

***Protovarys* in theory, *tetraphonos* in practice?**

Preliminary observations on an archaeology of the *Varys*' intervallics.

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This paper opens with a *caveat*: as denoted in the title, its intention is not to be exhaustive on its subject, as of yet (future publication soon to follow). Attempted will be the exposition and commentation upon a series of indications regarding the intervallics of the plagal third mode, commonly referred to in the sources as *Varys* (low; due to being the mode with the lowest basis/*ison* in the ecclesiastical eight-mode system, *Octoechos*). If these result to a reacquaintance with the mode and a reconsideration of some of its intervallic possibilities, then the paper will have been successful in its intentions.

The problematics of the paper

The music settings in the plagal third mode, although uniform in their *martyriai* signs in the manuscript tradition, were transcribed both twofoldly and three-way in the so-called New Method notational system (hereafter abbreviated as NM) by the Three Teachers;¹ twofoldly, regarding their genus, and three-way, regarding their tonal basis. In the so-called “enharmonic” genus the plagal third is based either on the *ga* or on the *zo nana*² solmization notes of the NM (the latter often alternatively designated as simply “harmonic”); in the soft diatonic genus the mode is based on *zo*. Such distinction might be absent in the pre-NM notation mss, but the clarification of modal peculiarities was the main intention underlying the 1814 notational reform culminating in the treatises of Chrysanthos of Madytos, Archbishop of Dyrrachium (c. 1770 – 1846).³ The discrepancy between the intervallics of the two NM genera, and mainly the oddity of the theoretically suggested imperfect fifth interval between the tonal bases of an authentic mode and its plagal (when the former is based on the NM note *ga* and the latter on *zo*) instead of an orderly perfect fifth, led to an attempt in clarification and suggestion through this paper.

To connect to this special issue's subject, it will be attempted to show whether there are still unanswered or half-answered questions concerning *Varys*, despite the illuminating efforts of the Three Teachers, mainly Chrysanthos, author of the *Great Theory of Music* (1832). The materials here employed, analysed and leading to new questions and answers are mss, printed books and recordings, among which: i) recordings of Psalm L (50) by Archon Protopsaltes (First cantor) of the Holy and Great Church of Christ in Constantinople (Istanbul, Turkey) Constantinos Pringos (1892-1964); ii) some editions of a well-known doxology's score by Iacovos the Protopsaltes of the Great Church (†1800), and some of its recordings; as well as iii) the scores of two lesser-known musical settings of the Great Doxology in *Varys*, a syllabic one by Gregorios Protopsaltes (†1822) and a slower one by anonymous, included in the 1846 anthology known as *Κοκκινογοργούσα* (*Coccenogorgoussa*).⁴

Third modes' intervallics

In the octoechos musical mode classification system, the mode known as *Varys* is the plagal third. According to the treatise of Chrysanthos and all later 19th c. additions to the handbook tradition

¹ The three reformers of the notational system of eastern orthodoxy's grecophone ecclesiastical chant tradition: Chrysanthos of Madytos, Archimandrite and subsequently Archbishop of Dyrrachium (modern day Durrës, Albania); Gregorios the Lampadarios and subsequently Protopsaltes of the Great Church; and Chourmouziou, a music teacher, subsequently honoured with the officium of the patriarchal Archivist. The term widely used for this notational reform in the beginnings of the 19th c., is the New Method.

² A medieval term to denote the *martyria* and *phthora* of the third or plagal fourth modes, subsequently often used as technical jargon for the indication of a flattened note.

³ Chrysanthos of Madytos, *Εἰσαγωγή εἰς τὸ Θεωρητικὸν καὶ Πρακτικὸν τῆς Ἐκκλησιαστικῆς Μουσικῆς, Συνταχθεῖσα, πρὸς χρῆσιν τῶν σπουδαζόντων αὐτὴν κατὰ τὴν Νέαν Μέθοδον, Παρὰ Χρυσάνθου τοῦ ἐκ Μαδύτων Διδασκάλου τοῦ Θεωρητικοῦ τῆς Μουσικῆς*, Paris: Rigniou, 1821. The following tables and quotes in English from this treatise come from late K. Romanou's *Great Theory of Music by Chrysanthos of Madytos*.

⁴ P. Chaloglou & G. Constantinou, *Anthology. Coccenogorgoussa* = “the one that contains gorgon signs in red ink” < cocceno=red + gorgon.

more or less copying, editing or paraphrasing the reformer from Madytos, the Varys' scalar structure seems to be twofold:

- a. the "enharmonic" Varys. Varys might be the designation for the plagal third mode (*aanes*), using the exact same scale (see §363 in Chrysanthos' *Great Theory*) as its authentic (*nana*), that is a tempering of diatonic intervals (what in chrysanthean terms constitutes "enharmonic")⁵. These third modes' special diatonic scale, what Simon Caras reasonably corrects to "hard" diatonic,⁶ makes use of the soft diatonic scale intervals with two deviations:
 - i) the recurring use of the *ajam* phthora so that the triphonia from the basis of the mode is pure, meaning a zo flat pitch is constantly applied to its tonal environment (unless otherwise indicated), and
 - ii) the sharpening of the *vu* note, when attracted by the tonal centre of the basis, *ga*. The result is a system of conjunct tetrachords called *triphonia*, the components of which articulate this way:

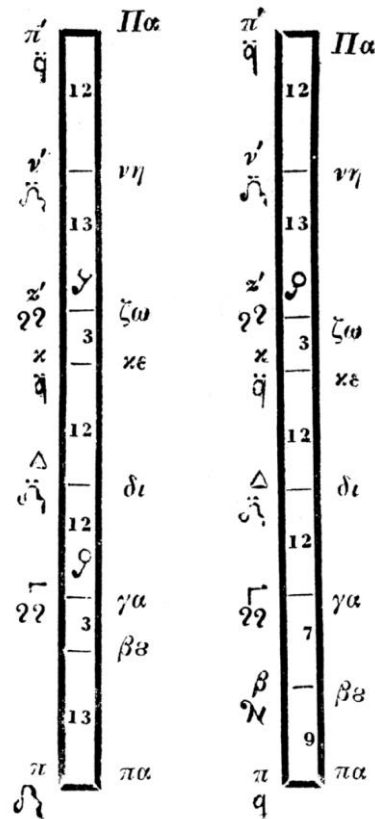
ne pa ó ga, ga di ke ϑ, ϑ ne pa ϑ

Table from Chrysanthos' *Great Theory* §261.

In Chrysanthos words: "[...] when the melody of the enharmonic genus starts with *ga*, it is zo flat that should be consonant with *ga* and not the note *ne*. What is accomplished in the diatonic and the chromatic scales with the tetraphonia, is accomplished here with the triphonia."⁷

Chrysanthos then provides some tables of "enharmonic" scales, of which two suffice for our paper's purposes [Image on the right].

The fact that later in this same treatise, Chrysanthos contradicts himself on the intervallic sizes by stating: "[i]n this scale there is no minor or minimal tone, but instead, there are five major tones and two quarters of the major tone, it belongs to the diatessaron system, or triphonia"⁸ will not concern this paper. Just to briefly elaborate on the evolution of his theoretical thinking though, we should provide this section with one more table, this time taken from Chrysanthos' short *Introduction*, his earlier (1821) handbook to the *Great Theory*; here the demonstrated triphonic system retains the intervallic sizes of the basic soft diatonic scale completely intact (12, 9, 7 in chrysanthean commas), whilst slightly rearranged, so that the *ne-ga* and *ga-zo* *nana*



The two most common scales for the "enharmonic" genus (in chrysanthean intervallic sizes). The scale on the left is entirely "enharmonic," consisting of two similar albeit non-identical disjunct tetrachords; on the right, a mixed system of two disjunct components - a soft diatonic low tetrachord and a hard diatonic above it. Table from Chrysanthos' *Great Theory*, §262.

