of two time-units. The same duration have the combinations of these doubled signs with other simple signs, as Dyo (Diple with Oxeia), Anatrachisma (in ascending order: Diple or Double Apostrophos with Kentemata and Oxeia or with Oxeia and Kentemata), Anastama (Diple with Petaste in *Konjunktur*-form in the Middle-Byzantine notation), Apeso exo (Double Apostrophos with Oxeia), Kratema (Diple with Petaste in *Ligatur*-form in the Middle-Byzantine notation), Xeron Klasma (Diple with Klasma), Eneilitikon Anastama (Diple or Double Apostrophos with Petaste and Kentemata), Seisma (Piasma with Petaste) etc., as well as the combinations or ligatures of Bareia and Oxeia, as *Konjunktur* of Bareia and Oxeia, Lygisma, Tinagma, Kylisma, Kondeuma, Antikenoma etc.

Having determined, more or less, the duration of the signs, let us proceed to the matter of the rhythm, that is to the kind of rhythmical feet in which we must arrange these durations and accents. Let us take the heirmos by Kosmas *Χριστός γεννάται* and the corresponding troparion *Ῥεύσαντα ἐκ παραβάσεως*. As we have already mentioned, the principle of Homotonia is violated from the very first syllables. Let us try to adapt the words of the troparion to the melody of the heirmos (Ex. 6a).

Example 6a. The principle of isosyllabicity is here valid

a) 

Χ ρ ι σ τ ό ς γ ε ν ν ά τ αι δ ο ξ ά σα τε

a)

If the time values of the signs are the ones we have described, we can divide this melody in rhythmical feet (disemes and trisemes). If we consider that the theses (downbeats) of the feet coincide with the grammatical accents (as it is customary), we have:(see Ex. 6b).

Example 6b

b)

Χρι στός γεν νᾱ ται δο ξά σα τε
Ρεύ σαν τα εκ πα ρα βᾱ βᾱ σε ως

b)

Χρι - στός γεν - νᾱ - ται δο ξά σα - τε
Ρεύ - σαν τα εκ πα ρα βᾱ βᾱ σε - ως

Yes! But if we apply this rhythmical division of the heirmos to the troparion, we will have a strong *παρατονισμός*, that is a wrong accentuation of the word *ῥεύσαντα*. But if we consider that the accented syllables can fall on the Arsis (upbeat), if they have a pitch accent (i.e. if they are on a higher pitch), then we can have the following rhythmical arrangement (only in disemes): (Ex. 6c).

Example 6c

c)

Χρι στός γεν νᾱ ται δο ξά σα τε
Ρεύ σαν τα εκ πα ρα βᾱ βᾱ σε ως

c)

Χρι - στός γεν - νᾱ - ται δο ξά σα - τε
Ρεύ - σαν τα εκ πα ρα βᾱ βᾱ σε - ως

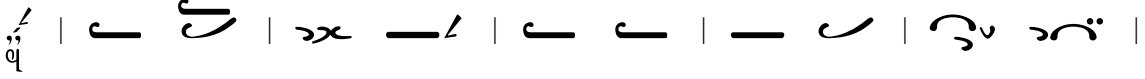
The first syllable of the heirmos has now a dynamic accent. So, this syllable can be substituted by an accented one in the troparion. The accented syllable - στός - falls now on the arsis, having a pitch accent. So, it can be substituted by a non accented syllable in the troparia (non accented syllables *can* have a pitch accent and carry the accentuating signs, like Petaste, Oxeia etc. This accentuation is balanced by the dynamic accent of a neighbouring accented syllable. This holds true to a high percentage for the old chants, to a smaller one for the chants sung nowadays)

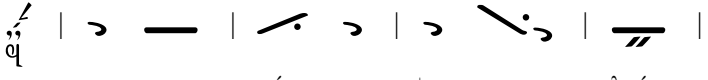
So, only this rhythmical arrangement preserves the rhythmical unity between the heirmos and the troparia and explains the shift of the grammatical accents between the corresponding verses or the various positions of accents in a given formula.

