

# SOME OBSERVATIONS ON THE INTERPRETATION OF SIGNATURES AND ACCIDENTALS IN EAST AND WEST

Peter Weincke

Scholars of Byzantine and Western medieval music are frequently faced with the question of a possible musical, social, and cultural interaction between East and West. One example has been given through the four two-part Communion pieces from the Middle Byzantine period, written by Manuel Gases and Ioannes Plousiadenos.<sup>1</sup> The instruction "Double melody according to the art of singing by the Latins"<sup>2</sup> found in one of these pieces reveals - together with other information - a more or less diffuse approach to Western musical texture and terminology.<sup>3</sup>

The quite unusual two-part texture is maintained by a scoring very similar to Western medieval music, writing the two parts together one above the other or separately. Three of the compositions have been written in the fourth authentic mode in the upper part and the fourth plagal in the lower,<sup>4</sup> whereas the fourth gives the same modal signature for both parts : the fourth plagal,<sup>5</sup> see Table I.

The pieces with two modal signatures have been subject to discussion as to which mode they are in.<sup>6</sup> Dimitri Conomos has seen the two signatures as only a practical means to inform "the two singers that their starting notes were a fifth apart",<sup>7</sup> and he uses the part written in black ink for a modal identification.<sup>8</sup> But since the same musical texture could easily be obtained by using a common modal signature, there might be another explanation. The use of different modal signatures might be the composer's reflection on the Western conception of polyphony as a "*compositio ex diversis partibus diversorum tonorum*".<sup>9</sup>

In compositions by Machaut, Dufay, Landini, and Dunstable a similar problem is known concerning the so-called "partial" or "conflicting signatures" in pieces with, for instance, no key-signature in the upper part and a B-flat in the lower.<sup>10</sup>



This phenomenon has been intensively treated and related both to the problem of using editorial accidentals in accordance with the conception of *musica ficta* and to the question of modal identification.<sup>11</sup> Referring to the theorist Tinctoris a scholar like R. Hoppin explains the signatures as follows :

"...partial signatures are an indication of pitch levels lying a fifth apart, which in turns imply the use of two modes simultaneously or of the same mode in a transposed and untransposed position." (12)

A musicologist like E.E. Lowinsky anyhow gives a more practical explanation arguing for a B-flat key-signature in the lower part as a result of harmonic demands, while the upper part needs no such signature to maintain its cadential structures.<sup>13</sup> Referring to observations on the practical demands of the musical texture Lowinsky argues - in the same manner as did Conomos - against a poly-modal interpretation. An essential aspect of these discussions is the function of *manuscript accidentals*.

Here I should mention the studies made by musicologists like Gilbert Reaney,<sup>14</sup> Albert Seay,<sup>15</sup> and Margaret Bent<sup>16</sup> who all have stressed the close connection between the signatures  $\flat$  and  $\natural$  and their Guidonian solmisational syllables MI-FA, an observation based upon the study of theorists like Ugolino, Marchettus da Padua, and Prosdocimus de Beldemandis.<sup>17</sup>

The three main hexachords (see Table II) built on C, F, and G and their solmisational symbols ( $\flat$  and  $\natural$ ) represent the area of *musica recta*,<sup>18</sup> while hexachords built on other notes and their use of accidentals represent the area of *musica ficta*.<sup>19</sup> One could change from one hexachord to an other making a so called *mutation*.<sup>20</sup>

"To assist in knowing what hexachords were required, it became the usage to insert a flat before B at various points, this not to indicate a flattening of the tone in the modern sense, but to show the performer where he must sound the B $\flat$  as with the solmization syllable *fa*, thus

making the *molle* hexachord mandatory; to indicate the *durum*, a natural sign could be used, this defining the place of *mi*." (21)

As the cadential feeling with the raised leading tone (*subsemitonium*) becomes normal during the *ars nova* of the 14th century,<sup>22</sup> the FA-MI-FA structure is met more and more frequently, indicating for instance a ♭ before E :

"Evidently, if E♭ be taken as *fa*, we have the introduction of a new hexachord, one whose *ut* will be found on B♭ and one that will thus provide a whole new set of syllables to be put by the side of those already part of the traditional three." (23)

Making hexachords outside the *musica recta* area was an increasing process as the insertion and integration of chromaticism became more and more characteristic of medieval musical style.<sup>24</sup>