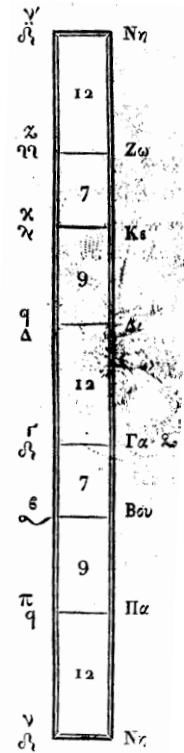
⁵ The term "enharmonic" by Chrysanthos in his treatises is by definition problematic, since the terminology of the aristoxenian tradition (see Aristoxenus in the bibliography of the present paper) describes the enharmonic tetrachord, as a "pyknic" tetrachord of a large incomposite interval with the size of a ditone (the major third of Pythagorean tuning, 81:64), leaving a *pyknon* for the rest two steps of the tetrachord, with a total width of just a leimma, 256:243 (see Barker "Methods and Aims in the Euclidean Sectio Canonis;" Chalmers, Divisions of the Tetrachord; Lekkas, "The diatonic basis of Byzantine music; systemic structural approach;" Mathiesen, Apollo's Lyre); no such intervallic sizes are described by Chrysanthos, and this is the reason behind Caras insistence on calling the "enharmonic" scales of Chrysanthos simply "hard" diatonic. This is reinforced by the fact that the martyriai used in the chrysanthean "enharmonic" are not different from the diatonic ones. See Caras, *Theoreticon* I.

⁶ Caras, *Theoreticon* I.

⁷ Our translation of §261.

⁸ Our translation of §335. The contradiction between the two paragraphs in the handbook is evident, since the major tone consists of 12 commas, not 13; Chrysanthos here seems to move in a less precise frequency cloud, in a way both mathematicians and physicists would not be highly fond of. In the above adduced table of §262 (left) there are clearly three intervallic sizes, instead of §335's two.

triphonies (fourths) are both perfect; note that the formerly disjunctive tone has now moved on top of the *diapason* scale [Image on the left].



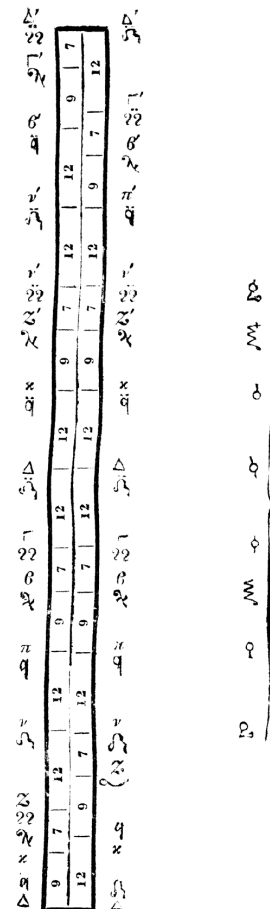
The outcome of this is that the so-called “enharmonic” or hard diatonic is intervallically either a rearranged soft diatonic structure or a slightly tempered one.

With this reference to the soft diatonic interval sizes we might segue into b. the soft diatonic Varys. In §§362-368, Chrysanthos clearly makes a distinction between the diatonic branch of the mode based on zo and the “enharmonic” one based on ga (or more accurately between the soft diatonic and hard diatonic Varys, as claimed above). We already mentioned, that such distinction in *martyriai* is absent in the pre-NM notation of mss tradition, but it was exactly the clarification of modal peculiarities that was the main intention behind the notational reform. Modal complexity might be compared to a tree and its main branches; modal branches with certain characteristics or specific melodic deviations compared to the prime mode, might be special in their own way, but are also constantly referring to the prime mode’s *ethos*.

Chrysanthos makes a clarifying remark, so that the diatonic Varys is not mistaken for its “enharmonic” version used in the chantbooks of the *new sticherarion*, the *heirmologion* and the *anastasimatarion*; when he discusses the diatonic Varys chants, he is not referring to the intervals of these *diapason* tables he has already given, but to another modal structure, necessary for the performance of the *mele* of the *old sticherarion*, the *papadic melopoiia*, and the *callophonic heirmologion*.⁹

For the intervallic sizes of this diatonic Varys’ scale, he makes only one remark (§364): that the *phthorai* (and therefore the intervals) for the diatonic Varys are not special, but the same as in §325 [Image on the right].

§.325. The *martyriai* of the diatonic genus in the *trochos*



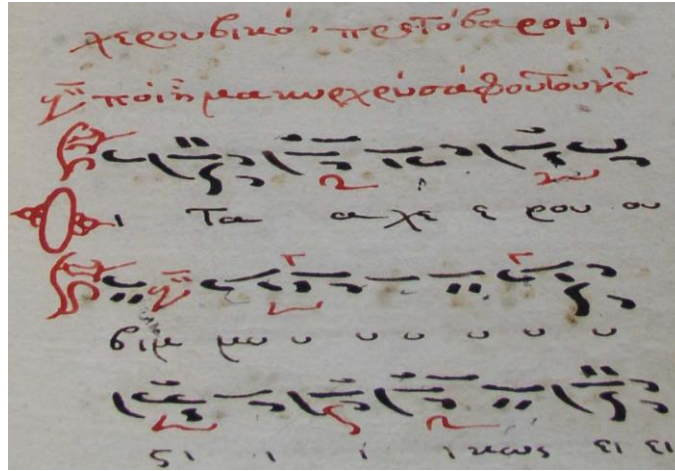
The *martyriai* of the diatonic genus in the *Diapason* / The *phthorai* of the diatonic genus.

This means that in our attempt to chant this mode, we are left with only a very peculiar scalar structure with these steps: 7-12-9-7-12-12-9 (in chrysanthean commas). Such lack of a repeated tetrachordal structure (disjunct or conjunct), the lack of a major tone as disjunctive or *proslambanomenos* (added on the bottom of a tetrachord) or even added on top of the scale to complete it (as in the previous triphonic system), the lack of a perfect fifth from the basis of the mode to the fifth, that is its *tetrachonia* (meaning also a highly unusual discordant relation between the bases of the authentic and the plagal branches), point only to one direction: the soft diatonic Varys must be fully independent on its *diphonos*, that is the first (or plagal first) mode. Otherwise it would form a disjunct or at least a conjunct system of tetrachords. For such a Varys case, the special term in the mss tradition seems to undoubtedly portray its affiliation to the first modes: *Protovarys* or *Protovaros* (*protos*=first and Varys).¹⁰ In this mode the only perfect

⁹ See Stathes, *Morphes*.

¹⁰ The “ancient” bishopial acclamation *Ton despoten kai archierea emon* is perhaps the most usual example.

tetrachords are indeed zo-vu (soft diatonic plagal third mode) and pa-di (first mode/s).



Cheruvicon Protovaron in ms49 of the Romanian Academy, 1779.

Based on the NM-transcribed repertory, the melodic contour of compositions in Protovarys is almost identical to the first mode, with medial or final cadences on zo.¹¹



Mode label of Gregorios Protopsaltes' heptaphonos Protovarys doxology in Coccenogorgoussa anthology, 1846.

Chrysanthos discussion of Varys is present not only in that section of his *Great Theory* where the special characteristics of each mode (martyriai, fixed and moveable notes, cadences, etc) are demonstrated (§§318-376), but throughout his treatise; with special interest, for our purposes, when discussing the musical systems of the *trochos* (intervallic repetition at the fifth) and the *diapason* (intervallic repetition at the octave).

In §98 Chrysanthos refers to the double pitch charge of zo note in a clear way, and goes on to make a distinction; but this time not between zo and ga anymore, but between zo natural (*diapason*) and zo flat (*trochos*):

§.98. One and the same note is possible to appear as either higher or lower of itself, under a change of system; thus: among the notes, $\overset{\cdot}{\rho} \overset{\cdot}{\sigma} \overset{\cdot}{\tau}$, if we descend on the *trochos*, it will be found to be low $\overset{\cdot}{\tau}$; if we descend on the *diapason* system, it will be found high $\overset{\cdot}{\tau}$, the difference being one semitone. Similarly, among the notes $\overset{\cdot}{\rho} \overset{\cdot}{\sigma} \overset{\cdot}{\tau} \overset{\cdot}{\theta}$, if one ascends on the *trochos*, the interval $\overset{\cdot}{\sigma} \overset{\cdot}{\theta}$ is found to be a major tone; if one ascends on the *diapason*, the interval $\overset{\cdot}{\rho} \overset{\cdot}{\theta}$ is a minor tone.