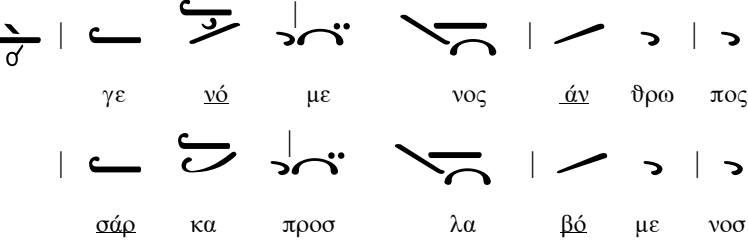
May we speak about disemic *feet*? Yes, because an unaccented syllable of the heirmos, falling on the downbeat, can be substituted by an accented one in the troparia. That is, the Melode does feel a dynamic accent at this point of the melody of the heirmos and takes account of it when trying to adapt new words to this given melody.


So that my own adaptations cannot be considered as arbitrary, let's see the old singers and scribes doing such ones by themselves. I cite here some examples from collations of the heirmoi of Stavroproskynesis 'Ο θειότατος προετύπωσε which are proshomoia to the heirmoi 'Αναστάσεως ἡμέρα and of the heirmoi Πικρᾶς δουλείας which are proshomoia to the heirmoi Χριστός γεννᾶται, all of them written down and contained in Cod. Cryptensis E γ II. (Examples 7 & 8)

Example 7

a) 
 Α να στά σε ως η μέ ρα λαμ πρυν
 Ο θει ό τα τος προ ε τύ πω σε

b) 
 και συ νέ τρι ψας μο χλούσ
 'εν κοι λί α του κη τους

c) 
 γε νό με νος άν θρω πος
 σάρ κα προσ λα βό με νος

d) 
 υ περ φυ ούσ η δρο σο βό λος
 υ περ φυ ούσ ξ δει ξε τύ πον

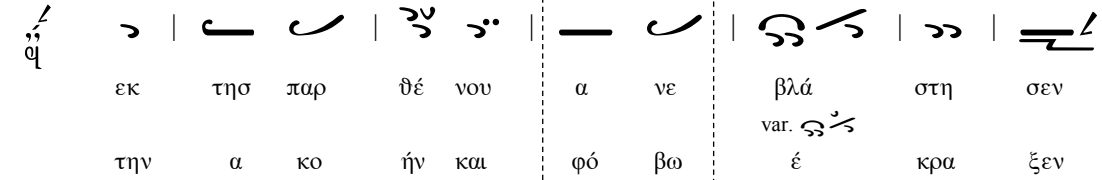
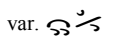
a) 
 Ά - να - στα - σε - ως ή - μέ - ρα - λαμ πρυν
 Ό - θει - ό - τα - τος προ - ε - τύ - πω σε

b) 
 καί συν - έ - τρι - ψας μο χλούς
 'εν κοι - λί - α του κη τους

c) 
 γε - νό με νος άν - θρω - πος
 σάρ κα προσ λα βο - με - νος

d) 
 ύ - περ - φυ - ούς ή δρο σο βό λος
 ούς ξ - δει ξε τύ πον

Example 8

a) 
 εκ τησ παρ θέ νου α νε βλά στη σεν
 την α κο ήν και φό βω ε κρα ξεν
 var. 

b)

η νέ α Ι ε ρου σα λήμ
και θε ο τό κε ά ψευ δης

a)

εκ της παρ - θε νου ά - νε - βλα στη - σεν
την ά - κο - ην και φο - βω ξ κρα - ξεν

b)

ή νέ - α Ι - ε - ρου σα - λήμ
και θε - ο τό - κε ά - ψευ δής

The small melodic variants in b) keep the same time-values of the syllables and the same rhythm as in the *Heirmos*.

