PROPORTIONAL NOTATIONS IN MONTEVERDI'S 'ORFEO'

By Roger Bowers

IN AN earlier article I endeavoured to demonstrate that the notation used by Claudio Monteverdi to record and convey his Mass, Vespers and Sacri concentus of 1610-the standard notation of his day-was essentially a mature form of the mensural notation that had been in use at large in western Europe since the early fourteenth century. Integral with this contention was the proposition that the composer's use of two forms of proportional notation-blackened notation, and void notation governed by proportional mensuration signatures—was entirely traditional and conventional, and in modern transnotation should be interpreted with precision and in performance executed with respect for the composer's intentions. The suggestion was made that certain conventions among current practices in the transcription and editing of music of the late Renaissance and very early Baroque periods do not always recognize and convey the intended meaning of these proportional notations. In particular, I hoped to show how recognition of the applicability of the traditional meanings of proportional notations immediately resolves ostensible inconsistencies in the notation and restores sense and regularity to music hitherto presented in transcriptions that are irregular and implausible, and also, in the case of the Sonata sopra Santa Maria, even makes possible the revelation of an underlying proportional foundation for the architecture of this movement.¹

It cannot be asserted too strongly that there is nothing revolutionary or startlingly innovative about these observations.² Indeed, I imagine that the idea of applying the traditional solutions will have occurred to everyone confronted by the appearance in early seventeenth-century music of the long-established proportional notations. The suggestions made below do no more than put such musings into practical effect; I have nothing more to advocate than just the plain reproduction in modern editions of an essentially straightforward original notation, liberated from the sometimes over-solicitous attentions of editors that may in practice prove to have been gratuitous and inappropriate. I should stress also that my principal preoccupation here is

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¹ Roger Bowers, 'Some Reflection upon Notation and Proportion in Monteverdi's Mass and Vespers of 1610', *Music & Letters*, lxxiii (1992), 347–98. Arguments set out at length in this article will not be repeated here.

² The principles by which they are informed have already been worked out and applied in such productions as *The Byrd Edition*, ed. Philip Brett, London, 1973–. Also, for many observations consistent with much that is proposed here, see Etienne Darbellay, 'Tempo Relationships in Frescobaldi's *Primo Libro di Capricci'*, *Frescobaldi Studies*, ed. Alexander Silbiger, Durham, North Carolina, 1987, pp. 301–26; Margaret Murata, 'Pier Francesco Valentini on Tactus and Proportion', ibid., pp. 327–50; Lionel Pike, 'The Performance of Triple Rhythms in Peter Philips' Vocal Music', *The Consort*, xxviii (1972), 89–105. There is some discussion of the notation of *Orfeo* and its significance for tempo in Franz Jochen Machatius, *Die Tempi in der Musik um 1600*, Regensburg, 1977, pp. 142–52, 201–11.

not with performance practice but with editing. I am concerned primarily with the fundamental comprehension of the meaning of the notation, and with the perception of the appropriate modern equivalent into which the editor may translate it. It is readily conceivable, of course, that scholars of interpretative matters such as ornamentation, rubato and other aspects of performance practice may be able to supply a further gloss upon the edited notes. My concern here is that, if so, they should, like everyone else, have the correct notes to work on in the first place.

Monteverdi's opera *Orfeo*, first presented in 1607 and published in score by Amadino of Venice in 1609, just one year before the Vespers, offers material for further exemplification and development of these observations.³ A section embracing the end of Act I and the beginning of Act II contains a particularly handsome compendium of proportional usages and of the notations used to convey them, employing both blackened notation and the deployment of proportional signatures. This section starts with the repeat of the chorus 'Lasciate i monti' in Act I and is brought to an abrupt end by the entrance of the Messenger in Act II.⁴ Of the ten numbers concerned, the notation of three incorporates proportional signatures; two employ blackened notation, one of them in conjunction with a proportional signature; and one employs a signature of duple mensuration that is ostensibly perverse, since the music is manifestly in a triple metre.

Two points may be noted at the outset. First, Monteverdi appears to have made a conscious decision consistently to eschew resort to the mensuration signature C throughout the score. Despite the considerable length of the opera and the broad variety of compositional forms comprising its music, there is not a single occurrence of this normally ubiquitous signature. All the music is composed under C mensuration, or under proportional signatures expressed in terms of C.⁵ Second, from the beginning of the Sinfonia opening Act II through to the entrance of the Messenger, the music is continuous. No item concludes with a double bar, or even a single bar and pause. Directs are commonly used to clarify the *attacca* between movements, ensuring that the beginning of each successive number runs on from the prevalence of a single tempo for the entirety of these pages, the fundamental durations of the unblackened semibreve, minim and semiminim remaining constant throughout.