Romanou's translation of Chrysanthos' *Great Theory*.¹² The not-so-elegant photo-excerpt tactic here is for retaining the original typographic signs for the modal martyriai.

¹¹ See for instance Georgios the Cretan's (fl. 1790 – †1815) settings in Protovarys (there called Varys *pentaphonos* for reasons to elaborate elsewhere) in the *New Anastasimatarion* by Z. Zapheirooulos.

And some paragraphs earlier:

§.71. If I wish to ascend on the trochos, from $\overset{\text{L}}{\text{q}}$ or from $\overset{\text{L}}{\text{z}}$ I go to $\overset{\text{L}}{\text{e}}$, from $\overset{\text{L}}{\text{r}}$ or from $\overset{\text{L}}{\text{z}}$ I go to $\overset{\text{L}}{\text{e}}$, and from $\overset{\text{L}}{\text{r}}$ or from $\overset{\text{L}}{\text{z}}$ I go to $\overset{\text{L}}{\text{r}}$. If I wish to descend on the trochos, from $\overset{\text{L}}{\text{q}}$ or $\overset{\text{L}}{\text{z}}$ I go to $\overset{\text{L}}{\text{r}}$, from $\overset{\text{L}}{\text{q}}$ or $\overset{\text{L}}{\text{z}}$ I go to $\overset{\text{L}}{\text{r}}$, and from $\overset{\text{L}}{\text{z}}$, or $\overset{\text{L}}{\text{r}}$ I go to $\overset{\text{L}}{\text{q}}$.

According to the reformer Varys *does* have a pure-fifth relation to its authentic (third, *nana*) in the case of the trochos system; in that case it also relates with a perfect tetrachordia to the fourth (*neaghie/hagia*) modes too,¹³ according to the following table:

ta	fa	$\overset{\text{L}}{\text{z}}$	neanes			zo	$\overset{\text{L}}{\text{z}}$
te	mi	$\overset{\text{L}}{\text{q}}$	annanes	aneanes	$\overset{\text{L}}{\text{q}}$	ke	$\overset{\text{L}}{\text{q}}$
to	re	$\overset{\text{L}}{\text{r}}$	agia	neagic	$\overset{\text{L}}{\text{r}}$	di	$\overset{\text{L}}{\text{r}}$
tē	ut	$\overset{\text{L}}{\text{z}}$	nana	aanes	$\overset{\text{L}}{\text{z}}$	ga	$\overset{\text{L}}{\text{z}}$
ta	si	$\overset{\text{L}}{\text{e}}$	neanes	necheane	$\overset{\text{L}}{\text{e}}$	bou	$\overset{\text{L}}{\text{e}}$
te	la	$\overset{\text{L}}{\text{q}}$	ananes	aneanes	$\overset{\text{L}}{\text{q}}$	pa	$\overset{\text{L}}{\text{q}}$
to	sol	$\overset{\text{L}}{\text{r}}$	agia	neagic	$\overset{\text{L}}{\text{r}}$	ne	$\overset{\text{L}}{\text{r}}$
tē	fa			aanes	$\overset{\text{L}}{\text{z}}$	zo	$\overset{\text{L}}{\text{z}}$

In this trochos' table, *aanes'* basis (zo - fa) is in major-tone distance below *neagic* (ne - sol), perfecting thus the fifth between ga and zo (ut - fa).

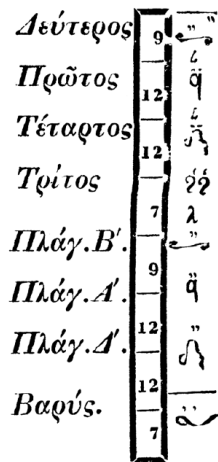
In §86 this distinction between diapason and trochos is further elaborated: tinctions should be made

Because in the notes $\overset{\text{L}}{\text{r}}$ $\overset{\text{L}}{\text{z}}$ $\overset{\text{L}}{\text{q}}$ $\overset{\text{L}}{\text{r}}$, if the parallage is applied on the trochos, the first interval is a major tone, the second minimum and the third, minor. But if its is applied on the diapason system, in which case the martyriæ are $\overset{\text{L}}{\text{r}}$ $\overset{\text{L}}{\text{z}}$ $\overset{\text{L}}{\text{q}}$ $\overset{\text{L}}{\text{r}}$, the first interval is a minimum tone, the second minor and the third, major. For this reason the $\overset{\text{L}}{\text{z}}$ of the trochos was named barys.

The martyria of Varys, be it low or high according to the reformer, seems to remain the same, a detail confirmed later in the handbook. While attempting an overview of the octoechos, Chrysanthos depicts the intervals of the trochos along with the martyric sign of the original Varys of the pre-NM mss tradition:

¹² Romanou, *Great Theory of Music by Chrysanthos of Madytos*.

¹³ The connection between the third and the fourth modes is present in music treatises since the Hagiopolites (12th -14th cc.); see Raasted, *The Hagiopolites: A Byzantine Treatise on Musical Theory*.

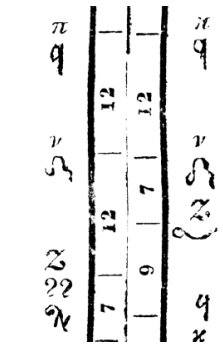


Great Theory §299

However, if we return for a closer look into the §325 table of above, things become less clear regarding this last point: the intervallic difference between the trochos Varys and the diapason Varys is instantly visually apparent, with the natural zo of the diapason being frequently higher than the flattened zo of the trochos (the source of the dissonant relation with the authentic third), while the branch distinctiveness is additionally stressed through completely different martyric signs for the bases of the two Varys (trochos Varys uses a zo nana sign).

Is then the original Varys' martyria of the pre-NM mss tradition to be normally assigned only to the soft diatonic Varys of the post-NM prints or not? Could the martyric sign of NM soft diatonic Varys ever be used to indicate trochos (hard diatonic) intervals? If the initial and intermedial martyric signs of Varys remain identical in both branches, would that suggest

an element potentially leading to intervallic misconceptions?

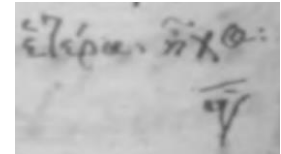


Great Theory §325, detail

To recapitulate, we have seen, that the Varys' twofoldness translates into the Varys of the diapason system (intervallic repetition at the octave) and the Varys of the trochos (intervallic repetition at the fifth), but that the martyria of the two were identical pre-NM (could they perhaps remain identical in NM transcriptions?), and that the soft diatonic Varys fundamentally, if not solely (at least in theory), demonstrates its affiliation to the first mode branch by the name of Protovarys. If we apply this knowledge to the repertory, will the soft diatonic Varys remain as simple indeed?

Iacovos' Doxology

The case of the printed score in comparison with the recordings of the well-known setting for the Great Doxology in Varys by Iacovos Protopsaltes seems as a good starting point for scepticism. In pre-NM mss tradition, as indicated earlier, the martyria of the doxology is the usual uniform for all branches of Varys.



Mode label of Iacovos' doxology in a late 18th c. musical anthology. Apologies for poor photograph quality.¹⁴

In the NM, the modal branch of the setting appears in both mss and printed books to be the soft diatonic one, based on zo. Melodically speaking, the contour constantly revolves around the fifth note of the scale, making also leaps to the octave.¹⁵ The interval between the bases of the authentic and plagal third (or simply between the tonic of the mode and its fifth) is an imperfect fifth; this suggests an abnormality in the standard octoechal authentic/plagal relation.¹⁶ Additionally, the function of the ajam phthora on high zo' produces an imperfect octave with the basis. In practical level, we should note here that the style of these constant imperfect leaps between basis, fifth and octave are both difficult for the average chanter to achieve (if their point of reference is indeed the intervals proposed by Chrysanthos); but mainly such difficult contour seems unusual to this ecclesiastical tradition (this difficulty could be quite easily demonstrated in practice, both in lesson and in performance, especially with the usual constant drone - ison- on the basis of the mode). Naturally, the problems of the Protovarys' scale in performing this doxology form similar obstacles in the performance of similar mele,¹⁷ as well.

