THE HAGIOPOLITES
A Byzantine Treatise on Musical Theory
Preliminary edition by Jørgen Raasted

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INTRODUCTION

Damaged by water and worms, defective at the end, and marred by innumerable copyist’s errors, folios 216-237 of the factitious Paris manuscript Ancien fonds grec 360 have attracted the interest of musicologists and lexicographers at least since 1688, when Ducange published his "Glossarium ad Scriptores Mediae & Infimae Graecitatis" and quoted a number of passages from the manuscript. Since then, this mutilated collection of texts and fragments, all of them dealing with Greek or Byzantine musical theory, has been normally referred to as the Hagiopolites - a title which is found at the beginning of the collection and is explained in its first paragraph. For the time being I shall continue to use "Hagiopolites" in the traditional way, i.e. as a global reference to all the texts actually found on these twenty-two folios of the Paris manuscript ("P"). I should like to point out, however, that I still have my doubts about the correctness of the way in which the title has been understood. I express my basic ideas on this point in Note 3 to § 1, but at present I do not want to be more specific.

The Hagiopolites has been used by Vincent in 1847, by Tzetzes in 1874, Thibaut 1913, Høeg 1924, Floros 1970 - just to mention a few names - and there exist at least three complete copies taken from P: one by François Louis Perne in 1811 (Brussels, Bibliothèque Royale, Inv. No. II, 4159), another by Theodoros Sypsomo in 1856 (Leningrad, Petropolitanus graecus 140, Muralt), and a copy made by Carsten Høeg ab. 1920 (two note-books, belonging to the Monumenta Musicae Byzantinae). Vincent's "Notice sur divers manuscrits grecs relatifs à la musique,"1 contains on pp.259-81 text and translation of §§ 90-97 and 100-05; Thibaut's "Monuments de la Notation Ekphonétique et Hagiopolite de l'Église Grecque", Saint-Pétersbourg 1913, on pp.57-60 gives the Greek text of §§ 1-27 according to the Paris manuscript, and §§ 1-5 after Sypsomo's copy as well. But no complete edition of the Hagiopolites has ever been made.

The physical state of P is rather bad. Until the book was repaired in the 1960s, its paper was constantly decaying, and whenever a scholar worked his way through the 22 folios, letters or even entire words got lost. A great deal of the damage can be dated to the winter of 1810-11, in connection with Perne's fight to overcome the difficulties of decipher-

ing: his activity actually made the size of many holes grow considerably! But subsequent copies and old photographs show that the process continued; no doubt, the last losses were due to the final rescue operation, twenty years ago.

At that time, I had already begun to collect material for an edition. I had typed a working copy (from a microfilm put at my disposal by Oliver Strunk) and collated this typed text with the original in Paris in April 1960. During the following years I returned to my material on several occasions, mainly in connection with university teaching; but for obvious reasons the material was not yet ripe for publication.

In 1971, only a few days before I went to Göttingen with a lecture on "The Hagiopolites. Problems of a critical edition", I came across a new source for §§ 56-96 and 98-99, the Sinaiticus graecus 1764 ("S"). This late manuscript\(^1\) descends from the same manuscript as part of the Hagiopolites - their common contents being, in the main, an incomplete text of the third of the Anonymi Bellermannii - and it can be used to control or to correct many of the corrupt readings of P.\(^2\)

In 1973, during a stay in Brussels, I happened to find Perne's apograph of P. The main importance of this source is that it makes us realize what the Paris manuscript looked like in 1811. For the constitution of the text it is of little help, since the later losses can be supplied by emendation, also without access to Perne.\(^3\)

In April 1981, the Editorial Committee of the new subspecies of Monu-

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1. More likely written in the 18th century than earlier. In his Teubner edition of the Anonymi Bellermannii, Najock describes the manuscript as saec. XVI ut videtur variis manibus scriptus; but the early date is only certain for the beginning, not for folios 92r sqq. - our present concern. The hand of these folios resembles that of one Nicephoros Glykys, a Sinai monk of Cretan origin, who once owned the manuscript (entry on fol. 5r: ἐὰν τῶν υπηρέτου ἱερομοναχοῦ συναίτου τοῦ γλυκέως κρητικοῦ).

2. In a revised shape my Göttingen lecture has been published in Texte und Untersuchungen zur Geschichte der altchristlichen Literatur, Band 125: Oberlieferungsgeschichtliche Untersuchungen, hrsg. v. Franz Paschke, Berlin 1981, pp.465-78, with the title "The manuscript tradition of the Hagio-
polites: A preliminary investigation on Ancien Fonds Grec 360 and its sources".

3. I still have had no access to Theodoros Sypsomo's copy from 1856; but there is little chance that we shall learn much about the text from it - except, maybe, for a few cases where Perne was not able to read words which were lost between 1856 and 1920, the approximate date of Ῥοεγ's copy.
menta Musicae Byzantinae, the Corpus Scriptorum de Re Musica, at a meeting in Vienna discussed the proper way of handling the Hagiopolites. The fact is that the Paris compilation has a quite complicated structure: Its beginning contains Byzantine musical theory (§§ 1-55), but evidently reflects various stages of musical notation, some sections dealing with Coislin notation, others with Middle Byzantine notation.\(^1\) The rest (§§ 56-105) consists of Ancient Greek musical theory — again, apparently, taken from various contexts: §§ 56-89 and 98 incorporate most of Anonymus III Bellermanni; § 99 is one of the diatonic scales known from Alypius; §§ 90-97 and §§ 100-105 are only known from P and S, or from P alone.

This complicated structure seemed to dictate a different treatment for each of its constituent parts. The paragraphs from the Anonymus III Bellermanni have recently been edited by Najock,\(^2\) and the readings of P and S are incorporated and discussed in his editions. A re-edition would therefore be superfluous — and misleading, too, if the text were properly emended; for a solidly emended text would most certainly be far better than the text was when it got into the Hagiopolites compilation. The remaining Ancient paragraphs, on the other hand, have not been edited since 1847, and the need for a thorough revision is obvious, also because of the discovery of the Sinai manuscript. The real difficulty, however, is to be found in the Byzantine texts (§§ 1-55). For although no other direct manuscript source for these paragraphs is known, their contents have been quoted or paraphrased or referred to in many Metabyzantine treatises on music. Consequently, the entire corpus of later treatises ought to be sifted before our difficult text could be properly edited and provided with the necessary Realkommentar. This procedure, however, would not be possible as long as the texts had not been critically edited — and for such critical editions, a publication of the Hagiopolites texts would be a great help!

On the strength of these considerations, the Editorial Committee decided to edit the Hagiopolites twice: A preliminary edition should be made

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1. § 11, however, belongs to the Ancient material, and must have been moved to its present place from § 87.

immediately, in a dozen duplicated copies for distribution among the editors of the other theoretical texts and would-be collaborators. And at the end of the entire publication work - with the relevant texts accessible in the Corpus Scriptorum de Re Musica, or at least thoroughly studied - a full size edition, with photographs of the 44 pages of the Paris manuscript, with translation, detailed commentaries, etc. should close the series.

When I returned from Vienna and reported to my Institute's Board, our Director - Jan Pinborg - immediately suggested one change in these plans: to let my preliminary edition be printed in the Cahiers of the Institute, instead of manufacturing only a handful of duplicates.

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I have found it necessary to give this brief survey of the genesis of the present edition. Let me now proceed to describe what the reader can expect to find in it:

First and foremost it should be remembered that this "edition" is devised and planned as a working tool, primarily to simplify the task for the editor or editors who some day will be ready to make the final edition. In the meantime, it is my hope that others as well may find it useful, in spite of its evident imperfections. Not wishing to delay a provisional publication of the text, I decided to publish it as soon as I had worked my way through all 105 paragraphs. My notes and a good many details in the text itself reveal inconsistencies which might have been avoided if I had spent another year or more on a revision. But this, in my opinion, can as easily be done by the benevolent reader.

On the single elements of the edition I have the following remarks:

THE GREEK TEXT: In principle, the right-hand columns render the text as found in P, including its punctuation. In two respects, however, I have had to normalize:

1. Since it is quite often impossible to see the exact shape of the breathings, I have preferred to normalize - also in the cases where the reading is clear. The opposite would have conveyed a false impression of accuracy.

2. For similar reasons I have simplified the punctuation, using a comma whenever I felt sure that this was in the manuscript, but not trying to make any distinction between "." and "" etc. Notwithstanding this precaution I am convinced that a renewed comparison with the original will lead to a number of changes. Besides, it is my impression that many of the
punctuation signs were added later. I have not tried to render this detail in my transcript. The left-hand columns contain the texts in their emended shape, provided with a punctuation of my own. Of course, this is not the final text: The *crucès* and blanks indicate places where I am sure that there is something wrong; but besides, there are numerous readings where I am not sure myself¹ - and no doubt as many where I have overlooked the difficulties.

NB. In the paragraphs which are taken over from the Anonymi Bellermannii, my aim has been to reconstruct, as far as possible, the corrupt text of the manuscript from which P and S descend. The resulting text is absurd, of course, and therefore cannot be translated. But it gives us an idea of what the compiler of the Hagiopolites had at his disposal. For the benefit of those who take an interest in the Anonymi Bellermannii, I have underlined all words which deviate from Najock's text.²

THE CRITICAL APPARATUS: I have not recorded the many misreadings of Perne's (nor the few of Høeg's), except for cases where they seem to be of some use for the constitution of the text. Also non-recorded are the cases where Perne's use of pencil reveals his working technique.³

NB. In the Anonymi Bellermannii paragraphs, the siglum "Anon" represents Najock's text. If this text is based on conjecture, a scholar's name will be added in parenthesis. If it is not the reading of all Najock's MSS (ABCD), the source will be added. If there is no parenthetical addition, the text is found in ABCD (or ABC, where D does not have the text).

The *variatio sermonis* of my Latin is unintentional.

THE TRANSLATION: The translation has been made en route, together with the notes. It is to be understood as a kind of running commentary, and should be used in connection with the Greek text. Frequently, especially in the beginning, it is rather a paraphrase than a translation. Passages which I

1. These are always mentioned in the critical apparatus, normally also in the notes.

2. The underlined words in the right-hand columns mark off all cases where P deviates from the model manuscript (as reconstructed in the left-hand columns). I am afraid that I have not been entirely consistent in this matter, having left a number of P's orthographical peculiarities unmarked.

3. My dossier contains a complete material for a study of this detail. It may be of some interest, as a sample, but not in the present context.
do not understand are indicated either by question marks or by word-by-word translation between inverted commas. Clarifying additions are added in brackets, quite often in Italics.

The terminology, inevitably, has caused trouble, and my solution of the problems is far from being uniform. Quite often I have preferred to use the Greek words themselves - e.g. Echos, Tonos, Mesos. Some expressions have been rendered differently, depending on the context. Thus, my English text indiscriminately uses "Plagios Deuteros", "Second Plagal", and "the plagal of Deuteros".

THE NOTES: The notes deal primarily with matters which concern the wording of the Greek text. Sometimes, it has been necessary to go into the substance of the text, in connection with textual difficulties. Bits of genuine Real-kommentar do occur, now and then, but are never fully elaborated. The detailed commentary belongs to a future stage of the project, the authoritative Corpus edition.

THE INDEX: A complete Index verborum must also be postponed. In its present shape, the text is still so full of errors and uncertain readings that an all-comprehensive index would be misleading. At present, a selective index of terms is to be preferred. The index, however, includes a complete Index nominum.

The mixture of Ancient and Byzantine texts is reflected, also, in the index: Words which occur in the Ancient paragraphs (11 and 56-105) are marked off by means of the asterisk (*). If words occur in both layers, there will be two entries.

CHAPTERS and PARAGRAPHS: Red initial letters divide the Hagiotopolites text in 30 sections or chapters, of varying length.1 In the parts which are common to P and S, the two manuscripts agree in their divisions, though S occasionally has extra initial letters, not found in P. Apparently, then, the system was taken over from the model manuscript. I have used Roman numbers to indicate the thirty sections of P.

The division into paragraphs is my own, except for those paragraphs that contain the Anonymus Bellermanni. Here one obviously has to keep the old

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1. The rubricator forgot to write initial letters in §§ 36, 70, and 101. The initial letters are now lost at § 4 and, presumably, at § 94. The lay-out at the beginning of § 52 is peculiar (see notes) but seems to reflect a division in the model manuscript; I have treated this place as if the indication of a new section was a regular one.

In S, all chapters have headings. These are listed in Najock 1972, p.216.
division, the one introduced by Bellermann in 1841. The following Concordance enables a rapid orientation:

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I had planned to include a thorough codicological description of P and S in the present edition and to return, also, to the discussion between Najock and myself on the order of the Anonymus paragraphs in P. The latter question, however, demands a quite lengthy argumentation which would lead this introduction off its track; so it better be taken up in another con-

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text. As to the codicological description, it will find a more appropriate place in the final edition, with its reproductions of all 22 folios of P and a representative material from S.

At the Second International Colloquium on Greek Palaeography and Codicology (Berlin and Wolfenbüttel, October 17-21, 1983) I discussed the dating of P with a number of colleagues; the communis opinio still is that P was written in the first half of the 14th century. There are no visible watermarks.

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Since I began to work on this edition, a quarter of a century ago, I have discussed the text and the manuscript with a great number of friends: students, colleagues, and others. I have, in fact, drawn heavily and shamelessly on the expertise of others. It is impossible for me to specify for each of them what kind of help I have experienced, and any attempt to do so would fail to match reality. I cannot send this book to the press, however, without mentioning the names of three persons who have been more actively engaged in the final stage of the work than anybody else:

Sten Ebbesen, the Director of our Institute, to whom I am indebted for advice on text, translation, and notes for almost every paragraph.

He is also the one who, in his capacity of editor of the CIMAGL, with mild but efficient pressure has forced me to keep the dead-line as settled a year ago.

Bjarne Schartau, who has been involved in the work since 1965, not the least on codicological matters. In the critical moment, where time pressure was most heavily felt, he offered his assistance and typed most of the Greek text and the critical apparatus, and also prepared the Index.

Hannah Krogh Hansen, the efficient secretary of the Institute, who has typed most of the translation and the notes, and has mounted the offset material as competently and elegantly as could be wished for.

Jørgen Raasted
Βιβλίον Ἀγιοπολίτης, συγκεκροτημένον ἐκ τινών μουσικῶν μεθόδων.


Cf cod S fol 99r
post 2 ἐπειδὴ desinit Perne 4 [πατέρων] Vincent 5 συγ[γράµµατα.] Vincent, συγ(συγγραφέα;) Theodoros Sysmomo 6 [τοῦ ὀσίου Κοιµᾶ] Vincent, τοῦ κυροῦ Κ..µα recte Sysmomo, τοῦ ἄγιον Κοιµᾶ Gastoué 8 post ποιητῶν ita interpunxit Vincent, ut §2,1-2 cum praecedentibus cohaerent

TRANSLATION:
Hagiopolites, a Book Put Together From Several Treatises on Music.

1. This book is called "Hagiopolites" because of its contents, works on saints and ascetics in the Holy City of Jerusalem, written by Master Cosmas and Master John of Damascus, the poets.

NOTES:

* 1. Until now, no convincing remedy has been found to supply the illegible words in lines 4-5. Evidently, the book got its title ("Hagiopolites") from its contents; but what kind of texts did it contain? Texts to be sung, no doubt, cf. §2,1-2; and written by Kosmas and John of Damascus. Now, if the object for περιέχει (2) did not follow until in line 5, the obvious reading would be συγ[γράµµατα] and our problem would be what to supply in line 4. But if the object came already in line 4, we would like to take 5-8 as a participium conjunctum, an apposition to this object - to be supplied as συγγραφέα, συγγραφέας, or συγγραφέας depending on our filling out of the lacuna in 4. In any case, the word missing in 4 ought then to mean "chanted pieces", and the genitives in 2-3 should be understood as "the saints and ascetics celebrated in these hymns". Concerning the illegible word in 4 we know that it was rather short (space for no more than five letters), and from the unclear traces of the top of some of its letters it seems unlikely that the word was προκάρπα or κανάνια. Maybe δοµατα or ψόδα? Another line of thought is suggested by the related text in Vatican gr.872 (Tardo, p.164) which speaks of τῶν ἄγιων μαρτύρων ὅσιων τε καὶ λοιπῶν κολλητέων. Unfortunately, our illegible word cannot possibly be κολλητέων; but ἐργα, perhaps. Finally, it cannot be excluded that the illegible word was an adjective, belonging to βίω. Βίω διαλαµψάντων ὅσιω?

* 2. The punctuation in lines 3 and 5 is interesting but leads to no safe interpretation of the context. The dot after διαλαµψάντων may serve to iso-
Cf S 99r-99v

1-13 non exscripsit Perne 1 λέγουσιν (vel aliud verbum dicendi) supplemen-
dum esse censeo 1-2 ἡχοὺς δὲ[δεικταὶ μόνους] ὁκτὼ φάλλεσθαι Vincent,
"Ηχοὺς δὲ ἐν τούτῳ ὁκτὼ φάλλεσθαι Sypsomo, ἡχοὺς δ[εικταὶ μόνους καὶ]τὰ
ta (?) ὁκτὼ φάλλεσθαι Gastoué 2 ἐστι] ἐτι Thibaut 3 ὑπ[όβλητον καὶ]
ψευδές Thibaut, ἀν[ἀποδεδειγμένου] ψευδές Sypsomo, [στὸ δ'] ἀπ[οδείξεω] ψευ-
δές Thibaut 3 γάρ - 13 non exscripsit Hœeg 10-18 e codice S restitui,
cf Thibaut (p 57, e cod Metoch 811) 14-18 deperditi, inferiore folií
primi parte amissa

TRANSLATION:

2. For the songs in this book eight Echōi are said to be necessary. But
this is not true and should be rejected. In fact, the Plagios of Deuterōs
is mostly sung as Mesos Deuterōs — e.g. the Νύκην ἔχων Χρυστὲ, the ηὲ τὸν
ἐξί οδάτων, and other pieces written by Master Cosmas and Master John of
Damascus "from the Mousike". (If, however, you try to sing the products of
Master Joseph and others "with the Mousike", they will not fit, having not
been composed "according to the Mousike"). Similarly, the Plagios of Tetartos
is mostly sung as Mesos Tetartos — e.g. when you sing Σταυρὸν χαράξεις Μωσῆς
and many others. From these cases we can see that ten Echōi are used (for
the repertory of this book?) and not eight, only.

Notes:

* 1. My reconstruction of 10-18 differs in some details from the one suggested
   by Thibaut.

* 2. The distinction in 8-16 between Hagiopolitan and Studite tradition is to
   be observed.

* 3. I do not understand the implications of 10 ἀπὸ τῆς μουσείς, 14 μετὰ τῆς
   μουσείς, and 16 ὑπ’αὐτῆς.

3. δεὶ δὲ ἐν τῷ μελλέων ἡμᾶς
   ψάλλειν ἡ διδασκειν ἀρχεσθαι με-
   τὰ ἐννηχήματος. ἐννήχημα δὲ ἐστὶν
   ἦ τοῦ ἡχου ἐπιβολῆ, οἶδιν τι λέ-
   γω "ἀνα, ναι ἄνες·" ὅπερ ἐστὶν
   "ἀναξ, ἄνες·" πάν γάρ τὸ ἄρχομε-
   νον ἀπὸ θεοῦ ὡφελεί έχειν τὴν
   ἄρχην καὶ εἰς τὸν θεόν καταλή-
   γείν.

Cf S 99v

4 ἐπιβολῆ ἀντε correcturam P (u erasit corrector) 6 post ἄναξ olim
ναλ suppleeui, sed est superfluum
TRANSLATION:

3. When we are going to sing — or to teach — we must begin with an Enechema. This term denotes the introduction of the Echo — ananeanēs, for instance, which means "O Lord, forgive". The reason (of this invocation) is that whatever begins ought to begin "from God" and to end, as well, "in God".

NOTES:

* 1. ἔπαυσιν (4) is also used by S in the corresponding passage. Elsewhere, the tradition wavers between ἔπαυσιν and ὑποβολή (§§6, 7, 33, 45).

* 2. In line 5, the orthography of P has been retained, against the normal spelling ἀνανεάσες. The pious pun would come out more clearly if the schematic word had been rendered as ἀναή, να ἄνες ("O Lord, soothsay, forgive") — but many parallels read without να.


Cf S 33v et 99v

TRANSLATION:

4. NB. "First", "Second", and "Third" are not proper names for the Echoi. But since the Echoi are placed in order, stepwise as it were, the first Echo is called "the First" because it is placed first. The second Echo is called "Second" because it follows upon "the First", and so on. Just as when I say "the first or second son of so-and-so", this is not his real name...............but indicates his order of birth.

NOTES:

* 1. For the end of this paragraph (9-14) the parallel in S runs as follows: 
   τὸ γὰρ εἰπεῖν πρῶτος, δεύτερος, βαθμὸς εἰσι, καὶ οὐχὶ κύρια ὄνομα. ὦν 
   τι λέγα, τὸς ὀνόματος; ὁ θεός τοῦ ὁ δεύτερος ὁ πρῶτος. ἢ ἡ ἄνωφος ἡ ἀρχὴ πάντως;
   ἢ δημήτριος λέγεται, ἢ θεός ὁ δεύτερος, μάνων δὲ ἀπαρλαμίσθαι ἐστι, ὁ πρῶτος, δεύτερος, 
   τρίτος. ἀλλ' ὁ καθεστὸς ἐκαστοῦ ὀνόμα ἐκ τῶν εὑρώτων τοὺς ἄγαν 
   μουσικῶν.

* 2. The ὅν at the end of line 12 is followed by an oblique stroke (ὅν'). This 
  stroke, which may be a gravis or the top of the letters a or λ, makes it 
  possible to use Thibaut's ὅν[λοτ] - but not the ὅν[μετρο] suggested by 
  the passage from S quoted in the preceding note. Furthermore, there seems 
  to be a spiritus lenis before ὅν ("ὅν'").

* 3. Thibaut's πολύτητος (end of 14) rests on a misunderstanding of §30,1-6. 
  My own gενέσεως is only a suggestion; other synonyms might be envisaged, e. 
  g. ώμότητος.

5. [Τὰ δὲ κύρια ὄνομα τῶν ὄκ-
   των ἱχών εἰσὶ ταῦτα: ὑποδορίος ὁ 
   πρῶτος, ὑποφρύγιος ὁ δεύτερος, 
   ὑπολύδιος ὁ τρίτος, ὑμόλιος ὁ τέ-
   ταρτος, ὑφύγιος ὁ πλάγιος πρώ-
   τος, λύδιος ὁ πλάγιος τοῦ δευτέ-
   ρος, μεσολύδιος ὁ βαρύς, ὑπομειλ-
   λύδιος ὁ πλάγιος τέταρτος.

   Cf S 100r

1-5 propter amissionem inferioris folii partis deperditos restituit Thibaut ex ingenio; eadem fere habet S 1-3 Ταῦτά εἰσι τὰ κύρια ὄνομα τῶν 
   ἱχών voluit Thibaut, sed magis placet quod scripsi.

TRANSLATION:

5. The proper names of the eight Echoi are the following: The first Echo is 
   called Hypodorios, the second Hypophrygios, the third Hypolydios, the 
   fourth Dorios, the first plagal is called Phrygios, the plagal of the sec-
   ond Lydios, Barys is called Mixolydios, and Plagios Tetratos is called 
   Hypomixolydios.
6. Οἱ μὲν οὖν τέσσαρες πρῶτοι οὐκ ἐξ ἄλλων τινῶν ἀλλ' ἐξ αὐτῶν γίνονται. Οἱ δὲ τέσσαρες δεύτεροι, ἢγουν οἱ πλάγιοι, οἱ μὲν πλάγιοι πρῶτος ἐκ τῆς ὑπορροφῆς τοῦ πρῶτου γέγονε. καὶ ἀπὸ τῆς ὑπορροφῆς τοῦ πληρώματος τοῦ δεύτερου γέγονεν οἱ πλάγιοι δεύτεροι. τὸ τέλεστον δὲ καὶ τὰ πλή-
10 ρώματα τοῦ δεύτερου <εἰς τὸν πλάγιον δεύτερου> τελειοῦτο. οἱ βαρύς ὁμοίως καὶ ἀπὸ τοῦ τρίτου καὶ γὰρ εἰς τὸ ἄσιμα ἥ ὑποβολὴ τοῦ βαρέως τρίτου ψάλλεται ἄμα τοῦ τέλους αὐτοῦ, καὶ ἀπὸ τοῦ τετάρτου γέγονεν οἱ πλάγιοι τέταρτος. καὶ ἀπὸ τῶν τεσσάρων πλαγίων ἐγεννηθένσαν τέσσαρες μέσοι καὶ ἀπ' αὐτῶν αἱ τέσσαρες θυσίαι καὶ
20 ἄνεβιβάζθησαν ἥχοι τοὺς, οἵτινες ψάλλονται εἰς τὸ ἄσιμα, οἱ δὲ δέκα ώς προείπομεν εἰς τὸν 'Αγιο-
πολίτην.


4-6 ο μὲν - γέγονεν καὶ γὰρ ἀπὸ τῆς ὑπορροφῆς τοῦ α' γέγονεν οἱ πλάγιοι ο"ι Σ 8 οι πλάγιοι β' Σ 9 δὲ om Σ 10-11 εἰς τὸν πλάγιον δεύτερον conici (cf §48, 15) 11 post baróς (non post τελειοῦν) distingunt PS 16 οι πλάγιοι δ" Σ 17-18 καὶ ἀπ' αὐτῶν τῶν τεσσάρων πλαγίων ἐγεννηθένσαν οἱ δ" (sic) μέσοι Σ ἐγεννηθέσσαν melius cum S scribendum 19 αὐτῶν] αὐτῶν τῶν μέσων ἐγεννηθέσσαν S 20 ἄνεβιβάζθησαν cum S legendum, ἀνε- βα θησαν Λογος, ἄνεβιβάζθησαν Thibaut (quod dubitavit Λογος) 20-23 οἵτινες - ἁγιοπολίτην] τούτων δὲ τῶν ς' ἄνεβιβασθέντων φάλλοντας εἰς τὸ ἁσιμα οἱ αὐτοὶ ς'. εἰς δὲ τὸν ἁγιοπολίτην τ' καὶ μόνον καθὼς προείπομεν S

TRANSLATION:

6. The four Echoi which come first are generated from themselves, not from others. As to the four which come next, i.e. the Plagios Protos, Plagios Protos is derived from Protos, and Plagios Deuterons from Deuterons - normally Deuteros melodies end in Plagios Deuterons. Similarly, Barys from Tritos - "for
in the Asma the Hypobole of Barys is sung as Tritos together with its ending" (7). And from Tetartos came Plagios Tetartos. From the four Plagiocoi originate the four Mesoi, and from these the four Phthoral. This makes up the sixteen Echpo which are sung in the Asma - as already mentioned, there are sung only ten in the Hagiopolites.

NOTES:
* 1. For the way in which the Echpo are generated from others, the text uses different expressions, all of which are elaborations of the simple γύνου-
tai  
  2. The misleading punctuation of P in line 11 (after ὁ βαρύς instead of before) is shared by S. Was it already in their common ancestor?
* 3. In lines 17-18, the reading of P (ἐγενήθησαν) is probably the lectio facilior, inspired by the preceding forms of γύνουμαι.
* 4. The verb ἀνεβιβάζοντον (20) implies that the four groups of Echpo are added together. For οἱ δέκα, the verb φάλλουσα is to be supplied from the relative clause.

7. Καὶ γὰρ μέσος πρῶτος εἰς τὴν  
  ἀρχὴν τῆς ὑποβολῆς καὶ τέλος  
  τοῦ πλαγίου πρῶτου καὶ ἀρχεται  
  καὶ τελειώται ἡ μπλαγιοτερα-
  τίζει δὲ μὸνον, καὶ τοῦτο ἔχει  
  ἐπέκεινα τοῦ ἴνα. ὅμοιος καὶ ἀ-
  νό τοῦ ἴνα, ὁ μέσος δεύτερος.  
  φάλλεται δὲ καὶ ἀπὸ τοῦ βαρέως  
  πάλιν ὁ μέσος τρίτος, καὶ ἀπὸ  
  τοῦ ἴνα, ὁ μέσος τέταρτος."  

Eadem fere habet S (100v). Cf etiam infra, §33,11-25

2 ἐπιβολῆς P, ὑποβολῆς S τέλος] τὸ τέλος S, fortasse recte . 3 sqq in litteris supplendis S usus sum 3 τοῦ om S 5 δὲ μὸνον] ὅμοιος con-
  liecit Thibaut qui post ἡμιπλαγιοτεταρτίζει interpunxit 9 πάλιν om S

TRANSLATION:
7. For Mesos Protos begins and ends "at the beginning and end of the Hypo-
boles of Plagios Protos" (?); it somehow reminds of Plagios Tetartos, the
only feature which makes it different from Plagios Protos. And in a simi-
lar way, Mesos Deuterous is related to Plagios Deuterous. Again, Mesos Tritos
is sung from Barys, and Mesos Tetartos from Tetartos."
NOTES:

* 1. The καὶ γὰρ in line 1 seems to imply that §7 explains the reduction from sixteen to ten Echoi referred to in §6. But how is that to be understood?

* 2. Although the wording of this damaged paragraph can be restored with considerable safety, thanks to the version of S and the parallel in §33, several details remain unclear. Ὑποβολὴ in S and ὑπερβολὴ in §33 suggest that P's ἐπιβολὴ is wrong; but the meaning of ὑποβολὴ is as unclear here as it was in §6. Cf. also §45 note 2.

8. Ἡσαν μὲν οὖν < μέλη > καὶ ἐνδιάδοσιν τοὺς ἥχους, πλὴν ἄνηκα καὶ ἀνάρμοστα καὶ τῆν φύσιν πρὸς κραυγὴν καὶ βλανέξικον έκβάλοντα. ὡς καὶ παρὰ τῶν θείων κανόνων ἐκπλήθουσαν.