Consideration of the incidence of proportional notation can begin most readily with the two instances of blackened notation: the ritornello and aria 'In questo prato' and the ritornello and aria 'Vi ricorda, o bosch'ombrosi'.⁶ For convenience,

³ References will be made as follows. S = facsimile edition of 1609 print: Monteverdis Orfeo: Facsimile des Erstdrucks der Musik, ed. Adolf Sandberger, Augsburg, 1927. M = L'Orfeo: Favola in Musica, ed. G. Francesco Malipiero ('Claudio Monteverdi: Tutte le opere'), xi (Bologna, 1930). The 1615 print (facsimile, ed. Denis Stevens, London, 1972) observes the same pagination as that of 1609. In respect of features mentioned in this article, the 1615 edition diverges in a few particulars from that of 1609; however, the differences do not seem significant, having arisen from carelessness on the part of the printer rather than from any deliberate or calculated reformulation of the notation by the composer.

⁴ S, pp. 15–36; M, pp. 23–56.

⁵ It would appear as if the signature \mathbf{C} , with its conventional prescription of a *tactus celerior* applied to longer notevalues, seemed inappropriate to the way in which the composer was minded to notate the music being conceived in his imagination. Perhaps also the association of \mathbf{C} with music for divine worship (rather than for lordly entertainment) reinforced this decision not to engage it.

⁶ Respectively S, pp. 28–30, M, pp. 43–45; S, pp. 32–35, M, pp. 48–55. For the original notation, see Exx. 4a and 1 below. In Malipiero's edition the conventional half-brackets to denote blackened notation were not used; consequently, though normally punctilious in the matter of respect for the orthography of the original notation, he gives the appearance of having lapsed into halved note-values in both of these instances.

the identity of note-shapes and their values in blackened notation is displayed in Fig. 1. There is no reason to doubt that the blackening of the notation in these instances conveyed precisely the meaning that blackened notation had always conveyed. A single blackened note loses one-third of the temporal value it would have enjoyed in its unblackened state, and likewise a group of blackened notes; all blackened notes are imperfect. The blackened semibreve plus blackened minim therefore occupies the time of the unblackened semibreve occurring in adjacent music in *integer valor*, so producing the *sesquialtera* proportion of 'three in the time of two'.⁷ A conventional and straightforward interpretation of this notation in these instances produces satisfactory results that appear to give no cause for misgivings.

= semibreve, blackened = minim, blackened = semiminim, blackened = croma, blackened

Fig. 1 Note-shapes and their values in blackened notation

A particularly prominent use of blackened notation occurs in the notorious ritornello and aria 'Vi ricorda, o bosch'ombrosi'.⁸ As long ago as 1951, Willi Apel was able to make a collection of eight different resolutions of the notation of this item; he added one of his own,⁹ and there have been at least three others since.¹⁰ None is wholly satisfactory, since none avoids the strategic disregard of some element or other in the composer's original music. The common problem is the prevailing difficulty of recognizing the engagement of blackened notation at all, which results in—among other infelicities—a universal lapse into transcription at double tempo.

Central to the comprehension of this notation, therefore, is the incidence, in the second bar of the bass of the aria proper, of a blackened semibreve. It is a dangerously long time to have to wait for such clarification, but its appearance demonstrates conclusively that the whole of this ritornello and aria uses blackened notation to generate the proportion which the composer desires. It is this clue that permits the solution of the ostensible 'problems' with which the ritornello begins, namely, the apparent irrationality of the use to which the figure 3 is put, and the ostensible irregularity of the first bar.

The notation of the beginning of the ritornello is reproduced in Ex. 1. The mensuration of all parts is **C**. The particular feature to be noted is the incidence of a figure 3 in all parts in the first bar, which recurs thereafter with almost complete consistency, twice in each bar, in just the top part.¹¹ Such usage of the figure 3 on its own

¹¹ The omission of the figure from the second half of the second bar is evidently a printer's error.

¹ Bowers, 'Some Reflection upon Notation and Proportion', pp. 353–8, 380–83.

⁸ S, pp. 32–35; M, pp. 48–55.

⁹ Willi Apel, 'Anent a Ritornello in Monteverdi's Orfeo', *Musica disciplina*, v (1951), 213–22.