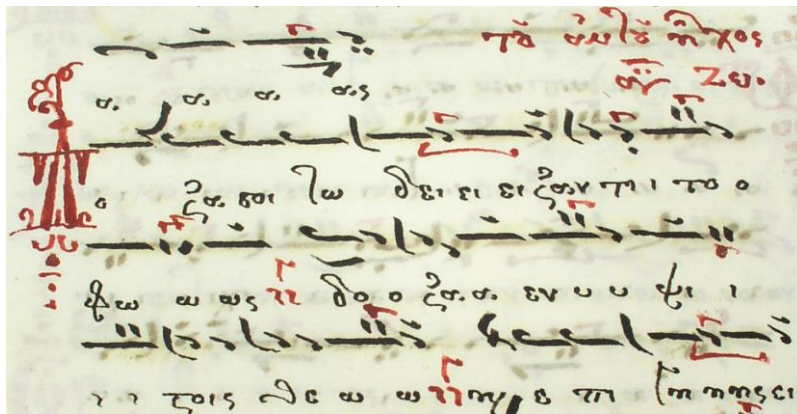
¹⁴ Cod. 5753, Larissa City Library, anonymous scribe.

¹⁵ See also Arvanites, "To parelthon."

¹⁶ The only other somehow relative instance of imperfection is the fifth between ke and vu, which is usually easily dissolved to perfection through proper phthorism; these two notes however never do form a firm canonical set of authentic/plagal in the main diatonic scale of the octoechos.

¹⁷ For instance the Sunday *Catavasi* by Ioannes Protopsaltes (*Anastasimatarion*, 1905) or Zapheirooulos, the *Catavasi* of Pentecost by Chourmouzos (*Heirmologion* by Petros and Petros, 1825); *Macarios aner* and *Logon agathon* by Theodore Phocaes (fl. 1790 – †1851); or the post-L Psalm *troparia* (pentecostaria) either composition, by Ioannes or Phocaes; all of course in soft diatonic Varys.

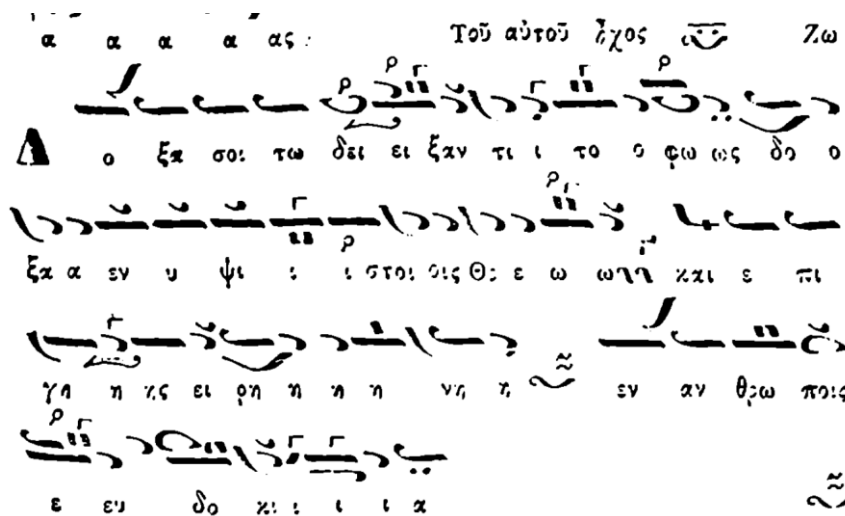
If, however, the melos is regarded mostly as related to the first mode, and the point of tonal reference, along with the drone, moves to pa, then it could be much easier to perform. The only question in that case would be about how the sound of this mode relates to the third modes?



Ms 53 by Matthaïos of Vatopaidion Monastery. Version identical to Chourmouziotis' 1824 anthology (*Tameion Anthologias*).

In 1840, Georgios Lesvios provides new information on the melos: the mode of the melos is now to be identified with the secular *maqam Bastanikar*,¹⁸ which he classifies as Varys tetraphonos.¹⁹ This connection between Varys and maqam Bastanikar is earlier present in secular music editions,²⁰ but it seems to claim its rights in the octoechal system as well, as in 1859 Cyriacus Philoxenes in his treatise supports that the seventh mode [of the octoechos] was called Hypophrygian or Varys by the Greeks, Bastanikar by Turk-Arabs, and plagal third or Varys by “us [sic].”²¹

In the meantime, the doxology appears in a patriarchal print in 1851, edited by the patriarchal chanters Ioannes Lampadarios and Stephanos Domesticos with a slight differentiation: the added element here is *exeis* (attraction signs), specifically flats, on the di note throughout the musical text. With this flattening, the sound of the mode turns towards *maqam Saba*, if the ison remains on pa.



Iacovos' doxology in *Pandecte* vol. II, 1851.

¹⁸ Makam Bestenigar in Turkish. The original Arab terminology is favoured here.

¹⁹ Georgios Lesvios, *Eisagoge*, 11. Lesvios, a student of the Three Teachers, even proposes that Varys tetraphonos should be called the “tenth” mode (following the sweet nenano, or the “ninth” mode according to the last Lampadarios of the Hagia Sophia, Duke Manuel Chrysaphes).

²⁰ The anthologies *Euterpe*, 1830 and *Pandora*, vol. I 1843/ vol. II 1846.

²¹ Philoxenes, *Theoreticon*, 147.

In 1909, the same musical text is printed under the supervision of Georgios Progages (1844-1931), music teacher at the Theological School of Chalce. Its mode label there makes the same reference to maqam Bastanikar (with a transliteration of the maqam's ottoman accent in greek), keeping the flats on di.

Ἰακώβου Πρωτοψάλτου.
 Ἦχος Ζω. (Πεστεγκιάρ).
 ο ξα σοι τω δει ει ξαν τι ι το ο φω

Progages' Music Collection, 1909.

This new information interests us, because it is not completely innocent of intervallic consequences. In Stephanos Domesticos' 1843 treatise on the interpretation of "external" [see ottoman] music, we read about Bastanikar that it begins "from Varys mode, when ascending turns [high] zo to flat, while descending the ga is sharpened and it ends at zo."²² So, at least for the cadences, the Bastanikar possibility might suggest a misplacement ga from its soft diatonic point.

A doxology by Gregorios constitutes a comparable case; observe the contour of the melody constantly around ga; and again the flats on di:

λεχοοοοοοος Γρηγορίου Π. Ἦχος
 ο ξα σοι τω δει ξαν τι το φως δο ξα εν υ ψι ιστοιςθεω
 και ε πι γης ει ρη η νη εν αν θρωποις ευ δο και α
 μου ου μεν σε ευ λο γου μεν σε προ σκυνου μεν
 σε δο ξο λο γου με εν σε ευ χα ρι στου με εν σοι δι α
 την με γα α λησου δο ξαν

Gregorios' doxology in *Pandecte* anthology 1851

In his anthology Petros the Ephesian (*fl.* 1810 – †1840, a student of the Three Reformers, music teacher and editor) provides the same text edited:

Γρηγορίου πρωτοψάλτου. εὐ ἴσ τε

ο ξα σοι τω δει ξαν τι το φως δο ξα εν υ ψι
 ι στου δε ω ρη η νη εν αν θρω
 ποις ευ δο και α
 μου ου μεν σε ευ λο γου μεν σε προ σκυνου μεν
 σε δο ξο λο γου με εν σε ευ χα ρι στου με εν σοι δι
 α την με γα α λησου δο ξαν

Gregorios' doxology edited by Petros the Ephesian.²³

Except for the impressive multiplication of di flat, the editor goes on to make an unusual choice here: he provides not the basis of the mode or at least the *finalis* of the verses; instead he provides us with the starting point of the verses, ga, identical to the basis of both the authentic third and the hard diatonic plagal third; no other indications or instructions for the mode branch of the doxology, not even mentioning the mode, but that could be because in the anthology Gregorios' setting follows Petros Peloponnesios, the Patriarchal Lampadarios, one in

Ἦχος Βαρύς. Γα

There is also a *polyeleos* in the same anthology, again by the Ephesian in the same mode, with some more information in the initial martyria, not presenting any critical melodic differentiation:

²² Stephanos Domesticos, *Ermeneia tes exoterices mousices*, 52.