So, the dominating presence of the disemic beat as a first level of rhythmical organisation of the music of the old *heirmoi* and *stichera* and as a significant factor to the construction of the *proshomoia* is firmly established. Nevertheless, occasional exceptions from the rule (triseme feet) can be found. These are of two kinds: systematic and accidental. We can very frequently find triseme feet before some longer melismas like *Ouranisma* (the Chartres Pelaston) or the combination *Apeso Exo - Thema Haploun* (the Chartres Parakalesma - Piesma) etc. On the other hand, we can find deviations from the strict disemic rhythm in a MS being “corrected” in another one. All these, systematic or accidental, deviations are very few compared to the majority of the all-dominating disemic feet.

Recapitulating, we can say that the disemic beat is the main shaping force for the music of the *heirmoi* and *stichera*. In the words of Aristoxenos, it is the *ρυθμίζον*, that is, the factor which gives a *σχῆμα* (shape) to the otherwise *ἀσχημάτιστον* (shapeless) verse, which is the *ρυθμιζόμενον*, by adjusting the syllables, their number and their accents to its steady form. Before a verse is set to music, it is considered to have no metre (although it can *occasionally* have a tonic or a quantitative metre). It acquires a metre through the music. This metre is a kind of quantitative metre with two elements: the duration and the pitch. That is, it is not a mere poetical metre, it is a *musical scheme*. In other words, it is a *melody*. The exact form of this musical scheme, of this melody, is, of course, dependent on the wish of the Melode. But, once the Melode has given a musical scheme to his *heirmos*, he must make the *proshomoia* fitting *this special* musical scheme. The new clothes of the melody must fit its old body ! And in the procedure of adjusting new words to the melody the Melode has some freedom: he can combine the durations and/or the pitches of two syllables of the *heirmos* to one syllable in the *proshomoion* or divide the duration and/or the pitches of a syllable of the *heirmos* to two syllables in the *proshomoion*; he can put the accented syllables on the downbeats and/or on the high points of his given musical scheme; he can to a certain degree combine all these kinds of freedom. His musical scheme, though created by means of the “bond” of the disemic rhythm, shows a great flexibility.

So, his *working techniques* are now revealed in both directions: from the words to the musical setting (*μελίσαι τὸν εἰρμόν*) and from the musical setting to new words (*ἐπαγαγεῖν τὰ τροπάρια*).

It would be beyond the scope and the limits of the present paper to try to give all the details and subtleties of the musical setting and the musical rhythm of the *stichera*, the *heirmoi* and their *proshomoia* or of the relation between text and music in higher levels of rhythmical organisation (cola, hemistichs, verses,

textual and musical periods). Concluding, I would like only to discuss in brief some further applications and extensions of the above described results.

1. I have based my investigations and my argumentation mainly on the standard repertory of the Sticherion and on the “standard” (and older) version of the Heirmologion (represented, eg. by E γ II) contained in Middle-Byzantine or Palaeobyzantine sources, because they represent the older versions of the chants, possibly identical or very close to the music of the Melodes. On the other hand I have used texts (troparia of Kanones) written by the Melodes themselves. Although the foregoing presentation is based on this limited material of this limited period, it can be shown that the results hold true for the marginal repertory of the Sticherion (as eg. the stichera anastasima), the later Heirmologia of the 14th cent. and the Kanones and Proshomoia of the Hymnographers. These results can also be used for the understanding of the metrical structure of the Kontakia of which there are no early syllabic settings.

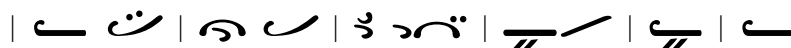
2. Concerning the interpretations of the signs, they can be applied or, at least, constitute a firm basis for investigations in the transcription of the chants of the Psaltikon, the Asmatikon and the Papadike.