¹⁰ Helmut Hell, 'Zu Rhythmus und Notierung des "Vi Ricorda" in Claudio Monteverdis Orfeo', Analecta musicologica, xv (1975), 87–157; Wolf Frobenius, 'Zur Notation eines Ritornells in Monteverdis L'Orfeo', Archiv für Musikwissenschaft, xxviii (1971), 201–4; Carl Dahlhaus, 'Zur Geschichte des Taktschlagens im frühen 17. Jahrhundert', Studies in Renaissance and Baroque Music in Honor of Arthur Mendel, ed. Robert L. Marshall, Kassel, 1974, pp. 121–3.

Ex. 1 Ritornello and aria 'Vi ricorda'





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Fu sonato questo Ritornello di dentro da cinque Viole da braccio, vn contrabasso, duoi Clauicembani & tre chitarroni.

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had a long notational history stretching back for more than a century; it initiated a passage of notation in *sesquialtera* proportion, the 3 signifying 'three in the time of two'. Indeed, a string of figure 3's such as that to be seen in the upper voice here not only takes the same form as a series of triplets of modern notation but has precisely the same meaning also. It may be observed that the insertion of the figure 3's serves the purpose of clarifying the meaning of the notation; the composer's resort is to a strategy of 'belt and braces' to make clear his intention. The notation is blackened to indicate *sesquialtera* proportion. However, in the complete absence from the ritornello proper of any incidence whatever of the one unequivocally blackened note-form, the blackened semibreve, there is no overt and manifest indication to the performer that the notation is in fact blackened. Consequently, the series of figure 3's is inserted in addition to the blackening, so that the incorporation of *sesquialtera* proportion should not escape attention and resolution.¹² The deployment of the figure 3 continues almost to the point at which the first blackened semibreve occurs; thereafter, it is abandoned, as being no longer necessary.

Inspection establishes that the figure 3 occurs in relation to groups of small notes adding up to three (blackened) minims. The figure appears in only the second half of the first bar not by virtue of a printer's error but in order to show that blackening applies to only that latter half of the bar. The notation adding up to the first minim is unblackened and must be interpreted as *integer valor*. The opening phrase of the bass part will therefore be transcribed as in Ex. 2. It will be noted that at the contiguous points marked 'x' and 'y' in Ex. 2 the same notational symbol bears two different meanings, the first being a normal croma and the second a semiminim, blackened. The symbol that looks like a semicroma is, of course, a blackened croma.¹³

Ex. 2



In fact, the music of the ritornello of 'Vi ricorda' runs straight on from the end of the previous chorus, 'Dunque fa degno Orfeo', which concludes with no symbol of termination but with merely a single bar to indicate the cessation of vocal participation. The whole ensemble at the transition point may be transnotated with satisfying elegance and neatness as in Ex. 3; the example concludes with the transition to the opening of the aria proper. In this instance, the application of *sesquialtera* proportion conveyed by blackened notation results in a strongly marked rhythm in a distinctly quickish tempo.

¹² Bowers, 'Some Reflection upon Notation and Proportion', pp. 355–8, 360–61, 382. This notational device of clarifying the meaning of groups of blackened minims by insertions of the figure 3 was well known, and was given the title 'meliola' by the contemporary theorist Antonio Brunelli (1606), who explained clearly how three blackened minims occupied the time of one (void) semibreve tactus: Putnam Aldrich, *Rhythm in Seventeenth-Century Italian Monody*, London, 1966, pp. 34, 35.

¹³ The blackened minim, semiminim and croma, being visually indistinguishable from, respectively, the unblackened semiminim, croma and semicroma, were indeed potentially unsatisfactory notational characters, and it may be thought that the interpretation of the composer's notation (as printed by Amadino) offered here presents more conundrums than it would be reasonable to expect an instrumentalist to be able to decipher at sight. However, it must be recalled that the printed score would not have been used by the players for performance. Rather, they would have used handwritten parts copied from the score, which could be marked as necessary to clarify the mensural transitions; and it is reasonable to postulate at least some measure of prior rehearsal to pre-empt and resolve exactly these sorts of potential hazard.