²³ Petros the Ephesian, *Anthology*, Bucharest, 1830.

πέτρον ἐφρησίου. ἦχος βαρύς. ζω. ἐυ
 Ἰσῆα.

The similarity of Iacovos', Gregorios' and the Ephesian's compositions is apparent. If Iacovos' would be in Bastanikar, then are the rest of these too? Independently of that, what happens with the tetraphonia? What about the constant phthorization of di?

Additionally, we see that if we combine the examination of the parallel non-religious secular musical tradition of the Varys *maqamat* branches as documented in the 18th and 19th cc., in editions prepared by orthodox Christian ecclesiastical musicians,²⁴ we would be much more sceptical about the monolithic nature of the soft diatonic branch of Varys, the way it is exposed by Chrysanthos. For example, these are all different *maqams* of the Varys family, each with its melodic and intervallic peculiarities:

Table of the Varys *maqamat* richness from Stephanos Domesticos' 1843 interpretation of external music (Ερμηνεία της Εξωτερικής Μουσικής), p.10; in fact it is Stephanos' edition of Cyrillos Marmarenos 18th c. treatise.²⁵

Aural rendition I

Returning to the doxology by Iacovos, the hitherto data gathered from the NM sources present only one occasional deviation from Chrysanthos soft diatonic intervals (if we put aside the problem of the dissonant zo-ga, which could be solved, as stated, with the pa point of reference/ison): the repeated flattening of di.

Moving however to the earliest (1930) recording of the doxology, which comes from Eirenaios Papamichael (1878-1963), Metropolitan of Samos and Icaria,²⁶ we are astonished by another deviating

²⁴ Additionally to Stephanos' *Ermeneia*, see Cyrillos Marmarenos' 1749 treatise (Caracatsanes, *Vyzantine Potameis*), and Celtzanides' 1881, *Methodice didascalía*.
²⁵ Caracatsanes, *Vyzantine Potameis* vol. XI. *Theoreticon of Cyrillos Marmarenos of Tenos*.

element: in the recording, the distance between the basis zo and the tetraphonia ga is not that of 35 chrysanthean commas, according to the chrysanthean instruction, but of 40; that means that they are a perfect fifth apart.

The even more interesting fact is that this recording is also the earliest of a whole line of recordings in the same intervallic vein, beginning with Eirenaios, and continuing with T. Stanitsas, A. Panagiotides, A. Caramanes, M. Chamkhiranes, P. Campanides, E. Hadjimarcos etc.²⁷

We mentioned earlier the oddity of the soft diatonic Varys' scale suggested by Chrysanthos, and we interpreted it through the melodic idiomatic movement of Protovarys. It seems now not only that this explanation might not suffice, but most important that Chrysanthos' description might not provide full-detail information for this soft diatonic branch; or that performance practice exceeds his instruction in some way.

But while Chrysanthos makes many references to the Varys scale throughout his *Great Theory*, if we take a closer look on the chapter about the "shades" (deviations from the prime mode without falling into another one, by just featuring one or two fixed –except otherwise noted– accidentals on the prime mode's scale), specifically §277, we discover something new:

It is considered reasonable that the ecclesiastical musicians use one of these shades as scale when composing, as long as they give evidence that before, some other ecclesiastical musician made use of the same shade too in some psalmody, and as long as they keep close to one of the eight modes. Daniel, for example, used the shade "zo ne pa bou ϸdi ϸ" in the doxology he composed, but the same shade was also used by Balasios and Petros the Gly[c]ys in calophonic heirmoi. Moreover, Daniel kept close to the Varys mode.²⁸

There is then a variation to the soft diatonic scale for Varys, and it differentiates from the basic branch in two points: ga sharp and ke sharp. Protovarys suddenly seems to not be the only choice in the soft diatonic genus, remaining notwithstanding the theoretically acceptable and normal in the octoechal context Varys. Surely this ga sharp of the Eirenaios' recording now seems much more connectable to the wider sound possibilities of the mode; it also solves a basic harmonic problem, that of the perfect fifth's. Which brings us to the subject of the tetraphonia.

Tetraphonia

The concept of the tempering of a note into a relatively close frequency in order to achieve a perfect interval (as is the fifth or the fourth) is not generally unknown neither to singers through the centuries, nor to modern practice; this physics' law has a lasting quality during the centuries, due to its self-evidence. In the case of ecclesiastical chant, diatonic (plagal) second mode, namely *legetos*, based upon vu, presents the exact same problem with its tetraphonia on zo. The traditional common instruction is to follow the rule of thumb for zo: produce a perfect fifth (with the zo of the soft diatonic scale), when the melodic line stays on its tetraphonia or exceeds it; or allow an imperfect fifth in the soundscape (by producing a zo flat), when zo constitutes the top of the melodic line, that only briefly touches it without insisting on it, like a passing note.

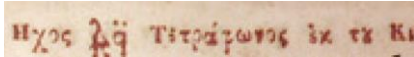
In short, the term tetraphonos ("of the fifth" < *tetartos*=fourth + *phone*=voice, tone interval; so the fourth *phone* over the basis of a mode is its fifth note) is commonly detected in *protheoriai* (short treatises on the theory of the octoechos mode system, functioning as introductory to musical anthology codices) of both the byzantine and post-byzantine periods. The terminology is to be found in ecclesiastical musical treatises since the *Hagiopolites* (12th -14th cc. see above); there it is stated that the modal branches span to diphonoï, triphonoï, tetraphonoï, pentaphonoï, hexaphonoï, heptaphonoï (ascending),

²⁶ Recording by Melpo Merlier, available at: http://www.musicale.gr/_repository/anymnisomen/sounds/track19.wma.

²⁷ All freely available on the YouTube platform.

²⁸ In 2006, Arvanites presented an important analysis of the Varys' intervals, stressing the theoretical scale of (proto)Varys as opposed to the Varys of the praxis, which is closer to the diatonic second mode, *legetos*. There Arvanites based upon some compositions by Phocaeus suggested a past of about 150 years for this recent tetraphonos branch of the Varys scale, but if we consider mele before Phocaeus, by Georgios the Cretan (selection for Theotocos), Daniel (doxology, if not communions too) perhaps some of Petros the Peloponnesian too, and eventually, based on the present quote by Chrysanthos, by Petros Berecetes' and Balasios the priest (calophonic eirmoi), perhaps we could suggest an extension of the time limit for this documented compositional tendency of tetraphonos Varys at about the last quarter of 17th century.

as well as mesoi, paramesoi, plagioi, paraplagioi (descending) etc.²⁹ Mentionable branches of the modes in common practice are triphonos plagal fourth, pentaphonos plagal first (see the Cheruvicon by Petros Berecetes), heptaphonos Varys (see settings of the Great Doxology, as the classic one by Daniel Protopsaltes, or settings for *It is Truly Meet* et.al.).



Mode Label of Petros the Ephesian’s music setting of Psalm CXLV (CXLVI) in “plagal first tetraphonos from Ke.” From the *Typica* Service in Coccenogorgoussa anthology. Apologies for poor photograph quality.

εὐλογίᾳ τοῦ Παύλου ἁγίου σύντομος
 ἔκθετος τοῦ Διδασκάλου
 διὰ τὰς Ἀγρυπνίας
 Ἐτάσις ᾠδῆς Ἡλικος ζωξ Σφωνος

Preface note and mode label of Caras’ Psalm I setting in Varys tetraphonos. From the *Eclogarion* anthology by Nicolaos Clentos.³⁰
 Note the perfect fifth indication in the martyria of ga, identical to zo’s (comment later in the paper).

A tetraphonos mode is repeating its intervals to the fifth, as it uses the system of trochos, above and (if not otherwise notated) also below the basis of the prime occasional mode. For instance, the first tetraphonos is a usual mode label to chants that constantly revolve a perfect fifth above the mode’s basis. The term has been also used to label those chants of the plagal second mode in which the contour resembles that of the authentic second (moving in trichords, instead of tetrachords); again the tetraphonia refers to a perfect fifth above the basis of the plagal. As for the specific label of Varys tetraphonos it might be found as early as the 14th c., in the Coucouzelian EBE 2458 (Codex Atheniensis 2458), but because of its four-century distance with the repertory under examination, it would be careful to consider whether it describes another harmonic and melodic structure.³¹

Therefore, in the case of Varys, ga sharp would be the only solution to the harmonic problem, partially: the relations between basis, fifth and octave would be perfected for sure. But other problems would arise: what about the ajam on high zo’ and the imperfect leaps to the now sharpened fifth? Moreover, if ga is sharpened, then there is no space for di to be flattened, as suggested by plenty of editions. Most importantly, no octoechal mode makes use of such a note as ga sharp, especially as a harmonically and melodically dominant note. Would then tetraphonos Varys be an extra-octoechal mode struggling to find its place within it through Protovarys?