It is important that the single accidentals (♯ and ♭) were not looked upon as isolated "sharpening" or "flattening" signals, but primary should indicate the placing of hexachords. Accidentals belonging to the area outside the three main hexachords thus represented the *musica ficta* or *coniuncta*.<sup>25</sup> According to Ugolino de Orvieto :

"For it is called *ficta*, because such music is placed in that location where it really is not, but is pretended to be..." (26)

- and to Tinctoris :

"A *coniuncta* is the place of a flat or a natural in an abnormal place." (27)

- which makes Seay explain :

"...the terms "normal" and "abnormal" mean "by rule" and "against the rule," the rule being that of the organization of the usual three hexachords and the placement of the *mi-fa* within them." (28)

These observations make me turn to Byzantine chant and its practice of *main* and *medial signatures*.

According to Oliver Strunk's paper "Intonations and Signatures of the Byzantine Modes"<sup>29</sup> the Byzantine signatures should be explained as abbreviations of the so-called *νηματα*, certain *intonation formulas* belonging to each mode.<sup>30</sup> But signatures could also be intercalated within the melody, and these *medial signatures* and their musical function were the subject for Jørgen Raasted's book on "Intonation Formulas and Modal Signatures in Byzantine Musical Manuscripts".<sup>31</sup> Before his investigation *medial signatures* had been treated with more diffuse explanations like these :

- "The signature, called in Greek MARYRIA (μαρυρία), is used at the beginning of a Byzantine hymn and also medially, as a check on the correctness of the singing." (32)
- "These Intonation formulae are intended to be a guide for the singer to intone the following melodic line at the right pitch." (33)
- "Exceptionally one finds a melody which, after modulating to what we should call the dominant or subdominant, continues for some time - perhaps to the very end - in the new key." (34)

What was the point of departure for Raasted was the fact that signatures found at the beginning of melodies (*main signatures and main intonations*) usually have their "theoretical" pitch,

"...whereas MeSi and MeInt<sup>35</sup> are frequently found on other pitches besides (see below table III). Thus, to mention only a few wellknown examples, a  $\text{♯}^{\text{b}}$  on a is as legitimate a MeSi as one on D, and  $\text{♯}^{\text{a}}$  is not only found on b but also on e." (36)

When one studies the tonal system of Byzantine music these transpositions get more understandable, because they are due to the Byzantine tetrachord system. At table III the modal letter signatures indicate - according to Strunk - each step

Table III. The tonal system of Byzantine Music.

Ascending tetrachords: D E F G, a b c d  
 Descending tetrachords: d c b a, G F E D

The tetrachord system according to Oliver Strunk :  
 "The Tonal System of Byzantine Music", Essays ... p.5  
 with two main tetrachords and conjunct extensions at  
 both ends.

Table IV.  
 Oliver Strunk's  
 transcription of  
 the Doxastikon  
 Θεαρχιω νευματι,  
 final section.

Mode II  
 Mode II, plagal  
 Mode I

of disjunct tetrachords with conjunct extensions at both ends.

Even though Strunk's information concerning *medial signatures* is very scarce, he is - as a matter of fact - referring to these, when he talks about modulation (see the quotation above). It is clear that *medial signatures* not put in accordance with the modal steps of the tetrachord system of table III are due to this "modulating" procedure. Such observations made Jørgen Raasted conclude :

"A considerable number of seemingly wrong medial signatures reflect tonal peculiarities in the musical context and cannot be dismissed as copyists' errors or misunderstandings. It is reasonable to infer that the Byzantines felt the melodic formulas in many of these cases as transpositions or modulations." (37)

This conclusion was based and supported on investigation on more than 120 versions of a melody and its Proshomoia "which are provided with MeSi",<sup>38</sup> about 350 at all, and on Christian Thodberg's observations in his paper "Chromatic Alterations in the Sticherarium".<sup>39</sup>