[Ex. 3 cont. overleaf]



This is not the first transcription to be offered of this celebrated passage; however, it is submitted here as a realization that is not only musically entirely plausible but also simply follows the composer's original notation. In the wake of this practice, all the ostensible 'problems' simply evaporate.¹⁴ It is apposite to note that Monteverdi resorted to exactly the same notational procedures in one section of the *Sonata sopra Santa Maria* published the following year in his composite volume containing the Mass *In illo tempore*, Vespers and *Sacri concentus*. There, the true nature of a 'walking' bass of blackened minims unclarified by the incidence of even a single blackened semibreve was likewise identified by the insertion of a string of figure 3's to each group of three (blackened) minims. By a happy accident, this bass aligns with a treble presented in simple unblackened notation; this usage of blackened notation simultaneously with unblackened demonstrates conclusively how each group of three blackened minims occupies the time of two unblackened in traditional *sesquialtera* proportion.¹⁵

The case of 'In questo prato' and its ritornello is rather different from that of 'Vi ricorda'.¹⁶ First, the notation in all parts employs—as early as the first bar or the very beginning of the second—the utterly unequivocal blackened semibreve, in the neighbourhood of which the values of all the other notational figures are immediately evident. Second, in this movement the composer has applied, in addition to the blackening of the notation, not repeated inscriptions of a figure 3 in the course of the music but the proportional signature 3/2 at its very beginning (see Ex. 4a). The two upper instrumental parts, entering after a *tacet* section, are given both the necessary mensuration signature C and the signature 3/2, while the continuo

¹⁵ Bowers, 'Some Reflection upon Notation and Proportion', pp. 355-8, 380-82.

¹⁶ S, pp. 28–30; M, pp. 43–45.

¹⁴ It may be noted that, within the blackened notation, minims are presented to the performers in threes. The notation therefore conveys in each triplet group not a dotted-minim beat (i.e., a feel of 6/4) but a minim beat (yield-ing, that is, a feel of 3/2), as the chosen beaming of the quavers in the transcription attempts to realize.

part, proceeding straight from the previous aria and thus already in C mensuration, is supplied just with the proportional signature.

Of these two notational devices—blackened notation and the signature 3/2—each on its own suffices to denote the supersession of *integer valor* by *sesquialtera* proportion. In this case it cannot be claimed with any great plausibility that the purpose of the signature is to confirm the presence of blackened notation, corroborating the intervention of *sesquialtera* proportion. Given the immediacy of the appearance of blackened semibreves in all parts, there is simply no need here for a strategy of 'belt and braces', and a more satisfactory resolution of this choice of notational devices should be sought.

An indication of the interpretation to be applied to the introduction simultaneously of both blackened notation and a numerical signature of sesquialtera is provided by the theoretical writing of Monteverdi's contemporary Adriano Banchieri. In the fourteenth of his Conclusioni nel suono dell'Organo, published in Bologna in 1609, Banchieri discussed the incidence of blackened notation. He gave an entirely conventional explanation of the manner in which this should be realized in performance, but added a most illuminating caveat. He explained that under \mathbf{C} mensuration, and in the absence of any guidance by numbers ('& senz' altra scorta di nu[meri]'), the singer performs three blackened semibreves to one breve *tactus*, while under C mensuration, governed likewise by an absence of numbers ('& ancor lei senza nu[meri]'), three minims are sung to one semibreve *tactus*.¹⁷ The implication of Banchieri's caveat, expressed twice over and quite unequivocal, is inescapable. In instances in which the application of blackened notation was indeed accompanied by a numerical signature conveying a proportion, the result was not that explained in his treatise, but something different. The signature, that is, did not simply restate or reinforce the effect of blackening but added another level of proportional reduction.

Consequently, it seems clear that the application of the signature 3/2 to blackened notation is to be interpreted in the manner which the very appearance of the notation positively invites—namely, cumulatively, resulting in a *sesquialtera* of *sesquialtera*, which in practice (if not in strictest propriety) amounts to a *proportio tripla*, three in the time of one. In the ritornello proper, simple inspection establishes that it is the blackened minim that is presented to the performer in threes; the *tripla* proportion is thus to be interpreted as three minims in the time of one. The beginning of the ritornello is unequivocally dovetailed (by directs) into the end of the previous aria, and it is against one minim of the notation of the aria that each group of three minims of the blackened notation of the ritornello is to be judged.¹⁸ The notation of the transition point is reproduced as Ex. 4a, and a transnotation is offered as Ex. 4b. The usual half-brackets are employed to denote the start of the blackening; the sign of tempo equivalence conveys the appropriate execution of the proportion.