Ga sharp: an imaginary note in the octoechos?

Some answers have been attempted towards this direction. The 1881 Committee³² explicitly notes that in case of papadic mele, Varys based upon the diatonic zo, should have its ga sharpened. In his

²⁹ Terminology maintained in 20th c. treatises too, as Psachos’ and Caras’ (see below).

³⁰ Caras, *Eclogarion*, 2007.

³¹ Fol. 3r.

³² *Stoicheiodes*, 59. See also Erol, The “Musical Question.”

1941 treatise on the octoechos, Constantinopolitan educator, chanter and musicologist Constantinos Psachos (1869 – 1949)³³ dedicates enough space to Varys. Since, as he states, the diatonic zo-ga imperfection is not tolerated by nature, the ga should be locally sharpened to solve the dissonance; in the rest of the cases ga remains naturally in its diatonic scale pitch.



Psachos' special martyria to indicate the ga sharp of the diatonic Varys.³⁴

On the problem of ajam on high zo, Psachos suggests that in order to avoid dissonance with both the basis and the fifth, when the latter is ga sharp, then the ajam phthora regardless of its usual function (to flatten the note it is placed upon) should be indicating a perfect fourth over the ga sharp; thus the same pitch should be granted to the diatonic zo (with the legetos martyria) and the zo nana of the ajam.³⁵

Τοῦ αὐτοῦ. Ἦχος Βαρυς Ζω γ Λ. 9'
 (Τοῦ ὁποῦ ο ῥθόγγος Γα ἀξαγγέλται πάντοτε ἐν δίεσει.)

The image shows a musical score with ten staves. Each staff consists of a melodic line with various neumes and a corresponding line of Greek text below it. The text includes vowels like alpha (α), epsilon (ε), and chi (χ), along with the special martyria symbol (♯Γ) and other diacritical marks. The score is titled 'Τοῦ αὐτοῦ. Ἦχος Βαρυς Ζω γ Λ. 9'' and includes a subtitle '(Τοῦ ὁποῦ ο ῥθόγγος Γα ἀξαγγέλται πάντοτε ἐν δίεσει.)'. The notation is a form of Greek musical notation used in the 19th century.

Mishaelides' Cheruvicon in hieromonk Nectarios' anthology *Καλλίφωνος ἀηδῶν*, 93-94; under the mode label it is explicitly stated to keep the ga sharp throughout the melos.

³³ Psachos, *To Octaechon*, 133. Psachos uses the solectistic type octaechon instead of octoechon.

³⁴ *Ibid.*, 135.

³⁵ *Ibid.*

M. Mishaelides' (c. 1825-1906) Cheruvicon above is an example of this contour style; the leaps from ga sharp (keeping its nana martyria intact) to ajam zo seem aesthetically lacking if a non-perfect fourth is performed. This very practical suggestion is not completely unexpected, for the function of ajam is actually twofold: it is rather commonplace in the NM repertory to place the ajam on a fixed note, as ga, to denote a third mode intervallic environment above it, and below it by sharpening the "subtonic."

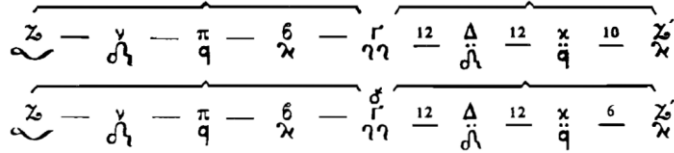


Table from Psachos, *To Octaechom*, 135

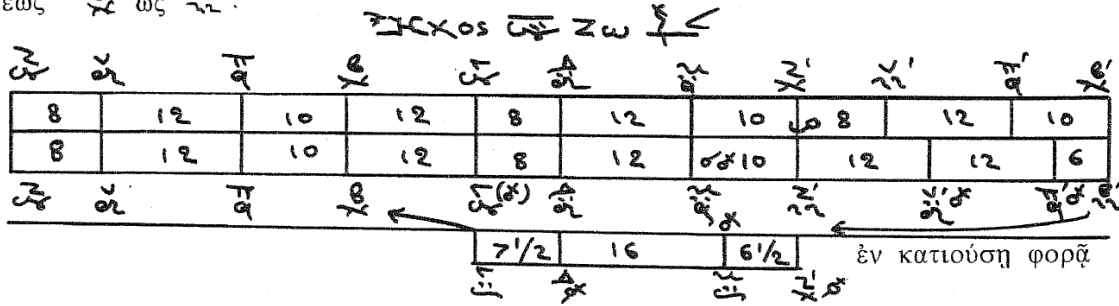
For Caras³⁶ it is "obvious" that Psachos' suggestion is the only solution: elaborating on the matter, he notes that high zo nana is not to identify with the standard zo nana pitch of the hard diatonic ("enharmonic") genus, but to establish the succession of a third mode tetrachord on the soft diatonic high zo (with a legetos martyria) along with a ke sharp. Caras is the only who dared to clarify the trochos quality of the mode by altering the intermedial martyria of ga using instead the martyria of the soft diatonic zo as seen below:

Ἀποριῶν λύσις

Εἰς τὰς συνθέσεις τῶν πρωτοπόρων τῆς νέας μουσικῆς γραφῆς, παρατηροῦμεν ἐπὶ τῆς ἑπταφωνίας τοῦ βαρέος τετραφώνου (Γα δίσαισι - ζῶ φυσικόν) τὴν φθορὰν ω τοῦ Πλ. Γ' ἤχου, βαίνουσιν κατὰ δίτονον καὶ λεῖμμα ἐπὶ τὸ ὄξύ.

Προφανὲς ὅτι δὲν πρόκειται περὶ τοῦ $\lambda\zeta'$ ἐν ὑφέσει τοῦ σκληροῦ διατόνου, ἀλλὰ περὶ θεμελιώσεως τοῦ σκληροῦ τετραχόρδου τῆς ω ἐπὶ τῆς ἑπταφωνίας τοῦ μαλακοῦ Βαρέος $\lambda\zeta'$.

Τότε, πάντες οἱ ἐπὶ τὸ ὄξύ φθόγγοι τοῦ διαπασῶν εὐρίσκονται ἐν δίσαισι τόση α' ὅση εἶναι καὶ ἡ ἀπὸ τοῦ $\lambda\zeta'$ πρὸς τὸν $\lambda\zeta$ δίσαισι τοιαύτη, ἦτοι : $\lambda\zeta' 12 \lambda\zeta'' 12 \alpha' 6$ καὶ $\alpha' 6$ ἕως $\lambda\zeta'$ ὡς $\lambda\zeta'$.



Caras, *Theoreticon* I, 344.

Arvanites refers to the problem and wisely pinpoints an effect of the proposed intervallic rearrangement not referred to by Psachos and Caras: based on some phrases in Varys compositions of the NM repertory he marks that while the contour descends there is high possibility of sharpening³⁷ pa too and resulting in a tonal displacement of the mode's tonic.

Finally, in the same year of Arvanites article, Georgios Michalaches, a member of the *Analogion* forum,³⁸ while discussing the need for new theory on the "special intervals" of Varys tetraphonos, suggests a different viewpoint towards a helpful direction: by defocusing the ga sharp parameter as the main problem of Varys tetraphonos, he suggests to flatten all intervals of the low tetrachord. This way a perfect fifth is achieved too.³⁹

Taking these into consideration as we may, we must necessarily return to the sound of the mode for more answers.

³⁶ *Theoreticon*, I, 344.

³⁷ Arvanites, "To parelthon," 346.

³⁸ Great thanks to the administrators and the members of the forum for the always interesting diverse materials and discussions.