Now let us have a closer look at *medial signatures* either on their "theoretical" positions, i.e. put in accordance with table III (= a parallel to the Western *musica recta*) or on other transposed positions (= a parallel to the Western *musica ficta*). If we look at the last section of Oliver Strunk's transcription of the Doxastikon  $\theta\epsilon\alpha\phi\omega\nu\epsilon\upsilon\mu\alpha\tau\iota$ ,<sup>40</sup> (see table IV) we meet the Protos signature  $\overset{\text{b}}{\underset{\text{b}}{\text{g}}}$  on  $\underline{d}$  and the Deuterios signature  $\overset{\text{b}}{\underset{\text{b}}{\text{y}}}$  on  $\underline{c}$  (implying that  $\overset{\text{b}}{\underset{\text{b}}{\text{y}}}$  should be on  $\underline{e}$ ). Now, if we look at table III the Protos signature  $\overset{\text{b}}{\underset{\text{b}}{\text{g}}}$  according to the "theoretical" system has its normal (recta) positions on (D),  $\underline{a}$ , and  $\underline{d}$  (because of the upper conjunct extension) and the Deuterios signature  $\overset{\text{b}}{\underset{\text{b}}{\text{y}}}$  its normal (recta) positions on (E),  $\underline{b}$ , and  $\underline{e}$ . The use of these signatures at the high extended tetrachord will automatically imply a use of a B $\flat$  to maintain the tetrachordal demands, the accidental representing the same phenomenon as the Western *musica recta*.

At the upper line of Strunk's transcription we could also find a Protos signature  $\overset{\text{r}}{\underset{\text{r}}{\text{g}}}$  on  $\underline{\text{e}}$ , a use which according to table III does not fit into the system. The resulting f-sharp is needed to confirm the new tetrachordal relations and should then be compared to the Western use of *musica ficta accidentals*.

The similarity of Eastern and Western logic is only valid, if we are interpreting the *mi-fa accidentals* and the *medial signatures* as hexachordal and tetrachordal step symbols.

The main difference between the two practices of signatures is of course that whereas the *mi-fa accidentals* are exclusively used as solmisational step indications, the Byzantine *medial signatures* are used as both tetrachordal step indications and modal/formulaic reflections. This double function is understandable when we are taking the staffless notation into consideration.

Theoretical evidence for the Western distinction between *partial transposition* and *real modulation* apparently is found in the treatises of Manuel Chrysaphes<sup>41</sup> and Gabriel Hieromonachos<sup>42</sup>, who both mention musical procedures obtained by  $\phi\theta\omicron\rho\alpha\iota$ <sup>43</sup> and  $\pi\alpha\rho\alpha\lambda\lambda\alpha\gamma\eta$ <sup>44</sup>. But since the  $\phi\theta\omicron\rho\alpha\iota$  also are signals of new modal modulations<sup>45</sup> into which the composer wants to go, and since the  $\pi\alpha\rho\alpha\lambda\lambda\alpha\gamma\eta$  also defines certain didactic exercises,<sup>46</sup> it is not yet quite clear whether they really reflect such conceptions of *partial transposition* and *real modulation*.

If there exists a kind of similarity between these Eastern and Western concepts it is possible to summarize the principles of signatures and musical terms as has been done in table V.

#### CONCLUSION.

Taking the point of departure in the few Byzantine examples on an approach to Western medieval polyphonic texture, I have discussed the possibility of a common logic in the use of *mi-fa accidentals* and *medial signatures*. This discussion





has included the problems of modal identification, solmisation symbols and the interpretation of *musica recta & ficta* on the one side. And on the other side the Byzantine use of *main and medial signatures* in relation to the tetrachord system.

If the practice of *medial signatures* is based on a similar logic as the *mi-fa accidentals* in Western medieval music, the transcriber of Byzantine music should not look upon the use of accidentals as an doubtful affair. Also the Byzantines have made use of *musica ficta*.

#### NOTES.

1. See Michael Adamis : "An Example of Polyphony in Byzantine Music of the Late Middle Ages", in Report of the Eleventh Congress of the International Musicological Society, Copenhagen 1972, Vol. I-II, pp. 737-747. Dimitri Conomos : "Experimental Polyphony 'According to the ... Latins', in Late Byzantine Psalmody", Early Music History 2 : Studies in Medieval and Early Modern Music, ed. by Iain Fenlon, Cambridge University Press 1982, pp. 1-16. Peter Weincke : "Harmonic Texture in Byzantine and Early Italian Polyphony", Musica Antiqua VII Acta Scientifica Bydgoszcz 1985, pp.219-243.
2. Διπλοῦν μέλος, κατὰ τὴν τῶν ἑλατίνων (sic) ψαλτικὴν belonging to an Αἰνεῖτε τὸν κύριον by an anonymous composer (or maybe by Ioannes Plousiadenos) from MS Δοχειαρίου 315, fol. 66v, see Gr. Stathis : Les Manuscrits de Musique Byzantine Mont Athos, Vol. I-II, Athenes 1975, Vol. I, p. 350,352.
3. In the Ὁ ἑωρακῶς by the Greek Uniate Bishop Ioannes Plousiadenos from MS Δοχειαρίου 315, fol. 67r (see Gr. Stathis: op.cit. p. 351-352), the terms τὸ κείμενον and τὸ τενώρει have been used, probably representing the Western 'cantus firmus' and 'tenor'. But as the tenors in medieval West normally were bearers of the cantus firmus, the actual use of terms seems to be confusing. See also Dimitri Conomos : op.cit. p. 4-6 and Peter Weincke : op.cit. p. 223.
4. 1) Ioannes Plousiadenos' Ὁ ἑωρακῶς, MS Δοχειαρίου 315, fol. 67r, 2) Manuel Gazes' Αἰνεῖτε τὸν κύριον, MS Athens