In musical terms, this resolution of the use of the signature of *sesquialtera* simultaneously with blackened notation seems to produce satisfactory results, but it remains to ponder why Monteverdi, if *diminutio tripla* was what he wanted, did not resort to one of the standard methods of signifying *tripla*. The solution lies in the nature of the music. With the triple rhythm of this movement is associated an

¹⁷ Facsimile edition, Bologna, 1968, pp. 34–35. Further on Banchieri as theorist, see Roger Bowers, 'Proportioned Notations in Banchieri's Theory and Monteverdi's Music', *Performing Practice in Monteverdi's Music*, ed. Raffaele Monterosso, Cremona, 1995, pp. 39–73.

¹⁸ At each change of scoring as the aria progresses, only the fundamental signature C needs to be repeated; the continuation of blackened notation now is manifest, and suffices to ensure that the performer understands that the prevailing proportion, which is *tripla*, is to remain in force.

Ritornello and aria 'In questo prato' Ex. 4





extreme use of syncopation, involving many examples of the (perfect) breve imperfected simultaneously by a minim a parte anteriori and a minim a parte posteriori. For accuracy of comprehension, such rhythms within a basic triple pulse demand the use of blackened notation. (For greater security still, Monteverdi even broke each blackened imperfect breve into a pair of blackened semibreves, tied.) The obligatory blackening of this notation already produces a sesquialtera proportion; to convert this into *tripla*, a further diminution by one half is required $(2/3 \times 1/2 = 1/3)$. However, Monteverdi's evident decision to eschew use of the signature \clubsuit entirely throughout the opera renders the prime procedure for accomplishing this—to supersede C by \clubsuit at the beginning of the ritornello—simply unavailable. Meanwhile, all the other ostensibly available alternatives are pre-empted and disqualified by the obligatory use of blackened notation.¹⁹ In this piece, it is clear, Monteverdi was discovering some of the limitations inherent in mensural notation, and the solution he selected was probably the best that could be conceived. The supersession of C by C3/2 simultaneously with the introduction of the blackened notation designated the *sesquialtera* of *sesquialtera*. In strict mathematical terms the resulting proportion was 9:4 rather than the desired 9:3 = 3:1; however, this device was the best available, and Banchieri's text indicates that such simultaneous usage of blackened notation and a numerical signature was a recognized device to which resort was not uncommonly made.

At the end of the second strophe of 'In questo prato', the music proceeds without hiatus of any sort straight into the ritornello of the next aria, 'Qui le Napee vezzose'. The signature C is deployed in all three parts, and the immediate appearance of a manifestly unblackened minim in the continuo part affirms and confirms that the employment of blackened notation has ceased. The notation of the point of transition is reproduced in Ex. 5a, and a transnotation is given as Ex. 5b.

Of the three movements in which the notation employs proportional mensuration signatures applied to void note-forms, one—the Shepherd's brief arioso 'Mira, deh mira $Orfeo'^{20}$ —follows immediately upon the conclusion of 'Vi ricorda'. The notation is unequivocally continuous from Orfeo's aria to the arioso and is reproduced as Ex. 6a. The final strophe of 'Vi ricorda' is sung in blackened notation under a mensuration of C; the arioso is composed under C mensuration to which the same *sesquialtera* proportion is applied by virtue of the signature of proportion 3/2. The notation of both indicates 'three minims in the time of two',²¹ so the duration of the blackened minim of 'Vi ricorda' is the same as that of the unblackened minim of 'Mira, deh mira Orfeo'.²² Although the unblackened semibreve plus minim of the arioso occupies the same duration as the blackened semibreve plus blackened minim preceding it, the progress in the bass from dance to arioso ensures that the respective metres of the adjacent movements are in character quite distinct, as Ex. 6b suggests.²³ As in many other instances, the transition occurs exactly half-way through one of the regular measures marked by the composer's carefully located

²⁰ S, pp. 35–36; M, p. 56.

²¹ For *sesquialtera* proportion introduced by this numerical signature, see Bowers, 'Some Reflection upon Notation and Proportion', pp. 367–72, 377–85, where it is shown in particular how a strict interpretation of the 3/2 proportion reveals in the *Sonata sopra Santa Maria* of the Vespers of 1610 a regularity and rationality which erstwhile practices of halving the notation have consistently obscured.

²² In interpreting Ex. 6b, especial note should be taken of the duration of the semibreve and minim set to the final two syllables ('-di-ce') concluding Orfeo's song.