³⁹ <https://analogion.com/site/html/BarysBestenigar.html>

Aural rendition II

Eirenaios' recording already gave us a first impression of how the musical text of the soft diatonic Varys branch, which tends to melodically revolve around its fifth note, could be performed in sound.

In the next recording case, that of Psalm L,⁴⁰ Archon Protopsaltes Constantinos Pringos' intervallic approach might stand even more illuminating to our problem. In two⁴¹ of his 1958 recordings, he performs the psalm and the following *pentecostaria* troparia in what clearly sounds as Varys tetraphonos with ga sharp.

The most important aspect of the recording is that the ga-di interval is *not* constantly narrowed by the common di flats. This, in combination with the fair wide zo-pa interval between the tonic and the third, effectively result in something unexpected: in a soundscape much closer both to the authentic third and the hard diatonic plagal third. This impression is further stressed by the perfect fifth leap between ga sharp and (high) ne' sharp, by far the most astonishing instance of the recording: this is the ultimate depiction of the Varys in trochos, leaving aside any diapason tendencies, and impressingly leaping from the diatonic zo a fifth above to the ga sharp and a fifth above to the ne' sharp.

With this invaluable recording, the connection between authentic and plagal suddenly becomes much more apparent than any other recording of this branch mele. Eirenaios of Samos and Archon Protopsaltes Thrassyvoulos Stanitsas⁴² in their Iacovos' doxology recordings perform the scale of the diatonic Varys using the flattened di towards ga only occasionally as well, with very similar intervals to Pringos, but the result is perhaps not so impressive. In Pringos case, it is as if the two branches of Varys share the same fundamental scalar structure. But could that possibly be?

Coccenogorgoussa: Doxology by anonymous



Mode label and the first two verses of [tetraphonos] hard diatonic Varys doxology by anonymous in Coccenogorgoussa anthology. Apologies for poor quality image.

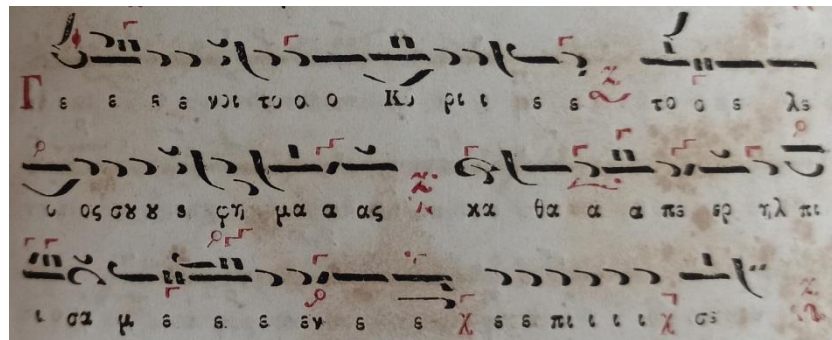
⁴⁰ Psalm L (50) is a psalm of penitential character from the *Book of Psalms*; it is the 50th psalm in the Greek Septuagint version of the bible and the Latin Vulgate (known as *Miserere*). In English this psalm is Psalm LI (51) in a slightly different numbering system and it begins, in the King James Version, with: "Have mercy upon me, O God".

⁴¹ Both low-fidelity amateur live recordings only a few weeks apart one another. The first performance was recorded on July 6th 1958 in the Church of Theotocos Chryssospeliotissa, Athens. The second recording is from St Achilleius metropolitan church in Larissa, Sunday (First Mode) on August 10th 1958; both recordings broadcasted by Emmanuel Sourgiadaces and Evangelos Linardaces (on behalf of the Chanter Union of Heracleion "Andrew of Crete") on the Radio Station of the Holy Archdiocese of Crete. Both recordings freely available on the *Analogion* online forum.

⁴² Live recording of Iacovos' doxology in Varys from Sunday (plagal second mode) July 25th 1971, recording from the archive of Theodoros Giannoutas, freely available on the *Analogion* forum.

If the gates of scepticism opened with Iacovos' doxology, with this slow doxology by an anonymous composer reaches new unexpected heights. It seems to gather a plethora of elements understood only after the exposition of all the above, including the illuminating recordings.

In this most interesting composition in "enharmonic nana zo," there is constant alternation between phthorism of the soft and the hard diatonic genus – even to the point of excess. The contour seems extremely similar to the soft diatonic doxologies of Iacovos and Gregorios.



[Tetraphonos] hard diatonic Varys doxology by anonymous in Coccenogorgoussa anthology.

The constant leaps do not leave much space to even consider suggesting an imperfect fifth and octave, while the basis and the mode indication do not favour a pa note point of reference/ison.

Especially the verse "Γένοιτο, Κύριε, τὸ ἔλεός σου ἐφ' ἡμᾶς..." has the potential to sound rather awkward if one tries, for the sake of theoretical coherence, to strictly differentiate between the lower/flattened "enharmonic" zo and the slightly higher diatonic zo. It seems almost inevitable by the music itself not to set as a prerequisite, that in this composition (and all similar to it) the hard and the soft diatonic zo share the same pitch; we suggest that the three perfect intervallic concordances of the scale remain. Independently of the martyria differentiation in indicating the octave (zo') of the mode's basis either with legetos or nana, the repetition to the interval of the pure octave seems to remain (remember the commentation of Psachos and Caras); it also seems that in order to perform this doxology a reconsideration of Varys' intervallic possibilities necessarily need reconsideration.

A working hypothesis for the origins and the possible intervallic transmutation of the soft diatonic Varys

After the above exposition, our working hypothesis regarding the archaeology of the extra-canonical soft diatonic scale of Varys forms in the following way.

Given the consistency with which authentic and plagal modes share the same scalar systems,⁴³ the case of a Protovarys' type plagal third, raises questions. The gap might be bridged upon the outcome of the intervallic sizes in the analyses of Pringos' and Eirenaios' performances, and be examined and discussed in the future.

The soft diatonic Varys' scale makes use of the soft diatonic scale intervals and therefore begins with the narrowest soft diatonic interval: the distance between zo and ne is that of a "minimal" or "least" tone, sized 88/81 (in Lekkasian terminology: τμ or τμ-: grave deficient tone).⁴⁴

If we hypothesise a regular octoechal scalar disjunct formation for the third mode similar to the rest of the modes, the obvious outcome of two third-mode tetrachords disjunct by a major tone is none other than the "(en)harmonic" version of Varys with a zo nana-zo' nana ambitus, as shown:

	zo	ne	pa	vu	ga	di	ke	zo'
Chrysanthean commas (68)	13	12	3	12	13	12	3	
1881 Committee commas (72)	12	12	6	12	12	12	6	
Holdrian commas (53) ⁴⁵	9	9	4	9	9	9	4	

Interval sizes of the plagal third disjunct scale aka the "enharmonic" Varys disjunct scale.

⁴³ The apparent exception seems to be that of the second modes, and their soft/hard melodic duality. However a closer look in the repertory of the second modes' melodies themselves, during the total span of their documentation, reveals a rather uniform scalar relation between the two, as well.

⁴⁴ See Lekkias "Byzantine 'soft chroma'" and "The diatonic basis."

⁴⁵ We favour Holder's commas (53 in an octave, attributed by William Holder to Nicholas Mercator; in Holder, *A Treatise*, 79), not only because of the well-sized fifths and octaves, but additionally because in this temperament, the sizes of the minimal and minus tones are closer to their original fraction size; see Lekkias forthcoming publications.

That would be the theoretically consistent plagal scale of a mode who repeats itself in the fifth, according to trochos. Composed in this special scale are mele, as a well-known doxology by Chourmouzios, *It is Truly Meet* (magnification and Hymn to the Theotocos by Phocaeus, some verses of the polyeleos *Ἐπὶ τῶν ποταμῶν Βαβυλῶνος* (*By the rivers of Babylon*) set into music by both Chourmouzios and Gregorios Protopsaltes, etc.⁴⁶

Music reality however often is much richer and differs from music theory, as mathematics differ from physics; practice, that is, as a breathing organism, moves and develops in different ways than strict theory.