- 2401, fol. 328r, 3) Manuel Gazes' Αλβεΐτε τὸν κύριον, MS Athens 2401, fol. 216v - see D. Conomos : op.cit. p. 6-9.
5. 4) The anonymous Αλβεΐτε τὸν κύριον, MS Δοχειαρίου 315, fol. 66v - see D. Conomos : op.cit. p. 5.
  6. See ibid. p. 10-11 and Michael Adamis : op.cit. p. 737-738, 740.
  7. D. Conomos : op.cit. p.10.
  8. ibid. p.11.
  9. See Manfred F. Bukofzer : Studies in Medieval and Renaissance Music, New York 1950, p. 289-290. Tinctoris is conscious of the modality of polyphony, according to Bukofzer: "Quite consistently with his strictly melodic conception, he determines the mode of a polyphonic piece from the tenor and deals with the other voices, which may be in a different mode, separately. Their "over-all effect", which is merely another word for their simultaneous use, remains for Tinctoris a combination of melodic entities, which he expressly recognizes as a *compositio ex diversis partibus diversorum tonorum effecta*."
  10. These terms are key-words in several articles discussing this problem. See for instance Willi Apel : "The partial signatures in the Sources up to 1450", Acta Musicologica X (1938), pp. 1-13 and XI (1939), pp. 40-42, E.E. Lowinsky : "The Function of Conflicting Signatures in Early Polyphonic Music", The Musical Quarterly XXXI (1945), pp. 227-260, R.H. Hoppin : "Partial Signatures and Musica Ficta in Some Early 15th-Century Sources", Journal of the American Musicological Society VI (1953), pp. 197-215, E. E. Lowinsky : "Conflicting Views on Conflicting Signatures", Journal of the American Musicological Society VII (1954), pp. 181-204, R.H. Hoppin : "Conflicting Signatures Reviewed", Journal of the American Musicological Society IX (1956), pp. 97-117.
  11. The amount of literature concerning this subject is enormous, see the article "Musica ficta" by Margaret Bent, Lewis Lockwood, Robert Donington and Stanley Boorman in The New Grove Dictionary of Music and Musicians, ed. by Stanley Sadie, Vol. XII, pp. 802-806.
  12. R.H. Hoppin : "Partial Signatures and Musica Ficta in Some Early 15th-Century Sources", Journal of the American Musicological Society VI (1953), p. 203.
  13. E.E. Lowinsky : "The Function of Conflicting Signatures in Early Polyphonic Music", The Musical Quarterly XXXI (1945), p. 234 ff.
  14. Gilbert Reaney : "Musica ficta in the works of Guillaume de Machaut", Les Colloques de Wégimont II/1955, Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège, pp. 196-203.
  15. Albert Seay : "The 15th-century conjuncta : A preliminary study", Aspects of Medieval and Renaissance Music, ed. by Jan LaRue, New York 1966, pp. 723-737.
  16. Margaret Bent : "Musica recta and Musica ficta", Musica Disciplina Vol. XXVI, 1972, pp. 73-100.
  17. See the article "Musica ficta" in The New Grove Dictionary, referred to in note 11.