Cf S 100v

1 μέλη suppleni duce S 4-5 ἐκβάλοντα S, ἐκβάλοντα P, ἐκβάλοντο Thibaut et Ησεγ 6 ἐκπλήθους scripsi, ἐκπλήθους S, ἐκπλήθους P Thibaut Ησεγ

TRANSLATION:

8. Melodies, then, existed also before the Echoi came into being. But they were without Echos and harmony, and forced nature towards screaming and violence; this, too, was forbidden by the Sacred Decrees.

NOTES:


* 2. ἄνηκα καὶ ἀνάρμοστα, for which the latter reflects the τὰ μὴ ἀρμόδια of note 1, imply that these melodies sounded unpleasingly and were not fit for being used in church.

9. Οὐκ ἐστιν οὖν ἐστιν οὖν εὐρέττων οὕτως < ἥχους ἡμέρας, οὕτως μέλη καὶ μετὰ ἡχήματος. ἢς τὸ ἐν ἀλλως στίς τὸ τῆς τόνων.

P: οὐκ ἐστιν οὖν εὐρετίν, οὕτως μέλους ἐστιν οὕτως, οὕτως μέλει μὴ μετὰ ἡχήματος ἢς τὸ τῆς τόνων.

5 τὸ μελισθήνυ τροπάριον οὖν ἀλλως δὲ μελίζεται, εἰ μὴ διά τόνων.

2 ἥχους vel ἥχους supplendum 3 μέλη scripsi, μέλει P, μέλεις ἐντός> εἰ conicet Ησεγ
9. Well, then, neither can an Echos be found without a melody, nor melodies without an Echema. As to the sung Troparion, this is to be placed in between the melody and the Echos; singing, however, always implies Tonoi.

10. Τόνος δὲ ἐστὶν πρὸς δυὸ ἄδο-μεν, καὶ τὴν φωνὴν εὐρυτέραν ποιοῦμεν’ ὁ δὲ τόνος εὐφρέθη ἐκ τῶν τῆς μουσικῆς χορδῶν. ἄρθιμός δὲ τόνων ὅσος καὶ μουσικής, ἀνευ τῶν τριῶν ἡμιτόνων καὶ τῶν τεσ-σάρων λεγομένων πνευμάτων στοι-χείων καὶ τῆς ἀπορροίας τοῦ κεν-τήματος καὶ τοῦ ὑψιλοῦ ἢτοι τῆς φθορᾶς.

3 οἱ δὲ τόνου εὐφρέθη[σα] Thibaut

TRANSLATION:

10. Tonos is that from which we sing and make our voice "broader". It was found from the chords of the Mousike. The number of Tonoi is as great as that of (the Tonoi in ancient) music - without the three Hemitoni and the four signs (στοιχεῖα) called Pneumata and "the derivate of Kentema and Hypsilon, i.e. the Phthora".

NOTES:

* 1. "The number of τόνοι is as great as that of music". The text may be corrupt. If not, it is at least most imprecisely expressed. Rather close parallels to our text are found in Tardo, Melurgia, p. 167 (Πλῆθος τόνων ἔτσι τῶν Ἀγιοκολλήτων; ὅσα καβάλλα ἔχει τὴν κελάδα μουσική, from Vat.gr.872, Ρέγιος' punctuation) and p. 212 (Τόνου μὲν ἐνός πεντεκαδεκάς' εἰ δὲ καὶ σφαίρας, ἐρήμους κάθα κάβαλα ἔχεις τὴν κελάδα μουσικής καὶ εὐθείας τὰ πάντα τε', δὴν δὲ καὶ τόνου τε' ἐνός κατὰ ἀναλογίαν τοῦτων, from Lavra 1656). The expression τὴν κελάδα μουσικῆς reminds of the Ancient ἀείφων οὐσία (the double octave consisting of 15 notes); the number 15 happens to be the number of chords of the pentekaidékaχορδῶν ὄργανον; below (§101) it is said that Pythagoras called his four-stringed Organon μουσικῆς. The analogy adduced in §10 evidently has some connection with such reminiscences of Ancient musical theory, though it is quite probable that the author (or his sources) had no clear picture of what he was talking about. Τόνοι is here to be taken for "musical signs" rather than musical sounds - and the καβάλλα of the "Hagaiopolitan" tradition suggests that the Ancient phenomenon to which the Tonoi were compared were also understood (or misunderstood?) as musical signs, though chances are that they in an older version must have been strings or chords. At present, however, it is advisable to keep the text as it is, rather than to emend it, e.g. into ἄρθιμος δὲ τῶν ὅσος καὶ τῶν καβάλλων (or τῶν χορδῶν?) τῆς τελείας μουσικῆς.

* 2. For the Phthora (9-10), see below §16.
11. Τά δὲ όνόματα τῶν δεκαπέντε
τῆς μουσικῆς καβαλλίων εἴσι ταῦτα:
προσλαμβανόμενος, ζῆτα ἐλλιπές
καὶ τά ὁλόγλων.

5 ὑπάτη υπάτων γάμμα ἀνεστραμμένον καὶ γάμμα ὀρθόν.

παραπάτη υπάτων βῆτα ἐλλιπές καὶ γάμμα ὑπέτοι.

3τ ὑπάτων διάτονος φε καὶ διάγμα,
ὑπάτη μέσον σίγμα καὶ σίγμα.

παραπάτη μέσων ὃ καὶ ὅ.

μέσων διάτονος ὃ καὶ π' καθελικομένον.

15 μέση άώτα καὶ ἅ πλάγιον.

τρίτη συνημμένων τοι ή καὶ ἅ ἀνεστραμμένον.

συνημμένων διάτονος θαὶ καὶ ὅ.

<νήτη> συνημμένων ὃ τετράγωνον ὑπέτοι καὶ ζ.

20 παραμέση ζ καὶ π' πλάγιον.

τρίτη διεξευμένων εἰ τετράγωνον καὶ π' ἀνεστραμμένον.

διεξευμένων διάτονος ὃ τετράγω

25 γωνον ὑπέτοι καὶ ζ.

νήτη διεξευμένων φε καὶ πλάγιον π'.

τρίτη ὑπερβολαίων ū κατ' ἑκατο

καὶ ἡμίαλφα ἀριστερόν ἀνεστραμ

μένον.

30 ὑπερβολαίων διάτονος ὃ καὶ π' καθελικομένον έπι τήν ὁξύτητα.

νήτη ὑπερβολαίων θαὶ καὶ ἅ πλάγιον έπι τήν ὁξύτητα.

4-34 (= Anon §67) habet S 95r, cum notis musicis; 4-5 cf infra, §87
4 προσλαμβανόμενος S 5 τάδ Anon, τόν P, τ S 6 γάμμα μέσον (sed ante correcturam γράμμα) ἀριστερά S, γράμμα AnonC 6-7 ἀνεστραμμένον P
7 γράμμα ante correcturam S 10 δύομον S 11 μέση P, μέσον S 12 παρ-
11. The names of the fifteen signs of the Mousike are the following: Follows the 18(!) tones of the Lydian diatonic scale (Alpyius 1), with description of the shape of each pair of signs, but without the signs themselves. See notes.

NOTES:

* 1: There is no doubt that the Lydian diatonic scale (= Anon §67 = Alpyius scale 1) was transferred to its present position in §11 from an original place between Anon §§66 and 68 (= Hagiopolites §§86-88). To Najock (ed. 1972 p.216) the τὸν πλάγιον of P in line 5 is so different from P's reading in §87 (ταῦτα πλάγιον) that §11 cannot (at least "wohl nicht") have been copied from the same source (an Anon-MSS) as the line in §87. For this reason Najock's 1975-edition does not mention P's readings in §11. However, it seems to be more likely that one badly written word in one MS (the common ancestor of P and S) produced τὐ in S and τὸν or ταῦτα in P (the latter, maybe due to the intrusion of a clarifying interlinear ταῦ?) than to make both scribes commit independent mistakes when copying this particular ταῦ πλάγιον from their model MSS. From the wording in §87 it is evident that the transfer was a deliberate one. It is not easy, however, to decide whether the transmission took place in P itself or in one of its ancestors.

* 2. The first phrase announces a list of "the names of the 15 καβάλλα τῆς μουσικῆς", but the list must have been removed to give room for the 18 names (and graphical symbols?) of the notes in the Lydian diatonic scale. From §13 we can see that the list, in all likelihood, comprised 12 "simple" signs and 3 "compound" ones - the latter being the Xeron Klasma, the Mega Kratema, and the Kouphisma. See also below, ad §22.

* 3. The υ in 12 may derive from a musical sign in a previous MS (υ = σύμα άνεστραμένου). In 21, one should perhaps restore περίμεσος (cf. περίμεσος in S). In 26-27, the error of P is hard to explain; notice, however, that S in line 15 has a similar set of misunderstood elements (ἡ/πλάγιον/κάππα). The other errors of P (in 6-7,11,13-14,19,22,28) are simple scribal mistakes, easily corrected by means of S and Anon.
4. The list is written consecutively in P and S. S includes the notational symbols (see Najock 1975). The unsystematic way in which P treats the blank might indicate that his model MS had blanks, only, without the notational symbols.

III 12. Σημείωσαί ὁδὲ περὶ τῶν ἀπλῶν καὶ συνθέτων καὶ ὁποία δεῖ εἶναι τὰ κυρίως σημάδια κατά μίμησιν τῶν τῆς μουσικῆς καβαλλίων. Μησίν τῶν τῆς μουσικῆς καβαλλίων:

Totam paragraphum rubro colore exaravit P

TRANSLATION:

12. "Notice here concerning simple and compound tones, and how the primary signs ought to be in imitation of the Kaballia of Music."

NOTES:

* 1. In Thibaut's edition (p.59) this paragraph is printed as a headline to chapter II (= §§13-17). Perhaps it rather reflects a marginal note in the model MS - conceivably covering §§10-11. Another such marginal entry might be §97 which looks like a scholion, cf. also §28.

* 2. For κατὰ μίμησιν cf. §10 note 1, where Lavra 1656 is quoted for the expression κατὰ ἀναλογίαν.

IV 13. Τῶν δεκαπέντε τανῦν τῶν συναρμολογεῖν καὶ τῶν τεσσάρων πνευμάτων λεγομένων στοιχείων τῶν δύο φωνηέντων καὶ τῶν δύο 5 βαρυνομένων συμπληρωται ὁ ἐννακαλεδέκατος ἀριθμός. οὗτοι δὲ οἱ δώδεκα τόνοι ἔχουσι τὴν φύσιν καὶ τὴν ἑνέργειαν ἀπλὴν οἳ δὲ τρεῖς κούνθετοι εἶναι, οὗ τὸ ἐπτὸν 10 κλάσμα ἀπὸ δύο ὁξεῖων καὶ ἠμιτονίου ἔχει τὴν σύστασιν, τὸ δὲ μέγα κράτημα ἀπὸ δύο ὁξείων καὶ τῆς τετασθῆς, καὶ τὸ κούφισμα ποτὲ μὲν ἀπὸ τετασθῆς ποτὲ δὲ ἀπὸ μεγάλου κρατήματος.

1 τανῦν dubitluit Hœg 9 et 12-13 lacunas suppleui 13 κάθεσις ante correcturam P (correxit rubricator)
13. Added together, the fifteen Tonoi and the four Pneumata Stoicheia so-called amount to nineteen. Of these, twelve Tonoi have a simple nature and effect, whereas three are compound—the Xeron Klasma being put together from two Oxeiai and a Hemitonia, the Mega Kratema from two Oxeiai and Petastehe, and the Kouphisma sometimes from Petaste, at other times from Mega Kratema.

NOTES:

* 1. If τανυθ (1) is the genuine text, it is probably a somewhat loose reference to the list which originally was found in §11 (see above, p. 19). Hseeg marked the word with a question mark in his transcript of Π—feeling, in all likelihood, that it was a dittography of the following word (τόσον).

* 2. The terminology used in lines 3-6 reappears in §17, 9-12 and §22, 4-6.

* 3. Οὔτω δὲ οἵ δώδεκα τόνοι (6-7) is to be understood as if it were Τούτων δὲ οἵ μὲν δώδεκα τόνοι, cf. οἵ δὲ τρεις in line 8.

* 4. The description of the three compound signs (8-15) fits well to their shapes in Coislin notation, both in composite and incomplete form (», and » », and » » », » » » and → »).

* 5. In later terminology the two forms of the Kouphisma are denoted by two terms: →T is called πετασμοκυψέως (or just κυψέως), ΑΤ κρατημοκυψέως (e.g. Tardo, p. 174, from Vatic. gr. 791; cf. also the list from Paris gr. 261 in Floros III, plate 2). As pointed out by Floros (1, 162-65), the Kouphisma does not occur in MSS earlier than those of his types Coislin IV and Chartres III. The 'Kratemokouphisma' is found, though rarely, in both Palæobyzantine notational systems (see e.g. Floros III, Beisp. 10 and 91).

14. Εἰςι δὲ ἀπὸ τῶν ἄπλων τῶν P: εἰςι δὲ ἀπὸ τῶν ἄπλων τῶν προσλαμβανόμενοι τινες, οἶνον αἱ τρεῖς δέξεια, οἱ δύο ἀπόστροφοι μετὰ δέξειας, αἱ δύο δέξεια ἀπὸ-5 στροφὸς καὶ πετασθῇ τὸ λεγόμενον ἀνάσταμαν (διὸτι ἄπο τοῦ κρατη-ματος τῆς διμηλῆς ή πετασθῇ φω-νή ὑμετέραν φέρουσα ἀναφέρε-tau), καὶ ἑτερα τοῖς ἀριθμη-10 θεῖσιν δήμωι.

8 φέρουσαν P

TRANSLATION:

14. A number of combinations are made from the simple Tonoi, e.g. "the three Oxeiai", "two Apostrophoi plus Oxeia", "two Oxeiai, Apostrophos, and Petastehe" (the so-called Anastama—the reason for this name being that the Petaste is sung at a higher pitch after the prolongation of the Diple), and other groups similar to those already listed.
NOTES:

* 1. The word προσλαμβανόμενον (scil. τόνω;) sounds like a terminus technicus. From the examples it is clear that it denotes "fixed neume groups where simple signs are added together". Cf. προσλαμβάνει §15, 4-5.

* 2. The three groups which are mentioned as examples are well-known from both Paleobyzantine notational systems. Their Coislin shapes are: Σ/ ("Dyo" according to the Laura-list, cf. Floros I,200-01); ΣΣ/ (in §18,12-14 this combination is called Apeso Exo, cf. also the Laura-list and Floros I,214-15); Σ (Anastama, cf. Floros I, 201-03).

* 3. Ἀνάσταμα (for Ἀνάσταμα) has several parallels in the following – in §18 alone we find κράτημαν, ἀνάτριχαμαν, ἀνάσταμαν. The phenomenon seems to have been widely spread, and Thibaut (p.59 note 9) is probably not to be trusted when he finds that this ending "trait une influence arabe; d'ou l'on est en droit d'inférer que le codex Hagiopolite provient apparemment de la Palestine ou de l'Égypte".

15. Οἱ δὲ λοιποὶ τῶν ἀπλῶν ἐνεργοῦσι καὶ μῶνοι καὶ μετὰ πνευμάτων, ἀνευ τῆς ἱσος τέν πή τῶν τριῶν τόνω; ὡστε πνεύμα προσλαμβάνει ὡστε ἐτερος τόνω; ἀλλὰ πανταχοῦ τὴν ἐνέργειαν ἱσον φέρει. Εἰ δὲ καὶ αὐτὴν βουληθῇ τὶς σύνθετον εἰπεῖν, σοῦ ἀμαρτήσεις κεντήματος γὰρ μνήμη μετὰ ὅλιγον ἀποτελεῖται ἢ ἱσον. Εἰ δὲ τὶς ἀπορεῖ τοῦτο, Εἰ ἐστιν ἀσματικὸς τῆς πρώτης λαμβανέτω τὴν πληροφορίαν, δι᾽ ἐν τοῖς χειρονομήμασι τοῖς ἀσματικοῖς τὸ ὅλιγον ἱσον κέκληται.

P: οἱ δὲ λοιποὶ τῶν ἀπλῶν ἐνεργοῦσι καὶ μῶνοι καὶ μετὰ πνευμάτων ἀνευ τῆς ἱσος, ἐν τῶν τριῶν τόνω; ὡστε πνεύμα προσλαμβάνει ὡστε ἐτερος τόνω; ἀλλὰ πανταχοῦ τὴν ἐνέργειαν ἱσον φέρει. Εἰ δὲ καὶ αὐτὴν βουληθῇ τὶς σύνθετον εἰπεῖν, σοῦ ἀμαρτήσεις κεντήματος γὰρ μνήμη μετὰ ὅλιγον ἀποτελεῖται ἢ ἱσον. Εἰ δὲ τὶς ἀπορεῖ τοῦτο, Εἰ ἐστιν ἀσματικὸς, τῆς πρώτης λαμβανέτω τὴν πληροφορίαν, δι᾽ ἐν τοῖς χειρονομήμασι τοῖς ἀσματικοῖς τὸ ὅλιγον ἱσον κέκληται.

1-2 ἐνεργοῦσι τῶν Π 2 μῶνοι Π 5 ἐτερος τῶν Π 10 ἀν μνήμην 'legendum?'

TRANSLATION:

15. But the rest of the simple tones function both alone and together with Pneumata, apart from the Ison which is neither combined with a Pneuma nor with another Tonos, but in all situations has only its function of Ison (?). If somebody wants to call this sign a compound one, this would not be wrong; for the Ison is written as Kentema + Oligon. And if he has his doubts about ..., let him know that in the asmatic lists of signs (?) the Oligon is called Ison.
NOTES:

* 1. Thibaut (p.59, note 5) suggests that ἐν τῇ τῶν τριῶν in 3–4 is an elliptical expression for ἐν τῇ τῶν τριῶν σημαδίων, a reference to the three fundamental signs of direction (Ison for Ἐνθύμησις, Oligon for Ἀνάβασις, Apostrophos for Ἀκατάβασις - to use the terminology of the Papa-dike). As subject for προσλαμβάνει he adds ἡ ὑση, before the first οὗτε in line 3. Perhaps the text should rather be restored as follows: οὔν εἰς η ὑσης, <κτυπ> ἐν τῇ τῶν τριῶν < ὁ οὗτε πνεύμα προσλαμβάνει οὗτε ἐτερον τόνον...

* 2. Lines 9–11 describe a Coislin Ison of the same type as e.g. Sinai 1242 (Strunk, Specimina, plate 160), whereas the reference in 15–16 is clearly to the straight Chartres Ison (—).

* 3. Provisionally I interpret τὰ χειρονομήματα τὰ ἀσματικά (14–15) as a term for "musical notation used in MSS of Ἀσμα"; a related term occurs in the heading of the Laura-list (ἐν ἄσμα, ἀρχαὶ τῶν μελοθημάτων)

16. Ἐστι δὲ καὶ ἡ λεγομένη
θορᾶ, ἢ ἀπὸ τοῦ κεντήματος
cαι τῆς ὑψηλῆς ἐχουσα τὴν ἀπό-
ροιαν' καὶ γάρ οὐδ' αὐτή μόνη
5 ἐνεργεῖ, ἀλλὰ μετὰ δέξειας' ἢ
dὲ καὶ δόο ἢ και τριῶν δέξιον' ἡ
καὶ δύο ἀποστρόφων καὶ δέξειας
ἀποτελεῖ κεντήματος δύναμιν' ὃ
donτε δὲ ἐπάνω, πληροὶ δύναμιν
10 ὑψηλῆς, εἰ καὶ μὴ δίδολου.

1 ΕΣΤΙ] ΕΣΤΙ Floros 5 ΗΡ Floros

TRANSLATION:

16. There is also the so-called Phthora, derived (graphically?) from the Kentema and the Hypsele. This sign, too, is not used alone, but combined with Oxeia. But in the combinations with two or three Oxeiai or with two Apostrophoi + Oxeia, it has the effect of a Kentema; but when it is placed on top (of the group), it functions as a Hypsele, though not always.

NOTES:

* 1. The ἀπόρροια in 3–4 (already encountered in §10,8) perhaps refers to the graphical "derivation" of the Phthora, rather than to its function - though the idea of comparing its two elements ( o and | or / ) to Kentema and Hypsele seems rather farfetched. The author may have suffered from a Systemzwang, cf. his equally strange description of Ison in §15,9–11. His starting-point seems to have been the clear cases of σύνεδετο τόνοι (§13,8–15). Floros (I,296) uses "Ausgang" to render ἀπόρροια.

* 2. In 5–10 he evidently refers to groups such as "Φ ∈ /Φ and >> / Φ (cf. Floros I,297). According to Floros, the combination of Diπle and Phi is not to be found in his material.
3. In later terminology, ἐπάνω is opposed to ἐμπροσθεν (see e.g. Tardo p. 171, from Vatic. gr. 872). Our author apparently distinguished between ὅ/ and ἕ/ etc.

17. Ἐπει δὲ εἰπομεν περὶ τῶν, ὁ: ἐπει δὲ εἰπομεν περὶ περὶ πνευμάτων, φέρε εἰπωμεν καὶ περὶ πνευμάτων, θίνος χάριν ἐγένοντο, ὅτι ὅσπερ τὸ σῶμα πολλὰ ἔχουν τὰ μέλη ἄν-
5 ενέργητα εἰσιν εἰ μὴ διὰ τῶν στοιχείων ἐνεργοῦνται, οὕτω καὶ οἱ τόνοι εἰς μέλη πολλὰ σωματο-
10 ποιηθῆναι θέλουσιν, τὸ μελλούσιν ἐνεργεῖν. ἐν ὁς ἐπενοή

4' οὐ τόνοι εἰς μέλη πολλὰ σωματο-

15 ἐνέργεια.

12-13 ἐνεργώσας suppleuit Ebbesen

TRANSLATION:

17. Having now spoken about the Tonoι, let us also tell for what purpose the Pneumata have been introduced: Our body has many limbs (μέλη), but if these are not activated by means of the elements (στοιχεία), they remain inactive. In a similar way, the Tonoι require to become a body of many musical phrases (μέλη), if they are to activate (i.e. to produce sounds). In this connection these signs (στοιχεία) have been invented - two of them to indicate high pitch, the other two to indicate low pitch - in order that they (the Tonoι) <may activate> by means of these (the Pneumata). Certainly, they (the Pneumata) are also activating in themselves; but their activity is "dead".

NOTES:

* 1. The syntax in 3-6 is somewhat loose, but there is no need to correct.
* 2. Ἐνεργεῖν in its transitive sense seems to denote the realization of the potential sound as implied in the neumatic sign.
5 τελετ κράτημαν. ὡμοίως καὶ ἡ ἀπόστροφος ἑνεπηγεῖ: διπλασιαζομένη γὰρ τὸ αὕτω ἀποτελεῖ. καὶ πάλιν ἡ ὄξεια προσλαμβανομένη ἔτεραν ὄξειαν καὶ τὸ ἡμίτονον
10 ἢ τὸ κλάσμα τριπλασιαζομένων ὅτι καὶ μετὰ ἀπόστροφον ἐνός, λέγεται ἁπέσω ἐξο. ὡμοίως καὶ οἱ δύο ἀπόστροφοι μετὰ ὄξειας τὸ αὕτω λέγονται. πάλιν αἱ τρεῖς ὄξειας μετὰ κεντημάτων δύο ἀποτελοῦσιν ἀνατρίχισμαν καὶ ἐνειλητικοῦν ἀνάσταμαν ἐπερ καὶ αὐτὸ μετὰ διπλῆς ὄξειας καὶ πετασθής ἀπόστροφοι καὶ δύο
20 κεντημάτων συνίσταται ταῦτα δὲ ὁπλῶν καὶ ἐπιπροσθεν φωνήν δι- 5x ὀρίζουσιν. πάλιν οἱ δύο ἀπό- ὀρίζουσι: πάλιν όι δύο ἀκό- στροφοι μετὰ δύο ὄξειων καὶ δύο κεντημάτων, εἴτε ἄνω εἰσίν eie τὸ κάτω, καὶ αὐτοὶ ἀνατρί- 25 καὶ αὐτοὶ ἀνατρίρησεις λέγονται εἰ δὲ ἢ ζητεῖ ἁπέσω ἐπερ, εἴτε ἄνω εἰσίν εἴτε κάτω, καὶ αὐτοὶ ἀνατρίχιςμαν λέγονται εἰ δὲ ἢ ζητεῖ ἁπέσω ἐπερ, εἴτε ἄνω εἰσίν εἴτε κάτω, καὶ αὐτοὶ ἀνατρίχιςμαν λέγονται εἰ δὲ ἢ ζητεῖ
30 σείσεις εὐρησεις δὲ τοῦτο ὡς ἐπὶ τὸ πλεῖστον ἐν τῇ ἄρχῇ τῶν εἰριμῶν τοῦ πλαγίου δευτέρου. τὸ ὀλίγον δὲ μετὰ ἀπόστροφον, κάντε ἄνω κάντε κάτω ἢ εἰς τὸ πλάγιον, καὶ αὐτὸ βαρεία λέγεται. οἱ δύο ἀπόστροφοι διάλοξοι καὶ αὐτοὶ βαρεία λέγεται ὡς καὶ ὁι τέσσαρεις.
35 4, 6, 7 notas musicas rubro colore scripsit P. 7 κράτημαν post ἀποτελεῖ. addidit Thibaut 16-17 εὐελητικοῦ legit Thibaut, quem secutus est Høeg (eυελι.)
18. NB. In single position, the Oxeia (') is an activating sign, as are the Pneumata. But when it is written twice and is called Diple (''), its effect is (only) a lengthening. The Apostrophos (') behaves in a similar way; for when it is written twice ('''), its effect is the same (i.e. a lengthening). Also the Oxeia, when combined with another Oxeia and the Hemitonon or Klasma. But when there are three Oxeiai plus one Apostrophos, this is called Apeso Exo. The two Apostrophoi plus Oxeia are also called by this name (i.e. Apeso Exo). The three Oxeiai plus two Kentemata constitute Anatrichisma and "eneiletic" (or "eneiletic", see Notes) Anastama. The same (i.e. Anastama?) is also formed by means of Double Oxeia and Pe-tasthe, Apostrophos, and two Kentemata. These (i.e. the Dyo Kentemata) define (the size of) the interval, (depending on whether they are put) after or before. The two Apostrophoi plus two Oxeiai and two Kentemata - whether these are above or below - are also called Anatrichisma. And if the Ison carries an Apostrophos - above or below - it is called Bareia. But if the Ison has two Kentemata, this is called Seisma; this will most-ly be found at the beginning of Heirmoi in Flagios Deuteros. Oligon plus Apostrophos - whether above or below or sideways - is also called Bareia. The two slanting Apostrophoi are also called Bareia; so are the four.

NOTES:

* 1. From line 7 onwards there are no interlinear red neumes to support the description of the configurations. It is hard to tell whether or not an earlier stage of the text comprised such clarifications. There are no in-terlinear neumes in the corresponding passages, §§13-14; but on the other hand, details in §11 suggest that some symbols of notation have been dropped during the process of transmission (cf. note 4 ad §11).

* 2. The descriptions in 7 sqq. cover the following groups of neumes: 7-10: ~", i.e. the Xeron Klasma (cf. §13). 10-14: ~' and >>", two forms of Apeso Exo; the former of these is rarely found, but see e.g. Vatop. 1488,169r. 14-22: ~" (or ~'') and ~"", Anatrichisma and/or Anastama (Floros I,201-04). 22-26: >>" (?), Floros's "Anatrichisma IIb" (ibid.216). 26-38: Various groups which are called Bareia. None of them, however, actually contain the Bareia neume itself: ~ or ~' or ~" (which is called Seisma in 28-30; the standard opening of Second Flagial Heirmoi referred to, however, is the group ~'. See below, note 3), ~ or ~ or ~' or ~"'. Finally, a Bareia consisting of four Apostrophoi is mentioned. For this group, see note 3 below.

* 3. Of the constellations listed in note 2, six are to be found in the Heir-mologion Lavra Γ 9: ~", ~", and ~" are frequent; ~ (10r line 15), ~ (21v line 12), ~" (87v) - all of them corresponding to groups with ~ in other MSS. This observation should be used to settle a terminus post quem for §18; for this "Seisma" seems to be found mostly in MSS of Floros's Coislin VI. See Floros I,354-5 on the spread of Coislin VI from Constantinople shortly before 1100.

* 4. What is an ἐνειλητικόν (or εὐελητικόν) ἀνάσταμα?


19. Ἐκ τοῦτον οὖν δείκνυται, P: Ἐκ τοῦτου οὖν δείκνυται,
διὸ δύναται τῆς διὰ τῶν αὐτῶν διὸ δύναται τῆς διὰ τῶν αὐτῶν
τόνων μὴ παρόντων τῶν πνευμάτων, συντιθέναι μέλη σ' οὖχ οὖτως δὲ
5 ὡς εἰ μετὰ τῶν πνευμάτων.

TRANSLATION:
19. As you can see from this, it is possible to express melodies by means of the Tonoi themselves, without Pneumata – though not in the same way as when these are included.

NOTES:
* 1. Συντιθέναι is probably "to write down" rather than "to compose". Μέλη is either "melodies" or, more specifically, "melodic phrases". In the latter case, we might infer from ἐν τούτῳ that the configurations in §18 were considered to be "μέλη" by the author of §19. (For the use of the term in theoretical texts, see Floros I,113-14).
* 2. Short though it is, §19 is quite enigmatic. Its "message" seems to be that Pneumata are useful elements of the notation, though not absolutely necessary. But is this, really, a reasonable conclusion to draw from the data in §18? Or, to put it differently: Is §18 a natural statement to write as a background for the conclusion in §19? The Pneumata were introduced as a theme in §17, the question being ἡ πνεύματα ἐγένετο. This question got its answer already at the end of §17, and the section on the Pneumata might have ended there. Besides, the ισόδυνα of §18 suggests a fresh start, cf. §4 and §24. It would be more easy to understand §19 in terms of a later intrusion into the text, a scholion added to §18 at a time when Coislin notation had already been superseded by diastematic neumes. For whereas it would not be relevant to point out, in a Coislin context, that the μέλη in §18 are understandable without Pneumata, a remark of this kind would be more natural for a later "teacher", addressing himself to pupils who know about diastematic, "Round" notation. Tentatively, I therefore ascribe §19 to a later layer of the traditions embodied in the Paris MS.