3. The details and the results of the preceding discussion can serve as an indispensable starting point to the question of the short and long melismatic exegesis of the notation which is an integral part of the tradition and of the present praxis but now seem to be later elaborations.

4. Although I have not used at all the present-day practice in my reasoning, it can be shown that many signs are used in much the same way in the modern notation as in the older notations. On the other hand there is an identity or close relationship of the treatment of accents, of the relation of text to music and notation and in general of the rhythm in the old and the nowadays used chants. These facts reveal an uninterrupted and living tradition creating new forms through old principles.

Heirmos and first Troparion from the first Ode of the Kanon for Christmas by Kosmas

ἤχος ἕ



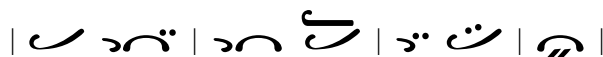
Χρι στός γεν νᾱ ται δο ξά σα τε
Ρεύ σαν τα εκ πα ρα βά σε ως



Χρι στός εξ ου ρα γῶν α παν τή σα τε
Θε συ τον κατ ει κό να γε νό με νον



Χρι στός ε πι γῆσ υ ψώ θη τε
ό λον τῆσ φθο ρᾱσ υ πάρ ξαν τα



ά σα τε τω Κν ρί ω
κρείτ το νοσ ε πται κό τα



πᾱ σα η γῆ
θει ασ ζω ῆσ



και εν ευ φρο σύ νη η
αὐ θισ α να πλά ττει ει



α νυ μνή σα τε λα οί ό τι δε

ο σο φός δη μι ουρ γός ό τι δε

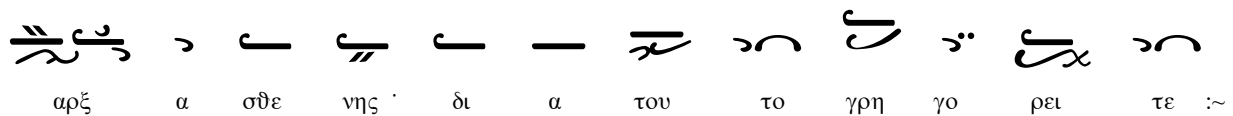


δό ξα σται ~
 δό ξα σται ~

Χρι - στός γεν - νᾶ - ται ___ δο ___ ξά ___ σα - τε Χρι - στός ἔξ
 Ρεύ - σαν - τα εκ πα ___ ρα ___ βά ___ σε - ως; Θε - συ τον
 ου - ρα - γών ___ ἅ ___ παν τή ___ σα - τε ___ ; Χρι - στός
 ηατ' εἰ - ηό ___ να ___ γε ___ νό ___ με - νον ___ ; ό - λον
 ἐ - πι - γῆς; ὕ - ψώ ___ θη ___ τε ___ ; ἅ ___ σα ___ τε τῷ
 τῆς φθο - ρᾶς; ὕ - πάρ ___ ξαν ___ τα ___ ; ηρεί - τιο ___ νος ἐ
 κν ___ ρί ___ φ; πᾶ ___ σα ἡ γῆ; ηαὶ ___ ἐν ___ εα - φρο
 πται ___ ηό ___ τα; θει ___ ας ζο - ῆς; αὐ ___ θις ___ ἁ - να
 σύ ___ νη ___ ; ἁ - νυ - μνή ___ σα ___
 πλά ___ ττει ___ ; ό ___ σο - φός δη -
 τε λα - οί; ό - τι ___ δε ___ δό ___ ξα - σται
 μι - ουρ - γός; ό - τι ___ δε ___ δό ___ ξα - σται