²³ Both in practice and in transcription, resort to *sesquialtera* proportion and to blackened notation produce in fact the same effect, and this passage, in which the two are immediately adjacent to each other, appears to exemplify perfectly the criterion to which a composer appealed in order to decide which to use on each relevant occasion. Blackened notation seems to have been seen as appropriate for music of a lighter, defter character, especially that employing a strongly marked dance rhythm. *Sesquialtera* proportion was employed to convey the remainder, especially the music composed in a more solid, less extrovert and rhythmically less emphatic character.

¹⁹ To proceed from C to 6/4 with halved note-values was for all practical purposes inconceivable. The resulting notation, in blackened minims and semiminims, would have been wretchedly confused. Superseding C by C3/1 was never an option, since it would have generated the wrong rhythm. The direction to perform three semibreves in the time of one would produce a simple triple rhythm in minor prolation, rather than a compound triple in major prolation.







bar-lines; this feature assists in the accurate realization of the proportion within an unvarying semibreve *tactus*.

Sesquialtera diminution is introduced by the standard symbol 3/2 in the ritornello of the Shepherds' aria 'Ma s'il nostro gioir' in Act I.²⁴ The call to prayerful thanksgiving and exit to the temple is answered by a slow and stately ritornello; this recurs at intervals throughout the time that Orfeo spends off-stage, reminding the audience that the principal characters have withdrawn temporarily to perform the solemnity of their devotions, and creating on-stage a sense of waiting and hanging fire pending Orfeo's return.²⁵ Sesquialtera is applied here at breve level (see Ex. 7a); three semi-breves of sesquialtera occupy the time of two of integer valor, as indicated by Ex. 7b.

Ex. 5 (*a*)

²⁵ John Whenham's suggested interpretation of the stage action as implied by the text at this point seems entirely convincing: see 'Five Acts: One Action', *Claudio Monteverdi: 'Orfeo*', ed. idem, Cambridge, 1986, pp. 52–54, 76–77.

²⁴ S, pp. 18-23; M, pp. 30-37.



Ex. 6 Arioso 'Mira, deh mira Orfeo'

(a)







(b)



ioi = ioi·



101 = 101·

The chorus 'Lasciate i monti' is remarkable for presenting two successive passages of notation governed by proportional mensuration signatures: a ritornello introduced by the signature 6/4 follows the final phrases of the chorus governed by the signature 3/2, all within a basic signature of C.²⁶ Both transitions occur in the middle of a bar, a feature which serves to assist the judgement of the proportion. Ex. 8a–b reproduces the upper part and basso continuo, which suffices to exemplify the notation in these instances.²⁷ Among the various proportional signatures consisting of two numbers, the two encountered here are the only examples that are found at all

Ex. 8 Chorus 'Lasciate i monti'

(a)









²⁶ S, pp. 15–17; M, pp. 23–28.

 27 A supernumerary 'bar-line' is introduced to the score just after the transition to 6/4; the purpose of this, however, was merely to signal the conclusion of the vocal participation. frequently in the music of this period; indeed, the occurrence of sequences of signatures in which 6/4 follows 3/2 is not rare.

The initial *sesquialtera* is introduced at semibreve level, three minims of 3/2 occupying the time of two of *integer valor*. The transition is sufficiently exemplified by Ex. 8c; the stanza 'Qui miri il sole' emerges in a warm and deliberate triple time contrasting with the greater velocity of the music preceding and following it.



The signature 6/4, initiating *diminutio sesquiquarta*, indicates what now would be designated a compound time. It signifies 'six in the time of four', and inspection discloses that it is the semiminim that is presented to the performer in sixes; six semiminims are therefore to be performed in the time of four of *integer valor*. A feature of interpretation which, since it seems not to be explicit in the notation, apparently was governed by contemporary convention concerns the mensuration to which this proportion related; there appears to be no component in the signature which indicates whether 6/4 is to be judged in relation to the C mensuration in which the chorus begins, or to the 3/2 proportion immediately preceding (see Ex. 8a–b). However, the necessary maintenance of a pervasively uniform *tactus* supplying an unchanging

duration for the semibreve as the underlying metrical component of this movement predicates that each proportion relate to the fundamental mensuration established at the outset.²⁸ The signature 6/4 therefore appears certain to be intended to cancel the preceding 3/2 and to relate directly to the fundamental C mensuration of this movement. The result of substituting 6/4 for 3/2 is, of course, to produce a constant duration for the semiminim, merely rearranging the manner in which the semiminims are to be grouped within each unit of six.²⁹ A transnotation observing this premiss concludes Ex. 8c above.³⁰

Modern editions and performances of early Baroque music commonly fail to apply mathematically correct proportions at points at which the notation unequivocally calls for them. The notation of one movement of *Orfeo*, however, appears to demonstrate conclusively the mandatory nature of the proportional realization of proportional signatures. The Sinfonia that opens Act II bears the simple signature C,³¹ indicating the plain duple mensuration of *tempus imperfectum* with *prolatio minor*. Yet the music is manifestly not in a duple but in a triple metre; the original notation (two voices out of five) and a transnotation are offered as Ex. 9a–b.