20. Διαφέρει δὲ ἡ ὄξεια τῆς
πετασθῆς ὡς πλείονα ἐχουσῆς
tὴν δύναμιν. ὅτε δὲ ἄμφοτερα
ἐπάνω ἔχουσι τὰ πνεύματα, δια-
5 φορὰ ὡς ἔστιν ἐν αὐτοῖς ἐκ-
tὸς δὲ τῶν πνευμάτων, δυνατω-
tέρα ἔστιν ἡ πετασθῆ τῆς ὄξειας.
Ἰσοδύναμες δὲ τῇ ὄξεια τῷ δι-
lίγον, εἰ καὶ ἄμφοτερα μετὰ
10 τῶν δύο κεντημάτων.

P: διαφέρει δὲ ἡ ὄξεια τῆς
πετασθῆς' ὡς πλείονα ἐχουσῆς
tὴν δύναμιν ὅτε δὲ ἄμφοτερα
ἐπάνω ἔχουσι τὰ πνεύματα' δια-
φορὰ ὡς ἔστιν ἐν αὐτοῖς' ἐκ-
tὸς δὲ τῶν πνευμάτων, δυνατω-
tέρα ἔστιν ἡ πετασθῆ τῆς ὄξειας'
5ν ἰσοδύναμες δὲ τῇ ὄξεια τῷ δι-
lίγον, εἰ καὶ ἄμφοτερα μετὰ
tῶν δύο κεντημάτων'

9 καὶ fortasse corruptum; an χείται legendum?
20. Oxeia differs from Petasthe, the latter being more dynamic. However, when these two signs have Pneumata on top of them, there is no difference between them; but without Pneumata, Petasthe is more dynamic than Oxeia. The Oligon is dynamically equal to the Oxeia, when they occur together with Dyo Kentemata.

NOTES:

* 1. If κάλ (9) is not to be corrected into κε&ζ&α (or κε&ζ&α?), it is probably not to be combined with ει — and καλ ἀνφότερα should then be taken to be an equivalent to καλ τὰ ὄνω (= both, apparently a "Balkanism" — cf. e.g. Bulgarian И ДВАМАТА.

* 2. It may be reasonable to state that there is no dynamic difference between the combinations ἐ and ἐ (8-10). But the postulated disappearance of the dynamic distinction between Oxeia and Petasthe when these are combined with Pneumata is strange. Notice also that the same information is given twice (in 2-3 and 6-7). Could it be that 3-7 belongs to the same late layer as §19?

21. Τόνοι δὲ τοῦ ἁσματός εἰσιν  5  21. The Tonoi of Ancient Music are the following: Ison, Oligon, Metoligon, Meson, Hypermeson, Akron, and Telelon. According to tradition, their number was later-on increased to fifteen "by those who sufficiently understood their function".

NOTES:

* 1. The names of the seven strings look like a mixture of Byzantine and Ancient terms. In §102 the traditional names are given. One of these occur at both places, the Hypermeson or Hypermese; this term, according to Vincent p. 270 note 2, is a speciality of Nicomachos's for the usual Lichanos. The beginning of the Lavra-list may reflect a similar tradition, with its counting of seven φωνα (numbered α-ζ) and the term τελεία for the uppermost of these.

* 2. The text of the Paris MS is undoubtedly corrupt in 4 sqq. My "emendation" is meant as a suggestion, only. I take the reading ἐκαυχωνθείσαν to be a conjecture which was introduced after one or more words had fallen out.
22. ὁσάτα καὶ αἱ τῶν φωνῶν ἱδιότητες τῶν ἐν ἑκκλησίᾳ παραδεδομένων προσάδεσθαι τῷ θεῷ εἰσίν, οἱ δεκαεννέα ποσοῦμενοι
5 μετὰ τῶν τεσσάρων πνευμάτων καὶ στοιχείων λεγομένων ὃν καὶ τὰ ὀνόματα εἰσὶ ταῦτα· Ἰον, ὄλγον, ὄξεια, πετασθή, κούφισμα, βαρεία, ἀπόστροφος, κατάβασις,
10 κύλισμα, ἀνατρίχισμα, ἀπόδερμα, ἄντικένωσις, ἕρων κλάσμα, κράτημα, σύρμα. σὺν αὐτοῖς τὰ τέσσαρα πνεύματα· κέντημα, υψηλή, χαμηλόν καὶ ἐλαφρόν. ὅμως
15 δεκαεννέα καὶ ἡμίτονα τρία· σεισμα, κλάσμα μικρόν καὶ παρακλητική.

1 an τοσαύτας legendum?

TRANSLATION:

22. So many (i.e. 15) are also the distinct properties of the sounds which in the tradition of the Church are sung in God’s honour – reckoned to nineteen if the four Pneumata are included, the so-called Stoicheiai. Their names are: Ison, Oligon, Oxeia, Petasthe, Kouphisma, Bareia, Apostrophos, Katabasma, Kylishma, Anatrichisma, Apoderma, Antikenoma, Xeron Klassma, Kra-
tema, and Syrma. Together with these are reckoned the four Pneumata: Kentema, Hypsele, Chamelon, and Elaphron. Nineteen in all, plus three Hemitonae: Seisma, Klasma Mikron, and Parakletike.

NOTES:

* 1. In lines 1–6, the author has attempted to describe the Byzantine neumes in refined words, instead of sticking to the σημάδια of §12 or the τόνοι of §§13, 17 etc. The result is somewhat confusing – e.g. the use of masculine forms in 4 (maybe influenced by a non-expressed τόνος?) or the construction with infinitive in 2–3. His "terminology" has a philosophical
ring (αἱ τῶν φωνῶν λόγοτητες in 1-2); this may be the reason why it is so difficult to grasp the exact meaning of αἱ φωναί ("intervals" or "sounds" or "melodies"?). His choice of the verb προσφύγεσθαι (3) might perhaps be explained from the obvious similarity of the neumes and the grammatical signs of προσφώνησα.

* 2. The list (7-12) is discussed by Floros (Neumenkunde I, 113-7 and III, 36). Its connection with §§10-13 is evident. But one small detail should be noticed: §22 uses the term κράτημα (12), whereas the original list in §11 seems to have had μέγα κράτημα (cf. §13!). In his table (III, 36) Floros silently corrects §22 into Mega Kratema - but the small difference in terminology may betray that the two lists were not identical, though the magic number of fifteen was the same.

23. Ταύτα ὀρθῶς εἰ τὶς ἐπισκοπής, ἔρει ἐκ τῶν τῆς μουσικῆς ὑποθέσεως, εἰ ἐκ τῶν τῆς μουσικῆς τῶν ἐπενόησαν καὶ οἱ τῶν μελοδίων τόνοι. ἀπεπείρασαν τοῖς τῶν γραμματικῶν συλλάτες θεωρήματα καὶ τοῖς τῶν ἐπιτυθέντες, ὧν οἱ γραμματικοὶ κατὰ μέμοραν τῶν κακῶν ὑπό τῆς νυχθημέρου ἐξεινεῖ φασίν τὰ καθαρά, οὐδὲν ἐκ τοῦ τύχοι τούς κακῶν τῶν, καὶ ὡς ἐκεῖνοι κατὰ μέμοραν τῶν ἐπὶ πλανητῶν ἐξεῖνε τὰ τῆς φωνήσεως, οὕτω δὴ καὶ ὦτος τὰ τῆς αὐτῶν φωνήσεως, καὶ ἑκεῖρα τινά.

6 τῶν Thibaut πόνος P 13 ἐξεῖνε P, sed confer lin 9

TRANSLATION:

23. If you reflect properly on these facts, you will admit that the Tonoi of the melodies have been invented from the Tonoi of Ancient music. Apparently it is pure nonsense to steal the theories of the grammarians - as some do - and apply these to the Tonoi: In the same way as the grammarians say that their 24 letters are an imitation of the 24 hours of the night-and-day, these persons interpret the 24 Tonoi. And just as the former declare that the seven vowels (φωνήσεως) imitate the seven planets, the latter explain their seven sounds (φωνήσεως). And there is more of the same kind.

NOTES:

* 1. The juxtaposition of the Ancient and Ecclesiastical musical notation (1-4) occurred already in §§10 and 22-23. Notice the changing terminology,
a phenomenon which can be explained in more than one way (e.g. stylistically, or being due to different sources).

2. Thibaut's silent correction of P's τόνος (6) is as good as it is small. It cannot be totally excluded, however, that the MS reading is sound; τοῖς τόνοις ἐξουσιώντες might convey the idea that these theoreticians of music transferred such numeric speculations from grammatical treatises "to their own products". In favour of this interpretation one may point out that both τόνοις and ὑποτάσσεται are emotionally loaded words.
music transferred such numeric speculations from grammatical treatises "to their own products". In favour of this interpretation one may point out that both τόνοις and ὑποτάσσεται are emotionally loaded words.

VI 24. Ἰστέον ὡς ἡ ᾿Ιση φωνὴν σὺκ ἔχει, οὔτε ἄνυσαν οὔτε κατ-λοῦσαν, ἀλλὰ ἔστι τοῖς τόνοις ἀπασὶ ταπεινοῦμεν ὅπου ἡ ἀν 5 εὐρεθῆ, κἂντε εἰς ὁμοτόπητα φωνῆς κἂντε εἰς χαμηλότητα καὶ ὑποτάσσει καὶ ὑποτάσσεται.

7 καὶ οὕτω ὑποτάσσεται coniecit T

TRANSLATION:

24. NB. The Ise has no interval value (φωνή), neither ascending nor descending, but wherever it is to be found - whether in high or in low pitch - it humbly follows any (preceding) note. It subordinates, and it is subordinated.

NOTES:

1. The curious expression in 3-4 about the Ison as being τοῖς τόνοις ἀπασὶ ταπεινοῦμεν must refer to its function of sign for repetition of pitch. A related text (Tardo p.170,13-19) expresses this more clearly: 'Ἡ ᾿Ιση... ἔστιν τοῖς ἀπασὶ τόνοις ἀκάλουθος καὶ ὁμοτόπητα φέρουσα τῆς τούμπαλων ἐρχομένης φωνῆς (i.e. the immediately preceding note)... ἔς οὖ καὶ τὴν ἐκπυμ-μίαν ἐξηκέμνει (read: ἐκηκέμνει) ἢ τ' ἂν γὰρ εἰς ὁμοτόπητα φωνῆς εὐρεθῇ ἢ τ' ἂν χαμηλότητα, ἐκείνων δέχεται (i.e. δέχεται) τὴν φωνήν.

2. For ᾿Οὐκ ἴδιν (or ῧκουσθέν) see Sophocles s.v. and D. Tabachovitz, Études sur le grec de la basse époque. Uppsala 1943, pp.26-29.

3. The last statement in this short paragraph has caused much trouble to subsequent generations of teachers. We find a curious demonstration of this in the Erotapokriseis of Lava 1656 (Tardo 218,23-219,22) where the ὑποτάσσεται-notion is dismissed as being utterly silly. In a way, however, the Hagioiopolites makes good sense: When combined with other neumes, the Ison certainly subordinates (in so far as it annuls the interval value of the other neume); but it is also subordinated (in so far as its φωνή is produced with the dynamic quality of the other neume). But admittedly, the lapidary phrasing of our text seems to demand to be orally elaborated by a teacher!
25. Τὸ δὲ ὀλίγον ἔχει φωνὴν μίαν, ὁμολογεῖ ἣν πετασθῇ καὶ ἡ δέξειά. ἀποροφᾶ δὲ τινές, τί δήποτε οὕχ ἐν ἐτέθη σημαδίουν ἐξοῦ μίαν φωνῆν, ἀλλὰ τρία ἐχοῦτα ἀνά μίαν φωνῆν, καίτοι τὸ ἐν ἢρκει <ἄν> ἀντὶ μίας φωνῆς πανταχοῦ. πρὸς οὐς λέγομεν, ὅτι διαφορὰς εἰς φωνῶν ἡ μὲν 10 δέξεια, τῇ δὲ ὁμαλῇ, ἢ μέσον τούτων. ἐνεκεν τῆς φωνῆς διαφορὰς ἐτέθησαν καὶ διάφορα σημάδια' οὐ μόνον δὲ διὰ τοῦτο, ἀλλὰ καὶ διὰ τὴν ἐναλλαγὴν τῆς 15 χειρονομίας.

7 ἢρκα Thibaut ὅν suppuleui 8 εἰα χου Perne, πα[ν]ταχοῦ Ὅδεγ, πα[ρε]σχ(ετ) Thibaut 9 haud dubie corruptus varie emendari potest, e.g. ἢ μὲν δέξεια, < ἢ δέ.....>, ἢ δὲ ὁμαλῇ ἢ (vel ἢ) μέσον τούτων, vel ἢ μὲν δέξεια, ἢ δὲ ὁμαλῇ, ἢ <δὲ> μέσον (vel μέσην) τούτων; vide annotationem nostram

TRANSLATION:

25. The Oligon "has one sound" (i.e. denotes the interval of one step), and so has the Petasthe and the Oxeia. Some people wonder why three signs have been made to denote one sound - and not only one - though one sign would have sufficed everywhere. Our answer to these people is that the sound is realized in different ways - the step being a sharp one, a smooth one, or in between. The different signs were made because of this difference of sounds - and also because of the change of chireonomy.

NOTES:

1. As usually, the word φωνή is difficult to render. In 1-8 it refers to the interval, in 8-11 to the dynamic quality of the sound. The expression διαφορᾶς φωνῶν (9 and 11-12) does not refer to any difference as to the size of intervals.

2. It is difficult to find a safe remedy for the corrupt text in 9-11; I have suggested two different emendations. Obviously, the passage deals with the three signs Oligon Petasthe and Oxeia. The adjective δέξεια evidently covers the dynamic quality of the Oxeia sign. The third of the signs being described as μέσον (or μέσην?) between the others, the crucial point must be the adjective ὁμαλῇ. As long as we do not know the implication of the word (is the "even" or "smooth" sound characteristic for the neutral Oligon or for the small flourish of the Petasthe?), we cannot decide whether
26. Ο ἀπόστροφος ἔχει φωνήν μίαν, καὶ οἱ δύο ἀπόστροφοι μίαν. ἀπορροφή δέ τινες πρὸς τοῦτο, πῶς γίνεται, πρὸς οὗς. 

5 φαμέν, διὶ κυρίως τόνοι εἰσὶ τέσσαρες· ὅλγον, ἡεῖα, πε- τασθῇ, καὶ ἀπόστροφος. ἥν' οὖν ἐπὶ τό κεῖσθαι τὰ κατιόντα πνεῦματα - τὸ ἐλαφρὸν φημι καὶ

10 τὴν χαμηλὴν - ἐμπρόσθεν τοῦ ἀπόστροφος διακρίνητ' διὰ τὶ φωνήν οὖν ἔχει ὁ ἀπόστροφος· ἀλλὰ εἰ τοῦχοι ἐμπρόσθεν ὑπὸ τοῦ πνεῦματος, τὴν μὲν φωνήν

15 ἔχειν ὑπὸ τὸ πνεῦμα γυνώσκεις; τοὺν δὲ ἀπόστροφον μὴ, κλείσθαι <δὲ> ὑπ' αὐτοῦ διὰ τὸ μὴ ἔχειν φωνὴν ἀλλ' ὅς τόνον κέισθαι· ἄνευ γὰρ αὐτοῦ οὐδὲ ἐλαφρὸν

20 γραφεῖται οὐδὲ χαμηλή, εἰ μὴ ποὺ μετά τῶν μεγάλων σημαδίων γραφῆσουσιν. πῶς γὰρ ἡδύνατο ὁ εἰς ἀπόστροφος καὶ πνεῦμα εἰναι καὶ τόνος, εἰ μὴ τὶς ἢν

TRANSLATION:

26. The Apostrophos "has one sound" (cf. §§25,1-2), and so have the Dyo Apostrophoi. Some people wonder how that can be. Our answer is that strictly speaking there are four Tonoi: Oligon, Oxela, Petasthe, and Apostrophos. (The next lines are corrupt and cannot be translated; see Notes) ......... why the Apostrophos has no sound (in this situation); but if it (i.e. the Apostrophos) is placed before the Pneuma, you realize that it is the Pneuma - and not the Apostrophos - which has the sound, and that it (i.e. the Apostrophos) is "enclosed" by this sign (i.e. the Pneuma), because it (i.e. the Apostrophos) has no sound but is only placed as Tonos (i.e. neumatic sign). For without this sign (i.e. the Apostrophos) one writes neither Elaphron nor Chamele - except when these (i.e. the Pneuma) are written in combinations with the Megala Semadia. For how would it be possible for one Apostrophos to function both as a Pneuma and a Tonos, if there were no difference in it which could be observed?

NOTES:

* 1. The transmitted text needs a considerable amount of emendations to yield a reasonable sense; no doubt, my present reconstruction needs to be revised - especially if a solution can be found to the corrupt lines 7-11. This solution might very well imply a loss of several lines of text, though it is not easy to define the exact place of a lacuna.

* 2. In lines 7-11, the expression ἐπὶ τῷ ἐξορθά ἐκ τοῦ ἐξορθήτου ἐπισκόπησεν τῷ ἐξορθόφος would imply the neumatic groups → and ↔; both of these are impossible, the correct configurations being → and ↔. At first, the transmitted text seems to find a support in lines 13-14, where P reads οὗ τύχει (i.e. εἰ τύχει) ἐξορθοσεθεν ἀυτοῦ πνεύμα ("if a Pneuma is placed in front of the Apostrophos"). But we have no guarantee that 13-14 are correct, and only a couple of slight corrections are needed to make 13-14 correspond to usual neumatic practice. In a way, what really intrigues is why a copyist could possibly produce these absurd descriptions. His familiarity with musical manuscripts must have been very limited, indeed!

* 3. The problem which is discussed in §26 is the intervallic identity between > and >>, both denoting one descending step. Evidently the paragraph belongs to a later layer - exactly as did the preceding paragraphs with their descriptions of Middle Byzantine notational system. Most of the reasoning (7-22) consists of remarks on situations where an Apostrophos looses its interval value (viz. when placed in front of a Pneuma). In such situations the Apostrophos, in the terminology of lines 17-18, "has no φινή but is put as τόνος". I therefore infer that the explanation of the Dyo Apostrophoi would have to be that in this configuration the first Apostrophos is considered to be a Tonos, and that the μία φινή (2-3) belongs to the second Apostrophos, only. Apparently, then, the function of the second Apostrophos corresponds to the function of Elaphron or Chamele, the parallel being so relevant for our author that he ends up by the amazing statement that the Apostrophos at times is a Pneuma!

Further corrections of the text would have to fit into this general line of thought.

* 4. The syntactical structure of 7-18 is unclear, and some of my deviations from the punctuation of P may, in the end, turn out to be wrong.

* 5. In 14-17 the lacunas come so regularly that one gets the impression that the model manuscript, somehow, was physically damaged. Spilled ink? Worm holes? Or ultra-short lines damaged at a coherent area of the page,
maybe through a loss of an outer margin? Strange as this notion of ultra-
short lines may seem to be, it finds some support in the following consid-
eration: As already pointed out, the model manuscript of P (or one of his
models) seems to have contained several marginal entries (cf. ad §12). Can
it be that the entire Middle Byzantine layer was such marginal entries into
a model which originally contained only the "old" Hagiotopites text? We
have at least one parallel, the famous Venetus Marcianus app. VI, 3 - a 12th
cent. parchment volume in the margins of which a 14th cent. scribe added
a number of complete texts of ancient musical theory (see Jan, Musici Scrip-
tores Graeci, Lpz. 1895, pp. XVI-XXIV).

VII 27. Παναυτα δε εισι τεσσαρα
κυριως δε δυο, το υψηλον και η
χαμηλη. Απορησειε σαν τις, δια
τα τα μεν δυο πνευματα έχουσιν
5 ανα δυο φωναν, τα δε δυο ανα
τεσσαρων. προς ους άπαντησομεν,
διε έπειδη δ τεχνικος εξεδετο
τα έχοντα ανα μιαν φωνην σημα-
δια, μελλων μεταβαίνειν επι το
10 και σημαδια εκτίθεονται ανα δυο
φωναν έχοντα, έπει ουκ ήν δυ-
νατον τας εν τη δια εκτελο-
μενας φωνας οπο δυο σημαδιων
γίνεσθαι ανα μιαν φωνην έχον-
15 των - ει γαρ ήν εν τη δια, άλλα
και μια και μια δειελον άνερ-
χεσθαι η κατερχεσθαι - τοιουτο
χαριν τεθεικε τα δυο πνευματα
ανα δυο έχοντων φωναν, ένα εν
20 τη δια αι φωναι άνερχονται. το
δαιτω νοησεις και επι των δε
έχοντων φωνας δειπνει επι των
δυο, oδη δη και επι των δε.

P: Πενευματα δε εισιν τεσσαρα
κυριως δε δευτη εβιν η
χαμηλη Απορησειε σαν τις, δια
τα τα μεν δυο πνευματα έχουσιν
ανα δυο φωναν, τα δε δυο ανα
τεσσαρων προς ους άπαντησομεν,
διε έπειδη δ τεχνικος εξεδετο
τα έχοντα ανα μιαν φωνην σημα-
δια μελλων μεταβαίνειν επι το
και σημαδια εκτίθεονται ανα δυο
φωναν έχοντα επει ουκ ήν δυ
νατον τας εν τη δια εκτελο-
μενας φωνας υποδο η σημα[
η]διαν γίνεσθαι ανα μιαν φωνην έχον-
tων η γαρ εν τη δια αλλα
και μια και μια δειελον άνερ-
χεσθαι η κατερχεσθαι τοιουτο
χαριν τεθεικε τα δυο πνευματα
ανα δυο έχοντων φωναν ένα εν
τη δια αι φωναι ανερχονται το
δαιτω νοησεις και επι των δε
έχοντων φωνας δειπνει επι των
δυο, οδη δη και επι των δε.
TRANSLATION:

27. There are four Pneumata - properly speaking, however, there are only two: the Hypselon and the Chamele. One may wonder why two Pneumata contain two steps each, whereas each of the other two contains four. The answer is that when the author had exposed the signs which contain one step each, and wanted to pass on to exposing signs with two steps each, this was his reason to impose the two Pneumata with two steps each, namely in order that these steps can move together (i.e. be executed as a leap of one third). For it was impossible that the steps which should be taken together (i.e. as a leap) could be realized by means of two signs which contained one step each - for even if this had been possible, they might as well move up or down in stepwise movement, one by one. A similar consideration can also be applied to the signs which have four steps; the explanation concerning those with two is, of course, equally valid in the case of those with four.

NOTES:

* 1. The question raised in this paragraph (3-6) is introduced by the expression ἀπορητῶς δ᾽ ἄν τις, a favourite of Aristotelian commentators and other literature. In line 7, ὁ συγκυριός belongs to the same scholarly sphere, being a usual term for the "author" whose text is commented upon.

* 2. I fail to see why Hypselo and Chamele are more Pneumata than Kentema and Elaphron (lines 1-3). Curiously enough, these "Pneumata par excellence" do not reappear until the end of the paragraph (20-23). Obviously, they are not very important to the reasoning of our author - so why mention them so prominently in 1-3?

* 3. In his remarks, our author distinguishes between stepwise movement (μιᾶ και μιᾶ 16) and leaps (ἐν τῷ ἑκατὸν 12,15,19-20). The signs by which these intervals are expressed, indicate seconds, thirds, and fifths (μιᾶ, δύο, or τρίας φιλοί). As there are more specimens of each type, he needs distributive expressions, with ἄνα. He here wavers in a most peculiar way: The "correct" way of describing would be, as in 8-9 and 14-15, ὑμᾶς ἄνα μίαν φωνήν ἔχοντα etc. But instead we find in P ἄνα δύο φωνῶν 5 and 10-11, ἄνα τρίας φωνῶν 6-7, and ἄνα ἓκκλημας φωνῶν 19. In the last of these cases, the ἓκκλημα is probably a copyist's error for ἕχοντα; but in the others, the genitives are less unlikely, being in accordance with the late usage of distributive ἄνα + genitive.

VIII 28. ὑποθαλωπόνος, ὑποθαλοῦς, ὑποτλοῦς, δώρος, φωνή, φωνή, λυ- δίς, μεσολοῦ, ὑπομεσολούδιος:

1-3 symbola tonorum rubro colore scripsit P 1 Υπ δύος' P ut videtur, ὑποθαλωπο' Perne, ὑποθαλωπο coniecit Høeg δώρος P
NOTES:

* 1. The modal signature for the Hypodorios has been lost in P. Perne's impossible reading (ἢ) shows that a signature was still extant at this time. I have supplied the missing ἢ.

* 2. In the Paris manuscript, the list of the ancient names is to be found at the end of fol. 7r, whereas the diagram follows on the next verso. The punctuation and the arrangement of the context (:- after §27 and after §28,2; red initial letter at the beginning of §29) makes it hard to reconstruct the lay-out of the modal manuscript. If the reference in §32 is to §28 (καθὸς ἀναγέγραπται ἐν τοῖς ἀνωθέν σχήμασι), one might infer that both parts of §28 were organic parts of the text. This, however, does not exclude the possibility that they were conceived as marginalia.

* 3. However that may be, §28 introduces §§29 sqq., the structural break being after §27.

29. Εἰπόντος δοσ ὅ καὶ ἔξην περὶ τῶν διδασκαλίας, ἤδη μεταβηθ' ἵνα καὶ ἔπι τὴν τῶν ἡκων, ἵνα μὴ ἀτελής ὁ λόγος
5 ἀποληφθ. ἐν ἡ φήσομεν τὰ τε ὀνόματα αὐτῶν καὶ τὰς συγγε-νείας καὶ διαφοράς αὐτῶν, καὶ ἐτερά τινα. P: Εἰπόντος δοσ ὅ καὶ ἔξην περιτόμων διδασκαλίας' ἤδη μεταβηθ' ἵνα καὶ ἔπι τὴν τῶν ἡκων' ἵνα μὴ ἀτελής ὁ λόγος ἀποληφθ' ἐν ἡ φήσομεν τὰ τε ὀνόματα αὐτῶν, καὶ τὰς συγγε-νείας καὶ διαφοράς αὐτῶν, καὶ ἐτερά τινα'

TRANSLATION:

IX 29. Having now said as much as possible on the subject of the Tονοί, it is time to turn to the Echol, in order that our treatise shall not be dis-continued without having reached its completion. In this part we shall speak of their names, their relationships and differences, and of other matters as well.

30. Τὰ μὲν οὖν ὄνόματα αὐτῶν προεγράφησαν, τὰ τε κυρίως καὶ τὰ τὴν τάξιν αὐτῶν ὁδοῦντα. τοῦτο δὲ δεῖ νοεῖν ἐπὶ τῶν
5 ἡκων, διὶ οὗ ποιότητα φωνῶν ὄνομαζομεν ἀλλὰ ποιότητα' ὰξω-τητα γὰρ καὶ βαρύτητα καὶ βρα-χύτητα καὶ τελείότητα καὶ λαμπρότητα φωνῶν εἰσάμεθαν λέγειν,
10 ἀ πάντα τῆς τοιοῦτο φθογγῆς εἰσὶ σημαντικά, οὐ τῆς τόσης - καὶ πολὺς ἐν' εἴπω μάλλον, οὐχὶ P: τὰ μὲν οὖν ὄνόματα αὐτῶν, προεγράφησαν τὰ τε κυρίως κα- τὰ τὴν τάξιν αὐτῶν ὁδοῦντα' τοῦτο δὲ δεῖ νοεῖν ἐπὶ τῶν ἡκων, διὶ ὑπόστητα φωνῶν ὄνομαζομεν ἀλλὰ π[οι]τητα' ὰξω- τητα γὰρ καὶ βαρύτητα καὶ βρα-χύτητα καὶ τελείότητα καὶ λαμ-πρότητα φωνῶν εἰσάμεθαν λέγειν ἀπαντα' τῆς τόσης δὲ φθογγῆς εἰσὶ σημαντικά' οὐ τῆς τόσης καὶ πλας ἐν' εἴπω μάλλον οὐχὶ
38

πόσης, ὡστε οὐχὶ πρὸς ἄρκτημαν ἕμεν τῶν ἦχων τὰς σημασίας εἰσ-15 ἀγούσιν, ἀλλ’ ποιά τοῦ μέλους ψηφογγῆ ἐκ τούτων παρίσταται.

2 τά] accentum addidit rubricator . 2-3 καὶ τὰ scripsi, κατὰ P 5 οὐ πο-σὸτα ἤση, ὑποσὸτα P 6 sqq lacunas suppleuit ἤση 6-7 ἤσητα] ac- centum addidit rubricator 10 ἢ πάντα scripsi, ἤπαντα P (qui aliter in- terpunctit) τολάσει scripsi, πιάς δὲ P 12-13 an πουὰς et ποσὸς scribendum?

TRANSLATION:

30. Their names have already been written, both their proper names and those which indicate their order. As far as concerns the Echoi, however, it must be born in mind that we do not name the quantity of sounds, but the quality. For about sounds we normally use expressions like "shrillness", "deepness", "shortness", "completeness", and "clearness" - all of which denote the "such or such" sound, not the "so great" sound, or rather of what kind the sound is, not of what magnitude. Thus, the designations of the Echoi are not made for counting purposes but to represent the sound quality of the Melos.

NOTES:

* 1. The subject-matter of §§30-32 is said to be αἱ τῶν ἦχων σημασίαι. (§30, 14 and §32,28) or θῶματα (§30,1; cf. the preceding summary, §29,6). Evidently, however, the interest of the author is not the names themselves - neither "their proper names", i.e. the Ancient nomenclature, nor "those which indicate their order", i.e. the standard Byzantine nomenclature; for these he just gives a reference to §5, maybe also to the conspectus in §28. What really interests him is their order, the reason why the Hypodorian is put first, the Hypophrygian second, etc.