From the Antiphons of the Holy Passion, Ms. Sinai 1227

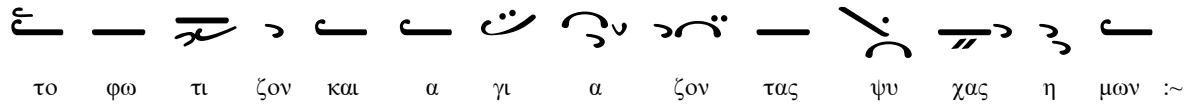
Ε στη σαν τα τρι α κον τα αρ Γυ ρι
 α την τι μην του τε τι μη με νου ον ε τι
 μη σαν το α πο υ ων ι ορα ηλ Γρη γο ρει τε
 και προ σευ χε σθε ε ι μα μη ει σελ θη τε
 εις πει ρα σμον το μεν πνευ μα προ θν μον η δε σα



Ε - στη σαν τὰ - τρι - ά - κον τα άρ
 γύ ρι - α ; τήν τι - μήν του τε τι - μη
 μέ - νου ; ὄν ἐ τι μή - σαν - το ά πό υι
 ὦν Ἰ - σρα - ήλ ; γρη - γο ρει τε και προ
 σεύ χε σθε ; ἴ - να μη - ει
 σέλ - θη τε εις πει - ρα - σμού ; τὸ μὲν πνευ μα
 πρό θν μον ; ή δε σαρξ ά σθε
 νής ; δι - ά του το γρη - γο ρει τε ~

A Sticheron of the Pentecost

Ε ν ταις αυ λαις ου κυ ρι ε οι πι στοι το
 γο νυ της ψυ χης και του σω μα τος υ πο κλι
 ναν τες α νυ μου μεν σε τον α ναρ χον πα
 τε ρα και τον συ να ναρ χον υ ο ο ον
 και το συ να ἴ δι ον και πα να γϊ ον πνευ μα



Ἐν - ταίς αυ - λαίς σου κύ - ρι ε οί πι - στοί τὸ
 γό - νυ τῆς ψυ - χῆς καὶ τοῦ σά - μα - τος
 ὑ - πο κλί - ναν τες ἄ - νυ - μνου μεν σε τὸν ἄ - ναρ
 χον πα - τέ - ρα καὶ τὸν συ - νά - ναρ - χον υἱ
 ὄν καὶ τὸ συ - να - ῖ - δι - ὄν καὶ πα - να
 γι - ὄν πνεῦ - μα τὸ φω - τί ζον καὶ - ἁ - γι
 ἄ - ζον τὰς ψυ - χὰς ἡ - μων ~

A note on the transcriptions

Some embellishments included in the transcriptions are not explained in the present article. There are also other possible embellishments, not included here, resulting from the relations of the Middle-Byzantine Notation to the Palaeobyzantine, the Late-Byzantine, the Post-Byzantine and the present-day notations, from the nomenclature and function of the signs, from the relations between the various signs and from the continuity of the Byzantine chant through the centuries, since the emergence of the notation (10th century) until today, despite the apparent differences of the older chants to the present-day ones.

Sources of the examples

1. EγII [*Hirmologium Cryptense*, edited by Lorenzo Tardo in M.M.B. (*Monumenta Musicae Byzantinae*), Principalia, Vol. III, Rome 1950].
2. Ambr. gr. 44 [*Sticherarium Ambrosianum* (Codex Ambrosianus A 139 sup. {olim gr. 44}), ed. Lidia Perria & Joergen Raasted in MMB Principalia, Vol. XI, Haunia, Munksgaard, 1992].
3. SNA [*Specimina Notationum Antiquiorum*, ed. Oliver Strunk in MMB Principalia, Vol. VII, Haunia, 1966.]
4. UNK [Constantin Floros, *Universale Neumenkunde*, Band III, Kassel 1970].

List of the examples

Example 1: a. Ambr. gr. 44, f 178v b. SNA, Plate 131 c. UNK Tafel XXV [D: Wien theol. gr. 181(Codex Dalassenus), C4: Grottaferrata E.a.5].