At first glance it appears that the original notation should have been governed by the mensuration signature C3/2, as a means of presenting minims to the performer in the groups of three implied by the prevailing metre. If the signature 3/2 meant nothing more than 'minims in threes', then its withholding here would indeed be perverse beyond all rational explanation. It is hard to escape the conclusion that the use of C3/2 had to be eschewed in this instance because, however ostensibly suitable, it carried with it a mandatory message that did not conform to the composer's actual wishes.

The reason why C3/2 was not engaged—and, indeed, could not be engaged becomes evident as the music progresses. The triple metre, rhythm and melodic material of the Sinfonia is taken up by Orfeo's arioso 'Ecco pur ch'a voi ritorno' by which it is directly followed, and for which the original signature C is iterated; and this in turn leads on, explicitly without any break, into the ritornello of the

²⁹ Aldrich considered the effect produced by the succession of 3/2 by 6/4, and—though expressing it in a very complicated manner—reached the same conclusion as that noted here, despite having set up many somewhat unnecessary obstacles on the way: see *Rhythm in Seventeenth-Century Italian Monody*, pp. 51–54.

³⁰ Similar instances of the occurrence of C, 3/2 and 6/4 within a single movement may be found in Emilio del Cavaliere, *Rappresentatione di Anima et di Corpo*, Rome, 1600 (facsimile, ed. Mario Baroni, Bologna, 1967), *passim*; these passages appear readily susceptible to the interpretation offered here.

³¹ *S*, p. 26; *M*, pp. 39–40.

²⁸ For some corroboration of this conclusion, see especially the discussion of 3/2 and 6/4 in Darbellay, 'Tempo Relationships in Frescobaldi's Primo Libro di Capricci', pp. 303-7 (esp. p. 305), 318-20. The present passage of music is also discussed in Paul Brainard, 'Proportional Notation in the Music of Schütz and his Contemporaries', Current *Musicology*, 1 [1992], 21–46, at pp. 34–35. Brainard offers an interpretation of the sequence C-3/2-6/4 which differs from that suggested both by Darbellay (acknowledged ibid., p. 26) and by the present article, since he considers that the adoption of a tempo that is plausible for the opening of the chorus under C mensuration will result in much too fast a tempo for the passage under 6/4 if the latter is interpreted literally to mean 'six semiminims in the time of four of C mensuration'. It is rather a question of taste and judgement; in defence of the interpretation offered here, it may be recalled that the passage under 6/4 mensuration is instrumental, and instruments can articulate more rapidly than can the voices singing the passages under C and 3/2. It should be noted that Brainard's observations on this point are independent of, and not prejudiced by, the unfortunate misunderstanding which vitiates a proportion of his argument elsewhere. In his interpretation of the table from the Syntagma Musices of Michael Praetorius with which his discussion begins (ibid., p. 21), he may have overlooked a distinction which Praetorius certainly appears to have intended to convey through his chosen wording of a section of this table. Under the heading 'Tactus Aequalis' there appears the text 'tardior/celerior " sub signo', while the corresponding section under 'Tactus Inaequalis' reads 'tardior et celerior " sub signis'. Under 'Tactus Aequalis', C is indeed shown to correspond with 'tardior' and m c with 'celerior'. Under 'Tactus Inaequalis', however, 3/1 and 3/2 may each correspond indifferently with either 'tardior' or 'celerior'. Praetorius deliberately avoided prescribing an explicit association of proportio tripla with 'tardior' and proportio sesquialtera with 'celerior' (and vice versa).