* 2. The transmitted text of lines 10-16 is corrupt. I have tried to correct its wording and punctuation in the light of lines 5-6, the key-word being ποσὸτης.

* 3. 'Οποιοὶ οὖν (6) perhaps may be paraphrased as "the names which we use for the Echoi do not refer to 'magnitude' but to quality".

* 4. The erroneous idea that the names have to do with ποσὸτης (5-6) is dis- missed once more, in 13-15 where the word ἄρκτημα is used. In later theory, the word ποσὸτης (or τὸ ποσὸν) refers to the size of intervals, a notion which would also be possible for ἄρκτημα, if understood as "a counting of the number of φωναί for a given interval". However, both no- tions (of "magnitude" and of "counting") were introduced in the present context only to put the key-word ποσὸτης into relief; there is no reason to think that they refer to any reality in connection with the Echoi (such as a counting of the size of intervals between their relative position). The Byzantine nomenclature itself would sufficiently explain why the au- thor got the idea to use these expressions as background for §§31-32.
31. Διά [τι] τούτο οὐδὲ τὸ δῶριον μέλος τὴν προτίμησιν ἐν τοῖς ἥχοις ἐδέξατο, τὸ δὲ ὑποδώριον, ὡς κρείττονα λόγον ἔχου τῶν 5 λοιπῶν ἥχων' ὑμώος οὐδὲ τὸ φρύγιον μέλος τὴν δευτέραν τάξιν ἔσχεν ἐν τοῖς ἥχοις, ἀλλὰ τὸ ὑποφρύγιον' καὶ <τὸ> λύδιον ἤσαυτός τοῦ ὑπολυδίου οὐ προ- 10 ετεμῆθη.

1 τί seclusi 4 κρείττονα λόγον Ἡφει, κρείττον θεομάν P 8 ὑποφρύγιον καὶ λύδιον P, interpunctionem corretxi, τὸ addidit Ebbesen

TRANSLATION:
31. This is also why the Dorian Melos did not receive the place of honour among the Echοi; this place was given to the Hypodorian, because it is better than the other Echοi. Nor did the Phrygian Melos receive the second position among the Echοi, but the Hypophrygian. And in the same way the Lydian was not given preference to the Hypolydian.

NOTES:
* 1. The addition of τί (1) and the omission of τὸ (8) may be deliberate emendations. The text should then be understood as a series of questions: "Why is that? And why was the place of honour among the Echοi given to the Hypodorian and not to the Dorian, considering that the latter is better than the other Echοi? Similarly, why did the Phrygian Melos not receive the second place among the Echοi? But as to the Hypophrygian and Lydian, why were these not honoured more than the Hypolydian?" Although this text cannot be correct, it nevertheless betrays a certain level of ingenuity and cannot be due to the scribe of P who in the same context committed such nonsense as κρείττον θεομάν (4) and ὑποφρύγιον (8).

32. Καὶ ἔδει αὐτούς ὡς τὴν τάξιν προέχοντας ἔξ ἄπλων ὄνομάτων καὶ μὴ ἀπὸ συνθέτων γνωρίζεσθαι, οὗ τι φημι, τὸν πρῶτον 5 ἥχον ἀπὸ δωρίου μέλους καὶ μὴ ἀπὸ ὑποδωρίου, καὶ τὸν δεύτερον ἀπὸ τοῦ φρυγίου καὶ μὴ ἀπὸ τοῦ ὑποφρύγιου, καὶ τρίτον ὅμως ἀπὸ λυδίου καὶ μὴ ἀπὸ τοῦ ὑπολυδίου, ὥσπερ δὴ ὁ τέταρτος [οὐκ] ἀπὸ τοῦ δωρίου μέλους P: καὶ ἔχει αὐτούς ὡς τὴν τάξιν προέχοντας ἔξ ἄπλων ὄνομάτων καὶ μὴ ἀπὸ συνθέτων γνωρίζεσθαι' οὗ τι φημι τὸν πρῶτον ἥχον ἀπὸ δωρίου μέλους, καὶ μὴ ἀπὸ ὑποδωρίου' καὶ τὸν δεύτερον ἀπὸ τοῦ φρυγίου, καὶ μὴ ἀπὸ τοῦ ὑποφρύγιου' καὶ τρίτον ὅμως ἀπὸ λυδίου καὶ μὴ ἀπὸ τοῦ ὑπολυδίου' ὥσπερ δὴ ὁ τέταρτος, οὐκ ἀπὸ τοῦ δωρίου μέλους
χαρακτηρίζεται - ἀλλ' ἐν τῇ εὐ-
τονίᾳ τῶν φθόγγων τὸ ὑπόδωρον,
ἐν τῇ ἡσύτητι τὸ ὑποφόρυγον,
15 ἐν δὲ τῇ καλεπτητί τὸ ὑπολύ-
διον' ἀ τοὺς πρώτους φθόγγους
τῆς μουσικῆς διαφωτέν εἰσάγα-
γουσιν. τούτου χάριν ἀπενεμήθη
τῷ πρῶτῳ ὑποδώρῳ καὶ ἐν
20 τοῖς ἑτέροις, καθὼς ἀναγέραπ-
ταί ἐν τοῖς ἁνωθὲν σχήμασι·
οὕτωι γὰρ εἰς τὸν μουσικὸν
φθόγγων ἐπισημότατον, καθὼς
ἐπισημότατον τὸν μουσικὸν χορ-
25 ὁδὸν ἀπεχήματα εἰδότες καὶ δια-
κρίνοντες ἐντέχνως. ἀλλὰ ταῦτα
μὲν ὑπεγράφα πρὸς θήλωσιν τῆς
τῶν ἤχων σημασίας.

1 ἔδει Ebbesen, ἐχεῖ P 10 δὲ P 11 οὐκ seclusi 13 ὑποδωρῶν adhuc vidit Perne 23 ἐπισημότατον Ebbesen, ἐπισημότητα P 27 ὑπεγράψει P

TRANSLATION:

32. Also, since they (i.e. the three Echoi just mentioned) come first in order, one might think that they should be called from the simple names, not from the composite ones - the first Echos, e.g., from the Dorian Melos and not from the Hypodorian, the second from the Phrygian and not from the Hypophrygian, and similarly the third from the Lydian Melos and not from the Hypolydian - exactly as the fourth Echos is "characterized" from the Dorian Melos (i.e. has been called from a Melos which carries an in-composite name). But as far as vigour of the sounds is concerned, the Hypodorion <prevails?>, in sweetness the Hypophrygian, and in harshness the Hypolydian - i.e. the Mele which are explicitly presented as "the first sounds of the Mousike". This is why the term 'Hypodorios was assigned to the first Echos. Similarly in the other Echoi, as described in the above diagrams. For these (i.e. the three Echoi just mentioned) are the most remarkable of the "sounds of Music", as is well known by those who are familiar with the sounding of the musical chords and skillfully are able to distinguish between them. The above has been outlined to clarify the names of the Echoi.

NOTES:

* 1. The οὖκ in line 11 probably belongs to the same layer of 'emendations' as the readings mentioned in §31, note 1. Also, maybe, the δέ (for δὴ) in the preceding line.

* 2. The πρῶτοι φθόγγοι τῆς μουσικῆς (16-17) reappear in 22-23 as τῶν μουσι-
κῶν φθόγγων ἐπισημότατον. For a possible meaning of ἡ μουσική, see §10,
note 1. I am far from being sure, however, that I have understood this difficult paragraph correctly.

3. The passage where the three 'ύτο-modes' are characterized (12-16) reminds to some extent of Bryennius's description of the three genera (Harmonics I.7. ed. Jonker pp.112-14).

4. For ἀκήχημα as a term for 'sound' (25), see last line of §100. According to Hannick (in Herbert Hunger: Die hochsprachliche profane Literatur der Byzantiner. II, München 1978, pp. 189-90) it belongs to the terminology of Georgios Pachymeres.

5. The reference in 20-21 must be to §28.

X 33. Τεσσάρων τούνων δυτών τῶν κυρίων καὶ πρῶτων, ἐξ αὐτῶν ἐπε- εισήχθησαν οἱ τέσσαρες πλάγι- οί. τὸν αὐτὸν δὴ τρόπον καὶ ἐκ 5 τῶν τεσσάρων πλαγίων οἱ τέσσα- ρεις μέσοι, ἐν δὲ τῶν μέσων πάλιν αἱ ψυχαι. οἷον τὶ φημι, οἱ 1 μὲν τέσσαρες πρῶτοι ἔχουσι τὸ ἀμεταποίητον, οἱ δὲ πλαγιοὶ ἐ- 10 χουσι τὰς ὑπαλλαγὰς αὐτῶν, ἐξ ὑμῖν οἱ μέσοι ἀποτίκτονται· οὗτος ὁ μέσος πρῶτος ἐν τῇ ὑποβολῇ τῆς ἀρχῆς αὐτοῦ καὶ ἐν τῇ ἀπο- θέσει τοῦ τέλους ἅ' καὶ ἄρχεται
15 καὶ τελειοῦται· ἡμιπλαγιοτεταρ- τίζει <δὲ>, καὶ τούτῳ ἐστὶν δὲ- περ ἐχεῖ ἐπέκεινα τοῦ ἅ'· ὁ- μολογεῖ καὶ ὁ μέσος δεύτερος ἀπὸ τοῦ ἅ' ἀρχομενός ἐστὶν ἀλλ',
20 εὰν μεθ' ὑμῖν ἐννοήσῃς πλαγιοδεύ- τερον ἐπάγῃς ἐπήχημα τοῦ νεναινό, μέσος δεύτερος φάλλεται. ὡσαυτ- τως καὶ ὁ μέσος τρίτος ἀπὸ τοῦ βαρέως τίκτεται, ὑσπερ δὴ καὶ 25 ὁ μέσος τέταρτος ἀπὸ τοῦ ἅ'· καθὼς ήμῖν ὁ λόγος πρὸς τὰ ἔξης παραστηθεῖσα ἄριστηλότερον.

P: Τεσσάρων τούνων δυτών τῶν κυρίων καὶ πρῶτων' ἐξ αὐτῶν ἐπε- εισήχθησαν οἱ τέσσαρες πλάγι- οί· τὸν αὐτὸν δὴ τρόπον καὶ ἐκ τῶν τεσσάρων πλαγίων, οἱ τέσσα- ρεις μέσοι' ἐν δὲ τῶν μέσων πά- λιν αἱ ψυχαι· οἷον τὶ φημι, ἐν μὲν τέσσαρες πρῶτοι, ἔχουσι τὸ ἀμεταποίητον, οἱ δὲ πλαγιοὶ ἐ- χουσι τὰς ὑπαλλαγὰς αὐτῶν' ἐξ ὑμῖν οἱ μέσοι ἀποτίκτονται· οὗτος ὁ μέσος πρῶτος ἐν τῇ ὑποβολῇ τῆς ἀρχῆς αὐτοῦ καὶ ἐν τῇ ἀπο- θέσει τοῦ τέλους ἅ' καὶ ἄρχεται καὶ τελειοῦται ἡμιπλαγιοτεταρ- τίζει· καὶ τούτῳ ἐστὶν δὲ- περ ἐχεῖ ἐπέκεινα τοῦ ἅ'· ὁ- μολογεῖ καὶ ὁ μέσος δεύτερος ἀπὸ τοῦ ἅ' ἀρχομενός ἐστὶν ἀλλ',
20 εὰν μεθ' ὑμῖν ἐννοήσῃς πλαγιοδεύ- τερον ἐπάγῃς ἐπήχημα τοῦ νεναινό, μέσος δεύτερος φάλλεται. ὡσαυ- τως καὶ ὁ μέσος τρίτος ἀπὸ τοῦ βαρέως τίκτεται, ὑσπερ δὴ καὶ 25 ὁ μέσος τέταρτος ἀπὸ τοῦ ἅ'· καθὼς ήμῖν ὁ λόγος πρὸς τὰ ἔξης παραστηθεῖσα ἄριστηλότερον.
TRANSLATION:

33. The proper and primary Echoi, then, are four in number. From these the four Plagal have been derived. In the same manner also the four Mesoι have been made from the four Plagal, and again the Phthorai from the Mesoι. Or, to put it differently: The four primary Echoi are non-transformed, whereas the plagal ones have their changes, from which the Mesoι are generated. The Mesos Protos, for instance, begins and ends as Plagios Protos — in its beginning and its ending; it is somewhat related to Plagios Tetartos, the only feature which makes it different from Plagios Protos. In a similar way the Mesos Deuterοs takes its beginning from Plagios Deuterοs; but if, after the Plagios Deuterοs Enechema, you add Nenano as Epechema, a Mesos Deuterοs is sung. Similarly, Mesos Tritos is generated from Barys, just as Mesos Tetartos from Plagios Tetartos. The mechanism of all this will be described more clearly in the following.

NOTES:

* 1. The way in which the Echoi are generated has been treated already in §§6-7. See also below, §§47-48.

* 2. The έχουσι το άμεταπολητον (8-9) has the ring of a terminus technicus; it seems to convey the same idea as §6,1 (ούν έξ άλλων των άλλ' έξ αυτών).

* 3. Perhaps the ύπαλλαγαί (10) denote changes in musical expression, e.g. occurrence of formulas which are alien to the Echoi; cf. the exemplification in 11-17.

* 4. The verbal similarity between 11-17 and §7,1-6 is striking; but it is difficult to decide for which of the two paragraphs the text was originally coined. Maybe both are derived from a common source.

34. Ἐκ δὲ τῶν μέσων πάλιν εἰσ- ἡχήσαν αἱ φθοραῖ — ἐκ μὲν τῶν μέσου πρῶτου φθορᾶ πρώτη, ὧσ- αὐτῶς καὶ τῶν άλλων. φθορά δὲ 5 άισθάσασιν, δητὶ ἐκ τῶν άλλων ἡχῶν ἀπάρχονται, τελειοῦνται ὃς ἐἰς ἐτέρους ἡχοὺς φθογγάς αἱ ὅσις αὐτῶν καὶ τὰ ἀποτελέσματα. ἦν δὲ σαφέστερον γέννηται 10 τὸ λεγόμενον, πότε καὶ ἐν ποι- οις ἡχοῖς αἱ φθοραί τὴν ἐνέρ- γευσιν αὐτῶν ἐπιδείκνυσιν, δέον ἐλογισάμην ὡς ἐν σχήματι διαχα- ράξει αὐτούς:

<table>
<thead>
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<th>α'</th>
<th>ζ'</th>
<th>θ'</th>
<th>φ'</th>
<th>χ'</th>
<th>ψ'</th>
<th>ρ'</th>
<th>σ'</th>
</tr>
</thead>
</table>

P: Ἐκ δὲ τῶν μέσων πάλιν εἰσ- ἡχήσαν αἱ φθοραῖ· ἐκ μὲν τῶν μέσου πρῶτου, φθορᾶ πρώτη· ὧσ- αὐτῶς καὶ τῶν άλλων· φθοραί δὲ άισθάσασιν, δητὶ ἐκ τῶν άλλων ἡχῶν ἀπάρχονται· τελειοῦνται ὃς ἐἰς ἐτέρους ἡχοὺς φθογγάς· αἱ ὅσις αὐτῶν καὶ τὰ ἀποτελέσματα· ἦν δὲ σαφέστερον γέννηται τὸ λεγόμενον, πότε καὶ ἐν ποι- οις ἡχοῖς αἱ φθοραί τὴν ἐνέρ- γευσιν αὐτῶν ἐπιδείκνυσιν, δέον ἐλογισάμην ὡς ἐν σχήματι διαχα- ράξει αὐτούς·—
14 an autâς legendum ? 15-16 ut in P tradita sunt; corruptelas infra
(§ 35, annot. 3)emendare conaui

TRANSLATION:

34. From the Mesoi, again, the Phthorai were derived, the first Phthora from
the Mesos Protos, etc. They were called Phthorai (i.e. destroyers), because
they begin from their own Echoi, but their endings and cadences are on
notes from other Echoi. In order that this can be more clear - when do the
Phthorai display their effect, and in which Echoi? - I have found it nec-
essary to depict them in a diagram.

NOTES:

* 1. I have taken θέσεις and άποτελέσματα (6-9) as synonyms, failing to see
how θέσεις (in the usual meaning of "musical formulas") can be said to
end (τελευτάνταί) each ήξων φθογγάς. Also in §48 we find that caden-
tial formulas are described in synonyms ((πληρώματα and άποθέσεις).

* 2. If autou̱s in 14 is correct, it may refer to the modal signatures in-
scribed in the following diagram. For ήξος as a term for "modal signature",
see J. Raasted, Intonation Formulas and Modal Signatures... Copenhagen,
1966, p. 43. Otherwise, a correction into autâς will give a smooth text.

* 3. The diagram seems to be corrupt, see §35, note 3.

XI 35. 'Iðou̱ ð parōn schmatismos
ta tòn phorōn hímēn éngwírisen
kóimata. Ei yâr ãpò hìxh ou plai-
gioprōtou tìn melophían eïs ή-
5 hòn barón pàrevenekhínaive symbá-
vei - ò polláikis giînetai to
mésou prótou mesoalbóntos, òs
ek to òplagíou prótou tîkstetha
eiwðen, òs mikróð ìanð Then eîpote-
10 taì - ë̄ ápò bârēwos hìxh ou to ðá-
palín eïs hìxh híh òt hè to mélos
peritrépetai ì kai têleión
katalígei - ò polláikis symbá-
vei, òpìniká mésoù trítos meso-
labei soi èn tò mêleî toù ðó-
matóv òs mésoù trítos ápò toù
bârēwos hìxh tìn ñpàreîn èxei.
èste odn oðtn èste ëkênto ge-
nitai, ìùðhês hímēn gnwstôv nav-
20 ëstataî õ prôtî phorâ. Æîper

P: 'Iðou̱ ð parōn schmatismos
ta tòn phôgín hímēn éngwírisen
kóimata. Ei yâr ãpò hìxh ou plai-
gioprōtou tìn melophían eïs ή-
χòulo bârón pàrevenekhínaive symbá-
vei - ò polláikis giînetai to
mésou prótou mesoalbóntos òs
ek to òplagíou prótou tîkstetha
eiwðen òs mikróð ìanðThen eîpote-
9v peritrépetai ì kai têleión
katalígei - ò polláikis symbá-
vei, òpìniká mésoù trítos meso-
labei soi èn tò mêleî toù ðó-
matóv òs mésoù trítos ápò toù
bârēwos hìxh tìn ñpàreîn èxei.
èste odn oðtn èste ëkênto ge-
nitai, ìùðhês hímēn gnwstôv nav-
20 ëstataî õ prôtî phorâ. Æîper
πάλιν δευτέρα φθορά γυνώσκεται, ὃταν ἀπὸ ἥχου ἱβ' ἀρξόμεθα καὶ ἑκτραπάξειν εἰς ἥδε' ὁ πολλάκις γίνεται τοῦ μέσου δευτέρου παρε-25 νεκθέντος, ὃς ἀπὸ τοῦ ἱβ' ἀπο-τίκτεται - ἡ τὸ ἀνάπαλν ὃταν ἱδ' ἀρξόμεθα καὶ εἰς ἱβ' ἥχῳ ἐξενεχθοῦμεν ὁ γίνεται τοῦ μέ-30 σου τετάρτου εἰςαξθέντος ἐν τῇ τοῦ ψαλλομένου μελῳδία, ὃς καὶ αὐτός ἀπὸ τοῦ πλαγιοτετάρτου γεννᾶται. ὁμωλῶς δὲ καὶ ἡ τρίτη φθορά τῶν ἥχων καὶ ἡ τετάρτη οὕτως γυνώσκεται ἡ μὲν τρίτη,

35 ὃταν ἀπὸ βαρέως ἥχου εἰς πρῶτον ἥχον μέλος τῆς φωνῆς περιενεκθη, ἡ τούναντιν ἀπὸ ἥχου πρῶτον εἰς ἥχον βαρύν ἡ δὲ δ', ὃταν ἀπὸ τοῦ ἱδ' ἀρξηται ἡ μελῳδία καὶ εἰς ἥχον δεύτερου περιτραπῇ ἡ κατα-40 λήξῃ, ἡ τὸ ἀνάπαλν ἀπὸ τοῦ δεύτερου ἥχου εἰς ἱδ' ἐξενεκθη. ἀλλά ταῦτα μὲν ἐξεθέμησα ποῦς

45 τὸ γνωρίζα τεκαὶ ἕχους εἶναι τοῦ ἁματος, ὡς πολλάκις εἰρή-καμεν.

2 φθοράν scripsι, φθόγγων P 7 ὡς P 27 ἀρχόμεθα adhuc vidit Perne, ἀρχόμεθα suppleuit H[φεγ] 28 lacunam suppleui 30 post ψαλλομένου litterum μένου scripsit P, deleuit rubricator 39 ὁ P, correxī 41 post περι- τραπῇ quattuor puncta (⊂) sub lin add P (man sec ut videtur), lacunam fortasse suspicans

TRANSLATION:

35. Please have a look at this diagram; it shows us the specific character-istics of the Phthoral:

A melody may move from Plagios Protos to Barys, frequently due to the occurrence of Mesos Protos which (as mentioned a little above) is normally generated from Plagios Protos; or vice versa the melody makes a shift from Barys to Plagios Protos - temporarily or to the very end - as it frequently happens when you come across Mesos Tritos "in the melody of the song"; for
Mesos Tritos derives its existence from Barys. In both these situations, then, we immediately realize the presence of the First Phthora.

Similarly, the Second Phthora is perceived when we begin from Plagios Deuteros and switch over to Plagios Tetartos, frequently in connection with Mesos Deuteros which is generated from Plagios Deuteros; or vice versa, when our beginning is Plagios Tetartos and we are being taken to Plagios Deuteros - as it happens when Mesos Tetartos is introduced "in the melody of the chant"; for this very Mesos is derived from Plagios Tetartos.

Similarly, also the Third and the Fourth Phthora are perceived in the same manner - the Third when "the melody of the voice" moves from Barys to Protos or, oppositely, from Protos to Barys; the Fourth when the melody begins from Plagios Tetartos and moves into Deuteros - temporarily or to the very end - or, oppositely, changes from Deuteros to Plagios Tetartos.

These remarks of ours were meant to show that there are sixteen Echoi of chant, as already mentioned again and again.

NOTES:

1. The four sections which describe the four Phthorai (lines 3-20, 20-32, 32-39, 39-43) have a fixed structure, but a remarkable variation in the diction. Thanks to this variatio sermonis it is comparatively easy to follow the line of thought. But even so, there are a few dubious points. Thus, in 12-13 (περιτραπεστος ή καταλήγειν) and in the parallel case (41-42), the distinction seems to be between partial and permanent modifications. But why is this distinction mentioned only in connection with modification from Barys to Plagios Protos and from Plagios Tetartos to Deuteros? Is this just another case of variatio sermonis, the distinction being elsewhere mentally supplied (i.e. at παρευχήνας in 5, ἔκπατησεν in 23 and at the corresponding single words in 28, 36, and 43) - or does the distinction in 12-13 and 41-42 reflect particular features of these two situations?

2. If the four sublinear dots after περιτραπεστος (41) are intended to denote a lacuna, one inference would be that the person who wrote them had access to another copy of the text; for the wording of Π is by no means suspect in itself. There is no corresponding entry in the margins; but the manuscript margins are cut and there is a great triangular hole in the lower margin, so we cannot exclude the possibility that there once was such an entry.

If something is really missing in the text, the word, or words which had fallen out may be guessed from the parallel in lines 12-13. In 12 there is an adverbial joined to καταλήγειν; but since the dots in 41 are placed before the ή, the modifying element would have belonged to περιτραπεστος, not to καταλήγος. Inspired by the beginning of Chrysaphes's treatise (Tardo, p. 235) I suggest an original περιτραπεστος ὁδολόγου (or μερικός?). This would fit to the author's predilection for variation.

3. In its transmitted form the diagram of §34 cannot be correct; for of its eight columns, the second and eighth do not follow the overall pattern of the arrangement (the two signatures of each column have the distance of a third). Now, a reasonable inference from §35,1-3 would be that the commentary in §35 follows the diagram from one end to the other. Columns 1-2 ought therefore to be corrected in the light of lines 3-6 and 10-13, and the Protos signature of column 2 should accordingly be corrected into a Barys signature. Similarly, a comparison of columns 7-8 with lines 39-43 suggests that the Barys of column 8 should be corrected into a Deuteros signature. Both errors may be palaeographically explained. But the diagram needs one further adjustment: According to the pattern of arrangement,
columns 3 and 6 ought to be in direct contact - and from §35, 22-23 and 26-28 we may infer that the misplaced one is column 6. I fail to see any reason for the misplacing.

The diagram in its corrected shape would then be as follows:

| αγ | ωγ | φβ | αθ | αγ | αγ | ωγ | ωγ | β | αθ |

XII 36. Οἱ οὖν βαθύτεροι νόησαντες έφησαν καὶ κυρίως εἶναι ἀπὸ κυρίων, εἰπερ εἰσὶν οἱ αὐτοὶ, ἑνιοτε δὲ καὶ κυρίως πλαγίους 5 γενέσθαι κατὰ τὸν τοῦ μέλους βυθόμον· ὡπερ ἐστὶ φανερὸν τοῖς ἀκριβῶς ἀνιχνεύοις τὸν 'Αγιο-πολίτην.

1 litteram O omisit rubricator 4 κυρίας P

TRANSLATION:

36. Those who have looked more deeply into these problems have maintained that there are also "Kyrioi from Kyrioi" (if indeed these are the same), and that sometimes Kyrioi become Plagioi during the flow of the melody. This (i.e. the truth of this statement) is obvious to those who make a careful search in the Hagiopolites.

NOTES:

* 1. I do not understand the implications of the parenthetical remark in line 3.

* 2. Κατὰ τὸν τοῦ μέλους βυθόμον (5-6) is probably nothing but a periphrastic way of saying "en route".

* 3. The "Hagiopolites" of the final remark sounds more like the title of a book of chant than that of a treatise on musical theory.

37. Ἐπειδὴ εἰσὶν ἀπὸ κυρίων κύ-ριοι καὶ ἀπὸ πλαγίων πλάγιοι, δέουν εἰπεῖν διὰ εἰσὶ καὶ μέσωι μέσων καὶ θεοραί φθορῶν καὶ 5 πάλιν κύριοι ἄλλοι καὶ πλάγιοι ἄλλοι καὶ πάλιν κύριοι κυρίων καὶ πλάγιοι πλαγίων καὶ φθοραί
37. Since there are "Kyrioi from Kyrioi" and "Plagioi from Plagioi", we have to say that there are also "Mesoi of Mesoi" and "Phtorai of Phtorai". And then other Kyrioi and other Plagioi, and once more "Kyrioi of Kyrioi" and "Plagioi of Plagioi" and "Phtorai of Phtorai" and "Mesoi of Mesoi". These, however, do not belong to the necessary ones, being found (only) when the song is accompanied by some instrument(?) but (they occur) as counterparts (?) to the first and unambiguous ones, the usefulness of which is the only subject-matter of the inquiry and explanations of the present treatise.

NOTES:

* 1. The text of 8-11 is probably corrupt. Its general meaning may be that the subtleties described in 4fin-8 are not actually found in purely vocal music (i.e. Ecclesiastical), but only when the singing is connected with instrumental music (i.e. folk-music?).

* 2. The exact meaning of κατά ἀντιστροφὴν (11) eludes me. See below, ad §§41-42.

* 3. My rendering of 12fin-14 presupposes that δὲν refers to τῶν πρῶτων καὶ ἀναμφιβόλων (12). If the pronoun refers to οὕτως (8), the comma after ἀναμφιβόλων should be changed into a semicolon. The text would then mean that the subtleties of 4fin-8 are only added for theoretical and clarifying purposes. In both cases, the placing of the adverb μόνον is strange.

38. "Ἡν δὲ καὶ διὰ διαγράφης P: ἰδὴ δὲ καὶ διὰ τὰ γραφῆς τοῦτο σαφῆς παραστήσομεν. 10ν τοῦτο σαφῆς παραστήσομεν- \\
\[\begin{array}{|c|c|c|c|}
\hline
\alpha & \theta & \gamma & \delta \\
\hline
\gamma & \gamma & \gamma & \delta \\
\hline
\end{array}\]

1 διαγράφης coniect Ebbesen, τάγραφης P (ut videtur), τὸ γραφῆς Perne (sed de u gera dubituit), τ[ῆς γρα]φῆς Ῥοεγ

TRANSLATION:

38. We shall now make this clear by means of diagrams.
39. Τοῦ ἰδίου φθοράς ἀνιούσαι καὶ κατιούσαι?

<table>
<thead>
<tr>
<th>αὐτῆς</th>
<th>ἡ</th>
<th>ις</th>
<th>ρ</th>
<th>θ</th>
</tr>
</thead>
</table>
| ἐγ᾽ | ἑστὶ | ἤρει | ρ | γ | ρ

Τοῦ ἰδίου φθοράς ἀνιούσαι καὶ κατιούσαι?

<table>
<thead>
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<th>ἡ</th>
<th>ἐστὶ</th>
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<th>δ</th>
<th>γ</th>
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</table>
| τοῦ | ἵππος | ἰδίου | δ | γ | δ

Τοῦ ἰδίου φθοράς ἀνιούσαι καὶ κατιούσαι?

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<thead>
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<th>ἦ</th>
<th>ἐστὶ</th>
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<tbody>
<tr>
<td>ἦ</td>
<td>ἐστὶ</td>
<td>ἰδίος</td>
<td>θ</td>
<td>δ</td>
<td>γ</td>
<td>κ</td>
</tr>
</tbody>
</table>

9 g scripsi, η P

NOTES: See below, after §44.

40. Τοῦ ἰδίου μέσοι μέσων?

| αὐτῆς | [τὸς] | [ις] | [ρ]
|-------|-------|-------|---|
| ἐγ᾽ | ἐγὸς | [ις] | [ρ]

Τοῦ ἰδίου μέσοι μέσων?

<table>
<thead>
<tr>
<th>κεῖται</th>
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Τοῦ ἰδίου μέσοι μέσων?