18. See Margaret Bent : op.cit., the chapter "The role of sol-misation", p. 79 ff.
19. ibid. loc.cit.
20. See the explanation given by Albert Seay in op.cit. p. 723 ff.
21. Albert Seay : op.cit. p. 725.
22. ibid. p. 725.
23. ibid. p. 725.
24. More extreme coniunctae were made by for instance Johannes Hothby, see Albert Seay : op.cit. p. 732,736.
25. ibid. p. 729.
26. ibid. p. 726.
27. ibid. p. 730.
28. ibid. p. 730.
29. reprinted in his Essays on Music in the Byzantine World, New York 1977, pp. 19-36. The paper is from 1945.
30. ibid. p. 20.
31. MMB, Subsidia 7, Copenhagen 1966.
32. H.J.W. Tillyard : Handbook of the Middle Byzantine Musical Notation, MMB, Subsidia I, fasc. 1, Copenhagen 1935; 2nd impression 1970, p.32.
33. Egon Wellesz : The Akathistos Hymn, MMB, Transcripta 9, Copenhagen 1957, from the paragraph on "Editorial Principles", p. LXVII.
34. Oliver Strunk : "The Tonal System of Byzantine Music" (from 1942), Essays ... p. 14.
35. Abbreviations for *medial signatures* and *medial intonations*.
36. Jørgen Raasted : op.cit. p. 9.
37. ibid. p. 163.
38. ibid. p. 17.
39. Actes du XIIe Congrès International d'études byzantines, Ohrid 1961. Tome II. Beograd 1964.
40. The whole Doxastikon has been transcribed in Oliver Strunk's "The Tonal System of Byzantine Music", Essays ... pp.17-18.
41. See The Treatise of Manuel Chrysaphes, the Lampadarios, ed. by Dimitri E. Conomos, MMB Corpus Scriptorum de Re Musica, Vol. II, Wien 1985.
42. See Gabriel Hieromonachos, Abhandlung über den Kirchengesang, herausgegeben von Christian Hannick und Gerda Wolf-ram, MMB Corpus Scriptorum de Re Musica, Vol. I, Wien 1985.
43. See Chrysaphes, pp. 48 ff. and Gabriel, pp. 86 ff.
44. See Chrysaphes, pp. 48 ff. and Gabriel, pp. 88 ff.
45. Thus Chrysaphes mentions the tonal relation between Protos φθορά and the Barys mode : "Εἰ μὲν οὖν θήσῃ τις εἰς μάθημα ψαλλόμενον τοῦ οἰουδήτινος ἤχου πρώτου ἤχου φθοράν, νόει ὅτι προκατασκευὴ ἐστὶ τοῦ βαρέως ἤχου..." (Thus, if one places the *phthora* of the first mode in a lesson chanted in any mode whatsoever, know that it is a preparation for the Barys mode ...), see Chrysaphes, p. 50.
46. See Dimitri Conomos' commentary on the παραλλαγή-practice as taught by Chrysaphes, pp. 73 ff.

## CHANGE AND CONTINUITY IN POST-BYZANTINE CHURCH PAINTING

*Anne-Mette Gravgaard*

Ever since A. Didron in 1845 in Paris published a French translation of the painter's manual of Dionysius of Fournia (written probably between 1730 and 1734) it has been widely held that this manual constituted the key to the Mediaeval tradition, the very recipe for Byzantine painting<sup>1</sup>.

This opinion was strengthened when the first Greek edition appeared in Athens in 1853. The edition was based on a 19th century manuscript, which seems rather unreliable: It is provided with a front page according to which the manuscript was made in 1458. At the same time it contains a chapter on heliogravure, a gravure technique based on photography, which was not invented until 1838. The rest of the manuscript, however, seems to constitute a reliable copy of an 18th century manuscript. And in 1885 it was reprinted in Athens by A. Konstantinides - with the omission of the dubious chapter on heliogravure<sup>2</sup>.

In 1900 and 1909 a better Greek edition appeared in St. Petersburg, published by A. Papadopoulos-Kerameus on the basis of another copy of the manual<sup>3</sup>. Both editions are still in use as textbooks for modern icon painters, and they are still generally seen as authentic reproductions of the Mediaeval tradition<sup>4</sup>.

But is it right to consider the work of Dionysius a simple codification of the existing tradition? To answer this question I have compared Dionysius' text with five older, fragmentary manuscripts which Papadopoulos-Kerameus included in his 1909 edition under the title "Πηγάς τῆς Ἐμπνεύσεως Διονυσίου τοῦ ἐξ Ἀγιάων". The result of this comparison was that Dionysius in fact systematized and elaborated the tradition of Orthodox church decoration to a degree where it would be appropriate to talk of "change" as well as of "continuity"<sup>5</sup>.

There is, however, another painter's manual from the 18th century which, according to my studies, is much closer to the "πηγάς" than Dionysius' work. As no author is mentioned in any of the manuscripts it may be called the "Anonymous Manual". It has not yet been published and consequently this manual is little known, despite the fact that it probably is a more genuine expression of the tradition than Dionysius' work<sup>6</sup>. If so, maybe it is the Anonymous Manual that represents the "canon of