Shepherd's aria 'Mira ch'a se n'alletta'. This ritornello is unquestionably in duple metre, not triple, and as the music stands, the minim of the ritornello occupies the same duration as the minim of the Sinfonia; all the music so far is governed by the opening signature C, and this equivalence is undoubtedly what the composer sought. And now it is evident why no triple-metre signature was deployed for the Sinfonia and for the following aria. It becomes possible to understand this ostensible perversity when it is appreciated that recourse to the alternative would have created a mandatory proportion that was not wanted. At the point at which a hypothetical opening signature of C3/2 perforce gave way at the beginning of the ritornello to C, a proportion of 'two new minims in the time of three old' would have been created. The composer's actual choice of signature shows that it was not this that he envisaged; consequently, no matter how desirable in the short run, a symbol of triple mensuration could not be used to govern the Sinfonia and—despite the possible risk of misinterpretation—he had to resort instead to a symbol of duple mensuration, and to the barring predicated thereby.³²

No feature illustrates more clearly the true nature of triple mensuration, and its mandatory interpretation as proportional to the underlying *integer valor*, than Monteverdi's inability, because of the long-term context, to use a triple-mensuration signature in a case in which ostensibly it seems to be obligatory. He was forced to use a highly inappropriate signature instead, as the only means of pre-empting the performance of a proportion that he did not want.³³

³² The Moresca with which the opera ends (S, p. 100; M, p. 153) employs a signature of C despite its composition in a very pronounced and regular triple metre; however, it is not at all a comparable case, since in this instance the barring follows the metre rather than the mensuration. It is likely that originally this dance formed part of the abandoned concluding section of the opera (Whenham, 'Five Acts: One Action', p. 76), and owes its mensuration signature to the former context from which it is now detached.

³³ The circumstance outlined above is not the only one which could produce the notational phenomenon discussed here. Aldrich draws attention to other instances in which music manifestly in a triple metre is notated under the signature **C**: see *Rhythm in Seventeenth-Century Italian Monody*, pp. 43, 45, 57. He posited as the reason for this the composer's wish to convey thereby performance in a slow triple metre, which he claimed—on the grounds that all

In his music for *Orfeo*, Monteverdi, possessor of the most innovative musical imagination of his day, appears at certain points to have been beginning to discover the limitations inherent in mensural notation. The score discloses the incipiently unsatisfactory nature of blackened notation when applied to the shorter note-values, and also manifests the ungainly resorts required by the need to evade unwanted long-term consequences of proportional signatures. These features arise within a context in which the mensural notation of the turn of the seventeenth century could still be applied with clarity and consistency throughout the bulk of the score. With the benefit of hindsight, however, it is possible to discern in these mischances the first green shoots of the ultimate dissolution of the significance of proportional notations.

The status of Orfeo as a masterpiece has long been recognized. Such status seems to lend urgency to the need for the production of a genuinely critical edition of Monteverdi's published score, prepared by one who has pondered the notation and, equipped to place it in its historical position as a pre-modern notation, is able to appreciate accurately the periods, tempos and rhythms that it conveys. There is scope, also, for sensitivity to the rationale informing the composer's often illuminating location of bar-lines, and to the possibility that his apparently specific use of directs offers guidance in the choice of instrumentation. Whatever questions will still remain for settlement each time a production is undertaken, the availability of such an edition will at least obviate the need for conductors—whose many talents it is unrealistic and unfair to expect to extend to dry and rarefied scholarship—to make cavalier judgements about tempo and proportional relationships that are perforce based solely on anachronistic appreciations informed only by twentieth-century instinct and taste.³⁴ Moreover, such an edition will recover, among much else, Monteverdi's choice of slow tempos in triple metre for subtly selected moments and also the true nature of his quicker triple metres. In so doing, it will reveal even more clearly than hitherto the depths of his sensitivity to text, mood and dramatic contrast. The eventual extension of corresponding principles to the editing of his remaining operas (in which the demise of blackened notation gives rise to an even richer variety of proportional usages generated by signatures) will give singers, producers, conductors and audiences alike a clearer idea of both the structure and the stature of both drama and music.

the numerical signatures of triple proportion signified a quick tempo—could not be notated in any other way. Such grounds, however, are clearly not valid. Aldrich's examples (ibid., p. 45) consist only of a few bars of melody without the bass, and are rather too brief to enable an independent judgement to be formed. Nevertheless, it may immediately be remarked that *prima facie* they certainly do not look like music for which a slow tempo is appropriate, and some other reason for the composer's choice of an apparently inapposite signature is evidently in operation here.

³⁴ A revelatory illumination of the shifts to which conductors are presently put may be found in Jane Glover, 'Solving the Musical Problems', *Claudio Monteverdi: 'Orfeo'*, ed. Whenham, pp. 149, 153.