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<tr>
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<tr>
<td>ἐστὶ</td>
<td>ἐστὶ</td>
<td>γ</td>
<td>κ</td>
</tr>
</tbody>
</table>

1 τοῦ ἰδίου adhuc vidit Perne 2 μέσοι et 3 ἐστὶ ἐστὶ vidit Perne
2 ἐστὶ et ῥ et 3 θ g e linn 5-12 conieci

NOTES: See below, after §44.
41. Οἱ κατ' ἀντιστρόφων τῶν πρῶτων καὶ ἀναμφιβόλων πλάγιοι κυρίων

NOTES: See below, after §44.

42. Οἱ κατ' ἀντιστρόφων τῶν πρῶτων καὶ ἀναμφιβόλων κυρίων πλαγίων

1 κυρίων πλαγίων coniei, κυρίων πλάγιοι P

NOTES: See below, after §44.

43. Τοῦ Ἰφθαραὶ ὕφερον ἄνισοςα, [καὶ κατι]οῦσαι.

Τοῦ δευτέρου ὕφεραὶ ὕφερον ἄνισοςα καὶ κατιοῦσαι.

5

Τοῦ Ἰφθαρα ὕφερον ἄνισοςα καὶ κατιοῦσαι.

10

1 καὶ κατιοῦσα adhuc vidit Perne

NOTES: See below, after §44.

44. Τοῦ πρῶτου μέσοι μέσων ἄνισοςα καὶ κατιοῦσαι.

5

NOTES: See below, after §44.
NOTES:

* 1. Several of the diagrams in these paragraphs have been physically damaged, but the missing modal signatures can be safely restored from the context.

* 2. Together with §38 the diagrams are evidently intended to depict what was said in §37. As already mentioned (notes, p. ) §37 is probably corrupt and partly incomprehensible. The diagrams are not very helpful to clear up the problems, since we do not know how they were to be read and used, and since their headings contain several obscure details. All which can be done at present is therefore to make a list of the main obscurities - see below, notes 5-7.

* 3. Johannes Tzetzes, Über die altgriechische Musik in der griechischen Kirche, München 1874, pp. 67-71 combines verbatim quotations of §§36-37 with surveys of the modes κατὰ διάλεξιν and κατὰ συναφῆ in such a way that it does not become clear that the latter are not taken from §§39-44 of the Hagiopolites.

* 4. According to their headings, the diagrams deal in turn with the following situations:
   §39: Phtorai of Phtorai, upwards and downwards, for each of the four authentic modes.
   §40: Mesoi of Mesoi for each of the four authentic modes.
   §41: The Plagioi of Kyrioi, "as counterparts to the first and unambiguous ones".
   §42: The Kyrioi of Plagioi (but P reads "Plagioi of Kyrioi"!), "as counterparts to the first and unambiguous ones".
   §43: Phtorai of Phtorai, upwards and downwards, for each of the four authentic modes.
   §44: Mesoi of Mesoi for each of the four authentic modes, upwards and downwards.
   NB. The arrangement is not exactly the same as that of §37.

* 5. In the headings of §§39, 43, and 44, the expression ἀνικοῦσαι καὶ κατικοῦσαι seems to refer to the relative position of the modes; cf. below, §§51-54 passim. The notion is well known from later theory (see, e.g., Tardo pp. 158 and 160-63). But how is this to be understood in connection with the diagrams of §§39-44?

* 6. What is the difference between τοῦ πρῶτου φθορῶν φθοράς etc. in §39 and τοῦ πρῶτου φθορᾶς φθορῶν etc. in §43? Similar question as to §§40 and 44.

* 7. In §§41 and 42 the headings use expressions similar to §37,9-10. Are the differences to be explained as scribal errors, or are they intentional?

* 8. In §44, the feminine participles are strange; for the Middle Modes are always masculine (ἡχος,μέσος πρῶτος etc.). The recurrent abbreviation in the headings of P (Ἄρσ) offers no help.
XIII 45. Ταῦτα μὲν οὖν παρεκβατικώ- 
τερον εἴπομεν. καὶ δὴν οὐ καὶ 
εἰρμόν διδασκαλίας πολὺν τὸν 
λόγον μὴ δὲ συνεχῆ ποιησάμενοι,

5 νῦν πρὸς τοῖς ἀπολειοθετοῖς τι- 
θέαμεν (ὅθεν ἄνωθεν τοῦ καθ᾽ 
εἰρμόν λέγειν επαυσάμεθα) καὶ 
tὰ ἐπίλογα. λέγομεν τοῖνυ 
περὶ ἑνήχηματω καὶ ἑπηχημάτων.

10 καὶ ἑνήχηματα μὲν εἰσὶν αἱ τῶν 
ἡχων ἐπιβολαὶ ἑπηχημάτα δὲ ἡ 
προσθήκη τοῦ ἑνήχηματος, καὶ 
κατωθὲς καὶ συναρμοζομένη τῇ 
φθόγγῳ τοῦ μέλλοντος προενέχ-

15 θὴναι εἰς τὴν ψαλμοδίαν - ως 
ὅταν μετὰ τὸ ἑνήχημα λέγεται 
καὶ λέγει καὶ ναὶ ἀγίε ναβά 
καὶ δοκα τούτως ὄμοια.

λόγον Π, accentum addidit rubricator 4 lacunam suppleuit Ἡσεγ, vide 
adnot 16 lacunam suppleuit Ἡσεγ (sed fortasse melius λέγομεν legendum) 17 ναβάς Π (i.e. ναβαὶ ante correcturam, ναβά post corr ?), ναβαὶ Perne ναβαὶ Ἡσεγ

TRANSLATION:

45: The above was a kind of digression, and we have used much space on 
matters which do not systematically belong at this place. To the point 
where we stopped our systematic description we now add what remains. Let 
us, then, take up Enechemata and Epechemata: Enechemata are the intoning 
of the Echol, Epechemata are the addition to the Enechema, descending 
and being adapted to the melody which is to be sung in the psalmody - e. 
g. as when we after the Enechema sing ne lege, neagie nana, etc.

NOTES:

* 1. The δεῦν-clause in 6-7 is awkwardly placed, between τιθέαμεν and its 
object; I may have misconstrued the meaning.

* 2. The terminological problem of ἐπιβολαὶ (11) is still unsettled. In my 
"Intonation Formulas...." p. 44, I suggested that the earlier expression 
was ὑποβολή. This, however, does not automatically imply that the reading 
of Π is a mistake of the copyist's. But see above, §§6,13 7,2 and 33,12.

* 3. Κατωθὺς in 13 is somewhat surprising, in so far as one of the examples 
adduced is the Nana of Plagios Tetartos - where the Nana lies on a higher 
pitch than the intonation word Neagie
Has something fallen out, e.g. <άνυμβίσα> καὶ κατισβίσα?

* 4. Hegel's text in line 15 is not the only way in which the lacuna might be filled out. Equally possible is μετὰ τῆν φαλῳδίαν, as suggested by Ebbesen; this reading would refer to performances where an intonation was added to the ending of the Psalm verse, to facilitate the transition to a following Sticheron. My earlier attempt ("Intonation Formulas...," p. 43) can hardly be upheld; I imagined that συναρμοζουμένη τῷ φήγγα τοῦ μέλλοντος προενεχθήναι τήν φαλῳδίαν could convey the meaning of "being adapted to the sound of the chanter who was going to sing the psalmody".

* 5. Φήγγας may be the initial sound of the melody, or a more vague expression.

* 6. For ἐνήχυναν (16), see §14, note 3.

46. ἦκει δὲ καὶ κοιλωνίαν οἱ ἤχοι κέκτηται πρὸς ἄλληλους θαυμαστὴν ἐν ταῖς ὑποβολαῖς τῶν φόδγγων αὐτῶν, διὰ τοῦτο καὶ τὰ αὐτὰ δυσποσάντες ἄκαντες ἐν ταῖς ἑαυτῶν ἑκφωνήσειν. διὰ δὲ τοῦτο ὦτώς ἔχει, δῆλον ἐντεύθεν'.

P: ἦκει δὲ καὶ κοιλωνίαν οἱ ἤχοι κέκτηται πρὸς ἄλληλους θαυμαστὴν ἐν ταῖς ὑποβολαῖς τῶν φόδγγων αὐτῶν διαστότω καὶ τὰ αὐτὰ δυσποσάντες ἄκαντες ἐν ταῖς ἑαυτῶν ἑκφωνήσειν ὦτως ἔχει, δῆλον ἐντεύθεν'.

TRANSLATION:

46. The Echoi have also a marvellous kinship to each other "in the Hypobolai of their Phthongoi". This is the reason why all of them ... the same "in their Ekphoneseis". The following shows that this is really so. The following shows that this is really so.

NOTES:

* 1. The θαυμαστὴ κοιλωνία of the Echoi is shown in §§47-54, cf. the concluding remark at the beginning of §55. In §§52-54 (and 29) συγγένεια is used as a synonym.

* 2. I hesitate to translate υποβολαί, φόδγγος, and ἑκφώνησες, the more so since the crux in line 5 makes it impossible to get a clear idea of the line of thought in this paragraph.

* 3. If the text were correct in 4-6, ἄκαντες ought to be singers, not Echoi; for δυσποσάντως is usually said of persons.

47. Ο πρῶτος ἤχος πέντε φωνάς ἔχει ἐνήχυμα. ἀπὸ γοῦν τῆς υποβολαίς τῆς δευτέρας αὐτοῦ φωνῆς

P: ο πρῶτος ἤχος πέντε φωνάς ἔχει ἐνήχυμα ἀπὸ γοῦν τῆς υποβολαίς τῆς δευτέρας αὐτοῦ φωνῆς

12χ ροθῆς τῆς δευτέρας αὐτοῦ φωνῆς,
TRANSLATION:

47. The First Echos has five steps as Enechema (a G F E D). The three steps which follow in downward stepwise movement upon the second of these (F E D, following after G) constitute the inferior First Echos - the one which we call Plagios Protos. The third of its steps (F), when combined with the following two (G a), constitutes the Second Echos (F G a). The First Echos is thus a child of Deuteros and Plagios Protos, their (or its) middle step being common to both.

Notes:

* 1. For §§47-50, see my "Intonation Formulas....", pp.40-41. As pointed out (ibid.p.43) Ηχός at times seems to refer to the Enechema rather than to the mode; in the present paragraph, only the occurrence in line 1 must refer to the mode.

* 2. For the derivation of Plagios Protos (2-7), cf. §6,4-6.

* 3. The description of the Deuteros Ηχός (i.e. intonation) in 7-10 and 13-15 is more problematic than I realized twenty years ago. At the time I was convinced that the intonation of Deuteros (in its "normal" position) was b a G, here transposed to a G F. But since the exclusively diatonic character of the Deuteros seems now to be far less likely than it used to be, we cannot exclude the possibility that the three tones mentioned in 8-9 are F G-flat a (with intervals as G F G-sharp, the lower trichord of the chromatic Deuteros).

* 4. 'Η μέση φωνή (13-14) must be F, correctly said to be κοινή διμοιρεώς. But this note can only be called "their middle step", if "middle" refers to the borderline between these two modes or intonations. Evidently, then, either the author has made a tautology or the scribe an error; in the latter case, αὐτῶν should be changed into αὐτού (= τοῦ τριτού Ηχου).
48. Ἐκ πέντε φωνῶν τοῖνυν ὁ πρῶτος ἡχός ἔστιν. ὁ δὲ δεύτερος ἡχὸς ἔχει φωνὰς τρεῖς καὶ ἐκ τῆς δευτέρας αὐτοῦ φωνῆς ὁ πλαγιδεύτερος ἡχὸς ἀπογεννᾶται κακεῖθεν συνιστάται, πλὴν μετὰ τοῦ ἐνηχὺματος. εἰ μὲν γὰρ ὁ ὁμοῦ ἐνηχὺματος ἄρτου, ἔρχεται, ἁπ' ἡχὸς εἰσάγεται, διὸ τοῦ πολλῆς κοινωνίας ἕξουσι πρὸς ἀλλήλους ὁ ἄρτος καὶ ὁ ᾽ἄρτος, πολλοὶ καὶ ὁ πρῶτος μετὰ τοῦ δευτέρου. ὡς ἐπὶ τὸ πλευτόν δὲ τὰ πληρώματα καὶ αἱ ἀποθέσεις τοῦ δευτέρου ἡχοῦ εἰς ἡχόν ὁ πρῶτος ἀποδίδονται.

5 ἐπὶ τῇ δευτέρᾳ ἡχῷ, fortasse melius in plagiodutero corrigendum (cf. § 35 passim) ἀποτίκτηται olim conici sed γ' vidit Χριστός et vestigia litterarum χες codices praebet (e postea plane deperditum est), unde ἀπογεννᾶται legendum 7-9 vide annotationem

TRANSLATION:

48. The First Echos, then, consists of five notes. The Second Echos has three notes (viz. as Enechema: a G). From the second of these the Plagios Deuteros is born, and it is from this note (i.e. from a) that it is organized, but only in connection with its appropriate Enechema; for if it has no such Enechema, this pitch will lead to Plagios Protos - since Plagios Protos and Plagios Deuteros have much in common, as have also Protos and Deuteros.

The cadences and endings of the Second Echos are usually those of Plagios Deuteros.

NOTES:

* 1. The Epsilon of ἐνηχὺματος (7) has the shape used in the ligature εν; otherwise it would have been tempting to read ἐνηχὺματος and take this to refer to the Nenano (on a). If the transmitted text is sound, it would imply that the author speaks of a "transposed" Plagios Deuteros intonation (a b-flat c-sharp b-flat a?). The unspecified τοῦ ἐνηχὺματος is to be observed; did the model MS perhaps read μετὰ τοῦ ἑαυτοῦ ἐνηχὺματος?

* 2. In 7-9 a negation seems to be missing. Possible reading would be οὐδὲ γὰρ ὁμοῦ ἐνηχὺματος (but this word order is strange; we would expect εἰ γὰρ μὴ) or εἰ μὲν γὰρ <ὡς> οὕτως ἐνηχὺματος.

* 3. For lines 12-15, see §6,9-11.
49. ὁ δὲ τρίτος ἐξ ψυνᾶς ἔχει, P: ὁ δὲ τρίτος ἐξ ψυνᾶς ἔχει
καὶ ἐκ τῆς τελευταίας αὐτοῦ ψυ-
νῆς ὁ βαρύς ἀπάρχεται.

TRANSLATION:
49. The Third Echos "has six notes", and the Barys takes its beginning from
the last of these.

NOTES:
* 1. I have formerly suggested that this was a description of ambitus rather
than of an intonation formula ("Intonation Formulas...", p. 41). However,
if one considers the author's predilection for variatio sermonis, there
can be little doubt that the beginning of §49 should be understood like
those of §§47, 48, and 50, i.e. as references to Enechemata.

* 2. The αὐτοῦ (2) must refer to the Ἑχός - in the sense of Enechema. How
Barys can be said to "begin from the last note of the Tritos Enechema"
is still unclear to me.

50. ὁ δὲ τέταρτος ἐκ πέντε ψυ-
νῶν ἔχει τὴν σύστασιν ἐξ ἄν
τῆς πρώτης καὶ ἐπιτεταμένης
ἀσφαλείας ὁ μέσος τέταρτος
γίνεται. καὶ τὸ ἐν μεταχώρων ἔ
ναι. καὶ ὡς ἐκτείνει ἐν τῷ τετάρτῳ Ἑχός καὶ
tὸ ἄλλο τὸν μέσος τέταρτος, ὡς καὶ ὡς
ἐν τοῖς λοιποῖς.

3 ἐπιτεταμένης coniecit, ἐπιτεταμένης P
6 μεταχώρων coniecit Ebbesen,

TRANSLATION:
50. The Tetartos consists of five notes. If the first and highest of these
is removed, the result is Mesos Tetartos - called Mesos because it is
placed in between. Parallels are also found in the other modes, correspond-
ing to the place of Mesos Tetartos between Tetartos and Plagios Tetartos.

NOTES:
* 1. ὁ τέταρτος (scil. Ἑχός) must be the Enechema (d c b a G).

* 2. Ἐπιτεταμένη (3) seems to be a terminus technicus of Ancient musical theory.

51. Ἐχοσι τοῖς καὶ ὁ τέσσερις κύριοι κοινωνίαν πρὸς P: Ἐχοσι τοῖς καὶ ὁ τέσ-

sareis kūrion koinonían prōs
ἐλλήλους ἀπὸ τῶν πλαγίων αὐτῶν, ἄλλα δὴ καὶ ἀπὸ τῶν φθορῶν αὐτῶν. μίαν γὰρ φωνὴν ἀπὸ τοῦ πρῶτου ἀναβιβάζοντες, τὸν κύριον δεύτερον εὐρίσκομεν καὶ πάλιν ἀπὸ τοῦ δευτέρου μίαν φωνὴν καταβιβάζοντες, τὸν ἱερό εὐρίσκομεν. οὕτως τοῖνυν ἐστὶν εὑρετὶν καὶ ἐπὶ τῶν άλλων τριῶν ἡχων.

3 οὐ μόνον ἀπὸ ἀεὶ excidisse suspicatus est Hægo 7 lacunam suppeuli
9 lacunam suppeuli

TRANSLATION:

51. Furthermore, the four authentic Echoi are also mutually akin from their Plagals - and from their Phthorai as well. For if from the Protos we ascend one step, we find the authentic Deuteros; if we descend one step from the Deuteros, we find the Plagios Protos. Concerning the three other Echoi the situation is the same.

NOTES:

* 1. The καὶ in line 1 must be construed with ἀπὸ τῶν πλαγίων αὐτῶν.
* 2. In lines 6 and 9 ἀναβιβάζοντες καὶ καταβιβάζοντες are used instead of the simple, non-causal forms.

XIV 52.
5 τερον καὶ τρίτον καὶ τέταρτον ἀριθμὸν· ὑπεὶ δὲ τὴν αὐτὴν συγ
gένειαν τῶν αὐτῶν ἕχων μέλλεις δεικνύειν οὐκ ἀπ’αὐτῶν τῶν κυρίων ἀλλ’ἀπὸ τῶν πλαγίων αὐτῶν,
tότε τὸ ἀνάπαλιν πολῆςς, τοὺς κυρίους ἀπὸ τοῦ τετάρτου ἑως τοῦ πρώτου κατερχόμενος, τέταρτον καὶ τρίτον καὶ δεύτερον καὶ πρῶτον ἀριθμῶν.

2-3 post κυρίουs initium paragraphi indicat P (distinctione plena et T rubro colore depincta) 4 ἀνέλθες dubitantem scripsi, ἀνέλθες P 6 ἀριθμῶν scrips, ἀριθμόν P 10 πολῆςς P 13 post τρίτον iterum καὶ τρίτον habet P 14 ἀριθμὸν P

TRANSLATION:

52. When you want to demonstrate the connection between the authentic Echol, using these modes themselves for the demonstration, "go upwards in a straight line" while counting Protos, Deuterons, Triton, Tetartos. But when you want to demonstrate the same connection between these Echol - but using now not the authentic ones for the demonstration, but their Plagals - then do the opposite, counting the authentic Echol in descent from the Fourth to the First, i.e. Tetartos, Triton, Deuterons, Protos.

NOTES:

* 1. The two diagrams are written in the lower margin, immediately after πρὸς τὸς κυρίους §52,2-3). There is no particular reason why the diagrams should have had exactly this position in the model of P; I have therefore placed them at the beginning of §52, since they seem to be meant as a basis for the developments of §§52-54. The two signatures at the lowest part of the diagrams (ι and Ε) are now lost, but can be seen on old photographs.

* 2. The absurd lay-out in P (see app.crit. 2-3) would be more pardonable if the model MS were following the well-known device of marking the start of a section by means of letting the first full line of the new section begin with an enlarged (or coloured) letter protruding into the left hand margin. According to this hypothetical explanation, the beginning of §52 (ὅτε τὸῦν - κυρίους) was less than one complete line, and the model MS would have had either long lines and small letters or many abbreviations (or both).

* 3. If "going upwards in a straight line" (3-4) is to be taken literally, it is somewhat surprising to find κατ’ἐνθέαν in connection with the circular movements dictated by the diagram! The same expression is used in §§3,10-11.

* 4. My emendations of ἀνέλθες and πολῆςς (4 and 10) are not absolutely necessary. The choice between a rare usage of aorist subjunctive (as an imperative substitute) and a "future" form ἀνέλθες may have been complete-
ly irrelevant both to the author and to the scribe of our MS. The pronunciation was the same, and there was no doubt as to the intended meaning.

* 5. Τούς κυρίους (10-11) is necessary, because the reader might otherwise be led to think that ἰδί ν ἰδίῳ καὶ ν ἦν αὐτῶν Ἰκόνος they involved that it was now the Plagal Echoi which should be used in the "counting".

53. Καὶ πάλιν, ὅτε τὴν συγγένεια—Ρ: καὶ πάλιν ὅτε τὴν συγγένεια

αν τῶν πλαγίων πρὸς τοὺς πλαγίων ποιώμεν, ἀπὸ τὸν ἀ' ἄρχομενοι καὶ κατ-

5 ερχόμενοι τοῦ ἰδ' βαρ ἢβ' καὶ ἢ' δείξωμεν αὐτῶν τὴν συγγέ-

νειαν ὅταν ὅταν τὴν αὐτήν τῶν αὐτῶν Ἰχών συγγένειαν ποιώμενα, ὁυκ ἀ' αὐτῶν τῶν πλαγίων ἀλλ'

10 ἀπὸ τῶν κυρίων αὐτῶν, κατ' ἐν-θείαν ἐξουσίων, ἢ' ἄβ' <βαρο> καὶ ἢ' ἄριστόμοις, ἀποδιδόν-

τε<ς δὲ> ἐκάστῳ τῶν πλαγίων τοῦ κύριου Ἰχὼν αὐτοῦ.

6-7 συγγένειαν restitui 8 συγγένειαν adhuc vidit Perne 11 et 13 supplevit

TRANSLATION:

53. And again, when we establish the connection between the Plagal Echoi, using the Plagals for this purpose, we begin from Plagios Protos and move downwards — Plagios Tetartos, Barys, Plagios Deuteros, and Plagios Protos — in the demonstration. But when we are to demonstrate the same connection, not from the Plagal Echoi themselves but from their authentic counterparts, we "go in a straight line", counting Plagios Protos, Plagios Deuteros, Barys, and Plagios Tetartos — but assigning to each of the Plagal its authentic Echos.

NOTES:

* 1. "Ὅτε for ὅταν in 1, ἀτὸ + acc. in 4, δείξωμεν for δείξωμεν in 6, ποιώ-

 μενα in 8 (but ποιώμεν in 3) is a surprising number of suspect forms. I have left the text as it is, fearing that adjustments would be "corrections of the idiom of the author". One more place where the soundness of the text may be doubted is the construction of κατερχόμενοι in 4-5. Cf. also §52, note 4.

* 2. The meaning of 10-14 seems to be that in this upwards movement the au-

 thentic Echemata (Ἰχών) are used to denote the places of the Plagal modes. If this interpretation is correct, one might have expected a parallel re-

 mark at the end of §52.
54. 

54. Kai aθhys tìn sughýneiavan tòn kuriów ή<χων> ἀπὸ tòn pla-
giwon poiouýmenoi légeuein sti ou' diaphréwei o θα' tov α' kata tov 5 tòv mélov ρυθμόν. pollákës γάρ ευρύσκεται πρῶτος ἀπὸ mé-
lous', ei ðé ðéstin h φωνὴ κατ-
loúsa, plágios prōtōs. pálion eυrύσκεται ἀπὸ mélov πᾶ' ei 10 ðé ðéstin h φωνὴ ἀνυλούσα, ðéstí prōtōs.

2 ÷χων restitui, η ð P

TRANSLATION:

54. Once more a remark on the connection between the authentic Echoi as established from the Plagals: There is no difference between Plagios Protos and Protos from a melodic point of view. For many times the melodic movement is Protos; but if we have to do with a descending step, this is to be defined as Plagios Protos. And again, an ascending step will be Protos, although its melodic context is Plagios Protos.

NOTES:

* 1. I have paraphrased rather than translated, to make the line of thought a little more clear.

* 2. 'O tòv mélov ρυθμός is probably a stylistic variation for to mélos. In §§52-54, the author's usual predilection for variatio sermonis is seen again and again.

55. 'Alλα ταῦτα μὲν άρκετά μοι śl P: 'Alλά ταῦτα μὲν άρκετά μοι 1 άθω-

Ποζωσι, δοσον πρὸς ἀπόδειξιν τῆς τῶν ἤχων ἑαυματῆς κοινωνί-

ας. εἰ δὲ τις καὶ ἄκριβεστερον 5 περί τοῦτων ἑξετάσει, μυρίοις ἄν εὑρήσῃ τρόπους τὴν τῶν ἤχων κοινωνίαν συνβάλλοντας
οδόαει τέως παρήκαμεν, ἵνα μὴ
πολυλογεῖν τισὶ δόξωμεν. ἔξεστι
15 δὲ τοῖς φιλομαθέσιν, ἄδηγηθέσιν
ἐξ ἕν ἐγεγραμμένον. καὶ ὡς
παρελείπομεν ἐφευρεῖν τρόπους,
εἶπεν ἐμπόνως τούτοις ἑνασχολη-
θέτειν.

8-12 vide annotationem nostram 12. γ adhuc vidit Perne (γ) β, δ
Perne 15. ἄδηγηθέσιν Ebbesen, ἄδηγηθέσιν P 17 παρελείπομεν P
18 τούτοις Ebbesen, τούτοις P

TRANSLATION:

55. The above, I suppose, must be enough to demonstrate the marvellous
kinship of the Echoi. However, if somebody makes an even more accurate
scrutiny of these matters, he will find thousands of features which prove
the kinship. At present I have disregarded these, to avoid being criticized
for loquacity. But those who are eager after knowledge may be guided by
what I have written to find also the features which I have passed by, pro-
vided they really do engage themselves in this troublesome work.

NOTES:

* 1. For the time being I have refrained from giving any precise translation
of τρόποι in 6 and συμβάλλω in 7.

* 2. The two diagrams are written in the left and right margin respectively,
and the text from μυρίους in 5 to τισὶ in 14 has been written in very short
lines, centred at the middle of the page so that the two diagrams do not
protrude into the margins. The lay-out may have been taken over from the
model MS.

* 3. In line 12, Perne apparently could still read both signatures of the
left diagram. According to him, the first of these was a Tritos signa-
ture (γ); but since his rendering of the second signature (ω) bears
no resemblance whatsoever to the clear θ still preserved in P, I hesitate
to believe his accuracy as far as the γ is concerned.

* 4. Anyhow, I have no idea as to how the two diagrams are to be understood.
ΧV 56. Διαστημάτων εἰςί διαφοραὶ πέντε· πρώτη μέν, καθ’ ἦν μεγέθεις διαφέρεις δευτέρα δὲ, καθ’ ἦν τὰ μὲν σύμφωνα < > τρίτη δὲ, καθ’ ἦν τὰ μὲν ἑστι σύνθετα τὰ δὲ ἀσύνθετα· τετάρτη δὲ, καθ’ ἦν γένεις πέμπτη, καθ’ ἦν τὰ μὲν ἑστι ὁπτὰ τὰ δὲ ᾠλογα.

= Anon § 58 (MSS:ABC)

1 Τῶν διαστημάτων P διαφοραὶ P φωναὶ P 2-3 μεγέθη P 3 δευτέρου P 4 σύμφωνα + τὰ δὲ διάφωνα Anon 5 εἰςὶ S 7 γένει Anon πέμπτῃ δὲ P 8 ἐξήματα ante corr S

NOTES:

* 1. Here begins the Ancient part of P. §§56-89 contain Anonymus III Beller-mannii, §§33-69init., but in a confused order and without §§45fin.-49. The same text, but in correct order, is preserved in S, 92r-95v, including the paragraphs which are missing in P (Anon §§45-49). For details, see my article in Texte und Untersuchungen zur Geschichte der altchristlichen Literatur, Bd.125, quoted above (p. 2 note 2).

* 2. In P, §56 begins near the bottom of fol.13v, with a red initial letter. The lay-out does not indicate that we have to do with a text which has nothing whatsoever to do with the preceding. In S, the text of Anonymus III, §§ 33-69 begins on the top of 92r, with several lines in blank set aside for a heading.

* 3. For §§56-89, the left-hand columns give the corrupt text of the common ancestor of P and S, as far as this can be reconstructed. All deviations from Najock’s text are underlined. The underlinings in the right-hand columns mark off the cases where P deviates from the reconstructed text, i.e. the private readings of P.

57. Τῶν συμφώνων διαστημάτων — P: τῶν συμφώνων διαστημάτων, ὄκτω δυτῶν, ἄφ’ ὄν τριῶν ἑλαχίστων — τὸ μὲν διὰ τεσσάρων, διαφερόμενοι εἰς σχήματα τρία, τὸ δὲ διὰ πέντε εἰς τέσσαρα, τὸ δὲ διὰ πασῶν εἰς ἑπτά.

= Anon § 59 (MSS:ABC)

58. Τούτων δὲ τῶν < > τεσσάρων σχημάτων πρῶτον μέν, οὐ P: τούτων δὲ τῶν τεσσάρων σχημάτων, πρῶτον μέν, οὐ
τὸ πυκνὸν ἐπὶ τὸ βαρὺ ἀπὸ ὑπάτης μέσων ἐπὶ μέσου· δεύτερον
5 δὲ, οὗ ἀλ διάσεις ἐφ' ἑκάτερα τοῦ διὰ τοῦν ἀπὸ ὑπάτης μέσων ἐπὶ τρίτην συνημμένων· τοῦτον ἢ πρῶτον τὸ ἥμιτόνιον ἢ τέλος ἢ μέσον. ἔστιν οὖν τὸ πυκνὸν
10 ἐπὶ τὸ ὄξυ, ἀπὸ λιχανοῦ μέσων ἐναρμονίου ἐπὶ παρακτήσιν συνημμένων ἐναρμονίουν.