As we saw earlier in this paper, when Chrysanthos discusses the diatonic Varys chants, he makes a clarifying remark so that the soft diatonic Varys is not mistaken for its hard diatonic branch. But *soft diatonicism* is not just a theoretical sequence of intervals; it is also a set of specific melodic characteristics. The distinction of the two is easily understood even in modern chanting jargon, using the diatonic label to indicate a general soft diatonic movement in tetrachords and trichords, firmly associated with the use of certain rules on elxeis and on fixed and moveable notes. A similar example in the term usage by Chrysanthos is the term *heirmologic*, potentially used both i) for compositions that utilise heirmoi, belong to the heirmologic genus, and are mostly to be found in the book of the heirmologion, and ii) for compositions of *any genus* that require a faster tempo in performance.

This means that, if a chant is to be performed in the soft diatonic manner then, only some of its pitches are fixed, while the rest are moveable. This commonality is present in diatonic and chromatic modes alike, as is the case in the first modes (de facto), the second modes (de jure), and occasionally in the fourth modes (the case of the chromatic plagal fourth);⁴⁷ and this is why pitch hierarchy is present in all modal descriptions by Chrysanthos and the rest of such treatises since. In this vein, if Varys is to behave like the rest of the soft diatonic modes, that is if the “(en)harmonic” scale falls into that practical melodic rule (not only common, but even necessary to correctly reproduce the traditional soundscape) of the soft-diatonic environments, by which the supertonic is flattened glissando-like towards the tonic (like a reverse leading tone), then ne note would melodically alternate by occasionally flattening towards zo; in the second tetrachord of a disjunct structure, that would also affect di towards ga.

It would then not be difficult to conceive and propose a version of the “(en)harmonic” Varys scale system with the addition of a soft diatonic melodic element: the occasional narrowing of the major tones zo-ne and ga-di into minimal ones, could have originally been characteristic only of the descending melodic lines, that gradually gained impact into the majority of the mode’s melodic behavior, eventually forming something like this:

	zo	ne	pa	vu	ga	di	ke	zo'
1881 Committee commas (72)	8	12	10	12	8	12	10	
Holdrian commas (53)	6 1/3	9	6 2/3	9	6 1/3	9	6 2/3	

Proposed interval sizes of the hard diatonic Varys disjunct scale with a soft diatonic (flattened) second note in both tetrachord components.

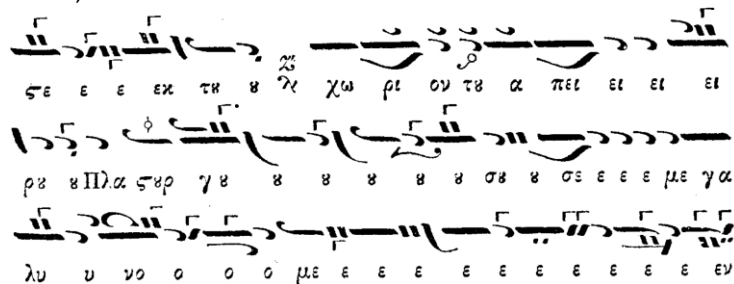
This interestingly enough looks very much like an additional soft diatonic mode not originally included in the octoechos; perhaps the tetraphonos Varys we have been looking for. This extra-octoechal case could have developed as a gradual melodic blend of the plagal third with the Protovarys. Not in the clear way theory is structured, since this formation does not fit in theory, but the way tradition transmutes. The accordingly-formed melodies could aurally be quite similar to the melodic movement of the medial first mode (both authentic and plagal). Such a scale would explain the constant flat signs on di: since the mode makes use of the normal diatonic phthorae and martyriae irrespectively of its intervallic soft diatonic peculiarities, it seems that the occasional editor needs to use this tool to draw the chanters’ attention upon the irregular, in the diatonic genus, narrower ga-di interval.

⁴⁶ All available in the various editions of the *Tameion Anthologias* anthologies, freely on the internet.

⁴⁷ On the usual melodic flattening of the supertonic in modal music of the Mediterranean and the middle East, see Sarha Moore, ‘The Other Leading Note,’ especially ch. II.

Could there have been perhaps a sort of projection of the Protovarys quality upon the original plagal third, keeping the soft diatonic characteristic of the supertonic flattening in the cadences, while the basic normally perfect intervals (fourth, fifth, octave) remain intact? Not astonishingly, traditional procedures include such transmutations, as is the case with language change (often called *paraphthora*=corruption, too), that is the variations over time in a language's features, as studied in historical linguistics, sociolinguistics, and evolutionary linguistics.⁴⁸

In our case a definitive answer cannot be given. Through this archaeological proposal however, we might be able to hopefully provide easier comprehension and eventually performance of beautiful but rarely interpreted theseis, as this one:



Excerpt from a Chourmouziou's composition in Petros Peloponnesios' *Heirmologion*: section of chants instead of the megalynarion hymn to the Theotocos *It is Truly Meet*, 295.

Conclusions

With our attempt to analyse the archaeology of the Varys mode many problems seem to resolve:

- the interval between the bases of the authentic and plagal third distance is restored to a perfect fifth;
- the heptaphonia of the mode remains a perfect octave above its basis;
- the function of the ajam phthora on high zo' is adequately explained through its similar role when on ga, that is keeping intact the pitch of the note upon which it is placed, and requesting a *diesis* (sharp) below and the third-mode-tetrachord's intervals above;
- the flats on di are adequately explained, as accidentals indicating a momentarily narrower ga-di interval (only to precisely mirror zo-ne of the lower tetrachord)
- the intervals of the first mode tetrachord, as diphonos of the Varys, remain intact (when di is not flat; even when it is, the local maqam saba quality is still a first mode usual);
- and last but not least, diatonic Varys in fact does sound much more relevant to the quality of its authentic third mode, with the exception of the moveable-note feature, typical of the soft diatonic octoechos.

It goes without saying that the discussion of this paper relates only to mele from a specific point in time on: we must not uncritically proceed to generalizations for all Varys mele of all periods. Moreover, there have undoubtedly been compositions in Varys tetraphonos that use the scalar variation remarked by Chrysanthos in §277.⁴⁹ Our proposal aims to clarify the intervallics related to that part of the repertory, where both this scale and the standard Protovarys might prove inadequate, given the contour, the indicated phthorism (ajam), and the zo martyriai (legetos and nana). Perhaps Protovarys, the more archaic theoretically-coherent, according to the diapason system, diatonic scale version of the Varys, is preserved for the old sticherarion and the old papadice, and in general the pre-Balasios period. The tetraphonos branch seems to be reserved for calophony and some antiphonal chanting: settings of Psalm I, polyeleoi, doxologies etc.

Chrysanthos and the rest of the reformers committed to a difficult work of a large scale: the clarification of the octoechal music theory along with technical instructions and scale structure depictions, a combination never systematically achieved before in orthodox ecclesiastical chant history; and this in order to facilitate the educational process and make it less time-consuming. The richness of musical practice, however, cannot (and thankfully does not) fit in a concise handbook. It is only through the rigorous study of the repertory transcribed in the NM, ideally from earlier periods too, and through the music practice itself, in sound, that one realizes and perceives the connections between and the

⁴⁸ See for instance Hale, *Historical linguistics*; McWhorter, *Words on the Move*; and, in relation to the ecclesiastical chant, Arvanites, *O Rhythmos*.

⁴⁹ See Arvanites, "To parelthon."

possibilities of the modes. In a way the twenty or thirty years needed for the complete chanter to form remain even post-NM; it is the faster musical notation reading comprehension that has been facilitated towards the solmization fashion.

We would not stress any need for new theory about branch modality: the main octoechos system is more or less basically described by Chrysanthos. The clarification now over a more systematic modal classification, as well as the correction of important erroneous cases regarding mathematics (not only of Chrysanthos, but also of Aphthonides etc.) is the fruit of D. Lekkas' research, the outcome of which is to soon appear in print. But for such exceptional cases as the Varys tetraphonos, it is not theoretical, but rather practical instructions that should be given, on the expanded function of the phthorae, and on the role of martyriai. Much work has been done by both greek and non-greek research scholars after Chrysanthos and to the present, but none of these has gained its position yet as a perhaps necessary addendum to the *Great Theory*, with the eulogies of the Patriarchate. It could be time for a new Patriarchal Committee.

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