Example 2: Ambr. gr. 44, f 309r

Example 3: EγII, f 29r, f 29v

Example 4: EγII, f 32v, f 33r, f 35v

Example 5: Piasma: a. EγII, f 31v, f 32r *b.* EγII, f 83r, f 88r, f 83v *c.* EγII, f 59r, f 59v *d.* Ambr. gr. 44, f 179r, *Anastama: a.* Ambr. gr. 44, f 181v *b.* EγII, f 30v, f 31r, *Xeron Klasma: Ambr. gr. 44, f 181r, f 181v, Konjunktur of Diple- Bareia: Ambr. gr. 44, f 181v, f 181r, Diple-Dyo: UNK, Beispiel 349, Apoderma: EγII, f 17v, f 5v.*

Example 6: see EγII, f 16v.

Example 7: From the Heirmoi 'Αναστάσεως ἡμέρα, 'Ο θειότατος προετύπωσε contained in EγII, ff 14r - 16v and the Heirmoi Χριστὸς γεννᾶται in EγII, ff 16v - 18r and Πικρᾶς δουλείας = in EγII, ff 4v - 6r.

Example 8: see Example 7.

The stichera 'Εστησαν τὰ τριάκοντα ἀργύρια (Sinai 1227, f 201r) and 'Εν ταῖς αὐλαῖς σου (Cod. Dalassenus, f 271v) have been taken from J. Raasted: *Intonations...* (p. 13 and p. 64).

Selected bibliography

- Arvanitis, Ioannis, *A Way to the Transcription of the Old Byzantine Chant by Means of the Written and Oral Tradition*, Proceedings of the Danish Institute at Athens, Acta of a symposium on Byzantine chant held at the Danish Institute at Athens in November 1993 (in print).
- Aristoxenos, *Elementa Rhythmica*, edited by Lionell Pearson, Oxford, Clarendon Press, 1990.
- Βαμβογδακῆς, Ἐμμανουήλ, *Συμβολὴ εἰς τὴν σπουδὴν τῆς παρασημαντικῆς τῶν Βυζαντινῶν Μουσικῶν*, τόμος Α', Σάμος, 1938.
- Floros, Constantin, *Universale Neumenkunde*, Kassel 1970 (3 volume).
- Hannick, Christian (ed.), *Rhythm in Byzantine Chant*, Acta of the Congress held at Hernen Castle in November 1986, A. A. Bredius Foundation, Hernen, 1991.
- Καρασ, Σίμων, *Ἡ Βυζαντινὴ μουσικὴ παλαιογραφικὴ ἔρευνα ἐν Ἑλλάδι, Ἀθῆναι, 1982 ἢ Μέθοδος Ἑλληνικῆς Μουσικῆς, Θεωρητικόν, Ἀθῆναι, 1986.*
- Raasted, Joergen, *Intonation Formulas and Modal Signatures in Byzantine Musical Manuscripts*, M.M.B., Subsidia, vol. VII, Copenhagen, Ejnar Munksgaard, 1966 and *Pulse and Pauses in Medieval and Post-medieval Byzantine Chant*, Akten des XVI internationalen Byzantinistenkongresses, Verlag der Österreichischen Akademie der Wissenschaften, Wien, 1982.
- Σκιασ, Ἀνδρέας, *Στοιχειώδης Μετρικὴ τῆς Ἀρχαίας Ἑλληνικῆς Ποιήσεως*, Ἀθῆναι, 1931.
- Snell, Bruno, *Griechische Metrik*, μετάφρασις Ἀν. Νικήτα, Ἀθῆναι, 1969.
- Tardo, Lorenzo, Jeromonaco, *L' antica melurgia bizantina*, Grottaferrata, 1938.
- Τρεμπελας, Παναγιώτης, *Ἐκλογή Ἑλληνικῆς Ὁρθοδόξου Ὑμνογραφίας, Ἀδελφότης Θεολόγων, ὁ Σωτήρ*, Ἀθῆναι, 1978.
- Wellesz, Egon: *A History of Byzantine Music and Hymnography*, 2nd ed., Clarendon Press, Oxford 1961.