= Anon § 60 (MSS:ABC)

1-2 τούτων δὲ τῶν τεσσάρων σχημάτων P et S (οὐ δὲ), τού δὲ τῶν διὰ τεσσάρων σχήματα ΑΒ τοῦ δὲ διὰ τεσσάρων σχήματα C, τῶν δὲ τοῦ διὰ τεσσάρων σχήματων Anon (Bellermann) 2 οὖν οὗ 4 μέσων Anon, μέσου S, μέσης P μέσου PS, μέσην Anon 5 διάσεις Anon, διάρεις S, διὰ (sic) P ἑκάτερον P
6 ταρακάτης Anon μέσου P 7-8 τοῦτον ἢ PS, τρίτον δὲ οὗ Anon
8 πρῶτην S 10 ἀπὸ λιχανοῦ usque ad § 61,3 ἐπὶ τὸ ὄξυ om P μέσου S
11 ἐναρμονίουν S παρακτήσιν ante corr. παρακτήσιν post corr 11-12 συνημμένων S

NOTES:

* 1. In line 5 the readings of P and S can be explained in different ways. Either διάσεις was difficult to read in their common ancestor; P gave up, whereas S (or rather the model of S, cf. Introduction p.) produced a nonsensical διάρεις. Or, if διάρεις was already in the common ancestor, we might see the reading of P as being due to a prudent reluctance to copy a meaningless word.

* 2. The omission in P of lines 10 sqq. is due to homoeoteleuton (ἐπὶ τὸ ὄξυ).

59. Τῶν δὲ τοῦ διὰ πέντε σχημάτων πρῶτον μὲν ἐστὶν οὗ πρῶτος ὁ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ ὑπάτης μέσων ἐπὶ παρακτήσιν·
5 δεύτερον δὲ οὗ δεύτερος ὁ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ παρακτήσις μέσων ἐπὶ τρίτην διεζευγμένων· τρίτον δὲ οὗ < ὁ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ λιχανοῦ τρίτον ἐν-
10 αρμονίουν ἢ χρωματικῆς ἢ διατο-

> ἀ[τὸ

ὑπάτης μέσων, ἐπὶ παρακτήσιν·
5 δεϋτερου δὲ οὗ δεϋτερος ὁ τόνος ἐπὶ τὸ ὄξυ ἀπὸ παρακτήσις μέσων, ἐπὶ τρίτην διεζευγμένων· τρίτον δὲ οὗ ὁ τόνος ἐπὶ τὸ ὄξυ ἀπὸ λιχανοῦ τρίτον ἐν-
10 αρμονίουν, ἢ χρωματικῆς ἢ διατο-
νου ἐπὶ παρανήτην διεξευγεμένων ἐναρμόνιον ἢ χρωματικὴν κατὰ τόνου’ τέταρτον δὲ οὐ τέταρτος ὁ τόνος ἐπὶ τὸ δέξυ, ἀπὸ μέσης

15 ἐπὶ νῆτην διεξευγεμένων.

= Anon § 61 (MSS:ABC)

3 ἀκόμ ςοι S\textsuperscript{ac} 5 οὗ P 8 οδ] + τρίτος Anon ὀ οἱ S 9 τρίτον] μέσων Anon (Vincent), δυ AB, δυ C 10 χρωματικὸν S 11–10 διατόνου om S\textsuperscript{ac} 12 χρωματικά P 12–13 κατὰ τόνου S et ABC, ἢ τόνου P, ἢ διάτονου Anon (Bellermann) 14 ἐπὶ τὸ δέξυ om S\textsuperscript{ac} μέσης] ς της P (sed νῆτης αὐξη vidit Perne) 15 νῆτην] νῆτων S, νέατην P

NOTES:

* 1. I take P's abbreviation of -κῶν in line 12 to be "the normal -olv abbreviation plus a gravid". According to Najock, the tradition of the Anonymus is split (χρωματικὴν A, χρωματικὸν BC); it is therefore difficult to ascertain which reading was in the common ancestor of P and S.

* 2. In line 14, the traces still preserved in P might as well be read as μέσης. But since Perne writes νῆτης (the underlined letters are pencilled in Perne's apograph) and Høeg has [ ]της, Perne's testimony is to be accepted. S transmits the correct text. Perhaps νῆτης of P reflects a misunderstanding of a correction of the faulty νέατην in the model manuscript.

60. Τῶν δὲ τοῦ διὰ πασῶν σχημάτων δεύτερον < > ἐστὶν οὐ δεύτερος ὁ τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης ὑπατῶν ἐπὶ μέσην οὐ δεύτερος τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης ὑπατῶν ἐπὶ μέσην τρίτος οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης ὑπατῶν ἐπὶ τρίτην διεξευγεμένων τέταρτον οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ χαλκοῦ ὑπάτης ἐν-

10 αρμονίου < > ἐπὶ παρανήτην διεξευγεμένων ἐναρμόνιον ἢ χρωματικὸν ἢ διάτονον' πέμπτον οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης μέσον ἐπὶ νή-

15 την διεξευγεμένων' ἐκτῶν οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ παραπάτης μέσων ἐπὶ τρίτην ὑπερβολαίων' ἐβδομον οὐ ἐβδο-

P: τῶν δὲ τοῦ διὰ πασῶν σχη-

14ν μάτων' δεύτερος ἐστὶν οὐ δεύτερος τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης ὑπατῶν ἐπὶ μέσην τρίτος οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης ὑπατῶν ἐπὶ τρίτην διεξευγεμένων τέταρτον οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ χαλκοῦ ὑπάτης ἐν-

10 αρμονίου < > ἐπὶ παρανήτην διεξευγεμένων ἐναρμόνιον ἢ χρωματι-

κὸν ἢ διάτονον' πέμπτον οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ υπάτης μέσον ἐπὶ νή-

15 την διεξευγεμένων' ἐκτῶν οὐ τόνος ἐπὶ τὸ δέξυ, ἀπὸ παραπάτης μέσων ἐπὶ τρίτην ὑπερβολαίων' ἐβδομον οὐ ἐβδο-
1 to 0 om S 1-2 σχημάτων PS Anon (Vincent), σχήματα ἐστὶ ABC, σχήματα ἐστὶ < τρίτον μὲν, ὁ δὲ τόνος ἐπὶ τὸ δὲ ἀπὸ προσλαμβανομένου ἐξέ μέσην> coniecit Bllermann, sed Vincent (quem Najock securus est) numeros tota sectione mutare maluit, ita ut pro δεύτερον τρίτον, pro τρίτον δεύτερον et legendum esse contenderet. Hic tantum codices P et S cum libris manuscriptis ABC comparantur 2 δεύτερον S, δεύτερος P, δεύτερον δὲ ABC 3 δεύτερος ὁ SAB, ὁ δεύτερος P, δυτικὸς ὁ C 4 μέσην PS, παραμέσην Anon (AB), παραμέσω C 5 τρίτον δὲ τρίτος δὲ B, τρίτος P oí] + τρίτος Anon (AB), + τρίτος C oí om C 6 καρπάτης] ὑπάτης P 7 ἐξ[ + μέσην Psc (deleuit ipse) τρίτον S 7-8 τέταρτος δὲ P 8 τέταρτον τὸ P, τέταρτον S, τέταρτος ὁ τόνος ABC 9 ὑπάτων Anon (Bllermann) 9-10 ἐναρμόνιον S, ἡ χρωματικῆς ἡ διατόνου Anon (Vincent) 10-11 παράνυντος διεξεγεγένος S 11-12 χρωματικῆ Anon (C), χρωματικῆ S 12 τέταρτος δὲ P 13 ὁ πεισμὸς ὁ τόνος P 14 μέσων Anon (ABC) 15 διεξεγεγένον S 16 ἐκτὸς δὲ P ἐστὶν om P 17 ἄπο - 19 ἄμο om. Ssc (add ipse marg.), bis scripset C 17 καρπάτης] ὑπάτης P μέσων S 18 ἐξοδοὺν ἐκθεόμου P, ἐξοδοῦν δὲ S 20 ἐναρμόνιον S 22 καρπάτων S 22 ἐναρμόνιον - 23 διάτονον om P 23 χρωματικῇ Anon (Najock) δίὰ τόνου S 26 νῆτον ὑπερβολαίων P, νῦν ὑπερβολεῖν S

NOTES:

* 1. the faulty text of the archetypus was transmitted in the common ancestor of P and S with the following changes:

1-2 σχήματα ἐστὶ : σχημάτων
2 δεύτερον δὲ : δεύτερον
4 παραμέσην : μέσην
5 οδ τρίτος : οδ
10 τέταρτος ὁ τόνος : τέταρτον τὸ P, τέταρτον S
9 ὑπάτων : ὑπάτης
14 μέσων : μέσου

The list is probably not complete; it may be, for instance, that a νῆτον (for νῆτη) hides behind 10 παράνυντος (S), 22 παρανυντῶν (S), and 26 νῆτον (P). See also §62 note 2.
XVI 61. Τόποι φωνών τέσσαρες ύπατοειδή, μεσοειδή, νηπειειδή, ύπερβολοειδή. Εν μὲν οὖν τῷ πρῶτῳ τίθεται τετράχορδα πέντε; 5 ύπολούδια δύο, ύποφφύγια δύο, ύποδύριον ἕν. ἐν δὲ τῷ δευτέρῳ 15 τρία δόρια δύο καὶ φούγιον ἕν. Εν δὲ τῷ τρίτῳ μυξολόδια δύο, ύπερβολαίων < >, ύπερβολοειδῆς

10 ἔστι πάς ὁ ἀπὸ τοῦ ύπερμυξολούδιου.

= Anon § 63 (MSS:ABC)


NOTES:
* 1. Τετραχῶς δ' απέντε (P, line 4) is easily explained; but what is behind the ἢς of S?
* 2. Μυξολόδιον ἐν ύπερβολαίως (S, lines 8-9) seems to be an attempt to get something out of a corrupt text.

62. "Δρεχθαί δὲ ὁ μὲν ὑπατοειδής τόπος ἀπὸ ὑπάτης μέσων ὑποδωρίου καὶ λήγει ἐπὶ μέσον δωρίου" ὁ δὲ μεσοειδῆς δρεχθαί 5 ἀπὸ ὑπάτης μὲν φούγιον λήγει δὲ ἐπὶ μέσον λύδιου ὁ δὲ νηπειειδῆς δρεχθαί μὲν ἀπὸ μέσης λυδίου, λήγει δὲ ἐπὶ νήθνοι συμ-
ημιένων < » ο δὲ μετά τούτου
10 < > υπερβολοειδῆς.
= Anon § 64 (MSS:ABC)

1 δὲ om S μὲν post ἄρχεται transposuit S 2-3 μέσον ὑποδόρου S
3 μέσην Anon (Najock), μὲσων ABC 3-4 δόρον S, ὑπολύδου Anon (Ge-
vaert) 4 ἄρχεται] + μὲν S et Anon(Najock, e codice S) 5 μὲν om S et
Anon(Najock, ut supra), μέσων coniect Bellermann φρυγίου P et Anon(Na-
jock), φρύγιου S, φρυγίων ABC 6 μέσην Anon(Najock, Bellermann), μέσων ABC
8 λυδίου] μεξολύδου Anon(Najock), λύδιου S νήτων S 8-9 συνημιένων]
+ υπερμιελύδου Anon(Najock, Vincent) 9 τούτου P, τούτου S, τούτους εστιν Anon

NOTES:
* 1. In line 5, it is perhaps more likely that the common ancestor of P and
S had the misspelling φρυγίου (for φρυγίων). S corrected the accentuation,
P emended φρυγίου into φρυγίου.
* 2. For νήτων (S, line 8), cf. §60 note 1.

XVII 63. Μεταβολὴ δὲ ἐστὶν ὄμοιον
tivdos eis anómion tônón alloi-
wois lóghra kai adôda. tôn δὲ
metabolóv αἱ μὲν εἰσὶ γενικαί,
5 αἱ δὲ τονικαὶ, αἱ δὲ συστημα-
τικαί ταῦτα γενικαὶ μὲν αἱ τῶν
γενῶν εἰς ἄλληλα μεταβολαί.
oioun ἀρμονίας χρώμα τονικαί
δὲ αἱ τῶν τόνων (οἰον λυδίου,
10 φρυγίου καὶ τῶν λοιπῶν) eis
autàs metabolai' sustemmatikaí
dé, ὡτόταν ἐὰν διαπευκές eis
sυναφῆ ἢ ἐμπαλιν ἡ μετέλθη
tò mélos.
= Anon § 65 (MSS:ABC)

P: Μεταβολὴ δὲ ἐστὶν ὄμοιον
tivdos eis anómion[on tópion] álllo-
wois lóghra kai adôda' tòv dë
metabolóv[αν], aì mën eis e genika'[w]
aì dë tonikai' aì dë sustematika-
[ì] kai genikai mën aì tòv
gevòn eis allhla metabolai'[ì]
oioun, armoniais chróma'[n] tonikà
[ì] de eloi, aì tòv tôn[w], o[i]on, lúdios
[ì] phugíou kai tòv[l]oipòw eis
autàs metabolai' su[x] sustemmatikì
[ì] òtòt, òtòtìn òn diapékeús eis
sunaftì hì èmpalìn metélthì tò
[ì] mélos.'

1 δὲ om S 4 et 6 γενικαὶ S 5 αἱ - 6 μὲν om ABC, restituit Najock
(e codd P et S) 7 γενών S 8 ἄρμονίας P, ἄρμονίων S, ἄρμονία Anon
8 τονικαὶ Anon (AB), τονικὰ S, τονικὰ P, τόνων S 9 δὲ[ + eloi P
lúdios P, lúdios[ì] kai S 10 φρύγιος P 11 autòs Anon (Najock), autòn S
11 metabolai Anon(Najock, e PS), metabolò ABC 13 ek palin S
14 mélos[ì] + melwòlì S
NOTES:
* 1. Najock 1975 p.XVI takes 5-6 to be a conjecture in the model of P and S.
* 2. If the reading of S in line 9 (τῶνων) is considered to be an attempt to emendate, it is less likely that the common ancestor of P and S had the correct reading τουκαλ. Maybe rather τουκαλ—a small error which must then have been already in the archetypus and which has called forth the emendations of S and C, as well as the correct emendation of AB.
* 3. The word μελωδία which ends the paragraph in S may have its origin in the μελοποιία which introduces the next paragraph. Between these two paragraphs S has only a comma.

64. Μελοποιία δὲ ἐστι ποιὰ  
P: [μ]ελοποιία δὲ ἐστὶν τοια
χρῆσις τῶν ὑποκειμένων.
15ν χρῆσις τῶν ὑποκειμένων:

= Anon § 66 (MSS: ABC)

1 δὲ om S  2 post ὑποκειμένων finem sectionis indicant PS et B, sectionem continuant A et C

NOTES:
* 1. The Melopoia is normally treated at the end of the compendia, see e.g. Cleonides (ed. Jan, pp. 206-07).
* 2. The rest of Anon §66 is printed below, as §86.
* 3. Once more, S leaves out the δὲ at the beginning of a paragraph; cf. §§58,62,63 - and below §§65.

XVIII 65. Διάστημα δὲ ἐστι τὸ περὶ-
P: Διάστημα δὲ ἐστὶ τὸ περὶ-
eχόμενον ἦτοι ὄρισμένον ὑπὸ
dúo φθόγγων ἄνοιμόν τῇ τάσει.
tὸ γὰρ διάστημα φαίνεται, ὡς
5 τόπω εὐπετέν, τάσεων διαφορά
eἶναι καὶ ὅλως τόπος δεκτικός
φθόγγων ὑπερέρων μὲν ὀὔτε πέ-
ρας ὀφθαλῶν τῆς τῶν ὁριζομένων
tὸ διάστημα τάσεως, βαρυτέρας
10 < δὲ ἀνάπαλιν. διαφορὰ δὲ
ἐστὶ τῶν τάσεων τὸ μάλλον ἢ
ἤπτου τετάρσθαι.

= Anon § 50 (MSS: ABCD)

1 δὲ om S et ABC  5 τάσεως S  7 οὔτε om S, ἀπε Anon (Najock)  8 οὖσης Anon  9 τάσεων Anon (ex Aristoxeno) βαρυτέρας] + βαρυτέρων Anon (Na-
jock)  10 ἀνάπαλον P
NOTES:

* 1. It is impossible to decide whether or not the common ancestor of Ρ and Σ had δὲ in line 1. See §64 note 3 on Σ's frequent leaving out of this particle.
* 2. On p. 219 of his Göttingen edition Najock includes οὖσιν (8) among the "Sonderfehler oder Konjekturen" of these MSS. But as long as the corrupt text of the archetypus has not been satisfactorily restored, we cannot know for sure.

66. Σύστημα δὲ ἐστὶ σύνταξις
πλειόνων φθόγγων ἐν τῷ τῆς φωνής τόπω θέσιν τινὰ ποιῶν ἐχουσα ἢ τὸ ἐκ πλειόνων ἡ ἐνὸς
5 διαστήματος συνεστὸς.
= Anon § 51 (MSS:ABC)

3 τοποθεσίαν τοῦ ὄρου μιᾷ - 5 συνεστὸς ποιῶν
5 συνεστὸς Anon:

XIX 67. Εἰς μὲν τὴν θεωρείαν, ὁμιλεῖ κατὰ τὸν ὄν τοῦ διεξερχεῖται μελῳδίας. ὁμιλεῖ γάρ καὶ ὁ μέγιστος καὶ
5 ὁ ἐλάχιστος τόπος ἐπί' αὐτῆς·
οὕτε γάρ ἐπὶ τὸ μέγα δύναται ἢ θεωρήσῃ ἡ φωνή εἰς ἀπειρον ἀδέξειν τήν τοῦ ὀξέως καὶ βαρέως διάστασιν
οὕτε ἐπὶ τὸ μικρὸν συνάγειν,
10 ἀλλ' ἤσταταί ποι ἐφ' ἐκάτερα.
= Anon § 42 (MSS:ABC)

1 φωνήν (sine articulo) post ἄνθρωπίνην transposuit Ρ 2 τόπους S
3 ὁμιλεῖ κατὰ τὸν ὄν τοῦ διεξερχεῖται om S 4 γάρ om Ρ 6 ἐπὶ τὸ μέγα] ἐπιτεταμένον S, ἐπὶ τὸ μέγα P 7 ἀδέξειν P 8 ὀξέως καὶ βαρέως ΑΒΔ, ὀξέως καὶ βαρέως C, βαρέως καὶ ὀξείως S 10 ὀξίου S

68. Ὁριστέον οὖν ἐκάτερον αὐτῶν, πρὸς ὅποιο ποιουμένους τὴν ἀναφοράν, τὸ φθεγγόμενον καὶ
Ρ: > αὐτῶν, πρὸς ὅποιο ποιουμένους τὴν ἀναφοράν, τὸ φθεγγόμενον καὶ
τὸ κρυνόμενον, τούτεστι φωνὴν
5 καὶ ἁκοῆν. οὗ γὰρ ἄδυνατοισιν 21γ
ἀδιπτὰ ἢ μὲν ποιῆσαι ἢ δὲ κρᾶναι,
τοῦτο ἐξω δετέον ὑπὲρ τὴς τε χρησι-
μος καὶ δυνατῆς ἐν φωνῇ γί-
νεσθαι διαστάσεως. ἀμά δ' ἐπὶ
10 τὸ μικρὸν ἄδυνατοσινν' οὔτε γὰρ ἡ φωνὴ διέσεως ἐναρμονίου
ἐλαττόν τι διάστημα δύναται
diassafevō, οὔτε ἡ ἁκοῆ αἰσθά-
νεσθαι διότι γε καὶ ξυνίσχει τί
15 μέρος ἐστὶν, εἴτε διέσεως εἴτε
ἀλλου τινὸς τῶν γνωρίσμων δια-
stημάτων. ἐπὶ δὲ τὸ μὲ..... τής
φωνῆς τὸ βαρύ καὶ τὸ ὀξὺ ὁ μουσι-
κὸς σκοπεῖ, τούτοιτι πλατύ καὶ
20 στενόν ἐκ τοῦ περὶ τὴν ἄρτηριαν
πάθους, ταχ' ἄν δοξεῖν ὑπηρετει-
νειν τὴν φωνὴν ἢ ἁκοῆ, οὐ μὴν
πολλῆς τινί.
= Anon § 43 (MSS:ABC)

1 'Οριστέου οὖν ἐκάτερον om P 4 κρυνόμενον PS, κρῖνον Anon 5 οὗ PS,
6 ὁ Anon 6 ποιεται P 8-9 γίνεται διάστασις S 9 δὲ S 10 ἄδυνατόσιν P
12 ἐλαττόν PS 12 δύναται] γίνεται P 13 διασαφῆν P 17 'Εκεῖ δὲ S
μέλος P, μέτρον S, μέγα Anon 21 δοξεῖν] δόξει ἐν P, δ' ὑπηρετεῖν S ut
videtur 23 τινὶ] τίνευν S

NOTES:
* 1. In line 17, the reading of S (κεῖ δὲ, at the beginning of the first line
on the page) seems to imply that a red initial letter was planned.
* 2. In the same line, neither μέλος (P) nor μέτρον (S) makes sense. The
other MSS correctly have μέγα, εἰπὶ τὸ μέγα correponding to εἰπὶ τὸ μικρὸν
in lines 9-10. Apparently, the model MS was difficult to read - cf. §67,6
where εἰπὶ τὸ μέγα became εἰπὶ τὸ μέγα in P, ἐκτεταμένως in S.

69. *Εστιν μὲν οὖν ἵδιον τῆς
ἀκοῆς τὸ ἐπὶ τὸ μέγιστον, τῆς
δὲ φωνῆς τὸ ἐπὶ τὸ ἐλάχιστον
πέρας, ἢ κοινὸν ἀμφοτέρων. διὸς
P: *Εστίν μὲν οὖν ἵδιον [τῆς
ἀκοῆς] τὸ ἐπὶ τὸ μέγιστον· τῆς
δὲ φωνῆς τὸ ἐπὶ τὸ ἐλάχιστον
μέρος· ἢ κοινὸν ἀμφοτέρων διὸς
5 δ' οὖν ἐὰν λαμβάνῃ, ὁρισται ἢ τε τού δέξεως καὶ βαρέως διάστασις εἰς τε τὴν φωνήν < > τίθησιν
< > δὲ ταύτη καθ' αὐτὴν νοηθέσιν
tῇ τοῦ μέλους φύσει τὴν ἀδίστην
10 ἀπελευθον συμβῆσεται γλύνεσθαι.

ἀλλ' ὁ λόγος οὐκ ἀναγκαῖος εἰς
tὸ παρόν.

= Anon § 44 (MSS:ABC)

3 τὸ 'λάχυστον S 4 πέρας] μέρος P κολύνων] κατὰ S 5 ἐὰν S et ABCD,
ἀν Anon (Bellermann), λαν P ut videtur (λαΦ Perne) λαμβάνη codd (λαμ-
βάνει c), λαμβάνει Anon (Najock), λαμβάνη τις conicet Bellermann
6 τοῦ βαρέως S 7 ἐς S τε om P (φωνήν] + καὶ τὴν ἀκοῆν Anon (Beller-
mann, ex Aristoxenou) τίθησιν codd, τεθεῖσα Anon (Bellermann, ex Ari-
sto-xenou) 8 de P, el de S et Anon ταύτη ταύτην S et c καὶ 'αὐτή S,
καθ' αὐτὴν Anon αὐτὴν νοθεύσει P, vide annotationem νοθεύσει S et Aristo-
xenous 10 συμβῆσει om P 11 ἀλλ' ὁ codd, ἀλλος Anon (Najock, ex Aris-
toxenou) ἀναγκαῖος S 11-12 εἰς τὸ παρόν om P

NOTES:

1. In line 1, Najock's text and manuscripts read ἔστιν οὖν ζόων μὲν. By an
oversight this reading has not been mentioned in the critical apparatus.

2. P's reading in 8 is probably to be understood as a correction in scri-
bendo from αὐτὴν to αὐτῇ.

XX 70. Τοῦ μέλους τὸ μὲν ἔστι λο-
γὺς, τὸ δὲ μουσικὸν. < >
τὸ συγχέιμενον ἐκ τῶν προσώπω-
δῶν τῶν ἐν τοῖς ὀνόμασιν φυσικῶν
5 γὰρ τὸ ἐπιτείνειν τε καὶ ἀνιεῖνα
τῆν φωνήν ἐν τῷ διαλέγεσθαι.
μουσικὸν δὲ ἐστι μέλος (περὶ 'α
καὶ ἡ ἀρμονία καταγίνεται) τὸ
diaστηματικὸν,
tὸ ἐκ φθόγγων τε
10 καὶ διαστημάτων συγχέιμενον.

P: <Τ>οῦ μέλους τὸ [μὲν] ἔστι λο-
γὺς, τὸ δὲ, μουσικὸν:

τὸ συγχέιμενον ἐκ τῶν προσω-
δῶν τῶν ἐν τοῖς ὀνόμασιν φυσικῶν
γὰρ τὸ ἐπιτείνειν τε καὶ ἀνιεῖνα
tῆν φωνήν ἐν τῷ διαλέγεσθαι.
μουσικὸν δὲ ἐστι μέλος περὶ 'α
καὶ ἡ ἀρμονία καταγίνεται τὸ
diaστηματικὸν τὸ ἐκ φθόγγων τε
καὶ διαστημάτων συγχέιμενων:

<
2 μουσικών] + λογίας μὲν οὖν ἐστὶ Αnon 3-4 προσωπικότων P 5 ἐπιτειλώνυμ P
8 ἀρμονική Αnon καταγγέλλεται Αnon 10 συγκεκριμένων P 11-13 et §§70a-d
non habet P 13 πλείονας Αnon ἐνός S, εἶναι Αnon(ACD), om B

Quae sequuntur ( §§70a-d ) e codice S foll 93v-ν addidi:

70a. Οὗ μόνον δὲ ἐκ διαστημάτως καὶ φθόγγων δεῖ συνεστάναι τὸ
ημιοσμένον μέλος· καὶ ἔχουν τὴν προσήκοουσαν στάσιν, ἀλλὰ προσ-
δεῖται μᾶς τινὸς θέσεως καὶ οὐ τῆς τυχούσης· τὸ γὰρ ἐκ δια-
stημάτων καὶ φθόγγων συνεστάναι κοινὸν καὶ τῷ ἀναρμόστῳ·

= Αnon §46 (MSS:ABCD)
1 διαστημάτων Αnon 2 στάσειν] τάξιν Αnon 3 μᾶς] τοὺς Αnon

70b. ὡστε εἰς τὴν κοινῶς γεγομενής σύνθεσιν τοῦ μέλους, τὸ
πλείστην ἔχουν ὑπερὶ τὴν σύνθεσιν < > καὶ τὴν ταύτης ἰ-
διότητα ὑποληπτικοῦ· τοῦ μὲν οὖν ἐπὶ τῆς λέξεως μέλους διοίκει
τὸ μουσικὸν τῷ διαστηματικῷ χειροθείαν κινήσει τῆς φωνῆς· τοῦ
5 δὲ ἀναρμόστου τε καὶ διημαρτημένου, τῇ τῆς συνθέσεως διαφορά
τῶν διαστημάτων.

= Αnon §47 (MSS:ABCD)
1 κοινῶς] ὧθελε Αnon 2 σύνθεσιν] καὶ Κοινὸν 3 ὑποληπτικοῦ Αnon
6 finem sectionis indicat S

70c. Ὁ φθόγγος κοινῶς μὲν ἐστὶ αὐτὸ τὸ ὄνομα, ἵνα δὲ ὁ χα-
ρακτήρ ὁ γραφόμενος, ἰδιαίτερα δὲ ἡ δύναμις αὐτῆς τοῦ φθόγγου,
καθ' ἑν τινὰ ἡ βαρύν λεγόμενον καὶ ὁριζόμενον φαμέν·
φθόγγος δὲ ἐστὶ φωνῆς ἐμμελείας πτῶσις ἐπὶ μίαν στάσιν· καὶ τὸ-
5 τέ γὰρ φαίνεται < > εἶναι τοιοῦτος οἷος εἰς μέλος τάττεται
ημιοσμένον, ὅταν ἡ φωνὴ φανῇ ἐστάναι καὶ ἐπὶ μᾶς τάσεως
tάσις δὲ ἐστὶν οἷον στάσεως καὶ μονῆ τῆς φωνῆς,

= Αnon §48 (MSS:ABCD)
1 κοινῶς SD, κοινῶς Αnon(ABC) δὲ habent SD, om Αnon(ABC) 2 αὐτῷ Αnon
3 λέγουσιν δὲ καὶ ὁριζόμενος φαμέν Αnon 4 στάσεως SABC et D ante corr, τά-
σιν Αnon e cod D post corr 5 φαίνεται] + φθόγγος Αnon τάττεσθαι Αnon
6 καὶ codd, seclusit Αnon(Bellermann)
70d. ἐστι < > τῶν ἐν μουσικῇ ὁ φθόγγος τὸ ἔλαχιστον καὶ ἀ-
διαίρετον ὡς μονὰς, ἐν φ̄ καὶ σημεῖον ἐν γραμμῇ ἐστι δὲ ὁ φθόγγος
κοινὸν κατηγόρημα δεύτητος τε καὶ βαρύτητος.

= Anon §49 (MSS:ABCD)

1 ἐστι] + δὲ Anon 2 ὡς μονὰς ἐν ἀριθμῷ Anon 3 post βαρύτητος finem
sectionis indicat S

NOTES:
* 1. The omission of 11-13 and the loss of the Anonymi paragraphs 46-49 (in
the numbering of the present edition §§70a-d) - all of which is still pre-
served in S - is a clear demonstration of my hypothesis that there was an
intermediate manuscript between S and the common ancestor of S and P, and
that this intermediate manuscript was copied before one folio was lost in
the common ancestor. Cf. again the article referred to in §69 note 1.

XXI 71. Τῶν μελῳδουμένων τρία ἐστι P: Τῶν μελῳδουμένων τρία ἐστι
γένη, ἁρμονία, χρόνια, διάτονον. (21v)
άρμονία μὲν οὖν ἐστιν, ἐν ἡ τὸ
πυκνὸν ἡμιτονιαῖον· αὕτη δὲ ἐσ-
5 τι μονοειδῆς.

= Anon §52 (MSS:ABCD)

1-2 γένη ἐστίν Anon 3 οὖν om Anon 4-5 ἐστι om P

72. Χρόματος δὲ εἴδη τρία· πρῶτον μὲν καὶ ἔλαχιστον τὸ μαλακὸν
καλούμενον, ἐν φ̄ τὸ πυκνὸν τριῶν
ἐστι διαδέσεων ἐναρμονίων ἐὰν ἐν
5 δωδεκάτη μοριοτόνου. δεύτερον δὲ
τὸ ἡμιδολον καλούμενον· τοῦτο δὲ
ἐστιν, ἐν φ̄ τὸ πυκνὸν ἡμιτονιών
ἐστιν καὶ διάδεσεως ἐναρμονίων.
τρίτον τὸ σύντονον καλούμενον,
10 ἐν φ̄ τὸ πυκνὸν ἡμιτονιών ἐστι.

= Anon §53 (MSS:ABCD)

1 δὲ om P 3 ἐν φ̄ 6 καλούμενον om P 4 διάδεσεων Anon 4-5 ἀδὲ δωδε-
κάτη μοριοτόνου S ante corr., ante δωδεκάτη supra lin ἐν addidit et supra
rho litteram uel litteras quarum sensum equidem non intelligo. ω τamen uix
esse credo, ἐνι δωδεκατομαριψ ἐπάττων D (in rasura, man sec), ἀδὲ δωδεκα-
τομαριψ τῶν Anon (Bellermann) 8 διαιρέ-
σεως ἐναρμονίων S
NOTES:
* 1. It is evident that there is a connection between the ἐν of P (and of S post correcturam) and the ἐν ὑπὸ which is part of the words added by a second hand in D.

73. Διατόνου δὲ εἰδὴ δύο' πρῶ- τον μὲν καὶ ἐλάχιστον τὸ μαλακὸν καλοῦμενον' τούτο δὲ ἐστὶν, ἐν ὑπὸ ὑπάτης καὶ παρυπάτης <

5 διατόνου 
διατόνου ὑπάτης καὶ παρυπάτης Μ <

τὸ μὲν ὑπὸ ὑπάτης καὶ παρυπάτης τῆς <
καὶ λιχανοῦ ἐννάτου

8 καὶ παρυπάτης τῆς, εἰς τὸ δὲ παρυπάτης καὶ λιχανοῦ τοιαῦτον.

= Anon §54 (MSS:ABCD)

3 τούτῳ - 8 καλοῦμενον om P .4 ὑπὸ S et B, ἀπὸ ACD, seclusit Anon(Najock) 4-5 καὶ παρυπάτης S (ante correcturam: deleuit ipse, ut uidetur), om ABCD, καὶ παρυπάτης διάστημα Ημιτονιατόν ἐστι, τὸ δὲ παρυπάτης Anon(Najock, cf Bellermann) 5 ἐννάτου (μελ ἐννάτης?) S, ἐννέα Anon 6 δωδεκατησμωρίων Anon 6-7 Λαμβανομένων Anon 9 ὑπὸ S, ἀπὸ ACD, seclusit Anon(Najock) καὶ τὸ ACD, seclusit Anon(Najock, cum PS et Par 2460). 11 τοιαύτα-

10 τὸν + ἑστὶν S

11 litteram initialem om PS ἀρμονικὴ codd, ἀρμονία Anon(Bellermann)

74. <Ἡ> δὲ ἀρμονικὴ δὲ φαμεν Μ: < > δὲ ἀρμονικὴ ὡς φαμέν, μονοειδῆς ὑπάρχει.

= Anon §55 (MSS:ABCD)

1 litteram initialem om PS ἀρμονικὴ codd, ἀρμονία Anon (Bellermann)

75. Ποινόν δὲ ἐστί τὸ ἐκ δύο φιλεῖται, τὸ ἐκ δύο δι- 
καλοῦμενον ἀστημάτων περιεχόμενον ἐλαττόνων περιεχόμενον ἐλαττόνων 
τὸ καλουμένου διαστήματος εἰς εἰς τῶν καλουμένου διαστήματος εἰς 
τὴν διὰ τεσσάρων συμφωνίαν. < > διαστήματος συμφωνίαν ' 

= Anon §56 (MSS:ABCD)

2 καλουμένοιν S, καλουμένου (sic) Perne ἐλαττόνου S, ἐλαττονον Anon(e cod Neap 1) 3 καλουμένου adhuc vidit Perne, καταλείπουμενον Anon 4 τὴν om P, τὴν τὸν D συμφωνίαν S post corr
76. Ἐν δὲ τοῖς εἰρημένοις γένε- σι λιχανοὶ μὲν εἰσὶν έξ', παραπά- ται δὲ τέσσαρες: λιχανοῦ δὲ ἐστὶν ὁ σύμπας τόπος ἐν φ' κινεῖται τὸν νιατὸς, ὁ δὲ τῆς παραπάτης τόπος διέσεως ἐλαχίστης.

= Anon §57 (MSS:ABCD)

1 ἐν P 2 εἰσιν] ἐστὶν S 2-3 παραπάτη δὲ τετάρτη P 3 λιχανὸς P 4 τότος ὁ σύμπας S

XXII

77. Ἡς φωνῆς τόπος ἐστὶ καὶ κατὰ τόπον κλίσιας, καθ' ἣν με- λῳδοῦσα ἀμφίπορα καὶ βαρυτέρα γίνεται.

= Anon §33 (MSS:ABCD)

2 καθ'ν P, non liq D

78. Πάσα μὲν ὁδὸν φωνή ὅουν δύονα- P: πάσα μὲν ὁδὸν φωνή, οὕτω δύονα- ται κινεῖον ή ἄλλῃ μὲν ἐστὶ συν- εχῆς, ή δὲ διαστηματική κλίσιας.
κατὰ μὲν ὁδὸν τὴν συνεχῆ οἶεται ἢ κατὰ μὲν ὁδὸν τὴν συνεχῆ οἶεται ἡ ἄλλῃ μὲν ἐστὶ συνε- εχῆς, ή δὲ, διαστηματικὴ κλίσιας.

5 ἀκοὴ μηδαμοῦ ἐστάναι ἄλλα φέρε- σθαι συνεχῶς μεχρὶ σωφρής, κατὰ δὲ τὴν διαστηματικὴν ἐναντίως, διαβαίνουσα γὰρ ὡσοιν αὐτὴν ἐπὶ μιᾶς τάσεως, ἐξά πάλιν ἐφ' ἐτέρας, καὶ τοῦτο συνεχῶς ποι- ούσα - λέγω δὲ συνεχῶς κατὰ τὸν χρόνον - ὑπερβαλλοῦσα μὲν < > τοὺς περιεχομένους ὑπὸ τῶν τάς- σεων τόπους, ἱσταμένη δὲ ἐπ' αὐτῶν 15 τῶν τῶν τάσεων καὶ φθεγγομένη ταύτας μόνον αὐτὰς μελῳδεῖν λέ- γεται καὶ κινεῖον διαστηματι- κὴν κλίσινον καὶ καλεῖται ἢ μὲν λογικὴ, ἢ δὲ μελῳδικὴ.

= Anon §34 (MSS:ABCD)
1-2 δύνασθαι S 4 οὖν om S 5-6 ἄλλα φέρεσθαι] ἀναφέρεται S 8 [Ἡ]ἀπειρή-
σι ἃρ τούτῃ διαβαίνουσα P 9-10 ἑστέρα P 10 ποιοῦσα - 11 συνεχός om
S, in marg suppl C 12 μὲν] + οὖν Anon 14 ὑπ’ S 18 καὶ - 19 μελῳ-
δικὴ hic habent codd, post 3 κύριος fortasse transponenda (Najock)
18-19 ἢ μὲν μελῳδικὴ ἢ δὲ λογικὴ S

NOTES:

* 1. Observe that S and C make the same omission per homoeoteleuton (10-11).

79. Τὸν γὰρ τοῦτο ποιοῦντα οὖ-
δεις φησὶ λέγειν ἄλλ᾿ ἰδεῖν,
ἔκατερον τε ἐν τῇ τοῦ λοιποῦ
χρεῖα < > δοσον γὰρ ἦταμεν,
5 γίνεται τῇ ἀκοῇ τὸ μέλος ἄκρι-
βέστερον.

= Anon §35 (MSS:ABCD)

1 τὸν] τὰ S 2 ἀλλὰ μελῳδεται S 3 ἐδειν Anon 3 ἑκατέρα P
tε codd (τὸ S), δὲ Anon(Bellermann) 4 χρεῖα] + φευκτέον Anon(Najock, ex
Aristoxeno) δοσ Anon (sed δοσ olim coniecit Vincent) 5 γίνεται Anon

80. Ἐπειδὴ τοῖνυν ἀναγκαζόν ἐν

τῷ μελῳδεῖν τὴν φωνὴν τὰς μὲν
ἐπιτάσεις καὶ ἀνέσεις ἄφανῶς
ποιεῖσθαι, τὰς δὲ τάσεις αὐτὰς

5 φθεγγομένας φανεράς καθιστὰν
(ἐπειδὴ) ἄπερ τὸν μὲν τοῦ διαστή-
ματος τόπον < > διεξέρχεται,
ὅτε μὲν ἐπιτελευμένη, ὅτε δὲ
ἀνιμέμην) καὶ λανθάνειν αὐτὴν

10 δὲ διεξολοῦσαν, τοὺς ἀλοριζου-
τας φθάγγους τὰ διαστήματα ἐν-
ἀργεῖς τε καὶ ἐστηκότας ἀποδι-
δόναι, λεκτέον ἅν εἰ ἐπὶ περὶ ἐπι-
tάσεως τε καὶ ἀνέσεως, ἐτὶ δὲ

15 ὀξύτητας τε καὶ βαρύτητας πρὸς
dὲ τοῦτος τάσεως καὶ τῶν ἁκο-
λούθων. Ἐπιτάσεις μὲν οὖν ἐστι

τῷ μελῳδεῖν τὴν φωνὴν τὰς μὲν
ἐπιτάσεις καὶ ἀνέσεις ἄφανῶς
ποιεῖσθαι, τὰς δὲ τάσεις φθεγγο-
μένας αὐτὰς φανερὰς καθιστὰν
ἐπειδὴ ἄπερ τὸν μὲν τοῦ διαστή-
ματος τόπον διεξέρχεται,
ὅτε μὴ ἐπιτελευμένη ὅτε δὲ
ἀνιμέμην καὶ λανθάνειν αὐτὴν
< > διεξολοῦσαν [τοὺς διεξολο-
τας φθάγγους, τὰ διαστήματα ἐν-
[ἀργεῖς] τε καὶ ἐστηκότας ἀποδι-
δὸναι] λεκτέον ἅν εἰ ἐπὶ περὶ ἐπι-
tάσεως τε καὶ ἀνέσεως ἐτὶ δὲ
ὀξύτητας τε καὶ βαρύτητας πρὸς
dὲ τοῦτος τάσεως καὶ τῶν ἁκο-
λούθων ἐπιτάσεις μὲν οὖν ἐστι,
κύνησις τῆς φωνῆς συνεχῆς ἐκ βαρύτητος τόπου εἰς ὀξύτητα, 20 ἄνεσις δὲ < > ὑπερέρα τόπου εἰς βαρύτητα: ὀξύτης δὲ τὸ γινόμενον διὰ τῆς ἐπιτάσεως, τὸ δὲ διὰ τῆς ἄνεσεως βαρύτης.

κύνησις τῆς φωνῆς συνεχῆς ἐκ βαρύτητα τόπου εἰς ὀξύτητα: ἄνεσις δὲ ὑπερέρα τόπου εἰς βαρύτητα: ὀξύτης δὲ τὸ γινόμενον διὰ τῆς ἐπιτάσεως, τὸ δὲ διὰ τῆς ἄνεσεως βαρύτης.

= Anon §36 (MSS:ABCD)


81. Ἐπιτελοῦστε 

81. Ἐπιτελοῦστε ἐν δὲ ἐπὶ P: ἐπιτελοῦστε μὲν οὖν, ὡς ἐπὶ ὀργάνων εἰπεῖν τὴν χορδὴν, εἰς ὀξύ τῆς βαρύτητας αὕτην ἀγομεν, ἀνυέντες δὲ εἰς βαρύτητα. καθ' ὅν δὲ χρόνον ἀγομεν τε καὶ μετακινοῦμεν τὴν χορδὴν εἰς ὀξύ ἐστιν < > ὀξύ τῆς βαρύτητας γινεῖται γὰρ καὶ μέλλει όμοιός δὲ καὶ ἡ βαρύτης. ἀμά γὰρ αἰ 

10 κινήσεις παιδοῦσαι καὶ ἐπιφοιτά τὴ οὐ γὰρ ἐνδέχεται τὴν χορδὴν ἀμά τε κινεῖται καὶ ἐστάναι.

= Anon §37 (MSS:ABCD)

2 ὀργάνων S et Anon(CD), ὀργάνω P et B χορδῶν P (post corr?), χορδῶν P (ante corr?) 3 ἀνυέντες P 5 te om Anon 7 ἐστιν Anon(Najock) ὀξύτης] ὀξύτης Anon, ὀξύτης ἡ βαρύτητας P 7-8 γινεῖται Anon, ὡς γινεῖται S 8 μέλλει] + ἡ ὀξύτης γενέσθαι S, μέλη P 10-11 ἐπιφοιτά ή ὀξύτης S, ἐπι-
82. Διαφέρει οὖν ἀλλήλων τάδε ὡς τὸ πολούν τοῦ πολούμενου. P: διαφέρει οὖν ἀλλήλων τάδε ὡς τὸ πολούντοι πολούμενον
 = Anon §38 (MSS:ABCD)

2 πολούντοι (sic) P

83. Τάσις δὲ ἐστὶ μονὴ τις καὶ στάσις τῆς φωνῆς. τότε δὲ λέγομεν ἐστάναι τὴν φωνήν, καίτοι τῆς φωνῆς κινήσεως ὀσύσ, ὅταν
5 ἡμὸν ἢ αξιόθεσις αὐτὴν ἀποφημί. μὴ τ' ἐπὶ τὸ ὄδυ μὴ τ' ἐπὶ τὸ βαρὺ ὀρμῶσαν. ἐν μὲν γὰρ τῷ διαστήματι λέγοιτ' ἂν κυνεδόσαι ἡ φωνή, ἵσταται δὲ ἐν τῷ φθόγγῳ. ἄλλως
10 οὖν λέγεται ἱρεμία φωνῆς παρὰ μουσικοῖς καὶ κίνησις, καὶ ἄλλως παρ' ἄλλους.
 = Anon §39 (MSS:ABCD)

1-2 μονὴ τῆς κατάστασις P, μονὴ τῆς καὶ φάσις S, μονὴ τῆς καὶ στάσις Anon
2 τότε - 4 φωνῆς om P 6 ἐπὶ τοῦ δὲ S ut videtur 7 ὀρμῶσις P 9 ἄλλως P
10-11 παρὰ μουσικοῖς S et Anon(D), παρὰ μουσικῆς P et C, περὶ μουσικῶς A, περὶ μουσικῆς B 11 βίνισις P 11-12 ἄλλως P

84. Ἐπίτασις μὲν γὰρ καὶ ἄνευς P: ἐπίτασις μὲν γὰρ καὶ ἄνευς,
κίνησις φωνῆς, τάσις δὲ καὶ ἱρεμία διαφέρει δεξύτητος καὶ βαρύτητος.
 = Anon §40 (MSS:ABCD)

1ἀνεύς P 2-3 καὶ ἱρεμία cod, ἱρεμία καὶ Anon(Bellermann), de P dubi-
tandum (accentus tantum acutus cernitur quem interpretari non ausus sum)
3-4 δεξύτητα et βαρύτητα P

85. Ἐπ' ἀμφιτέρων γὰρ ἢ τῇ στάσις καὶ ἢ τάσις θεωρεῖται. P: ἐπ' ἀμφιτέρων γὰρ ἢ τῇ στά-
σις καὶ ἢ τάσις θεωρεῖται
 = Anon §41 (MSS:ABCD)

2 ἢ om Anon post θεωρεῖται non distinguít P
86. Τῆς μοναςικῆς ἐπιστήμης πολυμεροῦς ὑπαρχοῦσης μέρος ἐστὶν η ἀρμονική, διαμειδήται εἰς τρόπους πεντεκαίδεκα, δὲν πρῶτος λύδιος.

= Anon §66 (MSS:ABC)

2 ὑπαρχούσης] + ἦς ABC 4-5 πρωτολύδιος P

87. Λυδίου δὲ τρόπου σημεῖα, τὰ P: λυδίου δὲ τρόπου σημεῖα τὰ μὲν ἂν ὑπὸ τῆς λέξεως, τὰ δὲ κἀτὰ τῆς κρούσεως προσλαμβανόμενος ἐλληνίς καὶ ταῦτα πλάγιον, ἤ δὲ σχηματογραφία αὐτῶν καὶ τὰ ὀνόματα ἐγράφη ἐκάστης χρόνις διπλῶθην, ὅτε περὶ τῶν τὸν λόγον ἐποιούμεθα· ἀλλ' ἐξωμεν δὴ καὶ τὰ ἐπίλουτα.

1-5 = Anon §67 init (MSS:ABC)

1 δὲ om Anon τρόπου S et Anon, τρόπου P 4 ἐλληνικῶς Anon, ἐλληνικῶς S, ἐλληνίς P 5 ταῦτα Anon, ταῦτα P, S post 5 ea quae §11 inuenies una cum notis musicis exscripsit S 6-10 non habet S 8 τῶν τῶν scripsi, τῶν τῶν P (sed ante corr vov videtur habuisse; quod ipse in scribendo correxit), τὸν αὐτῶν Najock(pp.XIV et 20), quem olim secutus sum 7 ἐγράψη et 9 ἐξώμεν σcripsi

NOTES:

* 1. For lines 1-5, cf. §11, note 1.

* 2. The reference in 6-9 must be due to the Byzantine 'redactor' who gave the Hagiopolites compilation its actual shape.

88. Διπλοῦς γάρ ὁ χαρακτήρ τῶν P: διπλοῦς γάρ ὁ χαρακτήρ τῶν ψάθηγων εἰληπταί, ἐπειδή καὶ διπλὴν ἔχει τὴν χρήσιν - ἐπὶ λέξεως δὴ καὶ κρούσεως - καὶ δὲ ἐν τοῖς δισμασι ποτε μεσολαβητ καὶ κόλα,
καὶ διαφόρῳ χαρακτηρί τὸτ’ ἀνάγκη
χρήσασθαι. Τὸ δὲ ἄχρησθαι τῆς
ἀναγνώσεως λήφεται τὸ μέλος, καὶ
καταμηνύει ὡς ἐν κρούσει τὴν χρή-
σιν ἔχει, καὶ δὶς οὖ ὅπτω περι-
λέληπται ἢ στίξεις, ἀλλ’ ἔστιν ἡ
παρελκυσμος μέλους κατὰ τὰς τοῦ
ὅπτως συλλαβάς ἢ μεταβολή ἐπὶ
κόλου μεσολαβεῖν ἡ ἐπαγόμενον.
15 καὶ τὰ μὲν ἄνωθεν τῆς λέξεως
διὰ γάρ φωνῆς ἄνωθεν ἡ λέξεις
μόνης — τὰ δὲ τῆς κρούσεως κάτω-
θεν, διὰ χειρῶν.

= Anon §68 (MSS:ABC)

1 γάρ non habent S et Anon 4 ὅτι] γάρ S et Anon 9 κράσις P
10-11 περιλέληπται P, περιλέληπται S, παρελληπταί C, παρελληλετᾶται Anon(AB)
12 παρελκυσμένον S 14 μεσολαβεῖα S 17 μόνη P post 18 non dist P

NOTES:
* 1. In the addition of γάρ in P (line 1) we recognize once more the 'redactor's hand; the word serves as a link between §68 and §87,9-10.

89. Φθόγγου καθ’ ἔκαστον πάντα

P: θόγγου καθέκαστον τρόπον

τρόπον μελῳδόμενον εἰς ὅτε-

καλέδεσα

= Anon §69 init (MSS:ABC)

1-3 litteris rubris scripsit S τρόπον κάντα P ὅτεκαλέδεσα] Ἡ S

XXIII 90. Τὰ μέλη ἡ ἀπλῶς ἡ κατὰ σύγ-

P: Τὰ μέλη ἡ ἀπλῶς ἡ κατασύ-

κρασιν κρούσεων τῶν φθόγγων

ἐξηχεῖται, ἢ δὲ σύγκρασις γίνε-

ται συμφώνων ἢ διαφώνων κρουσμέ-

νων. καὶ τὴν μὲν τῶν διαφώνων

σύγκρασιν φράγμα καλοῦσι, τὴν δὲ

τῶν συμφώνων συμφωνίαν, καὶ λαμ-

καὶ διαφόρῳ χαρακτηρί τὸτ’ ἀνάγκη
χρήσασθαι. Τὸ δὲ ἄχρησθαι τῆς
ἀναγνώσεως λήφεται τὸ μέλος, καὶ
καταμηνύει ὡς ἐν κρούσει τὴν χρή-
σιν ἔχει, καὶ δὶς οὖ ὅπτω περι-
λέληπται ἢ στίξεις, ἀλλ’ ἔστιν ἡ
παρελκυσμος μέλους κατὰ τὰς τοῦ
ὅπτως συλλαβάς ἢ μεταβολή ἐπὶ
κόλου μεσολαβεῖν ἡ ἐπαγόμενον.
15 καὶ τὰ μὲν ἄνωθεν τῆς λέξεως
— διὰ γάρ φωνῆς ἄνωθεν ἡ λέξεις
μόνης — τὰ δὲ τῆς κρούσεως κάτω-
θεν, διὰ χειρῶν.

= Anon §68 (MSS:ABC)

1 γάρ non habent S et Anon 4 ὅτι] γάρ S et Anon 9 κράσις P
10-11 περιλέληπται P, περιλέληπται S, παρελληπταί C, παρελέλειπται Anon(AB)
12 παρελκυσμένον S 14 μεσολαβεῖα S 17 μόνη P post 18 non dist P

NOTES:
* 1. In the addition of γάρ in P (line 1) we recognize once more the 'redactor's hand; the word serves as a link between §68 and §87,9-10.

89. Φθόγγου καθ’ ἔκαστον πάντα

P: θόγγου καθέκαστον τρόπον

τρόπον μελῳδόμενοι εἰς ὅτε-

καλέδεσα

= Anon §69 init (MSS:ABC)

1-3 litteris rubris scripsit S τρόπον κάντα P ὅτεκαλέδεσα] Ἡ S

XXIII 90. Τὰ μέλη ἡ ἀπλῶς ἡ κατὰ σύγ-

P: Τὰ μέλη ἡ ἀπλῶς ἡ κατασύ-

κρασιν κρούσεων τῶν φθόγγων

ἐξηχεῖται, ἢ δὲ σύγκρασις γίνε-

ται συμφώνων ἢ διαφώνων κρουσμέ-

νων. καὶ τὴν μὲν τῶν διαφώνων

σύγκρασιν φράγμα καλοῦσι, τὴν δὲ

τῶν συμφώνων συμφωνίαν, καὶ λαμ—
90. The melodies are made in such a way that the tones are produced either single or mixed, the mixture being either of consonant or of dissonant tones. The mixture of dissonant tones is called Phragma (?), the other is Symphonia. In songs, only consonance is accepted, in (instrumental) melodies both.

NOTES:
* 1. §§90-03 constitute Vincent's Fragment I (Notice... pp.260-63).
* 2. In line 6 (and in §§91-93 passim) Vincent corrects the strange φράγμα of P (and of S1) into φράγμα. For the time being I have kept the reading of the two manuscripts; it may be an otherwise unknown terminus technicus.
* 3. 'Αμφότερα in 14 is somewhat loose, but not necessarily to be corrected.
TRANSLATION:

91. The first tone of the octave (a G F E D C B) admits two consonances (a-E and a-D) and four dissonances (a-G, a-F, a-C, a-B). The second tone (G), too, admits two consonances and four dissonances: one of these (G-a) is the same as one of the aforementioned (a-G), three are different. The third tone (F) has one consonance (F-C) and four dissonances. The fourth (E) has one consonance upwards (E-a) and, conversely, one downwards (E-B), and three dissonances. In a similar way, but oppositely, the fifth tone (D) has two consonances, but two dissonances downwards (D-C and D-B) and two upwards (D-E and D-F).

NOTES:

* 1. The number of intervals is not constant: if a is used as base, there are 6 (2+4), G also gives 6 (2+4), but for F the figure is 5 (1+4), for E 5 (1+1+3), and for D 6 (2+2+2).

* 2. Commenting on P's omission of lines 4-5, Vincent rightly points out "que le manuscrit de l'Hagiopolite fourmille de ces omissions par οὐκοιτελευτον". On the strength of this observation one might be inclined to follow Vincent's reconstruction of lines 9-12 and to supply as follows:

   ὁ δὲ τέταρτος ἀντιστρόφως κατὰ ἄγωγην συμφωνίαν μίαν καὶ κατὰ ἀνάλυσιν μίαν καὶ τρία φράγματα.

This, however, raises a problem; the function of the adverb ἀντιστρόφως. One possible solution would be that ἀντιστρόφως in line 13 is an interlinear gloss on ὄμοιως, and that the adverb in its earlier occurrence serves to juxtapose the consonances κατὰ ἄγωγην καὶ κατὰ ἀνάλυσιν.

* 3. In line 6, the common error of P and S seems to be a "majuscule error" (ΕΝΙ > ΕΠΙ).

92. Προσληψείσθε δὲ τὴς δευτέρας διαπασσόντων συμφωνίας ἄλλα προς-17ορας διακασσῶν συμφωνίας, ἄλλα προσ- 

tίθενται κράματα, τῆς τε διαπα-

σσον καὶ μετ' αὐτὴν τῆς διατεσσά-

pων καὶ διαπέντε καὶ δίς διαπα-

σσον· τὰ δὲ ἄλλα φράγματα εἰσὶ 

tαυτά, τάσει διαφέροντα.

2 συμφωνίας S ἄλλα PS, corriguit Vincent 3 κράματα S, κρατήματα P, 
corriguit Vincent 5 διαπέντε] Ε S 6 post δίς διακασσῶν lacunam suspi-
catus est Vincent 7 ταύτα S φράγματα Vincent
92. If the second octave is added (to the one analyzed in §91), other mixtures arise, such as octave, octave + fourth, octave + fifth, and double octave. But the new dissonances are not different (from those described in §91), except in their extension (i.e. the ambitus, because of the added octave).

93. Πρός τὴν τῶν ἀσμάτων κροῦσιν λυσιτελεστέρα ἡ διαπασῶν, κράσει συμφωνίων πετυτεύουσα καὶ πλεονεκτοῦσα καὶ τοῖς κομπισμοῖς ἰδικῶς. τριτὴ δὲ τοῦτων ἡ διαφορὰ ἡ γὰρ βαρεῖων πρὸς βαρέλας, ἡ βαρεῖων πρὸς δεξείας, ἡ δεξείων πρὸς δεξείας. οἷς δὲ τρόποι διασέρουσιν ἐκ-κατος ἐκατός ἀπέχοντες τῇ διαατεσσάρων συμφωνίᾳ.

1 κροῦσιν] οὖν κράσιν S 4 καὶ 1 om S (in fine lineae) 5 τρίτη S
7 κροβαρέλας et 7-8 κροδεξίας S 9 δὲ θ' ] δεκαεντε S

**NOTES:**

* 1. The reading of S in 1-2 (οὖν κράσιν for κροῦσιν) reflects an interlinear correction in an ancestor manuscript:

   οὖν
   κράσιν

* 2. For κομπισμός (= repetition of tone at same pitch), see Najock 1972, pp.162-63 and 172-74.

* 3. Vincent seems to have understood τούτων in 5-6 as referring to the κράσων in §92,3. Why not to the repercussional Kompismoi?

* 4. Vincent's rendering of lines 9-11 makes the connection with the preceding more intimate than it is in the original: "Et, à ce propos, il est bon de rappeler que les 15 tropes se dépassent mutuellement trois à trois par intervalles de quarte".
XXIV 94. Φρυγών δὲ εὐδημά φασίν εἶναι P: [φρ]υγών δὲ εὐδημά φασίν εἶναι
tὸν αὐλὸν, διὰ τὸν Μαρσύαν καὶ
"Ολυμποντικην Σάτυρου+ εἰσὶ γὰρ
οὕτωι φρύγες.
1 δὲ om S 2 μαρσύαν P, μαρσύας S 3 locus fortasse corruptus; an τὸν
σάτυρον vel καὶ "Υαγνῦν legendum? vide annotationem

TRANSLATION:

94. It is said that the Aulos was invented by the Phrygians. For Marsyas,
Olympus, and Satyros+ were Phrygians.

NOTES:

* 1. §§94-95 constitute Vincent's Fragment II (Notice ... pp.262-65).
* 2. Marsyas and Olympus are well known Phrygians connected with the origin
of auletics. Satyros is not known in this connection; but Marsyas and his
father Hyagnis were Satyrs! One feasible emendation would therefore be to
see the σάτυρον of P and S as a gloss in their model manuscript, explaining
the name "Υαγνῦν. But it may also be that the text originally spoke of
"Ολυμπον τὸν Σάτυρον - to distinguish him from ὁ Πειρικὸς Ὄλυμπος, the
shepherd mentioned in §95,7-20.

95. Σύριγγος εἶδε δύο* τὸ μὲν
gὰρ ἐστὶ μονοκάλαμον, τὸ δὲ πολυ-
κάλαμον* ὁ φασίν εὐδημα Πανός
tοῦ Ἀιθέρος καὶ νύμφης Οὐνόης.
5 καὶ ὁ μὲν μῦθος οὕτως, ὃ δὲ φυ-
σικὸς λόγος τοιοῦτος*
Κατὰ τὸν Πιερικὸν "Ολυμπον καλα-
μόνος ἀποξηρανθέντος ἀποθανούσεις
dόνας εἰς συριγκισθῇ χείλωσιν 18r
10 ὅπο τοῦ εἰσόδουν ἀνέμου διὰ
tῆς χειλώσεως λιγυρὸν ἤχου ἀπε-
tέλετο. οὕτε ὁ ποιμὴν ἄκοισας
ἐσθῆ, καὶ τοῦτον ἐκτεμὼν προση-
νές τι καὶ ἐπακτικὸν ἀπεσυρίζειν.
15 ὁμοίω δὲ τρόπῳ καὶ ἄλλους ὄργα-
νοποιησάμενος τοὺς ἀναλογιὰν ἔ-
χοντας πρὸς τὸν εὐρημένον φθόγγον
ημῶσατο· καὶ ποιήσας πεντασύ-
ριγγον ἐξηλώθη παρὰ τῶν ἄλλων
P: σύριγγος εἶδε δύο* τὸ μὲν
gὰρ ἐστὶ μονοκάλαμον* τὸ δὲ πολυ-
κάλαμον* ὁ φασίν εὐδημα ταυτὸς
tοῦ αἰθέρου καὶ νύμφης Οὐνόης καὶ
ὁ μὲν μῦθος οὕτως* ὃ δὲ φυ-
σικὸς λόγος τοιοῦτος κατὰ τὸν πιερικὸν ἠλιμπον καλα-
μόνος ἀποξηρανθέντος ἀποθανοῦσεις
dόνας εἰς συριγκισθῇ χείλωσιν, ὕψω τοῦ εἰσόδουν ἀνέμου, διὰ
tῆς χειλώσεως λιγυρὸν ἤχου ἀπε-
tέλετο· οὕτε ὁ ποιμὴν ἄκοισας
ἐσθῆ· καὶ τοῦτον ἐκτεμὼν προση-
νές τι καὶ ἐπακτικὸν ἀπεσυρίζειν·
ὕμων δὲ τρόπῳ καὶ ἄλλους ὄργα-
νοποιησάμενος τοὺς ἀναλογιὰν ἔ-
χοντας, πρὸς τὸν εὐρημένον φθόγγον
ημῶσατο· καὶ ποιήσας πεντασύ-
ριγγον, ἐξηλώθη παρὰ τῶν ἄλλων.
20 ποιμένων. εἶτα τοῦτος ἐντίμος ἢ χρήσις γινομένη καὶ τοῖς λοιποῖς ἀγρόκοις, ὦστερον καὶ ἐν ταῖς πολιτικαῖς ἀπολαύσεις παρελαμβάνετο. οἱ δὲ τότε Μακεδόνων
25 βασιλεῖς επὶ τά βασίλεια μετήνεγκον αὐτῶν τὴν χρῆσιν, ὡστε μέλος ἐπικαλεῖται Μακεδονικὸν. Μετὰ δὲ τοῦτο "Ἀττις τὸ δεκακαλαμον ἀυλοποιήσας ποιμενικῶν ἐκάλει σύργγα, ποιμής τόκον μὲν πρῶτον δεκαδάκτυλον· καὶ δακτύλῳ ἀφελῶν ἦσσα τεσσάρων, τοὺς λοιποὺς ἵσομικές ἐξαδάκτυλῳ χειλώσας, τηρῆσας τῇ τῶν παχῶν διασφορᾶ
30 τὴν τομήν, τα βουκολικά καὶ αἱ- πολικὰ παρὰ τὸν σαγγάριον ποταμὸν ἐσύροισε.

TRANSLATION:

95. Of the Syrinx (the shepherd's pipe) there are two kinds: one of them consists of a single reed, the other of many. It is told that the latter was invented by Pan, son of Aither and the nymph Oenoe. But that is legend! The following is what really happened: In the days of the Pierian Olympus, a bed of reeds had dried up; a pole-reed had been broken with a rim like those of a Syrinx, and when the wind streamed across the edge, the reed gave forth a clear and sweet sound. Hearing this sound, the shepherd was delighted, cut off the reed, and produced a sound which was both soft and attractive. Having made other pipes after a similar fashion, he used those which conformed with the tone already found and made a five-reed Syrinx — for which he was zealously admired by his fellow shepherds. Later-on, the use (of this instrument) was honoured among the shepherds and the other peasants, and at last it was used for enjoyment in the towns as well. The Macedonian kings at the time introduced these instruments into their palace, whence the expression 'Macedonian Melos' is derived. Afterwards, Attis constructed the 'ten-reeder' and called it 'a shepherd's Syrinx'. He made its first reed ten fingers long, the next three were shortened by one finger's length each, and the rims of the remaining reeds were cut in such a way that they had the same length as the one which was six fingers long, ......................... Having done all that, he played the tunes of cowherds and goatherds on his Syrinx at the banks of the Sangarios River.

NOTES:

* 1. The Syrinx was probably spelled with -γχ- in the model of S and P, cf. S in line 1, P and S in 9, S in 30, and P in 36.

* 2. In line 25, the ήπειτως of S may have been an interlinear gloss in the model MS, to explain why these kings introduced a rural instrument into their palace. I have taken the αὐτῶν of S and P in 27 to be another gloss. Cf. also §94, note 2.

* 3. I hesitate as to the αὐλοκούλως in 29. It may be a mistake, called forth by ὄργανοκούλωμενος in 15-16. Curiously enough, there is a compound word of the same type in §17,7-8 (σωματοκούλωμαι). Is this a coincidence?

* 4. I still do not understand the details of Attis's δεκακάλλαμον (28-35). Anyhow, the ἐξαδεκάτως of S in 33 in all likelihood takes us somewhat nearer to an understanding than Vincent was in 1847: Attis's instrument seems to have consisted of ten reeds, not of one reed with many holes.

96. Πάν δὲ ἀρμονικὸν διάστημα. P: πάν δὲ ἀρμονικὸν διάστημα

ὅριζόμενον αὐσθήσει τῇ δι' ἀκοῆς

πέντε διαφοραῖς ὄργανων ἀποκτεῖται φυσικῶς. διὸ καὶ εἰς πέντε μόνον καταδείκτηται τρόποις.

ἐστὶ δὲ τὰ πέντε ὄργανα τάδε ὀστίς, αὐλὸς, φωνή, κιθάρα, πτερόν. ὄνυματα δὲ τῶν τρόπων ἄριστος, ὁ βαρύτατος, σάλπιγγος.

κτερόν ὄνυματα δὲ τῶν τρόπων,

δόφως, ὁ βαρύτατος, σάλπιγγος.
10 φούγλος, ο μετ’ αυτῶν, αὐλών·
λύδιος, ο και μέσος, φωνῆς·
αἰώλιος, κυθάρας·
lásticos, πτερόν·
αι δὲ τῶν ὄργανων τούτων ἐπὶ τὸ
15 μάλλον και ἢττον διαφορά τὸ ὑπὸ
και ὑπὲρ ἐκάστῳ χαρίζονται.

3 an pέnte διαφόρως ὄργανως legendum? 5 δηληται S τρόπους S et Vin-
cent, τότες P ἡ S σάλπιγγος coniecit Vincent, σάλπιξ P et S
10 αὐτῶν S et Vincent, αὐτῶν P αὐλῶν in aὐλῶν (vel aὐλῶν in aὐλῶν) cor-
xerit S 12 κυθάραι S 13 πτερόν S et Vincent, πτερόν P; fortasse πτε-
ρόν legendum 16 χαρίζονται scripsi, χαρίζονται S, χαρίζεται P et Vincent

TRANSLATION:

96. Every harmonic interval, as defined by hearing is made to resound by
means of five different instruments. This is why it (the Harmonics?) is
divided into five Tropoi, only. The five instruments are the following:
The Salpinx (trumpet), the Aulos (flute), the human voice, the Kithara,
the Pteron (shepherd’s pipe?). The names of the Tropoi are:
Dorian, the lowest one, for the Salpinx
Phrygian, the one which comes next, for the flutes
Lydian, the middle, for the human voice
Hemitolian, for the Kithara
Ionic, for the Pteron.
The differences between these instruments as to higher and lower pitch
give the hypo- and the hyper- to each (Tropos?).

NOTES:

* 1. This paragraph is Vincent’s Fragment III (Notice ... pp.264-267).
* 2. There are interesting parallels between §96 and the Anonymi II et III
Bellermann (Anon §§17 and 50, the latter = Hagiolopolites §65).
* 3. For πτερόν (lines 8 and 13), see Vincent p.8, note 2.

XXV 97. Ἡ σάλπιξ’ τραγῳδία’ παπίας’ P: Ἡ σάλπ[ιξ’] τραγῳδία’ παπίας’
μεσότριτος’ κυθάρῳ’ λύρα’ ὄξυ’
τον’ κωμῳδία’ κυθάρα’ δόριος’
φούγλος’ πλυνθέν’ σάλπιξ’ αὐλός’
5 ὀδραυλὺς’ αἰώλιος’ πτερόν’ κυθάρα’
σύριξ’ λύδιος’ φωνῇ’ λάστιος’ πτε-
ρόν.

4 πλυνθέν vel πλυνθέν P 1-7 om S
NOTES:

* 1. This is Vincent's Fragment IV (Notice... p. 266). It is only transmitted in P.

* 2. As already suggested (§13 note 1) this strange list of instruments, genres, and modes may have been a marginal entry in the model manuscript. The bizarre order—which seems to elude any reasonable systematization—may perhaps be due to a peculiar (diagrammatic?) arrangement in the model of P.

XXVI 98. Ἄγωγὴ προσεχῆς ἀπὸ τῶν βαρυτέρων ὄρδος, ἀνάλυσις διὰ τὸ ἐναντίον· ἡ κύνης ἡ φθόγγων ἐκ βαρυτέρου τόπου ἐπὶ τὸ δεύτερον, ἀνάλυσις δὲ τούναντιον. τὰς ἄγω-γας καὶ τὰς ἀνάλυσινς δεῖ μελη- δεῖν ἐκτείνοντας μάλλον καὶ μὴ βραχύνοντας τοὺς φθόγγους· ἡ γὰρ ἐμιμνημικὴς αὐτῶν καὶ ἐπιμιμημικὴς 10 ἐκφώνησις ἀκριβεστέραν τῇ ἄκοιχῃ χαρίζεται τὴν κρόσιν.

= Anon §78 (MSS: ABC)

2-3 ἀνάλυσις διὰ τὸ ἐναντίον S, ἀνάλυσις διὰ τὸ ἐναντίον P, ἀνάλυσις δὲ τὸ ἐναντίον ABC, seclusit Anon(Bellermann). 3-4 βαρυτέρων P ἐκτείνων τὰς P ante correcturam (accentum grauem linea transversa deleuit ipse in scribendo) 10 ἀκριβεστέρα P

NOTES:

* 1. I have edited this paragraph after the principles applied to the other sections taken from the Anonymi Bellermanni (§§56 sqq.), my aim being to reconstruct the common ancestor of S and P.

* 2. In S, the text is found on fol. 95v, immediately after §89 (= Anon §69 init.).

XXVII 99. Προσλαμβανόμενος· ὃ κἀτω γραμμὴν ἔχον καὶ ἃτα. υπάτη ὑπατῶν ἐν ἀνεστραμμένον καὶ ἑλλιπές. 5 παρατάτη ὑπατῶν ἁ ἀνεστραμμένον καὶ ἑλλιπές ὑπατῶν. ὑπατῶν διατόνος ἐν ἑλλιπές καὶ ταῦ πλάγιον.

= Προσλαμβανόμενος, ὃ κἀτω γραμμὴν ἔχον π’ υπάτη υπατῶν ἁ ἀνεστραμμένον καὶ ἑλλιπές. παρατάτη υπατῶν ἁ ἀνεστραμμένον καὶ ἑλλιπές ὑπατῶν. υπατῶν διατόνος ἐν ἑλλιπές καὶ ταῦ πλάγιον.
ὑπάτη μέσων το γάμω ανεστραμμένον
10 καὶ γάμω όρθον.
παραπάτη μέσων το ἐλλειπεῖ καὶ
gάμω ανεστραμμένον.
μέσων διάτονος το καὶ δίγαμα,
μέση στυγή καὶ σύγμα.
15 τρίτη συνημμένων το καὶ σύγμα
ανεστραμμένον.
συνημμένων διάτονος μο καὶ πτι
καθελκυσμένον.
νητή συνημμένων το ὧτα ὅρθον καὶ
20 λά πλάγιον.
παράμεσος το ὧτα καὶ πτι
τρίτη διεξευγμένων το καὶ ἡ ἀν
εστραμμένον.
διεξευγμένων διάτονος το ὧτα ὅρθ
ον καὶ λά πλάγιον.
νητή διεξευγμένων το καὶ πτι
25 πλάγιον.
τρίτη ὑπερβολαίων το τετράγωνον
καὶ πτι ανεστραμμένον.
30 ὑπερβολαίων διάτονος το τετρά
gωνον καὶ το.
νητή ὑπερβολαίων το πλάγιον καὶ
40 ἡτα ἀμελητικὸν.

= Alypi genus diatonum cap 2 (Jan p 370)

1 praef. Ὑπολογίου σημεῖα κατὰ το διάτονον γένος Alyp, ὑπολογίου τρόπου, σημεῖωσα κατὰ το διάτονον γένος S (coloore rubro) το ου Alyp, S (o supra
lin addita) 2 καὶ om P ἡτᾶ] ἂ P (Talia passim inuenies, videsis
textum quem e codice P supra transcripsimus) 3 ὑπάτων Alyp, ὑπάτων S
4 ἡ ἐλλειπεῖ καὶ ἐλλειπεῖ P, νῦ ὁμολογὸς S ἐλλειπεῖ Alyp (etiam in seqq; ἐλ
λειπεῖ semper P) 5 ὑπάτων Alyp, ὑπάτων S ἂ ἠ λάθος Alyp (sed ἀλ
φα cod M) 6 ἡ ἐλλειπεῖ δικτίου] νῦ προνεῖ S δικτίου] πλάγιου Alyp
7 ὑπάτων Alyp (sed ὑπάτων hic habet S) 8 τῶν P 9 γάμω] τὰ P ἀ
εστραμμένον Alyp 12-13 ανεστραμμένον το ὧτα om adhuc vidit Perne
13-16 om S 14 στυγῆ] σύγμα Alyp 19 ὅρθον S, om P et Alyp
19-20 post 23 praebet S 21 om S 22 διεξευγμένων adhuc vidit Perne
τρίτην διεξευγμένων το ε Ͻ τὸ ὅρθον S 24-25 om S ὅρθον om P et A-
lyp, suppleui ex 19 (sed fortasse hic et illic delendum) δεξενθεμενων (24) et και (25) adhuc vidit Perne 28 ει ευ Alyp 28-29 om S
31 ζ] ζ Ελληνες S 33 άμελητη S Post 33 Alypi genus diatonum 3 prae-bet S (cum notis musicis); deinde sequuntur Ptolemaei Harm III,5 et 6
NOTES:
* 1. The heading in S reads σημείωσα for σημεία. Evidently, the word was abbreviated in the model manuscript. The same error is repeated in the heading to the following paragraph of S (Alypius, Diaton. 3).
* 2. The Hypolydian diatonic scale is provided with its notational signs in S.
* 3. For an interpretation of υπάτων (S, lines 3 and 5), see Jan's introduction to the Musici Scriptores Graeci, p. XXV.

XXVIII

100. Ἰστέον οὖν ὡς μὲν λόγος ἄρ-χατος τὸν θύραθεν ὁ παρ' Ἑλλησὶ θρυλλούμενος Πυθαγόρας παρά τινι χαλκείῳ πολυτικῷ καθεζόμενος και διαφόρων ἡχῶν ἐξ αὐτοῦ ἀκούων — καὶ ταύτα μιᾶς δῆλης οὖσας τῆς χαλκευομένης καὶ τοῦ αὐτοῦ καὶ ένὸς σχεῦς τοῦ χαλκεύοντος, καὶ τοῦ αὐτοῦ ἄκμωνος ἐν ὕπερ ἡλαύνοντο τὰ χαλκευομένα — σχοπὸν ἑθετο τὴν τῶν ἀποτελούμενῶν ἡχῶν διαφόραν δὴν γίνεται καταλαβέν. καὶ δὴ πολλὰ σκοπῆς καὶ ἐρευνήσας, τέλος πρὸς τὰς σφαίρας ἐν-έσκηνεν ὡς καὶ σταθμώσας καὶ ἐθ-ρῶν τὴν μὲν βαρυτέραν τὴν δὲ κου-φότεραν, ἐγών ἐντεῦθεν προεύθεια τὸ τῶν ἡχῶν διάφορον, καὶ ἀναλόγως τὴν τε κοινότητα τῶν φωνῶν

15 ἡγούν τῷ τῶν σφαίρων ἐξείπ Βαρύτητι καὶ τὰ ἀπηχήματα. 

20 τῇ τῶν σφαίρων ἐξείπ Βαρύτητι καὶ τὰ ἀπηχήματα..............

2 post θύραθεν non distinxit, sed post 3 θρυλλούμενος comma posuit Vincent
3 θρυλλούμενος Π 4 κελ πολυτι in rasura P 10 ἡλαύνοντα P
11 et 19 lacunae suppleuit Vincent 20 τῇ coniect Ebbesen, ἡγούν P
20 σφαίρων adhuc vidisse Vincent crederes, quippe qui σφαίρων [ἀντικαθέσθαι] e-
didit; Perne vero solummodo ơv (id est ơv) vidit; de illo ergo dubitandum
20 ἔχειν suppleuit Ebbesen, ἀντιπαθεῖν Vincent 21 τὰ ἀπηχώματα [διάφο- 
ρα γεγενηθέναι] ἐκ αὐτοῦ Vincent

TRANSLATION:

100. NB. An old story of pagan origin runs as follows: Pythagoras, well-
known from Greek lore, was sitting near an urban smithy and heard diffe-
rent sounds coming from it - albeit one single material was being worked 
on (the copper), and one and the same utensil performed the work (the 
hammer), and the objects were being forged on the same anvil. Therefore 
he decided to find out what made the sounds different; and his research 
at last led him to investigate the bows (the vessels on which the copper-
smith was working). He weighed them, and finding that one was heavier than 
the other he realized that this was the reason why their sounds were dif-
ferent: there was, in fact, a correspondence between the lightness of the 
sounds and the heaviness of the bowls, and between the resonances......

NOTES:

* 1. §§100-105 constitute Vincent's Fragment V (Notice... pp.266-73).
* 2. For §§100-101, see my article in CIMAGL 31A, Copenhagen 1979, pp.1-9 
("A Neglected Version of the Anecdote about Pythagoras's Hammer Experi-
ments").
* 3. Lines 1-3 are evidently the product of a Christian mind (οἱ θυραθεὶν 
and "Ἐλληνεῖς").
* 4. In my article on "The Manuscript Tradition of the Hagiopolites" (Texte 
und Untersuchungen Bd. 125, Überlieferungsgeschichtliche Untersuchungen, 
short version of this anecdote - from S, fol.99v (in the treatise Ἡδον ξοῦ). 
I have since then found an even more interesting version, again 
in S (fol. 34v, in the treatise Τί ἐστι προσωπόδα). It reads as follows: 
Εἰ θέλεις μαθῆναι καὶ τὴν ἀρχαιολογίαν, πῶς γεγονότας ἡχου παρὰ τῆς 
ἀρχῆς, καθὼς ἡκουσθή μὲν καρά τῶν προτέρων ἡμῶν διδασκάλων, καὶ εἰς 
παλαιὰ βιβλία εὗρον οὗτος. Ὑπὲρ λέγουσα τυχόν, ὅτι ὁ σοφὸς παρ ἔλλησ 
κυθάγορας μὴ τῶν ἡμῶν παρὰ τῶν χαλκοῦ χαλκεύων, καὶ οὗτος ὁ κυ-
θάγορας καθεξήμονος, καὶ τοὺς ἤχους τῶν χαλκουμένων ἔχαρινόμενος, 
καθὼς τὸ ἢ, ὅταν τὸν κύκλο τῆς φωνής κατὰ διάνυσιν, κατεκεκύθησαν 
αὐτοῖς ὀργανοῖ διὰ τεσσάρων χορῶν, καλέσας τούτο μουσικὴν. καὶ ἕκ 
τούτου καὶ ὑπέλεγαν ἀνευβάλοντες αὐτῶν εἰς καθάλλα ε' · καὶ ἐξεβάτο 
tοὺς ἤχους ἐξ αὐτῶν, ὅτε καθ' ἐν καθάλλα εἰς ἤχον. Τοτερο δὲ λέ-
γους κατασκευασθέντα τὴν μουσικὴν παρὰ τοῦ ὀρχῶσι ἱκ.
* 5. The lacuna after line 21 is due to a physical damage at the bottom of 
fol.19. Vincent's attempt to restore the text presupposes that it continues 
on fol. 20r; but here the first word (the letter Ε) implies that a red 
initial letter (Ε) has been left out in the rubrication. Consequently, 
ἐκ αὐτοῦ is the beginning of §101. I have found no evident way to repair 
the end of §100.

XXIX 101. ἐκ αὐτοῦ καὶ αὐτοὺς παρορ-

P: ἐκ αὐτοῦ καὶ αὐτοὺς παρο-

μηθεὶς κατασκευάσατο ἀπὸ χορῶν 

τεσσάρων καὶ μόνον ὀργανοῦ ὂ κέ-

20r μηθεὶς κατασκευάσατο ἀπὸ χορῶν 
tεσσάρων καὶ μόνον ὀργανοῦ, ὂ κέ-
10-12 corrupta Philolai verba apud Nicomachum (Enchiridion p 252,17-19 Jan) sic traduntur: ἁρμονίας δὲ μέγεθος συλλαβάς καὶ δε'δεξείαν. τὸ δὲ δε'δεξείαν μετέξου τὰς συλλαβὰς ἐπιγόδως

**TRANSLATION:**

101. Stimulated by this observation he then made an instrument by means of no more than four chords and gave it the name 'Mousike'. Later-on he raised the number of chords to seven, as Philolaos the Pythagorean expounds in a work of his addressed to a Pythagorean woman. Philolaos writes the following about the theory of harmonics: "The size of the Harmonia (the octave) equals Syllabā (fourth) plus Dixoieían (fifth); the Dixoieían is an Epógydoon (a whole tone) greater than the Syllabā".

**NOTES:**

* 1. I have left the Philolaos quotation in its corrupt state, not knowing what the text looked like when it reached the tradition of P.

* 2. It is interesting to see how the word ἁνεβίβασεν (line 4) was transplanted from this Ancient passage into the Byzantine tradition (Hagiopolites §6,20 and the text quoted in §100 note 4).

102. Πρὸς δὲ σαφῆνειαν σχηματιστέον οὖτως ὑπάτη, παραμάτη, ὑ- περμέση, μέση, παραμέση, παρανή- τη, νεάτη.

**TRANSLATION:**

102. The following figure should make this more clear: Hypate, Parhypate, Hypermese, Mese, Paramese, Paraneete, Neate.
XXX 103. 'Ιδοὺ τοῖς ἐπτάχορδοις ὤρα-γανον. Ἡ τοῖν τρίτη χορδή καὶ ὑπερμέσα λεγομένη πρὸς τὴν πρώ-
την καὶ ὑπάτην ὄνομαζομένην τὸν
5 ἐπίτριτον λόγον ἔχει, ὅν καὶ συλ-
λαβὴν ἀποκαλοῦσιν· ἐπὶ………………
…………πετέων οὐδὲ γὰρ ἄλλως ἔχει εἰ μὴ ἐκ τῶν ἀριθμῶν οἷον ὁ τε-20νεὶ μὴ ἐκ τῶν ἀριθμῶν οἷον ὁ τέ-
ταρτος πρὸς τὸν τρίτον ἐπίτριτος·
10 ἐπίτριτος λέγεται οὕτως, καθότι ἐπιφέρεται ἡμὲν καὶ τῷ τρίτα δλον καὶ τῷ τρίτον αὐτῶν τὸ ἐν ἀρ-
κεῖ γὰρ οὕτως εἰς τὸ τοῦ ἐπιτρί-
του παράδειγμα. ἐξ αὐτοῦ δὲ τοῦ
15 ἀριθμοῦ ἐπιγενόμενα καὶ ὁ ἐπί-
τριτος φθόγγος, ὅν αἱ χορδαὶ τῆς
μουσικῆς καὶ τῶν λοιπῶν ὀργάνων
ἀποτελοῦσα τῇ τοῦ ἐβδόμου χορ-
δῆς ὀργάνου· ἵστε δὴλου γε-
20 νέσθαι, οἷα φθόγγον ἀναλογία
ἐστὶν ἐν αὐταῖς.

5 [ἔχει λόγον] suppl. Vincent, sed aliter legendum esse docent vestigia litterarum 5-6 ἐπὶ τῷ γὰρ καὶ ἐν συλλημ']τέου suppl. Vincent, sed vide annotationem 11 τῷ τοῦ διόν coniecit Vincent, τῶν τρίτα δλον P
12-13 ἀρκεῖ P, ἀρκεῖ coniecit Vincent; vide annot 13 τῷ τοῦ σcripsi, τὸ ποὺς P, τοὺς Vincent 16 ὃν P; τοὺς Vincent 18 τῆς coniecit Vin-
cent qui pro 16 ὃν - 19 ὁργάνου haec maluit: ὅν αἱ μέσαι χορδαὶ τῆς μουσι-
κῆς καὶ τῶν λοιπῶν ὀργάνων ἀποτελοῦσα τῆς ἐβδόμης τοῦ ὁργάνου χορδῆς; loc-
cus vero aliter fortasse restituendum, vide annotationem

TRANSLATION:

103. This is thus the instrument with seven chords. The third chord, the so-called Hypermese, has an Epitrite ratio to the first, the one also called Hypate. To denote the Epitritos they use the terms Syllabê; (but one should rather say Epitritos?), since the ratio (between the chord) can only be expressed "from the numbers" (i.e. mathematically). Take for instance Epitritos = 4:3. This (ratio) is called ἐπίτριτος, because one third of the three is added (ἐπιστερεῖα) to the total of three. This example of Epitritos will suffice (?). From the number itself also the sound of Epitritos has been realized, the sound produced by means of the chords of the Mousike and the other (stringed) instruments. In this way it becomes clear how the proportions of sounds are in the chords.
NOTES:

* 1. Vincent's solution in lines 4-5 is not convincing. It is far too long, and goes against the clear accent of P in 4. Besides, the letter of which the right part can be discerned before ητέου, can hardly be a π; maybe rather a ρ. In the actual context it would be tempting to look for an επίτροπος. Perhaps επί(τροπον μάλλον) ητέου or something similar?

* 2. In 11, Ebbesen, suggests τοραί μετά for μὲν καί. This seems to make sense, with τό τρίτον αὐτῶν as nominative. But in such dubious surroundings it is better to suspend any decision. Cf. also §104,6-7.

* 3. I do not understand ἀρχη - παράδειγμα (12-14), but I am sure that Vincent is wrong: "aussi figure-t-il (i.e. l'épitrite), dans les traités d'arithmétique, en tête de Tableau des rapports épitrites"(1)

* 4. The corrupt passage in 18-19 may be an ill-placed and distorted gloss on τῆς μουσικῆς (16-17): ήτοι τοῦ ἐπαχώρου ὀργάνου. Ebbesen, to whom I owe this elegant solution, points out that a ζ in the model of P would make the mistake ἐβδομοῦ understandable.

104. Ἡ μέντοι μέση χορδή πρὸς τὴν τρίτην χορδήν τοῦ ὀργάνου τὸν ἐπόγοσσον κέκτηται λόγον' καὶ γὰρ ὁ ἐννέα ἀριθμὸς πρὸς 5 τὸν ὀκτὼ τὸν αὐτὸν ἔχει λόγον' ἐπὶ γὰρ τὸν ὀκτὼ ἔχει καὶ τὸ δύσοον αὐτοῦ ἦτοι τὸ ἐν. ἐξ ὀκτὼ γὰρ καὶ ἐνὸς συνίσταται ὁ ἐννέα ἀριθμὸς.

5 ὀκτώτουν P, correxit Vincent 6 ἐξι scrisi, ἐξεῖ P τῶν ὀκτῶ, τὸν ὀκτὼ coniect Vincent, τῷ ὀκτῳ maluit Ebbesen, fortasse recte 6-7 τὸ δύσοον Vincent, τὸν δύσοον P

TRANSLATION:

104. The middle chord has a 9:8 ratio (ἐπόγοσσον λόγον) to the third chord of the instrument (the Hypermese). For 'nine' has this relation to 'eight', being one eighth of eight, i.e. one, more than eight - since 'nine' consists of 'eight' plus 'one'.

105. Ἡ μέση χορδή πρὸς τὴν πρώτην καὶ ὑπάτην λεγουμένην τὸν ἡμιδόλιον ἐπιφέρεται λόγον, ὅν καὶ δι' ὀξέειαν ἀνώμασε κατὰ τούς λόγους τῆς ἀρμονίας. Ἡμιόλος δὲ ἀριθμὸς ἐστίν ὁ ἐννέα πρὸς τὸν
To the first chord, the so-called Hypate, the middle chord has a 3:2 ratio (ἵμιόλοις λόγοις), which he (Pythagoras?) called Dioxeían "in accordance with the proportions of harmonics". Hemiolios as a number is \(\frac{3}{2}\) [since it (nine) contains half of the 'six', i.e. 'three', together with its total of six .................]

NOTES:

* 1. The variatio sermonis displayed in §§103-05 seems strangely akin to what we have met in the Byzantine paragraphs, e.g. §§ 6 and 35.
* 2. In 1973 I copied what was to be seen of the letters and accents at the lacuna in line 7. Here is a photocopy of my note:

These traces fit badly to Ebbesen's διότι; they go better with Vincent's καθότι - a reading which is supported by the parallel in §103,10.
INDEX OF PROPER NAMES (COMPLETE) AND OF TERMS (SELECTIVE)

NB. An asterisk indicates that the word is found in the paragraphs which contain Ancient musical theory (§§ 11 and 56-105)

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